

Archive of Ingolf's z/VSE Blog

2013 – 2019

Due to the sunset of IBM developerWorks Connections in 2020 Ingolf's z/VSE Blog¹ as such is no longer available on the WWW.

Ingolf Salm started his blog on February 2, 2013, with two posts: "My first blog entry" and "z/VSE 4.3 end of service". Over the time Ingolf published a stunning 1259 posts. His last posts were "Goodbye and welcome - next blog entry in November" on October 1, 2019, where he announced his retirement from IBM and "z/VSE Blog location may change" on October 18, 2019, where he informed about the upcoming sunset of IBM developerWorks Connections and relocation of the z/VSE Blog.

It would have been very sad to lose all those precious hints and tips that Ingolf accumulated over time. Therefore, the z/VSE team has created this PDF archive of Ingolf's z/VSE Blog. It contains all posts from Ingolf as well as two posts from Jens. The postings are the ones of the respective authors and don't necessarily represent IBM's positions, strategies, or opinions. The PDF is available for download from the [z/VSE Homepage](#)².

Meanwhile the z/VSE Blog relocated to the IBM Z and LinuxONE Community on IBM Community. You can read [Jens' z/VSE Blog](#)³ or blog posts generally related to z/VSE that are automatically aggregated in the [z/VSE tag/topic group](#)⁴.

Feel free to send your feedback on this document to the z/VSE team via the [z/VSE contact form](#)⁵.

¹ Former URL of Ingolf's z/VSE Blog on meanwhile sunset IBM developerWorks Connections
<https://www.ibm.com/developerworks/community/blogs/vse/>

² z/VSE Homepage
<https://ibm.com/vse/>

³ Jens' z/VSE Blog in the IBM Z and LinuxONE Community on IBM Community
<https://community.ibm.com/community/user/ibmz-and-linuxone/blogs/jens-remus1>

⁴ z/VSE tag/topic group in the IBM Z and Linux One Community on IBM Community
<https://www.ibm.com/community/z/ibmz/os/zvse/>

⁵ z/VSE Contact Form
<https://www.ibm.com/systems/campaignmail/z/zvse/zvse-expert>

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Update on z/VSE Blog location change (2019-12-20 by Jens)

This is just to let you know that that things are not over and where to look for the new location early next year.

Meanwhile I have evaluated multiple options where to move the z/VSE Blog to. Each option has its own pros and cons. I had hoped to start this year, but this did not work out. The plan is to start my new z/VSE Blog on another IBM platform early next year, possibly with an external mirror. This takes time, as the z/VSE Blog is not the only blog previously hosted on developerWorks, that plans to move to that new platform.

It is still unclear whether this blog on developerWorks will remain (possibly read-only) until end of March 2020 or even vanish beginning of January. We have therefore created a backup of Ingolf's z/VSE Blog and are working on creating a PDF copy to preserve his precious legacy. Most likely it won't be possible to migrate the existing content into the new platform. In that case I plan to provide the PDF with all the posts for download. While is is certainly not perfect, it will still allow you to browse and search Ingolf's posts for all of his useful hints and tips.

In case this blog switches to read-only or even vanishes in January 2020, I won't be able to inform you via this blog of the new location any more. Therefore please keep in mind to check the link to the z/VSE Blog on the [z/VSE Homepage](#) from time to time.

I am looking forward starting the my new z/VSE Blog next year and wish you all a Merry Christmas!

Jens

Tags: blog, zvse

Update and request for feedback on z/VSE Blog location change (2019-11-14 by Jens)

It would be about time for my introductory post. But I am saving this for when I have found a new location for the z/VSE Blog. Currently I am evaluating multiple options. As soon as I have found a new location for the z/VSE Blog I will inform you via a new blog post. In any case we will update the link to the blog on the [z/VSE Homepage](#), which can be found near the bottom of the page in the Blogs section.

In the meantime I would very much appreciate your feedback on the following questions. Either via e-mail to zvse@de.ibm.com or as comment to this post.

1. How did you consume the z/VSE Blog?
 - Did you regularly visit the z/VSE Blog website?
 - Did you subscribe to receive e-mail notifications (i.e. "Follow this Blog" option in conjunction with the corresponding e-mail notification settings in your profile)?
 - Did you use a Feed (RSS) reader to follow the z/VSE Blog?
2. If you relied on the e-mail notifications or the RSS feed, how important would that be for you in the future? Please mention which option (e-mail notification / RSS feed).
3. How important would it be for you to continue to use your IBMid to subscribe to e-mail notifications or to comment?

Thanks and regards,

Jens

Tags: vse, blog

z/VSE Blog location may change (2019-10-18)

You may have seen the banner, that this platform for blogs will be sunset by end of this year.

Don't worry, we will find a new place and keep you posted.

Have a good weekend.

... and many thanks for your nice words about my retirement.

Regards, Ingolf

Goodbye and welcome - next blog entry in November (2019-10-01)

The last 6 years I posted 1257 blog entries.

Today is my last one, because it is time to say goodbye. After 38 years of work in z/VSE I will retire October 31, 2019.

Please welcome my colleague Jens. Jens will continue to run this blog in November.

I had many exciting z/VSE projects. Most of them are available in the z/VSE product to you, my z/VSE users. My largest projects were the design of dynamic partition, 31 bit addressing, data spaces and the 64 bit virtual support. But my favorite project was the design and implementation of the z/VSE Turbo Dispatcher.

I presented at many conferences, where I met VSE users in person, had good discussions and feedback. I always enjoyed working with you, the VSE users: customers, vendors, business partners, colleagues, ...

Thank you for reading my blog and a big thanks for your interest in z/VSE. Keep z/VSE going.

I will leave you in good hands of the whole z/VSE team.

Goodbye, Ingolf.

Tags: goodbye, vse

Next blog entry on October 1, 2019 (2019-09-27)

I take a long weekend. Therefore you will see my next blog entry on Tuesday.

Have a good weekend.

Tags: vse

DL/I VSE 1.12.0 end of service on September 30, 2019 (2019-09-26)

Now we are close to the end of service (eos) of DL/I VSE 1.12.0 - the date is September 30, 2019.

IBM announced end of service for DL/I VSE 1.12.0 on August 7, 2018, see the corresponding announcement letter [here](#).

This also implies the DL/I VSE 1.12.0 end of service on all z/VSE release, where DL/I VSE 1.12.0 was supported.

The replacement product is **DL/I VSE 1.12.1** (program number 5746-XX1). DL/I VSE 1.12.1 is available since June 2018 and only supports (runs on) z/VSE 6.2.

See my [DL/I blog entry](#) for more information about DL/I VSE 1.12.1.

z/VSE service news: Support for new Japanese era REIWA (2019-09-25)

The new Japanese era REIWA started on May 1, 2019. The following z/VSE 6.2 Language Environment APARs support this new era.

This resolves the requirement (Request for Enhancements) RFE-ID=[123504](#).

Language Environment APARs:

APAR [PH11491](#) (PTF UI63816): SUPPORT NEW JAPANESE ERA REIWA IN LE/VSE. PART 1 - DATE FUNCTIONS BASED ON CEEXDATE MACRO.

Description: New Japanese era REIWA starts at 2019/05/01. LE/VSE should support REIWA in functions, where the current era HEISEI is already supported.

APAR [PH11896](#) (PTF UI64097): SUPPORT NEW JAPANESE ERA REIWA IN LE/VSE. PART 2 - JAPANESE DBCS LOCALES EDC\$JAEU, EDC\$JAEV.

Description: New Japanese era REIWA started on 2019/05/01.

LE/VSE should support REIWA in the following Japanese DBCS locales:

Ja_JP.IBM-930 - EDC\$JAEU

Ja_JP.IBM-939 - EDC\$JAEV

This PTF will be available in the next days.

Tags: support, service, le, apar, heisei, rfe, vse, reiwa

Do you still use the SNA support on z/VSE ? (2019-09-24)

Today I have a question for you: Are you still dependent on the Systems Network Architecture (SNA) communication ? Why / how do you use SNA ?

It would be great, if you could send feedback, either as comment to this blog - to my email address or to zvse@de.ibm.com

Background: Most z/VSE 6.2 customers use TCP/IP based communication in between. I want to understand, if there are still sites that depend on SNA with z/VSE 6.2 and why SNA is used.

Thanks in advance.

z/VSE service news: VSE APARs, that may improve performance (2019-09-23)

We just released z/VSE 6.2 PTFs, that may improve the performance of your workload.

If your workload benefits from these PTFs, very depends on your hardware / software environment.

The z/VSE 6.2 PTFs are now available for download from IBM Shopz:

APAR [DY47814](#) (PTFs UD54355, UD54356): DY47814: MISCELLANEOUS FIXES
Description: Performance of z/VSE 6.2 in various areas may be improved with this APAR.

Consideration before you apply the PTF for APAR DY47814: If you enabled the FAQs/ASO FTL (Fast Transient Loader) from CSI International, you need to apply zap BF53258.

PTF UD54355 replaces \$\$A\$SUPI. PTF UD54356 replaces macros in the generation feature PRD2.GEN1.

APAR [DY47815](#) (PTF UD54355): MISCELLANEOUS FIXES
Description: Performance of z/VSE 6.2 in various areas is improved with this APAR.

This PTF replaces phase \$IJBDSPT.

Recommendation: Before you apply the PTFs, please (standalone) backup your IJSYSRS.SYSLIB and the PRD2.GEN1 (if the generation feature is installed).

Please verify applied PTFs in your test environment first.

Tags: support, vse, service, performance, apar

Next blog entry on September 23, 2019 (2019-09-19)

I will take a long weekend. Therefore you will see my next blog entry on Monday.

Have a good weekend.

Tags: vse

How to suppress TCP/IP for z/VSE LOG Messages during a FTPBATCH (2019-09-18)

My colleagues started to provide z/VSE related hints and tips in the IBM Support portal.

The first post of such kind was "How to suppress TCP/IP VSE LOG Message during a FTPBATCH". You can find that post [here](#).

You may use the "Search support or find a product" to find posts related to your topic.

Tags: vse, tcpip, batch, ftp, message

z15 System Recovery Boost (SRB) and z/VSE (2019-09-17)

The new mainframe - z15 - has an important new function - **System Recovery Boost (SRB)**:

New IBM System Recovery Boost expedites everything you need to get back ready for workload execution, including planned operating system shutdown processing, operating system IPL (Initial Program Load), middleware/workload restart and recovery, and uniquely the client workload execution that follows helping you catch up for lost time. It will let businesses return their systems to doing normal work faster for scenarios such as planned software maintenance and patching, but also in the event of Disaster Recovery scenarios when you need it the most.

SRB which enables restoration of service from, and workload catch up after, both planned and unplanned outages faster than on any prior Z machine and with no additional IBM software costs.

That is general purpose processors on sub-capacity machine models run during the SRB period as if they were on full-capacity processors.

z/VM will provide support for System Recovery Boost for both planned system shutdown and system startup. The increased capacity of general-purpose processors during a z/VM system startup or shutdown can be "inherited" by **z/VSE** guests to also provide additional processing capacity to accelerate the guest startup and/or shutdown processing.

In z15 LPAR z/VSE does not support System Recovery Boost. The z15 announcement letter, however, holds a **Statement of Direction for z/VSE (SOD)**: "z/VSE exploitation of System Recovery Boost: In the future, IBM intends to deliver native z/VSE exploitation of System Recovery Boost, which is expected to enable restoration of service from, and catch up after, both planned and unplanned outages faster than on any prior Z machine."

See also SOD disclaimer in announcement letter.

For more details see the description section of the z15 announcement letter - [here](#).

Tags: performance, system_recovery_boost, shutdown, srb, z15, recovery, boost, ipl, vse

More IBM z15 information (2019-09-16)

In between there are IBM Redbooks available addressing the new mainframe - IBM z15.

The Redbooks are listed on the IBM Redbooks page "Explore and make use of the advanced capabilities of the IBM z15" - [here](#).

Tags: z15, documentation, redbook, mainframe, vse

z/VSE service news: IBM z/VSE Network Appliance end of service announced (2019-09-13)

Last Tuesday IBM announced the end of service for the z/VSE Network Appliance (VNA).

VNA is a function of z/VSE V6 (Program number 5686-VS6, respectively 5609-VSE for the bundle) and works with the z/VSE Linux Fast Path.

End of service is planned for **December 31, 2019**.

Replacement:

Linux Fast Path is the z/VSE provided connector to the Linux distro together with a small program that the client needs to deploy on Linux on IBM Z. It is part of z/VSE V6 (with Program number 5686-VS6, respectively 5609-VSE for the bundle).

The corresponding announcement letter is [here](#).

Have a good weekend.

Tags: networking, lfp, appliance, vna, vse

New mainframe announced - IBM z15 (2019-09-12)

Back to work. After some weeks of vacation I just returned to my office. I hope you had a good time too. This weekend summer will return to our area.

Let's start with exciting news. IBM just announced a new mainframe - the **IBM z15**. It's the new high end server.

The announcement extends the IBM Z position as the industry-leading platform for mission-critical hybrid cloud, with new innovations across security, data privacy, and resilience.

Please read the news and new functionality in the corresponding announcement letter - [here](#).

Tags: mainframe, announcement, z15, processor, vse

z/VSE service news: RSLs are available (2019-08-10)

As promised I am posting important information during my vacation too.

New Recommended Service Levels (RSLs) are available for z/VSE 6.1 and z/VSE 6.2. The RSL cutoff was July 2, 2019.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

You will see the RSLs Monday or Tuesday on the z/VSE service page.

Tags: ptf, service, vse, rsl, apar

Next blog entry on September 12, 2019 (2019-07-30)

I am preparing for a business trip and will be on vacation the next weeks.

If there is anything important during my absence, I will post a blog entry.

I will be back mid September.

Enjoy the summer.

z/VSE service: New service tool is live now. (2019-07-29)

Last week I informed you about the migration to a new service web page and tool.

The new tool is live now.

If you want to open a problem for z/VSE products, you can access the new IBM Support Community by visiting www.ibm.com/mysupport

If you log into your previous Support portal, you will be redirected to the new IBM Support Community. Here you will find a streamlined experience to open a case (previously called a ticket) and search for help.

Need help ? If you experience a problem with the IBM Support site, submit the issue via the "Suggest an improvement or report a problem with this website." link found at the bottom of the page.

Tags: vse, support, service

Next blog entry on July 29, 2019 (2019-07-23)

It is becoming hot in our area, up to 40 C (106 F) the next days.

Is there anything I should address ?

It's vacation time and I don't have new topics for today. Therefore I plan my next blog entry for Monday.

Have a good week.

z/VSE service: New PMR service tool migration to begin on July 27, 2019 (2019-07-22)

Four weeks ago I informed you in my blog, that IBM will migrate from RETAIN to a new service tool - [here](#).

IBM Z software products will begin to migrate to the new Support site July 27, 2019.

New Support site <http://www.ibm.com/mysupport>

IBM will begin the migration process at mid-day Saturday US Eastern time. The migration will begin with existing Severity 1 PMRs, progressing to Severity 2, Severity 3, and lastly Severity 4. You will be redirected automatically to the new IBM Support site as migration is being completed.

PMRs will be assigned a new case number (format: TSxxxxxxxx). The new cases will have a reference to the legacy PMR number.

Tags: pmr, retain, service, support, case

Reminder; DL/I VSE 1.12.0 end of service on September 30, 2019 (2019-07-19)

This blog entry reminds you, that the end of service of DL/I VSE 1.12.0 is coming soon - September 30, 2019.

IBM announced end of service for DL/I VSE 1.12.0 on August 7, 2018, see the corresponding announcement letter [here](#).

The replacement product is DL/I VSE 1.12.1 (program number 5746-XX1).

DL/I VSE 1.12.1 is available since June 2018 and only supports (runs on) z/VSE 6.2.

Remark: z/VSE 6.2 is the only supported z/VSE release since July 1, 2019.

See my [DL/I blog entry](#) for more information about DL/I VSE 1.12.1.

Please let me know, if you have any questions.

Have a good weekend.

Tags: vse, end-of-service, dli, eos

New IBM Redpaper: Scale up for Linux on LinuxONE (2019-07-18)

The IBM Redbook team just published a new IBM Redpaper:

Title: Scale up for Linux on LinuxONE

For more information and download link please see the Redbook page [here](#).

Tags: capacity, linuxone, vse, scale, linux

Parallel Access Volume support in z/VSE (2019-07-17)

I just got a question about z/VSE's Parallel Access Volume (PAV) support.

A few facts about our PAV support:

Parallel Access Volume (PAV) is an optional licensed feature on the IBM System Storage. Parallel access volumes are managed by creating multiple addresses for a single logical device. z/VSE supports one base device and up to 7 alias devices. With basic PAV support for ECKD devices z/VSE can access such a PAV device in parallel, which allow more than one I/O operation to be processed for a single logical device. This may give significant performance benefits dependent on your workload.

More information about z/VSE's PAV support is described in "Configuring Your System to Use PAV" of the z/VSE 6.2 Administration book in the [PDF library](#) of the z/VSE Knowledge Center and in the white paper, [here](#).

z/VSE does not support HyperPAV.

Information about z/VM's PAV support is [here](#).

Tags: pav, io, dasd, performance, vse

Next webcast tomorrow: Virtualization Options for Linux on IBM Z and LinuxONE (2019-07-16)

The next Linux webcast is planned for **July 17, 2019 at 11:00 AM EST**.

Title: Virtualization Options for Linux on IBM Z and LinuxONE

Abstract: With the different options for Linux on IBM Z and LinuxONE, the session will focus on the possibilities and the options to implement a highly scalable virtualized environment for Linux workloads like LPAR, z/VM, KVM & Container technologies. Different dependencies have an influence on the virtualization that is most effective or most performant or even most reliable for a workload of different characteristics, from high dynamics to highly secured or highest isolation for multi-tenancy.

The registration link is [here](#). Handout and replay of this and previous sessions will be posted there too.

z/VSE service news: VSE/POWER, IUI, Connector, CICS APARs (2019-07-15)

Since my last service blog entry there were a few APARs released for z/VSE 6.2. z/VSE 6.2 is the only release in service since July 1.

VSE/POWER

APAR [DY47817](#) (PTF UD54354): VSE/POWER SPOOL ACCESS SUPPORT WITH CTLREC OPTION DOES NOT RESTART CORRECTLY TO SPECIFIED LINE NUMBER

Error description: When VSE/POWER Spool Access Support application GETs output with CTLREC option is on, then subsequent use of the Restart Control Record results in incorrect POWER behavior which is different from previous z/VSE releases. VSE/POWER does not position on specified record number.

IUI APAR

APAR [PH11770](#) (PTF UI62975): Skeleton SKASMOPT fails with message L036I

Error description: RUNNING SKELETON SKASMOPT FROM ICCF LIBRARY 59 FAILS WITH MSG L036I BKEND STATEMENT MISSING AT END OF MEMBER ASMAOPT.A

z/VSE Connector

APAR [PH12796](#): SUBTASK IKQRDSTK CANCELED WHEN USING VSAM REDIRECTOR

Error description: The subtask IKQRDSTK may get canceled when using the VSAM Redirector. This may lead to various follow on errors, such as hanging transactions or further abends at various places in CICS or VSAM code.

CICS TS for z/VSE 2.2

APAR [PH12179](#): ABENDAEXZ ON EXEC CICS WRITE HTTPHEADER CALL

Error description: Your user application issues EXEC CICS WEB WRITE HTTPHEADER which results in an ABENDAEXZ. While processing this command, CICS code issues EXEC CICS WRITEQ TS commands. The ABENDAEXZ is the result of making EXEC CICS calls within an EXEC CICS call. Looking at the dump, the eiei_response has been overlaid.

The latest news about CICS APARs / PTFs is on the Fixlist for CICS TS for z/VSE 2.2 - [here](#).

The latest news for z/VSE components is on z/VSE's corrective service and support page - [here](#).

Tags: connector, cics, vse-power, service, apar, ptf, iui, vse, support

Next blog entry on July 15, 2019 (2019-07-10)

I need to skip the next few days. Therefore you see my next blog entry on Monday.

Have a good time and weekend.

Linux on IBM Z books updated (2019-07-09)

The Linux team updated some books, such as:

- Device Drivers, features, and commands on SUSE Linux Enterprise Server 15 SP1
- Pervasive encryption for data volumes
- libica programmers reference 3.5
- Tuning hints and tips

You can download those books and more from the Linux on IBM Z Knowledge Center - [here](#).

Tags: linux, vse, documentation, knowledge_center

z/VSE Education & IBM Badges (2019-07-08)

We are often asked about education material for (new) IBM users. As I posted in earlier blog entries we tried to address this with z/VSE Redbooks and [z/VSE technical articles](#).

In my blog entry "[New to z/VSE](#)" I summarized links to z/VSE Redbooks.

The [z/VSE home page](#) and the [z/VSE Knowledge Center](#) are also a good start for z/VSE related information.

On the [z/VSE events and education](#) web page you can find information about conferences and links to education providers.

Just a few days ago [Interskill Learning](#) launched a new z/VSE Curriculum with new and updated courses at the VM Workshop in Richmond, VA, USA.

You can find information about new and upcoming courses - [here](#).

If you pass the new courses you are awarded with an IBM-Interskill Badge - the first z/VSE Badge, see [here](#).

You can find more information about IBM (Digital) Badges [here](#). Just search for "z/VSE" and you will see the new z/VSE Badge.

Tags: education, vse, redbook, documentation

Next blog entry on July 8, 2019 (2019-07-01)

I am not sure, if you noticed the last sentence of my last blog entry.

I attended the VM Workshop 2019 and I am travelling this week. It was again a successful workshop with good discussions.

Therefore you will see my next blog entry on July 8, 2019.

Tags: vse

z/VSE 6,1 service ends next Sunday (2019-06-25)

The end of service for z/VSE 6.1 will be June 30, 2019 - next Sunday. I reminded you beginning of June. Please contact your IBM rep, if you plan for a service extension.

Please upgrade to z/VSE 6.2. This will be a long running release. We plan to provide new functionality as PTFs based on the continuous delivery model.

You may upgrade to z/VSE 6.2 via Fast Service Upgrade (FSU) or a new install. This upgrade should be fairly easy. Please add PTFs as described in the latest Recommended Service Level (RSL). You can download the RSL from [here](#). Contact your vendors (ISVs), if PTFs are required for their products.

With z/VSE 6.1 the service for the following products / releases will end on June 30, 2019:

Product name Version Product number

IBM CICS Transaction Server for z/VSE 2.1.0 5655-VSE

IBM IPv6/VSE 1.2.0 5686-BS1

IBM TCP/IP for z/VSE 2.1.0 5686-CS1

IBM z/VSE 6.1.0 5686-VS6

... and the service of DLI VSE 1.12.0 will end on September 30, 2019.

That is to stay in a supported environment an upgrade to z/VSE 6.2 is required - with CICS TS for z/VSE 2.2, TCP/IP for z/VSE 2.2, IPv6/VSE 1.3 and DL/I VSE 1.12.1.

z/VSE 6.2 requires a z114 / z196 processor or higher.

Some hints and tips are discussed in the z/VSE Version/Release and Hardware Upgrade white paper - [here](#).

... and if you want to migrate from ECKD to SCSI, the corresponding white paper is on the same page - [here](#).

You can download the PDFs for the "Hardware and release status" from the "Resources" page - [here](#).

I will attend the VM Workshop 2019. Therefore you will see my next blog entry on July 8, 2019.

Tags: eos, vse, rsl, support, end-of-service, upgrade, service

z/VSE service: New service tool to open PMRs (cases) (2019-06-24)

Today I want to inform about upcoming changes for IBM service for IBM Z.

IBM introduced a new Support site to replace the IBM Service Request Tool and Retain. IBM Z software products will migrate to the new Support site this summer. IBM Z hardware products will migrate later.

The new Support site provides you with:

- Improved product selection
- Simplified search
- Greater visibility into the status of your support cases

You can take a look at the new Support site today - [here](#).

You won't be able to open a case (today called PMR) until the migration of the IBM Z software products is complete.

We recommend that you attend one of our upcoming demo and Q/A webinars, which will cover the new Support site [here](#).

A replay of the webinar will be made available [here](#).

I will keep you posted, if there is more information.

Tags: service, case, pmr, vse, retain, support

Next blog entry on June 24, 2019 (2019-06-21)

I have another long weekend, because we had a public holiday on Thursday. Therefore you see my next blog entry on Monday.

Have a good weekend.

Next z/VSE conferences (2019-06-19)

Today I want to inform you about upcoming conferences with z/VSE tracks. In both cases the agenda is available.

The first conference is the **2019 VM Workshop**. It is scheduled for next week - June 27 - 29, 2019 in Richmond, VA, USA. The agenda and registration links are [here](#).

The second conference is scheduled for the 4th quarter, October 21 - 23, 2019 in Leipzig, Germany,

It is the **13th European GSE / IBM Technical University for z/VSE, z/VM, KVM and Linux on IBM Z**. More information is [here](#).

Tags: wavv, gse, vm_workshop, vse, conference

z/VSE lock file placement (2019-06-18)

About 5 years ago I had a blog post about this subject. Just yesterday our Level 2 service team got questions about the placement of the lock file. Therefore I repost the old blog entry with additional information.

If you are running multiple z/VSE systems, you may share data between those systems. z/VSE provides DASD sharing through a lock file for that purpose, which is provided by the lock manager in the Supervisor.

A few words about DASD sharing: In an application you may lock a resource - defined by the DTL (Define the Lock) macro - e.g. to be locked for exclusive use. That is you may synchronize access to a specific code path or access to data on a disk. You may lock resources locally within one z/VSE system, or you may lock a resource across z/VSE systems in z/VM guests, LPARs or CECs. If you share across z/VSE systems, you have to define a lock file during IPL via the DLF command. Disks you want to share need to have the SHR parameter on the IPL ADD statement.

Recommendation: Do not allocate the lock file on the system disks DOSRES or SYSWK1. For a SCSI disk such a DLF command would be rejected. I would allocate it on a small disk with just the lock file on it, but that is your choice. All systems that want to participate in sharing need to have access to that lock file and a corresponding IPL DLF statement. If an application locks a resource, the CPU id of that system, the resource name and the lock option (e.g. exclusive lock) are written to the lock file. That is you have to ensure, that CPU ids are unique for all z/VSE systems that access the lock file. I/O to the lock file is controlled by the reserve / release channel commands (exclusive access to the lock file - and to the corresponding disk).

If you are running your z/VSE systems in z/VM guests of the same z/VM, you may define the lock file on a minidisks with multiple write (MWV). In that case you may also allocate the lock file on a z/VM virtual disk.

However, if you want to share resources with z/VM guests on different z/VM systems, LPARs or CECs, a z/VM guest needs to use the lock file as dedicated disk.

More information on DASD sharing is in the z/VSE Guide to System Function, which can be downloaded from the z/VSE documentation web page - [here](#), see section "DASD Sharing with Multiple VSE Systems".

Tags: sharing, lock_manager, vm, lock, dasd_sharing, lpar, vsee, lock_file

Next blog entry on June 18, 2019 (2019-06-06)

I will take a long weekend and a few days of vacation. Therefore you will see my next blog entry on Tuesday.

Have a good time.

Tags: vse

Reminder: z/VSE 6.1 end of service will be in 3.5 weeks (2019-06-05)

Today I have a reminder for all z/VSE 6.1 users. The end of service for the z/VSE 6.1 release will be June 30, 2019.

Please upgrade to z/VSE 6.2. This will be a long running release. We plan to provide new functionality as PTFs based on the continuous delivery model.

You may upgrade to z/VSE 6.2 via Fast Service Upgrade (FSU) or a new install. This upgrade should be fairly easy. Please add PTFs as described in the latest Recommended Service Level (RSL). You can download the RSL from [here](#). Contact your vendors (ISVs), if PTFs are required for their products.

With z/VSE 6.1 the service for the following products / releases will end on June 30, 2019:

Product name Version Product number

- IBM CICS Transaction Server for z/VSE 2.1.0 5655-VSE
- IBM IPv6/VSE 1.2.0 5686-BS1
- IBM TCP/IP for z/VSE 2.1.0 5686-CS1
- IBM z/VSE 6.1.0 5686-VS6

... and the service of DLI VSE 1.12.0 will end on September 30, 2019.

That is to stay in a supported environment an upgrade to z/VSE 6.2 with CICS TS for z/VSE 2.2, TCP/IP for z/VSE 2.2, IPv6/VSE 1.3 and DL/I VSE 1.12.1 is required. z/VSE 6.2 requires a z114 / z196 processor or higher.

Some hints and tips are discussed in the z/VSE Version/Release and Hardware Upgrade white paper - [here](#).

... and if you want to migrate from ECKD to SCSI, the corresponding white paper is [here](#).

You can download the PDFs for the "Hardware and release status" from the "Resources" page - [here](#).

Tags: service, support, vse, dli, upgrade, ipv6_vse, eos, eckd, migration, scsi, cics, tcpip, hardware, end-of-service

z/VSE service news: Connectors (2019-06-04)

In April I posted a blog entry with the service news for VSE connectors - see [here](#).

z/VSE 6.2 APAR [PH08671](#) (PTF UI61366): THE VSE CONNECTOR CLIENT DOES NOT CORRECTLY HANDLE INTERMEDIATE CA CERTIFICATES WITH SSL/TLS

Error description: The z/VSE Connector Client does not correctly handle intermediate CA certificates when it validates peer certificates during SSL/TLS handshake. This might cause SSL/TLS connections to be rejected when the peer certificate is signed by an intermediate CA certificate, even though the intermediate CA certificate is contained in the keyring used by the VSE Connector Client.

I forgot to add, that an updated VSE Connector Client is available for download from the z/VSE Download page - [here](#) or use the IESINCON.W part of PTF UI61366.

More details about the VSE Connector are in z/VSE 6.2 e-business Connectors, User's Guide. It's in the z/VSE Knowledge Center - [here](#).

Tags: vse, support, service, connector, ptf, apar

z/VSE entry panel - signon here, concurrent use of userids (2019-06-03)

Today I got questions about the z/VSE sign-on panel and concurrent userids.

- **1st question:** Why "LOGON HERE" PF key (PF12) is displayed on the IUI (Interactive User Interface) entry panel ?
Answer: If a user wants to sign on to a z/VSE system but is already signed on at another terminal, the message
USER ID 'xxxxx 'IS ALREADY IN USE AT TERMINAL 'nnnn'
is displayed and the entry panel provides PF12 with the function LOGON HERE.
LOGON HERE specifies that if this user ID is already logged on, it should be disconnected from its current terminal and reconnected at the terminal where this logon is requested.
If you want to disable this function, change the statement SIGNONH in skeleton IESELOGO to N (No).
SIGNONH DC C'N'SIGNON-HERE CAPABILITY
The IESELOGO skeleton is shipped in the VSE/ICCF library 59. More details on the IUI entry panel are described in the z/VSE Administration book.
You can download that book from the z/VSE Knowledge Center - [here](#).
• **2nd question:** Can I sign on to different CICS subsystems in the same z/VSE system with the same user id ?
Answer: Yes, the sign on exit IESEXIT (skeleton SKEXIT1) allows a user to sign on to different CICS subsystems in the same z/VSE system with the same user ID and password and receive different initial selection or application panels. More details are described in the z/VSE Administration book.
• **3rd question:** Is it possible to sign on to one CICS subsystem with the same userid from different terminals ?
I know, years ago there was a discussion on VSE-L about this subject and about a patch.

Does anyone use "concurrent sessions with the same userid" ? What are your experiences ?

Tags: userid, iui, signon, vse, session

Next blog entry on June 3, 2019 (2019-05-30)

We have a public holiday today and I am not in the office tomorrow.

Therefore you will see my next blog entry on Monday.

Have a good weekend.

Next z/VM webcast: Encrypted paging (2019-05-29)

The next webcast was just scheduled for **June 5, 2019**.

Title: Encrypted Paging for z/VM

Abstract: In December 2017, IBM released support for the encryption of z/VM paging data for its newest hardware. This session will explain in detail the "why", "how", and "what" of Encrypted Paging: why paging, how it works, how to enable it, why it's important, how it helps, why there are hardware requirements, and what to expect from performance when your systems are running with it.

The registration link is [here](#).

Tags: vse, live-virtual-class, vm, lvc, webcast

z/VSE 6.2 upgrade considerations for control files (2019-05-28)

In a few weeks the z/VSE 6.1 service will end - June 30, 2019. If you are still on z/VSE 6.1 or earlier releases, please upgrade to z/VSE 6.2 to stay in a supported environment.

We prepared a white paper that provides some hints and tips for the upgrade, called **z/VSE Version (Release) and Hardware Upgrade**. You can download that paper from [here](#).

Or - you can use the z/VSE 6.2 documentation such as the z/VSE 6.2 Installation book. The z/VSE 6.2 documentation is in the z/VSE 6.2 Knowledge center - [here](#).

If you plan for a z/VSE 6.2 initial installation the following information for the main z/VSE control files might be of interest:

If you completed the initial installation, you need to migrate your data into the new system. See instruction as described in the z/VSE Version (Release) and Hardware Upgrade white paper. Please pay attention to the following main control files:

- the VSE control file VSE.CONTROL.FILE IESCNTL containing information about applications and selection panels,
- the CICS CSD file CICS.CSD DFHCSD, containing CICS definitions for transactions, programs and files,
- the BSM control file VSE.BSTCNTL.FILE BSTCNTL containing access information for transactions.

After the system provided files are installed and loaded (during the installation process), migrate your definitions into these files.

But do not replace the files by any backup containing your definitions. In such a case system data would be missing, and you would get messages like:

- SELECTION PANEL 'TESTSEL ' DOES NOT EXIST.
- DFHAC2001 Transaction IES3 not recognized.
- DFHAC2033 You are not authorized to use transaction xxxx

Thanks for this information, Elke.

If you see such messages, please contact z/VSE service.

Tags: documentation, vse, control_file, migration, upgrade

Next blog entry on May 28, 2019 (2019-05-16)

I am preparing my z/VSE presentations for the IBM Systems Technical University in Berlin. I will be there the whole week.

That is you can meet me there any time. Therefore I plan the next blog entry for Tuesday May 28, 2019.

Have a good weekend.

How to get z/VSE debug data (2019-05-15)

If you have problem with your z/VSE system (such as a system hang, soft- or hardwait) and contact the z/VSE Service (Level 2) Team, you are often asked to run a debug trace and try to reproduce the problem. The debug trace area is allocated in the Shared Virtual Getvis Area (31 bit). If the problem reoccurs, z/VSE Level 2 asks to send a standalone or system (AR) dump, which includes the debug trace area.

Debug traces system events and records registers and control data. With that information you or the Level 2 team may get closer to the cause of the problem. However, in most cases you need deep internal knowledge to interpret the debug traces.

The Attention Routine (console) command `DEBUG ON` allocates the debug area and starts the debug trace. With that command you may specify the size of the area (default is 16K). `DEBUG OFF` stops tracing and `DEBUG END` stops tracing and frees the debug area.

You can limit the tracing to specific events and may stop the system, if a pre-defined condition occurs (`DEBUG STOP`). For more details please see the following books:

- z/VSE debug and the debug trace entries are described in the z/VSE Supervisor Diagnosis Reference Manual (DRM), see chapter Debugging Facilities for details.
- The z/VSE Hints and Tips book also holds a section with debug information, see `DEBUG` in chapter 2 Internal Attention Routine Commands.

You can download those books from [here](#).

Please let me know, if I should provide more detail about debug.

Tags: console, supervisor, command, attention_routine, debug, trace, service, vse, ar, documentation

Linux on IBM Z: new documentation available (2019-05-14)

Our information development team just published new documents for Linux on Z and LinuxONE in the IBM Knowledge Center.

- [Redhat Enterprise Linux 8.0 on IBM Z](#)
The IBM specific Device Drivers, Features, and Commands on Red Hat Enterprise Server 8.0 is available. New features include customized crypto device nodes, new commands for device configuration, as well as Shared Memory Communications through RoCE devices or ISM devices (SMC-R and SMC-D) and KVM support.
- [How to set as AES master key for Linux on IBM Z](#)
This new publication outlines a procedure how to create an AES master key on a cryptographic coprocessor configured in CCA coprocessor mode using the Trusted Key Entry workstation.
- [Troubleshooting Guide](#)
Troubleshooting information now includes Red Hat Enterprise Linux 8.0 and SUSE Linux Enterprise Server 15. New tools are described, and samples are updated to reflect new hardware and new tool versions.
- [Upstream Kernel 4.20 \(incl. KVM\)](#)
Kernel 4.20: Device Drivers, Features, and Commands

Tags: linux, linuxone, documentation, vse, knowledge_center

Conference reminder - zUniversity and VM Workshop (2019-05-13)

Today I want to remind you about the upcoming conferences with z/VSE sessions.

The **IBM Systems Technical University (TechU)** in Berlin, Germany is scheduled for next week - **May 20 - 24, 2019**. More information is [here](#).

The **2019 VM Workshop** is scheduled for **June 27 - 29, 2019** in Richmond, VA, USA. More information is [here](#).

The registration extras (reception & dinner, polo shirt, dorm reservation) expire on May 15. Presentation submission is due on May 15 too.

Tags: vm_workshop, zuniversity, conference, vse

TCP/IP for z/VSE: new DATAPORT settings, part 2 (2019-05-10)

On Wednesday I informed you about the new DATAPORT settings with TCP/IP for z/VSE 2.2.5 - see [here](#). In between my colleague summarized the values in a table and added some notes. Thanks, Joerg.

DATAPORT	Active	Passive
0	use the next available dynamic free port to connect to the remote server that is in a listen state.	use the control port minus 1 to issue a listen on and wait for the remote to connect into it.
1	force the use of control port minus 1 for active and passive	
2	force the use of the next available free port (recommended setting) for active and passive	
3	use the control port minus 1 to connect to the remote server that is in a listen state.	use the next available free port to issue a listen on and wait for the remote to connect into it.
4	Uses the next available dynamic free port.	<ul style="list-style-type: none"> • For FTPBATCH the range is set by the new FTPBATCH sysipt command SET DATAPORT, which replaces the old SET PASVPORT command. If no SET DATAPORT is issued in the FTPBATCH job then the control port minus 1 is used. • For FTPD the range is set by the PORTRANGE FTPLOW= and FTPHIGH= settings. If no PORTRANGE command is issued with FTPLOW-FTPHIGH then the control port minus 1 is used.
5	For active and passive the same as above option 4 passive.	

DATAPORT	Active	Passive
6 to 65535	force the use of a single port number for both passive and active data connections.	

Further considerations:

By default, the free port range is 4096-65535.

Try to avoid using fixed ports within the free port range:

- There were problems in the past where customers defined a server on a port in the free port range. For example, they issued a DEFINE TELNETD with PORT=7023. Since this port is in the free range, it may cause problems.
- So TCPIP checks if a "listen" already exists on the next free port being obtained. This alleviates the problem of a dynamic free port being assigned but does cause some additional overhead depending how many listens are currently active. TCPIP searches the entire chain and skips a port if it has a listen on it.
- So the most efficient and safest method is to issue a command like this:
PORTRANGE LOW=7024 HIGH=65535
But that still does not reduce the overhead.
- Using a PORTRANGE LOW=7024 HIGH=32000 FTPLOW=32001 FTPHIGH=65535 effectively reserves the port range of 32001-65535 for the FTP data connection in conjunction with DATAPORT=4/5. No search is done on the ftplow-ftphigh for another server already listening on this port range for reduced overhead.
- The same effect can be used to reserve ports with FTPBATCH (and could be global by having
SET DATAPORT in FTPBATCH.L):
PORTRANGE LOW=7024 HIGH=16000 FTPLOW=16001 FTPHIGH=20000
SET DATAPORT 20001 65535
With the above, the internal FTPD has 16001-20000 reserved when
DEFINE FTPD has DATAPORT=4/5. And the FTPBATCH jobs that issue the
SET DATAPORT 20001 65535 have ports 20001-65535 reserved for it. But
keep in mind when using these no check is performed for another server
listening on these reserved ports.

The TCP/IP for z/VSE books are on CSI's web page - [here](#) - or in the IBM Knowledge Center - [here](#). We will update the TCP/IP for z/VSE v2.2 Commands Reference and User's Guide.

Have a good weekend.

Tags: tcpip, vse, dataport, firewall, apar, autoftp, auto-ftp

New suboptions for High Level Assembler (HLASM) (2019-05-09)

You may wonder, why the latest compiles with the IBM High Level Assembler (HLASM) show the suboptions NOTRUNC, NOLONGER and NOSIGNED. These are the defaults for new suboptions introduced with APAR PH06572.

HLASM APAR [PH06572](#): HLASM TRUNCATION CHECKS FOR CONSTANTS

Error description: When a constant is defined with an explicit length, the specified value will be truncated to fit if necessary. This could however happen accidentally, so HLASM should provide options to warn about cases which might be in error.

Users affected: Users of HLASM for z/OS, z/VM, zVSE and Linux

Problem description: Optional truncation warnings for DC values

Recommendation: If an explicit length is specified on a DC constant, any specified value is documented as being truncated to that length. Up to now there has been no way to check whether this process is causing values to be changed by accident.

Three new FLAG suboptions are introduced.

- **TRUNC** - Instructs the assembler to issue diagnostic warning message ASMA225W if the value specified on a DC constant was changed by the process of being truncated to fit the specified field length. Removal of leading zeros for a numeric field or trailing spaces for a character or graphic field does not count as a change for this purpose.
- **LONGER** - Instructs the assembler to issue diagnostic warning message ASMA226W if the implicit length of a specified value exceeds the specified field length. If FLAG(TRUNC) is in effect and the value has been changed by truncation, then that takes precedence.
- **SIGNED** - Instructs the assembler to issue diagnostic warning message ASMA227W if a signed (negative) value is specified for a A-type, AD-type or Y-type address constant with an explicit length less than the full length, which expects an unsigned value.

Warnings produced by FLAG(TRUNC) could indicate potentially harmful coding errors, so it is recommended that this option should be used where possible (although the default is NOTRUNC in order to avoid triggering new warnings for existing programs).

Warnings produced by FLAG(LONGER) and FLAG(SIGNED) are more likely to be harmless and do not necessarily indicate a coding error, as existing code (including macro instructions supplied with IBM products) may simply be relying on truncation as a way of simplifying source code. These options can be used temporarily to check for possible errors, but if existing code triggers unnecessary warnings the options should be turned off again.

In some cases the list of FLAG options in the OPTIONS report could now exceed the listing line length, so the list is now continued on the next line if necessary.

Although S-type constants are not affected by the new checks, the existing range checks for an S-type constant were found to be incomplete and have now been fixed to ensure that a negative offset with an explicit base register, for example DC S(-1(9)), will be rejected with message ASMA028E Invalid displacement.

Documentation updates are in HLASM Programmer's Guide, SC26-4941-08.

For more information please see the APAR [PH06572](#).

Tags: hlasm, documentation, option, service, vse, apar

TCP/IP for z/VSE: new DATAPORT settings, impact on AutoFTP (2019-05-08)

With IBM APAR [PH05864](#) CSI introduced new DATAPORT settings (z/VSE 6.2: TCP/IP for z/VSE 2.2.5 - zap Z224147 - Incorrect port used for data connection) .

If you use a FTP passive connection, those settings might impact AutoFTP, e.g. with a wrong DATAPORT setting you may get the error message "No data connection" and data will not be transferred.

To resolve this situation try another DATAPORT value. A good start is DATAPORT=2.

A good description of the DATAPORT values is provided in zap Z224147 for the 2.2.5 release on CSI's TCP/IP for z/VSE service page - [here](#).

Below I copied the zap description:

The FTP data connection was defaulting to use the next free local port for internal ftp servers created with the DEFINE FTPD command. The default should be the control port - 1 (DEFINE FTPD PORT=). The usage of the data connection local port numbers may have varied between prior releases and maintenance zaps of TCP/IP. The local data connection ports can now be set in conjunction with firewall port settings. The local ports used for the FTP data connection can be controlled with the FTPBATCH DATAPORT= and the DEFINE FTPD DATAPORT= settings. The local ports used for the FTP data connection can be configured with DATAPORT=NNNN. Where NNNN can be a specific port. The values 0, 1, 2, 3, 4, and 5 can also be used with the following effect.

- **DATAPORT=0** can be used for the following effect. When in passive mode it will use the control port minus 1 to issue a listen on and wait for the remote to connect into it. When in active mode it will use the next available free port to connect to the remote server that is in a listen state. DATAPORT=0 is the default for the internal ftp servers(DEFINE FTPD).
- **DATAPORT=1** can be used to force the use of control port minus 1 for both passive and active mode.
- **DATAPORT=2** can be used to force the use of the next available free port for both passive and active mode. DATAPORT=2 is the default for the external FTPBATCH utility.
- **DATAPORT=3** can be used for the following effect. When in passive mode it will use the next available free port to issue a listen on and wait for the

remote to connect into it. When in active mode it will use the control port minus 1 to connect to the remote server that is in a listen state.

- **DATAPORT=4** will force the use of a specific range of ports for only passive data connections. For FTPBATCH the range is set by the SET DATAPORT command. For internal ftp servers created with DEFINE FTPD with DATAPORT=4 the range is set by the PORTRANGE FTPLow= and FTPhigh= settings. When in active mode it will use the next available free port to connect to the remote server that is in a listen state.
- **DATAPORT=5** will force the use of a specific range of ports for both passive and active data connections. For FTPBATCH the range is set by the SET DATAPORT command. For internal ftp servers created with DEFINE FTPD with DATAPORT=5 the range is set by the PORTRANGE FTPLow= and FTPhigh= settings.
- **DATAPORT=NNNN** with any value greater than five and less than 65,536 will force the use of a single port number for both passive and active data connections. Caution should be used since a connection is defined by the combination of the local_IPaddr+local_port+remote_IPaddr+remote_port. Only a single connection with this combination can be used at any one time.

Also note that the local FTP server on VSE(FTPDAEMN) cannot control what port numbers the remote FTP server chooses to use. That configuration would have to be done on the remote FTP server. See chapter 2 of the TCP/IP for z/VSE User Guide for more information and diagrams showing the ports used for a data connection.

The TCP/IP for z/VSE books are on CSI's web page or in the IBM Knowledge Center - [here](#).

Tags: tcpip, vse, auto-ftp, dataport, ftp, autoftp, firewall

New z/VSE white paper: Access to MQ server via REST API (2019-05-07)

In February I had a blog entry related to "z/VSE access to MQ server via REST" - see [here](#).

In between we uploaded a new white paper providing more details about this topic: "How to use REST support on z/VSE for access to IBM MQ REST API".

You can download this white paper from [here](#) (see z/VSE Connectors section).

Tags: vse, server, rest, mq, api, web_service

New Linux / z/VM webcast: Twelve Pillars of IBM z/VM Systems Management (2019-05-06)

There is a new webcast planned for **May 8, 2019** - 11:00 AM EST -12:15 PM EST.

Title: Twelve Pillars of IBM z/VM Systems Management

Abstract: Interested in running Linux on z/VM? Cool! In this session we'll talk about the twelve things you need to think about before you can declare your z/VM system to be ready for production. We'll talk about lifecycle management, provisioning, high availability and disaster recovery, network, and many other areas that need your thought and consideration.

The registration link is [here](#).

Tags: vm, linux, webcast, system-management, vse, lvc

Next blog entry on May 6, 2019 (2019-04-30)

We have a public holiday tomorrow and if the weather is nice, I will take some vacation.

Therefore you will see my next blog entry on Monday.

I wish you a good 1st of May and weekend.

New IBM Redbooks: GDPS, TS7700 (2019-04-29)

There a new/updated IBM Redbooks available, that might of interest to z/VSE users. The new 4.2 release of the TS7700 is supported by z/VSE Version 6.

[IBM GDPS Family: An Introduction to Concepts and Capabilities](#)

The book begins with general concepts of business IT resilience and disaster recovery, along with issues related to high application availability, data integrity, and performance. These topics are considered within the framework of government regulation, increasing application and infrastructure complexity, and the competitive and rapidly changing modern business environment. Next, it describes the GDPS (Geographically Dispersed Parallel Sysplex) family of offerings. It also describes the GDPS xDR support for z/VSE guests of z/VM.

[IBM TS7760 R4.2 Cloud Storage Tier Guide](#)

The TS7760 now supports the ability to store virtual tape volumes in an object store. This IBM Redpaper publication helps you set up and configure the new cloud object storage support for IBM Cloud Object Storage (COS) or Amazon Web Services (AWS).

[IBM TS7700 Release 4.2 Guide](#)

The IBM TS7700 is part of a family of IBM Enterprise tape products. This book is intended for system architects and storage administrators who want to integrate their storage systems for optimal operation.

Tags: tape, redpaper, recovery, gdps, vse, redbook

z/VSE 6.2 Knowledge Center / documentation updated (2019-04-26)

The z/VSE Information Development (ID) team just updated and enhanced the z/VSE 6.2 Knowledge Center. They integrated continuous delivery items and reworked some areas. See also the "Table of Contents" (on top left) for additional topics. If you look for z/VSE books, the link to the PDF Library is on the top right.

Now more books are added as PDFs, e.g. the COBOL compiler books.

The z/VSE 6.2 Knowledge Center is [here](#).

Have a good weekend.

Tags: vse, documentation, pdf, knowledge_center, book

z/VSE 6.2 Supervisor Diagnosis Reference Manuals available (2019-04-25)

We just published an update of the Supervisor Diagnosis Reference Manuals (DRMs) for z/VSE 6.2 in the z/VSE Knowledge Center:

- z/VSE V6R2 Supervisor Diagnosis Reference
- z/VSE V6R2 Supervisor Calls and Internal Macros

The DRM provides detailed information about the z/VSE architecture and how the Supervisor components work together.

You can download these books from [here](#).

Tags: diagnosis, vse, reference, book, drm, supervisor, documentation

z/VSE 6.1 service news: TCP/IP APAR (2019-04-24)

We just released a new APAR for product IBM TCP/IP for z/VSE 2.1, which is available for z/VSE 6.1.

APAR [PH09908](#) (PTF UI62439): TCP/IP FOR Z/VSE SERVICE PACK 2.1.A

IBM TCP/IP for z/VSE service pack 2.1.A contains following fixes:

- ZP219350 Rare instances of an ESDS file not being closed, so help by TCP/IP.
- ZP219351 Update online messages file
- ZP219352 IPN166E Application Program Abend at xxx Phase: IPDRIVER, Offset: 00005E02
- ZP219353 IPN597I Shutdown Stage: 4: Network termination (max. 10 seconds)
- ZP219354 SSL117D IPCRSRED failed reason=SREDBTSM
- ZP219355 Good delivery results in DISP=Y.
- ZP219356 Use external CLIENTDX phase
- ZP219357 SET JSEP command is invalid.
- ZP219358 Client fails to connect with older SSL/TLS server
- ZP219359 Q FILES enhancement changes for ESDS files.
- ZP219360 CLOSE FILE was not working. Q FILES has new message added.
- ZP219361 Added message IPN550I so that a Q FILES will show active sessions.
- ZP219362 SET USER or PASS in an EXEC member is displayed.
- ZP219363 Active open(connects) delayed poor performance
- ZP219364 New CONNECTFAIL command
- ZP219365 New CONNECTFAIL command
- ZP219366 BSD103I IPNRCLOS failed R15=00000000 errno=+113 CLOSACLS
- ZP219367 New external CLIENTDX phase
- ZP219368 IPN166E Application Program Abend at xxxxxx Phase: SOCKPASS, Offset:0001114E
- ZP219369 Added message IPN832 to diagnose asynchronous accept failure
- ZP219370 Display eye-catcher during Q VER
- ZP219371 TCP902D diagnostic message being issued without DIAG AUTO
- ZP219372 Added CLIENTDX messages to use unique prefix AUD and AUTmessage
- ZP219373 Access Epic dataset fails and site rdw
- ZP219374 TEL929I and TEL934 messages

- ZP219375 IPN903E Free length (00010000) is wrong
- ZP219376 Asynchronous socket fails with enetdown
- ZP219377 Storage subpool SSLEEE not released
- ZP219378 TEL927W TN3270DX Menu Failure. Reason=CALMRNFA

Please see the APAR information for more details - or the [CSI service web page](#).
IBM APAR column indicates zaps included into APAR [PH09908](#).

Tags: tcpip, vse, support, ptf, apar, service

New z/VSE 6.2 announcement (2019-04-23)

I hope, you had good Easter (holidays). At least in our area we had a nice weather, blue sky, temperatures around 24 C (75 F).

Now to the news: Today we have a new announcement for z/VSE 6.2 - "new hardware support". The announcement letter summarizes the enhancements via continuous delivery since April 2018.

It also describes the latest hardware supported by z/VSE 6.2.

The announcement letter is [here](#).

Tags: hardware, support, vse, announcement

Next blog entry on April 23, 2019 (2019-04-08)

I will not be in the office until Easter. Then we have the Easter holidays. Therefore you will see my next blog entry after Easter Monday.

If there is something more urgent, I will post an entry in between.

At this time I wish you already a **Happy Easter !**

Tags: vse

Next conferences with z/VSE sessions (2019-04-05)

In the next 3 month there are 3 conferences with z/VSE sessions:

- April 29 - May 3, 2019 - IBM Systems Technical University (TechU) in Atlanta, GA, USA. More information is [here](#).
- May 20 - 24, 2019 - IBM Systems Technical University (TechU) in Berlin, Germany. More information is [here](#).
- June 27 - 29, 2019 - VM Workshop 2019 with a full z/VSE track in Richmond, VA, USA. The registration link is [here](#)

Have a good weekend.

Tags: wavv, conference, zuniversity, vm_workshop, vse

New IBM Redbook: Getting Started with Linux on Z Encryption for Data At-Rest (2019-04-04)

In between I have more than 1200 blog entries.

The IBM Redbook team just published a new Redbook.

Title: Getting Started with Linux on Z Encryption for Data At-Rest

Abstract: This publication provides a general explanation of data protection through encryption and IBM Z pervasive encryption with a focus on Linux on IBM Z encryption for data at-rest. It also describes how the various hardware and software components interact in a Linux on Z encryption environment. In addition, this book concentrates on the planning and preparing of the environment. It offers implementation, configuration, and operational examples that can be used in Linux on Z volume encryption environments. This publication is intended for IT architects, system administrators, and security administrators who plan for, deploy, and manage security on the Z platform. The reader is expected to have a basic understanding of IBM Z security concepts.

You can download this book [here](#).

Linux webcast: How IBM Z architecture matters in the area of Microservices and Containers (2019-04-03)

A new Linux on IBM Z webcast is scheduled for **April 10, 2019, 11:00 AM EST - 12:15 PM EST.**

Title: How IBM Z architecture matters in the area of Microservices and Containers

Abstract: This session will show architectural options and decisions necessary to fulfill the business requirements in regard to speed to market, flexibility, and the IT requirements for continuous integration and continuous delivery in a future oriented architecture with IBM Z.

You can find this information and the registration link on this [page](#).

z/VSE service news: AF, POWER, Connector, CICS APARs (2019-04-02)

There are a few new z/VSE APARs available since the Recommended Service Levels (RSLs). The RSLs are [here](#).

VSE/AF

z/VSE 6.2 APAR [DY47808](#) (PTFs APARs UD54349 UD54350): CANCEL OF TCP/IP PARTITION MAY LEAD TO SYSTEM HANG WAITING FOR LTA

Error description: Canceling a TCP/IP partition while it is owning the LTA may cause the task owning the LTA to enter an infinite wait for I/O on OSAX devices. This causes the cancel of the partition to hang and prevents the LTA from being released. This finally causes the whole system to hang sooner or later as other tasks start to wait infinitely for the LTA.

z/VSE 6.2 APAR [DY47812](#) (PTF UD54353): Z/VSE MAY ENTER HARDWAIT FFF WHEN USING PAV

Error description: PAGE FAULT IN IJBPAV CAUSED BY SUBSEQUENT TICS IN CHANNEL PROGRAM. WHILE CCW CHAIN SCANNING IN PAV PROCESSING, A SECOND TIC IS ERRONOUSLY HANDLED AS CCW, WHICH FINALLY LEADS TO A PAGE FAULT. SYSTEM DECIDES TO ENTER HARD WAIT.

VSE/POWER

z/VSE 6.2 APAR [DY47811](#) (PTF UD54352): SIR COMMAND SHOWS VSE/POWER 9.4.0 DY-BASE 01/01/1900 WHILE VSE/POWER AUTOSTART IS ON HOLD WAITING FOR OPERATOR

z/VSE 6.1 APAR [DY47810](#) (PTF UD54351)

Error description: When VSE/POWER startup is halted by invalid AUTOSTART card, e.g. FORMAT QUEUES= SIR command will show placeholder for VSE/POWER level instead of actual level.

VSE Connectors

z/VSE 6.2 APAR [PH08671](#) (PTF UI61366): THE VSE CONNECTOR CLIENT DOES NOT CORRECTLY HANDLE INTERMEDIATE CA CERTIFICATES WITH SSL/TLS

Error description: The z/VSE Connector Client does not correctly handle intermediate CA certificates when it validates peer certificates during SSL/TLS handshake. This might cause SSL/TLS connections to be rejected when the peer certificate is signed by an intermediate CA certificate, even though the intermediate CA certificate is contained in the keyring used by the VSE Connector Client.

CICS TS for z/VSE 2.2

APAR [PH02220](#) (PTF UI61693): ABEND0C1 OPERATION EXCEPTION IN DFHSTUP WHILE CREATING CICS STATISTICS REPORT.

Error description: When creating a CICS statistics report you receive an abend 0C1 program check operation exception with the PSW pointing to low core address location of 0000004E. This occurs when trying to put out the REPORT ABSTRACT.

APAR [PH05613](#) (PTF UI61929): WEB SERVICES RETURNING "400 BAD REQUEST" ERROR WHEN DNS NAME (HOSTNAME) IN URL CONTAINS UNDERSCORE "_".

Error description: Web Services returning "400 BAD REQUEST" error when DNS name (HOSTNAME) in URL contains underscore "_".

This comes up since CICS TS z/VSE 2.2 .

URL executing on the browser:

1: prod_CICS:8080/CICS/CWBA/DFH\$WB1A - Fails

2: 1.2.3.123:8080/CICS/CWBA/DFH\$WB1A - Works

HIPER APAR [PH03378](#) (PTF UI60276): Various problems after a CICS restart, for example, a DFHTS1310 CICS abend

This APAR is included in the last z/VSE 6.2 RSL, but just in case you did not install listed RSL PTFs, please consider to install PTF UI60276).

You will find the latest APAR information on z/VSE's corrective service web page - [here](#).

.. and the CICS team provides the actual fix lists for [CICS TS for z/VSE 2.1](#) and [CICS TS for z/VSE 2.2](#) .

Tags: connector, apar, service, vse, support, cics, ptf, vse-power

z/VSE requirement: support new Japanese era (2019-04-01)

The Japanese government announced the name of the new era today. The name is "Reiwa". The era will start on May 1, 2019. Then the current era called "Heisei" ends. The new name has a new Unicode representation.

See the public news [here](#).

z/VSE has two RFE (Request for Enhancements) requirements to support the new era:

- [RFE 123504](#) - LE callable service changerequest for new Japanese era name for z/VSE
- [RFE 123618](#) - TCP/IP translation table change request for new Japanese era name for z/VSE

I will inform you in the RFEs and this blog, when the z/VSE support for the new era is available. We target this support for z/VSE 6.2 only.

Containers on IBM Z (2019-03-29)

Today I want to recommend a new web page for Linux on IBM Z users.

The web page addresses "Containers on IBM Z". It provides hints and tips to deploy containers and their eco system. It also has links to more information.

The web page is [here](#).

Have a good weekend.

Tags: docker, vse, linux, containers

Next blog entry on March 29, 2019 (2019-03-25)

I am attending the GSE conference in Bremen, Germany.

Therefore you will see my next blog entry on Friday.

New webcast: Machine learning on Linux on Z (2019-03-22)

A new webcast for Linux on IBM Z is scheduled for **March 27, 2019 - 11:00 AM EST - 12:15 PM EST**.

Title: How and Why - Analytics and Machine Learning?

Abstract: Did you know that you can already apply Machine Learning also on Linux on Z and LinuxOne? This session will provide you with an idea about how you can leverage your data on LinuxOne or Linux on Z to apply Analytics and Machine Learning using cognitive technologies like Watson Studio, Watson Explorer, Db2 Warehouse, etc. The discussion will also include aspects like use cases and integration of the different technologies to get the best insight out of your data.

You can register for this webcast on the Linux webcast page, [here](#).

Have a good weekend.

Tags: lvc, machine_learning, vse, webcast, analytics, webinar, linux

VM Workshop 2019 session list (2019-03-21)

This year the VM Workshop is scheduled from June 27 to June 29, 2019 in Richmond, VA, USA.

Besides z/VM and Linux on IBM Z sessions the VM Workshop also covers z/VSE sessions. On the VM Workshop home page you can already view the session list (see green tab on the bottom).

Is there any topic that we should cover in addition ? Just send me an email or add a comment.

The VM Workshop 2019 home page with the session list and registration link is [here](#).

How to estimate the size of the standalone dump disk (2019-03-20)

Since z/VSE 6.2 we support the standalone dump on SCSI disks in addition to ECKD disks. More and more z/VSE users create the standalone dump on disk instead of tape.

Before you create a standalone dump on disk with the DOSVSDMP utility or the dialog. There is always the question about the size of the disk. The size is dependent on the virtual storage you are interested in. Besides the shared areas, there may be partitions, data spaces and memory objects. You can specify the priority of partitions, data spaces and memory objects with the OPTION statement. The virtual storage will be dumped until the standalone dump disk is full.

You can use the following information to estimate the size of the disk:

- one cylinder (or 15 tracks) gives 720 KB space on ECKD
- 1000 blocks gives 444 KB on FBA

That is you need to add up the SVA, partition, data space and memory object sizes you want to have included into the standalone dump to get to the total size. For the first three files a dump space of 300 cylinder (500000 blocks) should be sufficient in many cases. If you have enough disk space available and you want to get all virtual storage included, you can use e.g. the MAP command to calculate the required virtual storage for your workload (VSIZE or VSIZE-AVAIL). Keep in mind that unreferenced pages of virtual storage do not claim dump space.

Please create a new standalone dump after z/VSE upgrades, major service upgrades or if there is a PTF that addresses the standalone dump.

You can find more information in the z/VSE Hints & Tips book. The download page is [here](#).

Tags: vse, dump, stand-alone_dump, service

Next blog entry on March 20, 2019 (2019-03-17)

I am not in the office, therefore you will see my next blog entry on Wednesday.

Have a good time.

How to resolve "no more available extents" during PTF installation (2019-03-15)

If your system is far back level and you want to upgrade your system to the latest Recommended Service Level (RSL), a large number of PTFs might cause a problem.

That is PTF job DTRPTF03 may abend with messages

```
M275I CATALOG OF MEMBERS IN PROGRESS
4250I NO MORE AVAILABLE EXTENTS MSHPLNK
```

The maximum number of extents has been obtained. You should increase the IJSYSLN definition in STDLABUP.PROC from

```
// DLBL IJSYSLN,'%DOS.WORKFILE.SYSLNK',0,VSAM, X
CAT=VSESPUC,RECSIZE=322, X
RECORDS=(400,600)
```

e.g. by a factor of 10 to

```
// DLBL IJSYSLN,'%DOS.WORKFILE.SYSLNK',0,VSAM, X
CAT=VSESPUC,RECSIZE=322, X
RECORDS=(4000,6000)
```

Thanks, Martin W.

Have a good weekend

Pervasive encryption on IBM Z (2019-03-14)

Today I have a YouTube video that explains pervasive encryption for data volumes.

See the video from our Linux information development team [here](#).

Tags: encryption, vse, video, crypto, cpacf, mainframe, linux, linuxone

VSE Virtual Tape Server: Allow 2 or more VTAPES from same IP address (2019-03-13)

The VSE Virtual Tape Server on the z/VSE Download page was updated on February 2018 with a new option. You can get this update [here](#).

See z/VSE 6.2 APAR PI92815 for more information.

APAR [PI92815](#) (PTF UI53401): THE VSE VTAPE SERVER DOES NOT ALLOW TWO OR MORE VTAPES FROM THE SAME IP AND FOR THE SAME CUU AT THE SAME TIME

Description: The VSE VTAPE Server does not allow two or more VTAPES from the same IP address and for the same CUU at the same time. This can happen when multiple z/VSE systems are connecting to the VTAPE Server through one Fast Path to Linux on System z (LFP) system, or through one z/VM VSE IP Assist (VIA) system, or through one z/VSE Network Appliance (VNA) system, so that those z/VSE systems appear under the same IP address to the VTAPE Server.

The problem is fixed with a new option: Option "allowsameipcuu" has been introduced with which the checking for VTAPES from the same IP and same CUU can be turned off. This option can be specified in the properties file "VirtualTapeServer.properties".

I posted this blog entry 2 days ago as "VSE Virtual Tape Server updated".

Tags: service, ptf, vtape, connector, download, virtual_tape, vna, apar, support, vse

Next blog entry on March 13, 2019 (2019-03-06)

I plan my next blog entry for Wednesday, March 13, 2019.

Have a good time.

Linux on IBM Z announcement: App Connect Enterprise (2019-03-05)

Today there is an announcement that might be of interest for Linux on IBM Z and LinuxONE users:

IBM App Connect Enterprise V11.0.

App Connect Enterprise is the official successor product for IBM Integration Bus clients.

The announcement letter is [here](#).

Tags: linux, linuxone, vse, announcement, connector

Daylight Saving Time (DST) change with z/VSE - re-post (2019-03-04)

We are close to the Daylight Saving Time (DST) for the US on March 10, 2019. ... and there was a question about "IPLing for spring time change" on VSE-L last week.

Therefore I repost my blog entry from beginning of February. I recommend to IPL the z/VSE system for any time changes.

The blog entry is [here](#).

Tags: dst, cics, tips, vse, ipl, daylight_saving_time, time

How to submit a requirement for z/VSE or CICS ? (2019-03-01)

Customer requirements are a key element of the z/VSE release content. Therefore we are always looking for requirements. ... and thanks for your requirements.

To submit requirements you may use the Request for Enhancement (RFE) web tool. You may also search for and vote on existing requirements in the RFE web tool. To do so you have to sign on with your IBM id. The RFE web page is [here](#).

To submit a requirement you can select "I want to specify the brand, product family, and product".

Please use the following selection for **z/VSE requirements**:

Brand: Servers and Systems Software

Product family: z Systems Software

Product: z/VSE

Component: (component you want to submit a requirement for)

Operating system: z/VSE

There are some more fields, you may want to fill out.

... and the selection for **CICS TS requirements**:

Brand: Servers and Systems Software

Product family: Transaction Processing

Product: CICS Transaction Server

Component: Runtime (or Explorer)

Operating system: z/VSE

Have a good weekend.

Tags: cics, requirements, vse

Reminder: next z/VSE conference (2019-02-28)

This is a reminder: The next conference with z/VSE sessions is scheduled for **March 25-27, 2019** - the German GSE Meeting (Fruehjahrstagung 2019) for z/VSE, z/VM, KVM and Linux on IBM Z.

The conference location is Bremen, Germany. Conference language is German.

You can register [here](#).

Tags: gse, vm, vse, kvm, conference, linux

z/VSE 6.1 end of service is coming soon (2019-02-27)

Today I want to remind you that end of service for z/VSE 6.1 and related products will be soon.

That is the service for the following products will end on June 30, 2019:

Product name Version Product number

IBM CICS Transaction Server for z/VSE 2.1.0 5655-VSE

IBM IPv6/VSE 1.2.0 5686-BS1

IBM TCP/IP for z/VSE 2.1.0 5686-CS1

IBM z/VSE 6.1.0 5686-VS6

... and the the service of DLI VSE 1.12.0 will end on September 30, 2019.

If you want to stay in a supported environment, please upgrade to z/VSE 6.2 with CICS TS for z/VSE 2.2, TCP/IP for z/VSE 2.2, IPv6/VSE 1.3 and DL/I VSE 1.12.1.

Some hints and tips are discussed in the z/VSE Version/Release and Hardware Upgrade white paper - [here](#).

... and if you want to migrate from ECKD to SCSI, the corresponding white paper is [here](#).

You can download the PDFs for the "Hardware and release status' from the "Resources" page - [here](#).

Tags: support, eos, upgrade, scsi, service, tcpip, eckd, hardware, dli, ipv6_vse, vse, end-of-service, cics, migration

zHPF support in z/VSE 6.2 (2019-02-26)

One of the hardware exploitation items introduced with z/VSE 6.2 is the High Performance FICON for z Systems (zHPF) support. In April 2017 I posted already a blog entry about this topic.

Today I repost it, because I want to added more information, including z/VM guests support.

The zHPF channel Input/Output (I/O) architecture can improve the execution of small block I/O requests. z/VSE translates applicable I/O commands into the zHPF protocol and thus transparently exploit the zHPF protocol for user applications. No adaptation is required. Multiple channels commands are sent as a single entity to the control unit. That is the channel forwards a chain of commands and has no longer to keep track of each single CCW (Channel Command Word). This may lead to reduced overhead and increases the I/O rate on a channel. The performance benefits depend on your workload. zHPF support is provided for ECKD channel commands.

A few implementation details:

- The common I/O APIs do not change. z/VSE translates channel commands at low level I/O interfaces.
- z/VSE does not provide APIs to use the zHPF commands in applications.
- z/VSE requires zHPF implementation phase 1 (There are 2 implementation phases, 0 and 1).
- The zHPF support can be used in **LPAR** and **z/VM guests** (z/VM 6.3 with [APAR VM65748](#), z/VM 6.4 or higher). In z/VM guests only full-pack minidisks or dedicated disks are support by z/VSE's zHPF implementation. The z/VSE VOLUME command indicates, if a device accepts the zHPF protocol.
- The z/VSE conversion routine scans the I/O operation codes of the CCW chain and checks whether the request is eligible for a translation. Whenever a zHPF I/O request results in an I/O error, the request is retried as standard I/O.
- z/VSE supports zHPF enabled ECKD devices of the DS8000 family.
- Only control unit type 2107 is supported.

The SYSDEF SYSTEM command is extended by a new zHPF parameter. After IPL completed you can start the zHPF support via SYSDEF SYSTEM,ZHPF=START. You may stop the zHPF support via SYSDEF SYSTEM,ZHPF=STOP, and restart it any time. So you can easily verify, if your workload can benefit from z/VSE's zHPF support. I/O timings can be verified via the SIR SMF command.

More details are in the z/VSE Administration book. You can download it from the PDF library - [here](#).

Tags: vse, device, eckd, zvm, vm, zhpf, performance

Install z/VSE in LPAR from an USB stick (2019-02-25)

In the z/VSE Installation book we describe how to create an installation disk in an LPAR environment and install z/VSE from there - see chapter 2 "Installation Basic".

The installation disk can be created from:

- An FTP server that has access to a directory where the files from the physical DVD or electronic deliverable have been stored (recommended).
- A physical DVD mounted in a DVD drive attached to the Hardware Management Console (HMC) or primary Support Element (SE).
- **New** with the latest IBM Z processors: A physical USB flash memory drive (e.g. a portable USB drive or stick), attached to the Hardware Management Console (HMC).

That is attach the USB stick to a free HMC USB port and create the installation disk.

The last option will be added to the z/VSE Installation Book. You can download this book from the PDF Library - [here](#).

Now you can start a z/VSE initial installation from the installation disk.

Tags: installation, vse, ipl, disk, documentation

z/VSE Access to MQ server via REST (2019-02-22)

The WebSphere MQ Server for z/VSE is no longer in service since September 2015. If you are dependent on messaging, you can use the WebSphere MQ Client for VSE and MQ Trigger Monitor on z/VSE as a replacement and connect to a MQ server on a supported MQ platform. More information and the downloads are in the IBM Knowledge Center at z/VSE 6.2 topic "Using the z/VSE MQ Client Trigger Monitor for Asynchronous Inter-Program Communication" - [here](#).

We also prepared a white paper "Migrating from MQ Server on z/VSE to MQ Client using the z/VSE MQ Client Trigger Monitor" - [here](#).

z/VSE 6.2 introduces Representational State Transfer (REST) support, see my related [blog entry](#). In z/VSE you may use REST to send and receive information between CICS programs and other modules over the internet via RESTful web services.

More details are described in the z/VSE e-business Connectors User's Guide, Chapter 25 Using REST for Inter-Program Communication. This book can be downloaded from the z/VSE 6.2 PDF Library in the IBM Knowledge Center - [here](#).

Since some time **IBM MQ for Multiplatforms** supports REST APIs. That is instead of the MQ client you may also use z/VSE's REST support to connect to the MQ Server on a non-z/VSE platform.

The messaging REST API comes as standard with IBM MQ from IBM MQ Version 9.0.4 and is enabled by default. You can use the messaging REST API to send and receive IBM MQ messages in plain text format. Applications can issue an HTTP POST to send a message to IBM MQ, or an HTTP DELETE to destructively get a message from IBM MQ. Support is provided for a number of different HTTP headers which can be used to set common message properties."

Developing REST applications with IBM MQ" is described in the IBM Knowledge Center - [here](#).

A few weeks ago IBM MQ announced enhancements to their IBM MQ V9.1.2 for Multiplatforms product.

One of the MQ enhancements address their REST support: MQ V9.1.2 base provides enhanced REST Messaging performance with connection pools.

The MQ V9.1 LTSR (Long Term Service Release) delivered the ability to call MQ messaging functions through REST API calls. Lightweight and simple applications can use a subset of MQ functions quickly and easily without

requiring an MQ client library to be bound with the applications.

This enhancement is planned to be available on March 21, 2019. For details see the announcement letter - [here](#).

Have a good weekend.

Tags: server, documentation, vse, mq, knowledge_center, connector, client, white_paper, rest

3800 printer problem during CICS initialization (2019-02-21)

About 18 month ago there was post related to "Spooled 3800 printers for CICS partitions" on VSE-L. In rare cases the 3800 printer device type may cause problems during CICS initialization.

Symptom: CICS TS can experience abends at various points during CICS initialization. That might also cause FED and FFF Hard Waits.

Trigger for the problem: An ASSGN for SYSLST to a spooled 3800 printer device type. The problem occurs when a DFHDCT Extrapartition dataset entry for a printer is opened during CICS initialization.

Resolution: This can be resolved in the CICS startup job by an ASSGN for SYSLST to a spooled PRT1 or a printer device type other than a 3800.

Tags: printer, abend, 3800, vse, problem, cics, prt1, hardware

Think 2019 playlists and videos (2019-02-20)

Last week there was IBM's major conference in San Francisco: **Think 2019**. Usually I mainly concentrate on z/VSE and some Linux topics. However, there were some sessions of general interest.

Now the playlists and videos are available on the web. See [here](#).

To easily find the topics you are interested in, select "Watch all sessions". There you can filter replays.

Tags: think, conference, vse

Next Linux webcast: Do you know about Kata Containers on IBM Z ? (2019-02-19)

The presentation is now available on the webcast page.

Title: Do you know about Kata Containers on IBM Z ?

Date / Time: February 20, 2019 / 11:00 AM EST -12:15 PM EST

Abstract: Containers are radically transforming the way how software is delivered and deployed. However, many companies hesitate to embrace container technologies due to security concerns. The Kata project aims to address some of those issues by combining the agility of containers and the security of the VMs. The Kata technology offers a flexible isolation solution that can be integrated with various container engines (docker, cri-o and containerd) and Kubernetes. This presentation gives an overview on the emerging Kata technology with a special focus on IBM Z.

This information and the registration link is [here](#).

Tags: kata, containers, vse, webinar, webcast, lvc, linux

New z/VSE 6.2 ADCD available (2019-02-18)

Today's blog entry is for z/VSE ISVs (Independent Software Vendors). The IBM Z Dallas ISV Center provides resources for ISVs.

More information is on their home page - [here](#).

The IBM Z Dallas ISV Center just prepared a new ADCD (Application Developer Controlled Distribution) for z/VSE 6.2, which now includes the z/VSE 6.2 generation feature and DL/I VSE 1.12.1.

ISVs can request the ADCD [here](#).

Tags: vse, isv, dallas, vendor, adcd

Next blog entry on February 18, 2019 (2019-02-12)

I plan my next blog entry for Monday, February 18, 2019.

Tags: vse

How to find the z/VM or z/VSE collections (2019-02-11)

The **IBM Knowledge Center (KC)** is the place to go for any kind of z/VM or z/VSE information. The z/VM KC is [here](#) and the z/VSE KC [here](#). On the the welcome pages you can select corresponding releases. There you will find the PDF files (Library) with the documentation. You can download the books you need. if you want to get all books for a specific release, you can download the **book collection** as a zip file.

For **z/VSE** you can find release **collections** e.g. in the "Look-Up" section of the z/VSE KC welcome page. If you select a release, e.g. z/VSE 6.2, the link points to the [z/OS Internet Library](#). Just scroll down to the "New! Adobe Indexed PDF Collections". At the "z/VSE Adobe Indexed PDF Collection" you can download the zip file.

I copied the following explanation from the "New! Adobe Indexed PDF Collections" section:

Adobe Indexed PDF collections contain all the content a particular release and are an excellent way to search for information offline. In addition to having all the PDFs, each collections has an html page that lists all of the PDFs by title. Each collection contains an Adobe Acrobat Catalog to provide a full text search for everything in the collection. Everything is packaged as a windows .zip file. To search the content, download the package, unzip the file, Then use Adobe Acrobat Reader to open the file with a *.pdx file extension. Then start your search. Be sure to check our the advanced search options too. Note that other PDF readers might work but were not tested.

For **z/VM** you can start with the z/VM KC too. You will be directed to the "[z/VM Library Overview](#)" page and can select the "[complete PDF collection](#)" or "[Indexed PDFs](#)" on top. There you can download the collection zip files.

The "z/VM Library Overview" page also has links to z/VM product information, Linux on IBM Z documentation and white papers.

Tags: documentation, collection, vm, vse, kc, knowledge_center

Quiesce / shutdown signal in z/VSE (2019-02-08)

Are you aware of the signal quiesce / shutdown support in z/VSE ? This support is available since z/VSE Version 4. z/VSE doesn't have a controlled shutdown process, but you may implement that e.g. with REXX procedures to your needs and use the quiesce support to trigger the shutdown.

The signal quiesce support can be used to inform a z/VSE image, that shutdown is requested. See more details below:

To configure z/VSE for signal quiesce, you use the QUIESCE parameter of the IPL SYS control statement.

If a disruptive operation (for example, an IML or IPL) is performed via a Service Element (SE) or Hardware Management Console (HMC) panel, the SE or HMC will generate a signal-quiesce event. Under z/VM, a signal-quiesce event can be triggered for a guest using a z/VM SIGNAL SHUTDOWN command. The signal-quiesce event instructs an active z/VSE to quiesce (stop) processing:

When a signal-quiesce event is received, z/VSE issues message 0W01D:

```
0W01D DO YOU WANT TO CONTINUE SYSTEM SHUTDOWN (WILL BE FORCED
AFTER TIMEOUT)?
REPLY 'YES' TO ENTER HARD WAIT STATE OR 'NO'
```

If the operator replies "YES", the system will enter a disabled-wait state and set a unique hard-wait code.

If the operator replies "NO" or does not reply at all, the system will wait for a predefined time-interval only, after which it continues to process the disruptive operation.

Signal quiesce is designed to be mainly used with console automation programs, which can initiate a controlled system shutdown as a response to message 0W01D.

More details about the IPL SYS QUIESCE is documented in the z/VSE System Control Statements book. You may download it from [here](#).

More information about the z/VM SIGNAL SHUTDOWN command is [here](#) - or in the z/VM CP Command and Utilities Reference.

Thanks to our information development team, I copied the above from the z/VSE Knowledge Center - [here](#).

Have a good weekend.

Tags: signal, vm, command, quiesce, shutdown, vse, iml

How to backup your z/VSE system with Fast Copy (2019-02-07)

Today I have a blog entry related to the z/VSE backup tool VSE/Fast Copy, written by my colleague. Thanks, Martin.

If you backup your z/VSE system, please make sure that all files are closed. The best way is to shutdown your system and IPL a standalone tape created e.g. by LIBR BACKUP Restore=Standalone.

If you run z/VSE in a z/VM guest, you may use a different approach:

- In your z/VM guest define a z/VM print device.
- Prepare a backup job and submit it to the VSE/POWER RDR queue with the following LST statement:
* \$\$ LST LST=SYSLST,DISP=N
This statement directs LST output for SYSLST to the z/VM printer. In this case VSE/POWER will not create new LST output, that may cause Queue/Data file corruption. A restore of the system disk will only find the backup job and VSE/POWER being active. You can easily repair that by VSE/POWER queue file recovery.
- Shutdown all z/VSE partitions except VSE/POWER. All files will be closed except the VSE/POWER account file, queue file and data file and any files for the security manager.
- Release the backup job from the VSE/POWER RDR queue to backup the system..

VSE/Fast Copy is described in the book z/VSE System Utilities. You can download it [here](#).

Tags: fastcopy, vse, backup, tips, printer, vse-power

Daylight Saving Time (DST) change with z/VSE (2019-02-06)

As every year I want to give some references about z/VSE and the time change that will come in March. E.g, for US the change to Daylight Saving Time (DST) is Sunday, March 10, 2019, for Germany March 31, 2019. The clock is turned forward one hour at 2 a.m.

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however. A local time change backwards could affect subsystems and accounting routines more severely. Therefore I recommend to IPL the z/VSE system for any time changes.

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

There is also:

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#).
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

... and we just uploaded a technical article about Daylight Saving Time (DST) change with z/VSE - [here](#).

Tags: ipl, tips, cics, vse, dst, time, daylight_saving_time

z/VSE IPL delayed because of larger memory (2019-02-05)

Newer processors get more and more processor memory (real storage or processor storage). That is your virtual storage may fit into memory. You can use the NOPDS option in the IPL Supervisor parameter command and get rid of the definition for the page dataset. So you can avoid paging or, if running in a z/VM guest, let z/VM do the memory management.

The larger the memory in the LPAR or z/VM guest is the more CPU time is required during IPL to validate and clear all available page frames. This is especially visible for LPARs with low capacity settings (e.g. the A01 models) or low capping values (weights).

To avoid IPL delays because of larger memory, only define the memory to the LPAR or z/VM guest (DEFINE STORAGE) as required by the z/VSE system = the maximum virtual storage size that is required to run the z/VSE workload.

The maximum supported memory (real storage) in z/VSE is 32 GB. z/VSE supports up to 90 GB virtual storage.

Tags: vse, storage, real, ipl, memory, processor

z/VSE Console commands: LOCATE and SHOW (2019-02-04)

Today I have two Attention Routine (console) commands that may be useful - LOCATE and SHOW. These commands are described in the z/VSE Supervisor Diagnosis Reference Manual (DRM). The Supervisor DRM provides insight into the z/VSE architecture. You can download DRMs from [here](#).

LOCATE command:

The LOCATE command scans the virtual storage for the next occurrence of either a character-, or a hexadecimal-character string whereby parts of the string may be unknown. The total string is limited to 16 characters or 32-hex digits.

SHOW command:

The SHOW command displays a defined number of bytes from a given address in the specified space on the operator console. The virtual address as well as its related real address, if applicable, will be displayed on the console.

Tags: show, attention_routine, console, locate, vse, ar, command

International Linux on IBM Z and IBM LinuxONE Workshop (2019-02-01)

An International Linux on IBM Z and IBM LinuxONE Workshop is scheduled for **March 19 - 20, 2019**.

Location: IBM Lab in Boeblingen, Germany.

The workshop will provide the latest facts on the Linux exploitation and advantages of the IBM z14 platform, and new solutions and capabilities will be explained, such as Crypto, Containers, Microservices and effective networking and virtualization.

In this technical-oriented workshop you have the chance to interact directly with IBM developers and solution experts about the exploitation of Linux on Z and LinuxONE.

More details and the registration page are [here](#).

Have a good weekend.

Tags: linux, linuxone, workshop, vse

2019 conferences with z/VSE sessions (2019-01-31)

This year we have again some conferences with z/VSE sessions. Please let me know, if you have topics, that we should address.

The first conference this year for z/VSE is the German GSE meeting:

March 25 - 27, 2019 - Frühjahrstagung 2019 für z/VSE, z/VM, KVM und Linux auf IBM Z in Bremen, Germany. The registration link is [here](#).

The next conferences are planned as follows:

May 20 - 24, 2019 - IBM Systems Technical University (TechU) in Berlin, Germany. More information is [here](#).

June 27 - 29, 2019 - VM Workshop 2019 with a full z/VSE track in Richmond, VA, USA. The registration link is [here](#).

October 2019 - 13th European GSE / IBM TU für z/VSE, z/VM, KVM and Linux on IBM Z. Registration is not yet open. I will keep you informed, when I have more.

Tags: conference, vse, zuniversity, technical, gse, vm_workshop

z/VSE service news: RSLs are available (2019-01-30)

New Recommended Service Levels (RSLs) are available for z/VSE 6.1 and z/VSE 6.2. The RSL cutoff was January 10, 2019.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: ptf, apar, rsl, support, vse, service

Next blog entry on January 30, 2019 (2019-01-26)

I plan my next blog entry on Wednesday next week.

Have a good weekend.

How to change the size of the Library Control Table (LOT) (2019-01-24)

In 2016 there was some discussion on VSE-L about the Library Control Tables (LCTs), especially message

L159D - LIBRARY CONTROL TABLE <table id> OVERFLOW.

See z/VSE Messages and Codes Volume 1 for the message explanation.

Table id can be

- LOT - Library Offset Table
- LDT - Library Definition Table
- SDT - Sublibrary Definition Table
- EDT - Extent Definition Table
- DDT - Device Definition Table

A LOT contains the library chains established by a LIBDEF command or a LIBR ACCESS statement. The LDT and SDT keep the definitions of all libraries and sublibraries. Each LDT entry points to EDT entries, which describe the physical location of the library extents on disk. Each EDT entry points to a DDT, that describes the device.

If you receive message L159D, there is no free Library Control Table (e.g. LOT) entry available to add e.g. a new sublibrary or LIBDEF statement to a given LCT. Dependent on your response, the job may be cancelled.

You can increase the number of sublibraries (LCT entries) with the IPL SYS SUBLIB command or by increasing the number of partitions (IPL SYS NPARTS command), because there is a default number of entries per partition. If you don't need the additional partitions, the Library Control Table entries can be used to resolve the overflow issue.

With z/VSE 6.2 we added a new IPL SYS SUBLIB parameter to specify how many LIBDEF statements can be active in parallel in the z/VSE system.

More details are described in the z/VSE 6.2 System Control Statements.

You get the number of active Library Control Table entries via the SIR LIBR console command.

You can download the z/VSE Messages and Codes and z/VSE 6.2 System Control Statements books from [here](#).

Tags: library, lot, sublibrary, message, vse, libr

How to stop long running re-display ? (2019-01-23)

Today I have a tip related to z/VSE's console support. On the console you may use PF7 (RED) to re-display earlier messages. It is also possible to specify a filter on the VSE command line, before you press PF7 - such as the partition id (BG, F1, ...) or IPL (to display the IPL messages). z/VSE messages are written to the VSE hardcopy file. If you re-display messages, they are retrieved from the VSE hardcopy file.

Sometimes, when you are searching through the VSE Hardcopy File (by specifying a filter before pressing PF7), it may happen that you already see the expected search results on the screen, but searching continues in the background. This may especially happen with large VSE hardcopy files.

In such a situation you may stop searching by using PF6 (CNCL). All console messages which passed the filter so far are still displayed on the z/VSE console.

But how to continue then ? There are two options:

- Use PF7 and PF8 to scroll through the filtered console messages - or -
- Enter the "ALL" filter in the VSE console command line, put the cursor on the re-display line, where you want to start scrolling through ALL console messages and press PF7 or PF8.

You can find more tips in the z/VSE Hints and Tips book. It can be downloaded [here](#).

Tags: vse, tips, hints, command, console, technical

New webcast tomorrow: End-to-end Encryption of Data at Rest for Linux on Z and LinuxONE (2019-01-22)

The Linux team scheduled a new webcast for tomorrow - January 23, 2019, 10:30 a.m. EST.

Title: End-to-end Encryption of Data at Rest for Linux on Z and LinuxONE

Abstract: End-to-end encryption is the method of choice to protect data stored on a disk. It ensures that the owner of the data also owns the encryption keys and thus controls the access to his or her data once it has left the operating system. Dm-crypt is the most popular method for encrypting Linux disks. Using IBM Z CPACF protected keys with dm-crypt the keys to protect dm-crypt volumes can be protected from being stolen and used outside of the system that generated the keys. This extra level of security is a key feature of Pervasive Encryption. This presentation shows how to use dm-crypt with protected keys, discusses different encryption formats, covers some best practices on using dm-crypt and describes key management using the zkey key repository.

The registration link is [here](#).

Tags: vse, linuxone, webcast, lvc, linux, encryption, live-virtual-class

CICS Explorer client updated and webcast on Wednesday (2019-01-21)

As announced on October 2, 2018, the new CICS Explorer 5.5 client is now available for download. See [announcement letter](#) for details.

The new CICS Explorer client supports connections to the CICS Transaction Server (CICS TS) for z/VSE. You can download the CICS Explorer from [here](#). The CICS Explorer client provides a system management framework for CICS TS.

[Software withdrawal and support discontinuance](#): IBM CICS Explorer V5.3 end of support is planned for April 30, 2020. It is replaced by the CICS Explorer 5.5.

For Wednesday there is a CICS Explorer 5.5 webcast planned, that may be of interest. It is more z/OS related, but will also address general CICS Explorer functionality.

Date: January 23, 2019

Time: 11 a.m. EST

Title: Manage CICS systems with ease: what's new in CICS Explorer 5.5

Abstract: CICS Explorer 5.5 comes with a wealth of new features and usability improvements that make it the best place to manage your CICS regions. In this webinar we'll show these to you, offer hints and tips for your workflow, and answer your questions.

The registration page is [here](#).

Tags: support, end-of-service, cics, explorer, update, vse, announcement, webcast

Next blog entry on Monday, January 21, 2019 (2019-01-18)

I am not in the office today. Therefore you will see my next blog entry on Monday.

Have a good weekend.

z/VSE service news: TCP/IP, IUI, CICS APARs (2019-01-17)

There are a few new APARs / PTFs available.

The most important APAR is the IBM TCP/IP for z/VSE 2.2 update to the 2.2.5 level.

IBM TCP/IP for z/VSE 2.2 is only supported on z/VSE 6.2. I recommend to upgrade to this level.

IBM TCP/IP for z/VSE 2.2

APAR [PH05864](#) (PTF UI60088): TCP/IP FOR Z/VSE V2.2 SERVICE PACK 2.2.5

Error description: TCP/IP FOR Z/VSE V2.2 SERVICE PACK 2.2.5. The following zaps are provided:

ZP224132 ZP224133 ZP224134 ZP224135 ZP224136 ZP224137 ZP224138
ZP224139 ZP224140 ZP224141 ZP224142 ZP224143 ZP224144 ZP224145
ZP224146 ZP224147 ZP224148 ZP224149 ZP224150 ZP224151 ZP224152

Please see the APAR information for more details - or the [CSI service web page](#). IBM APAR column indicates zaps included into APAR PH05864.

z/VSE Interactive User Interface (IUI)

APAR [PH03452](#) (PTF UI60044): Invalid message "uid already exists" when ESM is active

Error description: When an external security manager is used, adding a user with the dialog Maintain User Profile will result in message " uid already exists as BSM group name ". Userid will not be added.

CICS TS for z/VSE 2.2

APAR [PH03378](#) (PTF UI60276): Various problems after a CICS restart, for example, a DFHTS1310 CICS abend

Error description: Changes made in CICS TS for z/VSE 2.2 resulted in errors when reading the CICS Global Catalog (DFHCCCCM calls) during a warm or emergency restart. This problem can manifest with various symptoms such as resulting in message DFHTS1310 being issued during CICS startup. It can also lead to DL/I message DLZ004I followed by message DLZ141I. Other errors

during a warm or emergency restart could occur when reading back from the CICS global catalog.

Please see the [Fix list for CICS TS for z/VSE 2.2](#) for more APAR related information.

I can't add the URLs for the TCP/IP and IUI APAR now. They will be added later.

Tags: ptf, vse, cics, tcpip, support, news, iui, apar, service

New webcast: Pervasive Encryption with Linux on IBM Z: from a performance perspective *today*** (2019-01-16)**

Happy New Year !

As promised you get my first blog entry for this year today. I hope, you had a good start into 2019.

Today I inform you about a Linux on IBM Z webcast. **It is planned for today.**

Title: Pervasive Encryption with Linux on IBM Z: from a performance perspective

Date / Time: January 16, 2019, 11:00 AM EST

Abstract: From its first announcement, the IBM z14 has been labeled as "the encryption machine"-enabling customers encrypting massive amounts of data at a low cost. This talk gives a detailed performance overview of the Pervasive Encryption concept within Linux. The audience will get insights about the performance improvements compared to the former IBM z13 for data-in-flight, data-at-rest and the encryption overhead we get in an end-to-end scenario including a PostgreSQL database.

The details and registration link is [here](#).

Tags: linux, webcast, live-virtual-class, vse, lvc

Happy New Year - next blog entry on January 16, 2019 (2019-01-04)

I wish you a happy, healthy and successful New Year.

I plan my next blog entry on January 16.

Tags: vse

Merry Christmas - next blog entry on January 16, 2019 (2018-12-19)

This is my 1157th blog entry since I started in February 2013. In 2018 I had more than 170 entries.

Today's entry will be my last one for this year. You can expect my next blog entry on January 16, 2019.

I wish you and your families a Merry Christmas and a happy, successful and healthy New Year.

Introduction to the mainframe (and z/VSE) (2018-12-18)

Yesterday when I browsed through the IBM Redbooks publications, I noticed the z/OS Introduction video course.

The first two lectures may be also of interest for z/VSE users, new to the mainframe. It's more high end related, however most applies to z/VSE too. The video course is [here](#).

If you want to get a more z/VSE related introduction, you can use the IBM Redbook "Introduction to the New Mainframe: IBM z/VSE Basics". The link to the download is [here](#).

Tags: vse, basics, video, mainframe, zos, redbook, course

New IBM Redpaper: Introducing the IBM DS8882F Rack Mounted Storage System (2018-12-17)

There is a new IBM Redpaper available, that might be of interest for z14 ZR1 users.

Title: Introducing the IBM DS8882F Rack Mounted Storage System

Abstract: This IBM Redpaper presents and positions the DS8882F.

The DS8882F adds a modular rack-mountable enterprise storage system to the DS8880 family of all-flash enterprise storage systems.

The modular system can be integrated into 16U contiguous space of an existing IBM z14 Model ZR1 (z14 Model ZR1), IBM LinuxONE Rockhopper II (z14 Model LR1), or other standard 19-inch wide rack.

The DS8882F allows you to take advantage of the performance boost of DS8880 all-flash enterprise systems and advanced features while limiting datacenter footprint and power infrastructure requirements.

The link for the download is [here](#).

Tags: redpaper, redbook, vse, storage, z14

Next blog entry on December 17, 2018 (2018-12-13)

I plan my next blog entry for Monday.

Have a good weekend.

Tags: vse

z/VSE service news: AF and CICS APARs (2018-12-12)

Today I want to inform you about new VSE/AF and CICS TS APARs / PTFs.

VSE/AF

z/VSE 6.2 APAR [DY47806](#) (PTF UD54348): HARDWAIT FFB MAY OCCUR IF ZHPF HAS BEEN ENABLED

Error description: When zHPF has been enabled by SYSDEF SYSTEM,ZHPF=START, rare condition may cause page fault in IJBZHPF routine, which leads to HardWait FFB.

CICS TS for z/VSE

CICS TS for z/VSE 2.2 APAR [PI98131](#) (PTF UI59836): DFHCA5142 E COMMAND NOT EXECUTED.

Error description: Even though the VERIFY command is executed, you still receive these error messages when you running a DFHCSDUP COPY GROUP or DELETE G command.

DFHCA5142 E COMMAND NOT EXECUTED. xxxxxx WAS NOT UPDATED

BECAUSE OF A PREVIOUS UPDATE FAILURE.

DFHCA5103 I ERROR(S) OCCURRED WHILE PROCESSING DELETE COMMAND.

DFHCA5104 W SUBSEQUENT COMMANDS (EXCEPT LIST) ARE NOT EXECUTED

BECAUSE OF ERROR(S) ABOVE.

Additional Symptom(s) Search Keyword(s): msgDFHCA5142, msgDFHCA5103 I, KIXREVSJH

Additional APARs are listed in the fix list for [CICS TS for z/VSE 2.1](#) and [CICS TS for z/VSE 2.2](#).

APAR information for z/VSE components and products are listed on the Corrective Service page [here](#).

Tags: vse, cics, apar, af, service, support, ptf

How to include TCP/IP messages into the online message file (2018-12-11)

z/VSE installations come with an Online Message Explanation (OME) file. So you can retrieve the message explanation on your console, if you place the cursor at the start of the message number and press PF9. The OME file does not include TCP/IP for z/VSE messages. You may add those by updating the OME as follows:

TCP/IP for z/VSE provides a job named IPNOME in sublibrary PRD2.TCPIPC.

You just need to run a job as listed below:

```
* $$ JOB JNM=IPNOME,DISP=D,CLASS=0

// JOB IPNOME UPDATE THE OME WITH TCP/IP MESSAGES

* $$ SLI MEM=IPNOME.Z,S=PRD2.TCPIPC

/*

/&

* $$ EOJ
```

You can find such tips in the z/VSE Hints & Tips book and download it - [here](#).

Tags: ome, vse, message, tcpip

Doc Buddy updated (2018-12-10)

IBM Doc Buddy, a mobile app for iOS and Android devices, is now available since end of last year. I had several blog entries about this tool in between.

You can search messages and codes and product related information issued for IBM Z products online and offline. Doc Buddy is available in the corresponding app stores.

A new update was just released. More information is on the Doc Buddy web page - [here](#).

Tags: documentation, doc-buddy, tools, vse, message

Next blog entry on December 10, 2018 (2018-12-05)

I plan my next blog entry for Monday.

I know it is early:

Have a good weekend.

IBM z14 enhancements available (2018-12-04)

As announced on October 2, 2018 enhancements to the z14 servers are now available.

See details in the related announcement letter - [here](#).

Tags: announcement, enhancements, z14, vse, availability

How to find the IBM Z processor LSPR ratings (2018-12-03)

The IBM Large System Performance Reference (LSPR) ratios represent IBM's assessment of relative processor capacity in an unconstrained environment for the specific benchmark workloads and system control programs specified in the tables.

For more details please see [this web page](#).

The tables show the MSUs (million service units) and PCIs (Processor Capacity Index) for the IBM Z processor capacity settings based on z/OS 2.2 workloads.

The MSUs describe the processor usage measured for a workload and are the base for e.g. sub-capacity pricing.

The table with the MSU / PCI values is [here](#).

Tags: msu, pci, performance, vse, lspr

Do you use DITTO as a CICS transaction ? (2018-11-30)

"DITTO" is an abbreviation for "Data Interfile Transfer, Testing and Operations Utility". It is a general-purpose utility program and can scan, display, list, alter, and create files or parts of files on card, tape, disk, ... devices.

You can run DITTO on z/OS, z/VM and z/VSE. In z/VSE DITTO is available as batch program and CICS transaction.

DITTO as a CICS transactions provides a 3270 full screen utility, that you can use from the z/VSE IUI user. Just press PF6 on the IUI "z/VSE Function Selection" panel. Now you have a CICS terminal and can enter the CICS transaction name "DITT" (or DITTO).

DITT (Online Ditto) starts a dynamic partition to provide the interfaces required by the functions you are using on your CICS screen. The DITT performance therefore depends on the priority of that partition and the workload of higher priority partitions.

At first the DITTO Task Selection Menu is displayed and you can use many DITTO function in full screen mode. Some function are also available in the IUI selection panels. Be careful when you change data.

Process View Options Help

.....
DITTO/ESA for VSE Task Selection Menu

Select the desired task or enter a DITTO function code, then press Enter.
Press F2 (Menu) to display the menu panel with DITTO function groups.

- _____ 1. Browse data
- 2. Edit or update data
- 3. Work with VTOC or label area
- 4. Work with VSAM catalog
- 5. Work with VSE libraries
- 6. Print data
- 7. Copy data
- 8. Locate data
- 9. Change data
- 10. Create data
- 11. Position a tape
- 12. Tape specific functions

13. Set processing options

For details please see the DITTO User's Guide and Reference. It is locate in the IBM Publication Center - [here](#).

DITTO comes with the z/VSE base tape / image.

Have a good weekend.

Tags: library, utilities, vse, ditto, ditt, transaction, cics, file

How to resolve a problem that might occur, if you apply a HLASM PTF (2018-11-29)

On November 7 I described [How to get PTFs received from Shopz to z/VSE](#). Today I want to add how to get around a problem that might happen, if you apply a High Level Assembler (HLASM) PTF.

If you use the z/VSE IUI dialog to apply PTFs: 1 Installation - 4 IBM Service - 2 PTF Handling - Apply PTFs and submit the prepared job, the job consists of several job steps. If you create that job to apply High Level Assembler (HLASM) PTFs containing I-books, the job step DTRPTF05 may fail with:

```
OS03I PROGRAM CHECK INTERRUPTION - HEX LOCATION xxxxxxxx -
```

```
INTERRUPTION CODE 04 - PROTECTION EXCEPTION
```

```
OS00I JOB DTRPTF05 CANCELED
```

In DTRPTF05 the HLASM is used to catalog I-book members into an ICCF library. If HLASM phases are in the SVA, the usage of HLASM prior to reloading the phases into the SVA may suffer from inconsistencies.

To solve this problem perform the following steps:

1) Reply EXIT to job step DTRPTFAB to exit PTF application.

2) Resolve the inconsistency by

a) Reloading the HLASM phase into the SVA

Run in partition BG

```
// SET SDL
```

```
LIST=$SVAASMA
```

```
/*
```

b) Or IPL the system

3) Release job DTRPTFAB

4) Answer RESUME to start the job DTRPTF05 again.

This is also described in the z/VSE 6.2 Hints & Tips book. You can download it from the z/VSE Knowledge Center - [here](#).

Tags: support, iui, apar, vse, ptf, service, hlasm, assembler

z/VSE service news: VSE/AF, Connector, CICS, TCP/IP APARs (2018-11-28)

There are few new APARs / PTFs available.

VSE/AF

z/VSE 6.2 APAR [DY47791](#) (PTF UD54346): HARD COPY FILE IN OVERLAY MODE WITHOUT PRIOR WARNING MESSAGE 0D20E HARD COPY FILE SHOULD BE PRINTED

z/VSE 6.1 APAR [DY47790](#) (PTF UD54331)

z/VSE 5.2 APAR [DY47780](#) (PTF UD54319)

Error description: The hard copy file (HCF) becomes full and the system starts overwriting the oldest recorded information, causing message 0D25E HARD COPY FILE IN OVERLAY MODE to be issued, without prior issuing of the warning message 0D20E HARD COPY FILE SHOULD BE PRINTED.

The z/VSE 5.2 APAR is included in the [z/VSE 5.2 Recommended Service Level \(RSL\)](#) I mentioned yesterday.

z/VSE 5.2 service ended October 31, 2018.

z/VSE Connectors

z/VSE 6.2 APAR [PH03958](#) (PTF UI59097): Z/VSE AS REST CLIENT FAILS TO PASS RECEIVED COOKIES TO THE CALLER

Error description: z/VSE as a REST client fails to pass cookies received via Set-Cookie HTTP headers to the caller in the TS-queue name specified in field RespCookiesTSQ.

TCP/IP for VSE/ESA 1.5F

APAR [PH03838](#) (PTF UI59259): APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F.

Error description

APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F. ZP15F151
ZP15F152 ZP15F155 ZP15F184 ZP15F274 ZP15F319 ZP15F322 ZP15F348

ZP15F385 ZP15F395 ZP15F399 ZP15F411 ZP15F412 ZP15F421 ZP15F422
ZP15F423

For more information please see the APAR description.

TCP/IP for VSE/ESA 1.5F is end of service since October 31, 2018. This is the last APAR for this release and is included in the [z/VSE 5.2 Recommended Service Level \(RSL\)](#) I mentioned yesterday.

For CICS TS APARs please see the Fix List for the [CICS TS for VSE/ESA 1.1.1](#), [CICS TS for z/VSE 2.1](#), and [CICS TS for z/VSE 2.2](#).

You can find links for the this information on the z/VSE corrective service webpage - [here](#).

Tags: ptf, apar, service, support, vse

z/VSE 5.2 service news: Final RSL available (2018-11-27)

We prepared a last Recommended Service Levels (RSLs) for z/VSE 5.2, that lists all relevant PTFs. As you know from my z/VSE 5.2 posts, z/VSE 5.2 service ended October 31, 2018. Therefore the cutoff date of this z/VSE 5.2 RLS was October 31, 2018.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

If you are still on z/VSE 5.2, please upgrade your systems to this RSLs to keep your z/VSE current.

Tags: `apar, rsl, service, ptf, support, vse`

New Webcast: Accelerate Networking with Shared Memory Communications for Linux on IBM Z (2018-11-26)

A new Linux on IBM Z webcast is scheduled for November 28, 2018 - 11 AM EST.

Title: Accelerate Networking with Shared Memory Communications for Linux on IBM Z

Abstract: Overview of SMC technology for Linux on Z. Includes technical concepts, current status in Linux distributions, considerations for deployment, interoperability with z/OS and an outlook on upcoming features.

The details and registration link are [here](#).

Tags: linux, vse, communication, networking, webcast

Next blog entry on November 26, 2018 (2018-11-21)

There are holidays in some countries until the end of the week. Therefore I will take the time to work on z/VSE topics.

You will see my next blog entry on Monday.

Enjoy your vacation and / or have a good weekend.

For my readers in the US: Enjoy Thanks Giving.

Tags: vse

Linux on IBM Z: new publication (2018-11-20)

The Linux on Z team release new publications. The links are in the Linux on Z Knowledge Center.

The publication is listed below:

- [Documentation for Ubuntu Server 18.04 LTS](#)
- [Exploiting Enterprise PKCS #11 using openCryptoki](#)
- [Running Docker Containers on IBM Z](#)
- [Pervasive Encryption for Data Volumes](#)

Tags: encryption, linux, security, ubuntu, vse, publication, documentation, linuxone

z/VSE: Waiting for locked resource (X'8E') (2018-11-19)

Last Friday Jeff had a question about the z/VSE Lock Manager on VSE-L.

The STATUS command showed "M0052 N5 TCS006R 8E WAITING FOR LOCKED RESOURCE USED BY N7". He wanted to know the resource name and got good tips from the VSE community.

If the task is in bound condition X'8E', you can get the locked resource from TIBSTATE.

TIBSTATE holds

- The address of the LOCKTAB entry, that contains the resource and current owner(s) - or
- X'0000000C if task waits for the lock system task (= task id 0C) to complete. This is the case when the lock manager retries for external locking. The resource can be found via register 1 in the user save area. Registers start at offset X'10' in the user save area (starting with lower half 4 byte of register 9 to register 8)..

The TIBSTATE is at offset 4 of the Task Information Block (TIB). STATUS N5 shows the status of all tasks in partition N5 including their TIB and save area addresses. You may need to adjust the address in TIBSTATE. The low order bit may be on, which indicates, that the task wants to have the resource exclusively.

LOCKTAB and OWNER elements are Lock Manager control blocks, that describe the locked resource and owning task(s).

The resource name is at offset 8 of the LOCKTAB entry. The address to the (first) OWNER element is at offset 0. The OWNER element has the owning task id at offset 4. The address of the next OWNER element, if any, is at offset 0.

More information about z/VSE's Lock Manager is in the z/VSE Supervisor Diagnosis Reference and z/VSE Hints & Tips books. You can download these books from the z/VSE Technical Articles and Whitepapers - [here](#).

In these books you can find information about the LOCK SHOW and LOCK TRACE console commands as well as the lock file (and lock file error) too. See also my blog post about lock file error - [here](#).

You can select more information about the z/VSE Lock Manager in this blog, if you use the tag lock in "Find a Tag".

Tags: status, lock_manager, vse, tibstate, locktab, lock

Linux on IBM Z: Pervasive Encryption for Data Volumes (2018-11-16)

In the Linux for IBM Systems Knowledge Center there is a new section, that addresses "Pervasive Encryption for Data Volumes".

A new document describes an infrastructure for protected volume encryption which provides end-to-end protection for data at rest for Linux on Z and LinuxONE.

The "Pervasive Encryption for Data Volumes" page, some more information and the link to the document is [here](#).

Have a good weekend.

Tags: vse, data, linuxone, linux, volume, security, kc, encryption, knowledge_center

How to get the z/VSE status and supported hardware (2018-11-15)

I am often asked about the support of z/VSE releases and which hardware is supported by release.

I had such a blog entry two years ago. But because the web pages changed, I bring that up again today.

We have status PDF files, where we show the GA, the end of marketing and end of service dates as well as links to the announcements for supported and unsupported releases.

These files also list supported hardware and what you need to consider, such as processors, network / I/O / Crypto cards, IBM Storage (ECKD / SCSI disks, tape, controller, virtual tape server, ...).

You can download the PDFs for the "Hardware and release status" from the "Resources" page - [here](#).

Tags: storage, status, vse, end-of-service, end-of-marketing, eom, processor, eos, device

z/VSE Standalone Dump priorities (2018-11-14)

If you have a system failure, e.g. hard- or softwait, you may take a standalone dump (SADUMP) to tape or disk. The standalone dump program dumps the system areas and the active partitions in a predefined order. If the dump of all data does not fit to the tape or disk, it does stop writing dump files. So it could be that important dump areas / partitions are not written.

Therefore you can define the SADUMP priority for each partition, data space or memory object. That is to give those areas a high priority, that are most important for your workload. So you can ensure a high probability, that those areas are included on the dump medium.

You can use the QUERY OPTION,<SYSLOG id> to display the SADUMP priority of a specific partition on the console. E.g. after you installed z/VSE: BG has a priority of 0, F1 and F2 have a priority of 5, which means that F1 and F2 are

most likely included, BG only, if there is enough space available - depends of the space on tape or disk.

The SADUMP priority can be defined with the VSE Job Control option // OPTION SADUMP= or // STDOPT SADUMP= for the partition address and data space and memory objects.

You can exclude shared memory objects via // STDOPT SADMPSMO=NO

The QUERY and OPTIONs commands are described in the z/VSE Job Control Statement. You can download this book from the [z/VSE Knowledge Center](#). The link to the PDF Library is on your right.

The z/VSE ASI procedure or dynamic partition profile may include an OPTION statement, e.g. \$1JCL.PROC, \$2JCL.PROC, includes // OPTION SADUMP=5. You may add or change the priority there, use the corresponding skeleton in ICCF library 59 or include the OPTION statement into your VSE job.

Tags: option, query, vse, job, priority, standard_option, job_control, dump, stand-alone_dump, sdopt, sadump

z/VSE requirement for password length (2018-11-13)

Just recently we got a requirement (Request for Enhancement - RFE) for the IUI "z/VSE sign-on with new password" panel.

The RFE 126365 is [here](#).

The customer changed the password rules to a required password length of eight characters for new passwords. A length of eight is the maximum possible password length for z/VSE and CICS TS for z/VSE. The panel text shows a length of 3-8 characters as a description of the password input field. You may use the z/VSE LDAP support, if you want to use larger userids and passwords.

The RFE asks to adapt the description to the Basic Security Manager (BSM) password rules. This is already available, if you define the length with the BSM tool (BSTADMIN). Therefore we will close the requirement as available.

My colleague Elke describes how to get the requested results for BSM. Thanks, Elke.

You can set password rules with the BSTADMIN tool. For example if you only want to allow passwords with a length of 7 or 8, you can set it via

```
0 // EXEC BSTADMIN
```

```
0 pf password length(7) perform command
```

```
0 end
```

on the system console or a batch job.

In two dialogs is the minimum password length relevant.

- 1) The sign-on dialog, where the user can change his own password
- 2) The Maintain User Profiles dialog, where the administrator defines users and passwords.

1) The **sign-on dialog** reflects the actual (changed) minimum password length, it is displayed in the panel and in the message.

```
IESADMSO2      z/VSE SIGN-ON WITH NEW PASSWORD
```

Enter your new password in both places below then enter your current password for sign-on verification.

Then press the ENTER key.

NEW PASSWORD ==> 7 - 8 characters

NEW PASSWORD ==> Re-Enter new password for verification

OLD PASSWORD ==> Current password

PF1=HELP 3=END

PASSWORD MUST BE A MINIMUM OF 7 CHARACTERS.

2) The **Maintain user profiles dialog** (2-1-1) does not reflect the actual value, but always displays the default minimum password length of 3.

We assume, the administrator can live with that restriction, because administrators should know BSM requirements.

IESADMUPBA ADD OR CHANGE USER PROFILE

BASE II CICS RESCLASS ICCF

To CHANGE, alter any of the entries except the userid.

USERID..... USER 4 - 8 characters (4 characters for ICCF user)

INITIAL PASSWORD... 3 - 8 characters

DAYS..... 000 0-365 Number of days before password expires

REVOKE DATE..... Date when Userid will be revoked (mm/dd/yy)

USER TYPE..... 1 1=Administrator, 2=Programmer, 3=General

AUDITOR..... 1 1=yes, 2=no

INITIAL NAME..... IESEADM Initial function performed at signon

NAME TYPE..... 2 1=Application, 2=Selection Panel

SYNONYM MODEL..... _____ Userid to be used as model for synonyms

PROGRAMMER NAME.... Supplementary user name

PF1=HELP 3=END 5=UPDATE

 8=FORWARD

PASSWORD MUST BE A MINIMUM OF 3 CHARACTERS.

BSTADMIN commands are described in the z/VSE Administration book. You can download it from the [z/VSE Knowledge Center](#), see PDF library on your right for the selected z/VSE release.

Tags: rule, length, panel, password, requirements, dialog, administration, security, rfe, bstadmin, vse

Where to find z/VSE documentation (2018-11-12)

Last week there was a discussion on VSE-L about z/VSE documentation.

Since some time the z/VSE web pages changed and we moved all z/VSE books to the IBM Knowledge Center (KC).

In the Knowledge Center there are sections for current releases - (z/VSE 5.2), z/VSE 6.1 and z/VSE 6.2.

On the release welcome pages you can find links to all relevant z/VSE documentation. The link to z/VSE books is on the right of the welcome page - see "PDF Library".

We also added VTAM books.

That is you just need to bookmark one URL to get to z/VSE documentation, the [z/VSE Knowledge Center URL](#).

From there you can "Select" release level.

Please let me know, if there are any books / documentation missing. Thanks in advance.

Tags: documentation, vse, pdf, knowledge_center, book

Next blog entry on November 12, 2018 (2018-11-08)

Today I had a longer education session with new z/VSE team members and have some more work to do tomorrow.

Therefore you will see my next blog entry on Monday

Have a good weekend.

How to get PTFs received from Shopz to z/VSE (2018-11-07)

Since June z/VSE products and PTFs are no longer delivered on tape, if you order them via IBM Shopz. Your order will be provided on DVD or over the internet.

A PTF shipment consists of a readme, cover letter file and PTF file. The PTF file contains ordered PTFs. The PTF file needs to be transferred to z/VSE. It is recommended to transfer it to a pre-defined VSE(VSAM file called IJSYSPF (PTF.FILE) or access it via the z/VSE remote Virtual Tape Support. This file is used by the PTF application dialog (1 Installation -> 4 IBM Service -> 2 PTF Handling).

You have several options to transfer the PTF file to z/VSE.

- TCP/IP FTP
- z/VSE Virtual Tape Support
- IND\$FILE file transfer
- Apply the PTF file from tape, e.g. transfer PTF file to a z/VSE library and use the DITTO program to write it to tape.

The document "How to apply PTFs from the Internet" describes the options and gives some tips. You can download it from the "z/VSE Technical Article and Whitepapers" web page - see the "Service and Support" section.

Some information is also provided in the "Hints and Tips for z/VSE 6.2" book on the same web page - [here](#).

Tags: hints, application, service, vse, tips, article, technical, ptf, shopz

New IBM Storwize disk announcements (2018-11-06)

Today IBM made some announcements for the Storwize disks:

- [IBM Storwize V5000 and V7000 utility models deliver new drive options and increased upgrade capabilities](#)
- [IBM Storwize V7000 delivers improved performance with NVMe-based storage system](#)

z/VSE may use the Storwize disks as SCSI devices. See also my blog entry related to SCSI devices with some links to z/VSE's SCSI support - [here](#).

Tags: storwize, vse, scsi, disk, announcement

Next blog entry on November 6, 2018 (2018-11-01)

We have a public holiday today and I will take a long weekend.

Therefore you will see my next blog entry on November 6.

Have a good weekend.

Tags: vse

z/VSE 5.2 service ends today (2018-10-31)

z/VSE 5.2 service ends today as announced on February 7, 2017. See my blog entry - [here](#).

With the z/VSE 5.2 end of service (eos) the service for the following products ends. Replacements are available in z/VSE Version 6.

- IBM CICS Transaction Server for VSE/ESA 1.1.1 - 5648-054
- IBM TCP/IP for VSE/ESA 1.5.0 - 5686-A04 (IBM TCP/IP for VSE/ESA 1.5F)
- IBM z/VSE 5.2.0 - 5609-ZV5
- IBM z/VSE Central Functions 9.2.0 - 5686-CF9
- IBM IPv6/VSE 1.1.0 - 5686-BS1

Please migrate to z/VSE Version 6, if you want to stay in a supported environment. I recommend to migrate to z/VSE 6.2, if your processor permits. z/VSE 6.2 can run on z114 / z196 processors or later. z/VSE 6.1 runs on z10 or later, but the end of service is planned for June 30, 2019, which isn't too far away.

Tags: eos, end-of-service, service, support, vse

Updated IBM Security Key Lifecycle Manager (SKLM) (2018-10-30)

Today IBM announced an update of the IBM Security Key Lifecycle Manager (SKLM).

You may need this product, if you use the IBM System Storage TS1140 tape drives with drive-based data encryption to protect your data.

The announcement letter is [here](#).

The product page is [here](#).

The SKLM provides the Key Encryption Key Labels (KEKLs) required for the z/VSE Job Control KEKL statement.

A job running on z/VSE can issue a request to encrypt the data to be stored on tape. This request is initiated using the appropriate mode setting in the Job Control ASSGN statement and the Job Control KEKL statement.

See also my blog entry from March 2015 - [here](#).

Tags: key, lifecycle, encryption, tape, vse, announcement, security, kekl

How to measure z/VSE I/O performance ? (2018-10-29)

There are several ways to measure the I/O performance of your z/VSE workload. The best tools are provided by performance monitor products from z/VSE vendors.

Just for getting some information about the I/O behavior of your system, you may use the SIR command.

With the SIR console (Attention Routine = AR) command you can get some characteristics of your workload, such as z/VSE supervisor call usage (SIR MON command) and I/O data.

You can retrieve I/O data with the SIR SMF command. The data comes from the Subsystem Measurement Facility of you IBM Z processor or the I/O Supervisor.

The SIR SMF output might help to identify the cause of I/O performance problems. We recommend to activate SIR SMF for a shorter time period to avoid the overflow of I/O counters. You can activate the I/O measurement with SIR MON=ON and stop measurement with SIR SMF=OFF. With SIR SMF you can display the counters as long as the I/O measurement is active.

Before you start a measurement period, activate SIR SMF.

The SIR SMF output displays the I/O count, the queued, connect, disconnect and total I/O time in milliseconds per start subchannel (I/O).

You can get the output for all disk devices or a specific one (SIR SMF=<cuu> or SIR SMF,<cuu>).

If you have Parallel Access Volume (PAV) devices and PAV is activated (SYSDEF SYSTEM,PAV=START), you will see the I/O counters for the base and alias devices too. With z/VSE 6.2 you may also retrieve the zHPF (high performance FICON) counters, if zHPF is activated (SYSDEF SYSTEM,ZHPF=START).

You can find a more detailed description with examples in the Hints and Tips for z/VSE 6.2 book. You can download that book [here](#).

Tags: vse, command, sir, smf, io, performance

z/VSE 6.2: JSON support, REST and SOAP engine (2018-10-26)

With z/VSE 6.2 we enhanced our existing web services based on the SOAP (Simple Object Access Protocol) engine and added a new kind of web service based on the REST (Representational State Transfer) engine.

The **z/VSE SOAP engine** now allows the transfer of large amounts of data to better meet the needs of CICS applications with growing data.

CICS programs utilizing the z/VSE SOAP Engine are currently restricted by the COMMAREA and its 32K limitation. z/VSE 6.2 exploits the CICS Channels and Containers API for the SOAP Engine, which allows to transfer larger amounts of data.

The COMMAREA interface is still available.

REST is a software architecture style consisting of guidelines and best practices for creating web services. REST has gained widespread acceptance across the web as a simpler alternative to, for example, SOAP-based web services. RESTful systems typically communicate over the Hypertext Transfer Protocol (HTTP), using **JavaScript Object Notation (JSON)** or XML for the payload. z/VSE provides a REST Engine that allows clients to provide RESTful web services running in a CICS environment. The REST Engine can also be used to develop CICS applications that consume RESTful web services that are hosted outside of z/VSE. The REST Engine supports various payload types including JSON and XML.

See the z/VSE 6.2 e-business Connectors User's Guide for details - [here](#).

Do you use or plan to use the new web service capabilities of z/VSE 6.2 ? If so, for what kind of applications / solutions would you implement them ?

I am looking forward to your feedback.

Have a good weekend.

Tags: soap, engine, vse, rest, web_service, connector

Next blog entry on October 26, 2018 (2018-10-22)

I am at the GSE conference in Dresden, Germany this week.

Therefore you will see my next blog entry on Friday.

Some more updates for IBM Z Redbooks (2018-10-19)

Today I have some more IBM Redbooks that are updated.

[IBM Z Connectivity Handbook](#)

It describes the connectivity options that are available for use within and beyond the data center for the IBM Z family of mainframes - zEC12 / zBC12 up to z14 ZR1.

[IBM Z Functional Matrix](#)

It provides a list of features and functions that are supported on IBM Z, including the z14 - Machine types 3906 and 3907, z13, z13s, zEC12, and zBC12.

[IBM z14 Model ZR1 Technical Introduction](#)

It introduces the latest member of the IBM Z platform, the z14 ZR1 (Machine Type 3907). It includes information about the Z environment and how it helps integrate data and transactions more securely, and provides insight for faster and more accurate business decisions.

[IBM z14 Technical Introduction](#)

It introduces the latest IBM Z platform, the IBM z14. It includes information about the Z environment and how it helps integrate data and transactions more securely, and can infuse insight for faster and more accurate business decisions.

Have a good weekend.

Tags: `ibm_z`, `vse`, `z14`, `redbook`

Updated IBM Redbooks available - IBM Storage (2018-10-18)

There are updated IBM Redbooks / Redpapers available that address the latest IBM Storage functionality.

[DS8000 Global Mirror Best Practices](#)

The document looks at different aspects of the solution in terms of performance, infrastructure requirements, data integrity, business continuity, and impact on production. It also provides hints & tips on how to best configure the hardware.

[DS8000 Copy Services](#)

The Redbook helps you plan, install, tailor, configure, and manage Copy Services on the IBM DS8000 operating in an IBM Z or Open Systems environment.

[IBM DS8880 Architecture and Implementation \(Release 8.5\)](#)

This Redpaper describes the concepts, architecture, and implementation of the IBM DS8880 family. The book provides reference information to assist readers who need to plan for, install, and configure the DS8880 systems.

[IBM DS8880 Product Guide \(Release 8.5\)](#)

This IBM Redbooks Product Guide gives an overview of the features and functions that are available with the IBM DS8880 models running microcode Release 8.5.

Tags: vse, storage, disk, redbook

z/VM 7.1 announcement: revised technical information (2018-10-17)

Yesterday there was a z/VM 7.1 announcement, that included revised technical information for the software announcement on August 7, 2018. This new announcement letter is [here](#).

See also my z/VM 7.1 blog entry - [here](#). z/VM 7.1 is available since September 21, 2018.

Tags: vse, vm, announcement

Linux Webcast: What if even your Linux admin may not know your secrets? (2018-10-16)

The next Linux on IBM Z webcast is planned for tomorrow, **October 17, 2018, 11 am EDT**.

Title:: What if even your Linux admin may not know your secrets?

Abstract: Hardware security modules (HSMs) are tamper proof devices that meant to secure the most valuable secrets of an enterprise. They typically contain a master secret (master key) from which other secrets can be derived. This master secret cannot be extracted from the HSM. The Crypto Express Adapters can be configured in three different modes two of which (CCA and EP11) are HSM modes. Using Crypto Express in either CCA or EP11 modes allows to perform secure key crypto allows to perform crypto graphic operations without ever exposing plain text key material in the system memory. We show how to set up Linux on z to use either CCA or EP11 secure key cryptography, describe the components involved in a secure key solution to either manage the crypto adapter or to perform cryptographic operations. Last but not least, we give an outlook to using protected key cryptography in Linux.

The registration link is [here](#).

z/VSE 6.2 considerations for TCP/IP stacks - part 2 (2018-10-15)

Last week I posted a blog entry that provided some information about the TCP/IP stacks on z/VSE Version 6.

Today I have a bit more information for IBM TCP/IP for z/VSE Version 2 users.

As mentioned last week, the CUSTDEF.PHASE and PRODKEYS.PHASE need to be in the LIBDEF search chain of the TCP/IP startup job.

The CUSTDEF.PHASE holds the customer name and customer number, the PRODKEYS.PHASE the license key you got from the IBM key center.

The customer number of the CUSTDEF.PHASE has to match with the customer number you ordered the product and requested the license key.

Otherwise you will get message IPN110E Product key validation failed for Stack reason=GETKNFNB and the job terminates.

More details are in the z/VSE TCP/IP Support book, Chapter 1. The book is [here](#).

See also part 1 of this subject - [here](#).

Tags: product, installation, customer_number, shopz, key, tcpip, license, vse, product_key

Next blog entry on October 15, 2018 (2018-10-11)

I plan my next blog entry for Monday.

Have a good weekend.

Tags: vse

z/VSE 6.2 considerations for TCP/IP stacks (2018-10-10)

With z/VSE 6.2 (and z/VSE 6.1) you will get new version of IBM TCP/IP for z/VSE - Version 2 - and a new release of IPv6/VSE - 1.3.

TCP/IP license keys only change, if you get to a new version. That is you can still use your IBM IPv6/VSE V1 key. For IBM TCP/IP for z/VSE V2 (and the GPS feature), however, you need to request a new license key from the IBM key center.

If you order z/VSE 6.2 via IBM Shopz, you need to select the TCP/IP product (and other products) too. The TCP/IP cover letter holds the contact information of the key center.

IBM TCP/IP for z/VSE and IBM IPv6/VSE come preinstalled with z/VSE 6.2.

Please run the delete job for the TCP/IP product you don't use. Skeletons are in ICCF library 59 - DELTCPIP for TCP/IP for z/VSE 2.2 and DELIPV6 for IBM IPV6/VSE 1.3.

IBM TCP/IP for z/VSE (and VSE/ESA) is installed in the VSE sublibrary PRD2.TCPIPC.

IBM IPv6/VSE is installed in VSE sublibrary PRD2.TCPIPB.

Please check your LIBDEF statements of your TCP/IP startup job, if they contain the correct product sublibraries. Ensure that CUSTDEF.PHASE and PRODKEYS.PHASE can be found in the sublibraries of the LIBDEF chain in your TCP/IP startup job.

Otherwise you may get the following message: IPN110E Product key validation failed for Stack reason=GETKNFNB and the job terminates.

Tags: `ipv6_vse`, `license`, `tcpip`, `vse`, `product`, `customer_number`, `installation`, `product_key`, `key`, `shopz`

z/VSE 5.2 end of service (2018-10-09)

With this blog entry I want to remind you that we are close to the end of service of z/VSE 5.2, which is **October 31, 2018**.

If you are still on z/VSE 5.2, please migrate to a supported release, z/VSE 6.1 or z/VSE 6.2. If your hardware permits, I recommend to migrate to z/VSE 6.2, because z/VSE 6.1 service will end June 30, 2019.

z/VSE 6.2 requires a z114 / z196 processor or higher.

On October 31, 2018 the service for the following releases ends. Replacements are available in z/VSE Version 6.

- IBM CICS Transaction Server for VSE/ESA 1.1.1 - 5648-054
- IBM TCP/IP for VSE/ESA 1.5.0 - 5686-A04 (IBM TCP/IP for VSE/ESA 1.5F)
- IBM z/VSE 5.2.0 - 5609-ZV5
- IBM z/VSE Central Functions 9.2.0 - 5686-CF9
- IBM IPv6/VSE 1.1.0 - 5686-BS1

The z/VSE 5.2 end of service was announced on February 7, 2017. See my related blog entry - [here](#).

The announcement letter is [here](#).

Tags: end-of-service, cics, service, tcpip, eos, support, ipv6_vse, vse

Next blog entry on October 9, 2018 (2018-10-04)

I won't be in the office the next days. Therefore you can expect my next blog entry on Tuesday.

Have a good weekend.

Tags: vse

New IBM announcements: z14, LinuxONE, CICS Explorer (2018-10-02)

Today IBM announced new / updated hardware as well as a new CICS Explorer release:

- [IBM z14 features enhance performance, encryption, and flexibility to accelerate your digital transformation](#)
For z/VSE users the new OSA-Express7S 25 Gigabit Ethernet card might be of interest. It is planned to be available on April 9, 2019.
- [Accelerate the performance, encryption, and flexibility of IBM LinuxONE Emperor II and Rockhopper II with new features and offerings](#)
- [IBM Secure Service Container for IBM Cloud Private delivers pervasive encryption and data protection capabilities for hybrid and private cloud containerized workloads on IBM Z and LinuxONE servers](#)
- [IBM delivers enhanced functions in CICS Explorer V5.5 and IBM Explorer for z/OS V3.2](#)
The new CICS Explorer client supports connections to the CICS Transaction Server for z/VSE. It is planned to be available on December 14, 2018. You can download the CICS Explorer from [here](#).
- [Software withdrawal and support discontinuance: IBM CICS Explorer V5.3](#)
End of support for the CICS Explorer 5.3 is planned for April 30, 2020. It will be replaced by the CICS Explorer 5.5.

Tags: ssc, z14, cloud, cics, linuxone, cics-explorer, vse

New to z/VSE ? (2018-10-01)

To new members of the z/VSE team I recommend the following IBM Redbooks. May be those are useful for your teams too.

The best is to start with "Introduction to the New Mainframe: IBM z/VSE Basics". You can download this Redbook [here](#).

If you are interested in security, the "Security on IBM z/VSE" is a good place to start. It is [here](#).

For networking you can read the "Enhanced Networking on IBM z/VSE" Redbook - [here](#).

Hint's and tips on "Migration to CICS Transaction Server for z/VSE V2" are [here](#).

... and the Redbook "z/VSE Using DB2 on Linux for System z" describes how to set up the DB2 client on z/VSE connected to a DB2 server on Linux on IBM Z - [here](#).

The z/VSE web page for "Technical articles and White Papers" holds many links to further z/VSE topics including Supervisor Diagnosis Reference and Hints & Tips books. They are [here](#).

The z/VSE Knowledge Center can also help to find additional z/VSE information - [here](#).

Tags: cics, article, vse, education, documentation, security, basics, technical, networking, redbook

z/VSE service news: VSE/AF, TCP/IP, Connector APARs (2018-09-28)

There are a few new APARs.

VSE/AF APARs

z/VSE 6.2 APAR [DY47805](#) (PTF UD54345): SYSTEM ENTERS WAIT STATE WITH PAV ENABLED

z/VSE 6.1 APAR [DY47804](#) (PTF UD54344)

z/VSE 5.2 APAR [DY47802](#) (PTF UD54337)

Error description: DEBUG STOP IN IJBPAV, because of control block inconsistency

z/VSE 6.2 APAR [DY47778](#) (PTF UD54338): WRONG DEVICE NUMBER (CUU) IN AOM MESSAGES AOMAP00I, AOMDR##I, AOMIO06I, ATTENTION-MSG AND AR/JCL MESSAGE 1YH1I

z/VSE 6.1 APAR [DY47777](#) (PTF UD54330)

z/VSE 5.2 APAR [DY47776](#) (PTF UD54327)

Error description: The device number (CUU) shown in the asynchronous operations manager (AOM) messages AOMAP00I, AOMDR##I, AOMIO06I, and ATTENTION-MSG may be wrong when multiple AOM requests are processed in parallel.

For example, when LIBSERV command and/or LBSERV macro MOUNT/RELEASE requests for multiple devices are processed in parallel, all of the AOMAP00I messages preceding the AOMAP20I (MOUNT) or AOMAP21I (RELEASE) completion messages may show the

same device number of the last request. This results in the erroneous information that multiple partitions have mounted different volumes in the same tape library device at the same time. In case of the message ATTENTION-MSG, which is only printed with

DEBUG ON, it may show the wrong device number, originating from the last request processed. Under rare circumstances the device number (CUU) shown in the AR/JCL message 1YH1I may be random data. For example when canceling

a LBSErv macro request using the AR command LIBSERV CANCEL, which has been implicitly invoked by job control (JC) during end of job, the CUU shown in message 1YH1I may be random data (e.g. "OR,"): 1YH1I MOUNT CANCELED FOR UNIT OR,

z/VSE Connector APAR

z/VSE 6.2 APAR [PH02600](#) (PTF UI58454): Z/VSE AS REST SERVER FAILS TO PROCESS URL ENCODED PARAMETERS IN THE QUERY STRING

Error description: VSE as REST server fails to process URL encoded parameters in the query string. Any URL parameters are ignored and are not passed to the application.

IBM TCP/IP for z/VSE 2.2 APAR

z/VSE 6.2 APAR [PH01570](#) (PTF UI57858): TCPIP FOR ZVSE SERVICE PACK 2.2.4

Error description:

This service pack contains the following fixes. For details please see APAR description:

ZP223131 ZP223130 ZP223129 ZP223128 ZP223127

ZP223126 ZP223125 ZP223124 ZP223123 ZP223122

ZP223121 ZP223120 ZP223119 ZP223118 ZP223117

ZP223116 ZP223115 ZP223114 ZP223113 ZP223112

ZP223111 ZP223110 ZP223109 ZP223108 ZP223107

ZP223106 ZP223105 ZP223104

Have a good weekend.

Tags: ptf, apar, support, vse, af, tcpip, connector, service

Next blog entry on Friday, September 28, 2018 (2018-09-26)

I plan my next blog entry for Friday.

Parallel Access Volume (PAV) support for ICKDSF available (2018-09-25)

In April we announced new functions for z/VSE 6.2 - see the [announcement letter](#).

Besides the DL/I 1.12.1 partitioning delivered in June, there was another enhancement for IBM storage:

z/VSE will allow for the backup of data using ICKDSF while the z/VSE PAV (Parallel Access Volume) support is active and thus fulfills [customer requirement RFE \(Request for Enhancement\) 101196](#).

The enhancement is implemented for z/VSE 6.2 in APAR DY47803 and ICKDSF APAR PI99282.

z/VSE 6.2 APAR [DY47803](#) (PTFs UD54342, UD54343): ENABLE PAV FOR ICKDSF FLASHCPY

Description: The objective of this line item is to fulfill Customer Requirement RFE 67101. With the enabling of PAV under z/VSE it may happen that the I/O requests from ICKDSF go through the alias address. There is no way to bypass this address selection by user, except disabling PAV. This may let FLASHCPY ESTABLISH function fail with ICK34058I. A new subroutine in IJBPAV will ensure, that certain I/O commands are issued on the PAV base address only. This function requires the following fix provided by ICKDSF - PTF: UI57038, APAR PI99282

ICKDSF APAR [PI99282](#) (PTF UI57038): NEW FUNCTION - Z/VSE VERSION OF ICKDSF WILL USE BASE ADDRESS FOR PAV DEVICES WHEN USING CONTROL OR FLASHCPY COMMAND.

Description: The CONTROL CONFIG(DISPLAY) command was displaying the alias address if the I/O went to the alias address of a Parallel Access Volume. The FLASHCPY command may fail if I/O goes to the alias address of a Parallel Access Volume.

The CONTROL CONFIG(DISPLAY) command will now ensure that the address displayed in the channel connection address field is that of the base and not the alias if I/O is sent to the alias device. The FLASHCPY command will now ensure that the base address is always used when doing the FLASHCPY command.

A few more words on PAV:

Parallel Access Volume (PAV) is an optional licensed feature on the IBM System Storage. Parallel access volumes are managed by creating multiple addresses for a single logical device. z/VSE supports one base device and up to 7 alias devices. With basic PAV support for ECKD devices z/VSE can access such a PAV device in parallel, which allow more than one I/O operation to be processed for a single logical device. This may give significant performance benefits dependent on your workload.

z/VSE's PAV support is described in the z/VSE Planning and z/VSE Administration books. We also have a PAV white paper on our z/VSE web page for technical articles [here](#). The z/VSE books are in the PDF library on the z/VSE Knowledge Center - [here](#)

... and there is an Enterprise Tech Journal article still available - [here](#).

Tags: vse, ickdsf, storage, service, announcement, support, pav, availability

How to contact the z/VSE team (2018-09-24)

If you have a z/VSE question, a recommendation or just want get information about a z/VSE related topic, you may contact us via the new z/VSE web pages. Just click on the "Talk to an expert" on the bottom of the z/VSE home page - [here](#).

Or use the direct link - [here](#).

Tags: contact, vse

z/VM 7.1 available (2018-09-21)

As announced on August 7, 2018 the new z/VM 7.1 release is available today - **September 21, 2018**.

For more information please see my related blog entry [here](#).

Have a good weekend.

Tags: availability, vm, vse, announcement

New IBM disk for 19 inch racks (z14 ZR1) (2018-09-20)

During my vacation there was an IBM Storage announcement, that might be of interest for z/VSE users, especially for users of the new z14 ZR1 midrange mainframe.

The new **DS8882F** disk is a member of the DS8880 family. It's a new all-flash device. It comes with one- to four-year warranty and can be used as a rack-mounted model for IBM Z, LinuxONE and distributed environments.

The DS8882F is designed to take advantage of the space available in the IBM z14 ZR1 and LinuxOne Rockhopper II system frames, and can be integrated into existing 19-inch form factor racks.

For more details and availability dates please see the corresponding announcement letters:

- [DS8882F with 1-year warranty](#)
- [DS8882F with 2-year warranty](#)
- [DS8882F with 3-year warranty](#)
- [DS8882F with 4-year warranty](#)

Tags: vse, announcement, z14, dasd, linuxone, disk

z/VSE STATUS command (2018-09-19)

Last week there was a question related to the the **z/VSE STATUS command** on VSE-L.

STATUS is an Attention Routine command. The output is displayed on the console. It provides the status of z/VSE partitions and tasks, addresses of control areas, device status, etc.

The STATUS command is described in the z/VSE System Control Statements. Some tips are in the **z/VSE Hints & Tips** book.

For experts: If you want to get more information about the displayed status and internal processes, you can look into the **z/VSE Supervisor Diagnosis Reference Manual**.

A few words to the STATUS message discussed on VSE-L:

```
> STATUS Z1
```

```
AR 0015 M0035 Z1 NO NAME 73 WAITING FOR EXCLUSIVE SYSTEM  
USE USED BY P1
```

- M0035 Z1 - M = maintask (S=subtask), 0035 = task id (maintask of partition Z1)
- NO NAME - VSE/AF job name
- 73 - bound condition (task status flag) = SEIZE bound. SEIZE is a system wide resource (gate), that is used e.g. by job control to lock a code sequence system-wide. Task status flags are described in a table in the z/VSE Supervisor Diagnosis Reference Manual.
- WAITING FOR EXCLUSIVE SYSTEM USE USED BY P1 - The SEIZE gate is occupied by partition P1 and partition Z1 is waiting for it to be freed. That is STATUS P1 may give the reason, why it's not freed. May be P1 is also waiting for a resource.

Another less complex example:

```
> STATUS BG
```

```
AR 0015 M0021 BG PAUSEBG 82 WAITING FOR OPERATORS RESPONSE
```

- M0021 BG - BG maintask, task is is 21
- PAUSEBG - job name

- 82 - bound condition (task status flag) = WAIT bound, waiting for an event to happen (timer, I/O, reply, ...)

The links to those books are in the z/VSE Knowledge Center (KC) [here](#).

The links to

- Hints & Tips is in the "Find Documentation" section
- z/VSE Supervisor Diagnosis Reference Manual on the "IBM z/VSE technical articles page"
- z/VSE System Control Statements in the "PDF Library" (links in the Look-Up section and on the upper right side of the KC page, if you are on the release page).

Tags: documentation, hints, book, tips, command, vse, ar, knowledge_center, status

IBM TS7700 Release 4.2 announced (2018-09-18)

Last week there was announcement for IBM tape storage.

Announcement title: IBM TS7700 R4.2 delivers cloud storage tier support

Please see the announcement letter for details and planned availability dates. It is [here](#).

All z/VSE release in service support this new device (IBM Z FICON channel attached).

z/VSE V5.2, or later, transparently supports the TS7700.

- z/VSE supports the TS7700 both as a standalone system and in a multicluster grid environment
- z/VSE supports the COPY EXPORT function

Tags: tape, announcement, vse, ts7700

DL/I VSE 1.12.0 end of service announced (2018-09-17)

IBM announced end of service for DL/I VSE 1.12.0 on August 7, 2018.

The end of service for DL/I VSE 1.12.0 is planned for September 30, 2019 on all z/VSE releases.

The replacement product is DL/I VSE 1.12.1 (program number 5746-XX1).

The end of service announcement letter is [here](#).

DL/I VSE 1.12.1 is available since June 2018 and only supports z/VSE 6.2.

Remark: z/VSE 6.2 is the only supported z/VSE release after June 30, 2019 ([end of service of z/VSE 6.1](#)).

See also my DL/I blog entry - [here](#).

Please let me know, if you have any questions.

Tags: vse, eos, end-of-service, dli, announcement

New webcast: z/VM installation demonstration (2018-09-14)

Many z/VSE users run their systems in z/VM guests. Therefore 2 upcoming webcasts might be of interest. Both address the installation of z/VM.

Topic: z/VM Installation Demonstration -Part 1

Date / Time: September 19, 2018 - 11:00 AM EDT

Abstract: In this presentation we demonstrate an install of z/VM. As the install forces us to make decisions, we discuss the various options and how particular choices affect the install and the eventual result. Because an installation entails movement of a lot of files, which can take quite a bit of clock time, the presentation consists of two hands-on sessions. In this first session on September 19th we discuss preparation for install, and then move through the steps of an actual install, up to the point of the mentioned movement of files. In the second session on September 26th we will complete the install, do some of the post-install set-up work, and look at the configuration that the install gives you.

Topic: z/VM Installation Demonstration -Part 2

Date / Time: September 26, 2018 - 11:00 AM EDT

Abstract: In this Part 2 session we will complete the install, do some of the post-install set-up work, and look at the configuration that the install gives you. In the first session on September 19th we discussed the preparation for install, and then move through the steps of an actual install, up to the point of the mentioned movement of files.

You can register with the link on the Linux on IBM Z and IBM LinuxONE webcast page - [here](#). Please consult this web page for any schedule change.

Have a good weekend.

Tags: installation, lvc, vm, webcast, vse

z/VSE Service news: New RSLs available (2018-09-13)

I hope, you had a good time since my last post and enjoyed summer. During my vacation there was some news, that i will post the next days.

Let's start with the z/VSE service news.

New Recommended Service Levels (RSLs) are available for z/VSE 5.2, z/VSE 6.1 and z/VSE 6.2. The RSL cutoff was June 30, 2018.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Please upgrade your systems to these RSLs to keep your z/VSE current.

Tags: support, rsl, service, vse

Next blog entry on September 13, 2018 (2018-08-11)

I won't be in the office the next weeks. Therefore you will see my next blog entry on September 13, 2018.

I wish you a good summer.

Tags: vse

Recommendations before migrating to new hardware (2018-08-10)

In between I wrote 1,100 blog entries. I hope, I posted some interesting topics. Please let me know, if there is anything that I should address.

In this blog entry I summarized my recommendations for performance comparisons, that you may consider before migrating to new hardware - be it a new processor or new devices. It's always good to have history data available in case of problems.

If you have that material, it is much easier to compare the performance characteristics old versus the new environment.

See some recommendations below:

- Look for a repeatable workload, that processes similar amount of data.
- Collect reference data:
 - Measure and collect most important workload parameters , e.g. performance, I/O activity / timings, CPU / elapsed time, console logs, etc.
- Apply required PTFs for the new processor or devices (see PSP buckets)
- Do not change the processor and software at the same time. If possible, delay changes to hardware infrastructure (controller, devices, network, ...)
- E.g. if you upgrade to a new processor, verify the performance characteristics on the new environment before you continue with the software upgrade, best in production. If everything is OK, continue with other upgrades.
- We have a white paper online that describes tasks for hardware and software upgrades: z/VSE release & hardware upgrade - [here](#).
- Hardware related information is also on the z/VSE hardware and release status PDF - [here](#).

Collection of workload parameters:

- performance reports from performance monitors provided by vendors
- console logs
- network data
- z/VSE console commands
- Commands to get additional information
 - SIR - to get general information about the system
 - SIR SMF - to gather I/O information per device (I/O-count, timings - queued, connect, msec/ I/O)

- SIR MON - to retrieve workload counters (SVCs, bound conditions, some internal counters, ...)
- SYSDEF TD,RESETCNT - to reset counters
- QUERY TD - to retrieve used CPU time, CPU utilization, non-parallel share, elapsed time, ...
- Some of those commands are described in the z/VSE Hints and Tips book - [here](#).

To use above commands for measurements, you may use the following sequence:

1. SIR MON=ON -starts monitoring (system services)
 2. SIR SMF=ON - starts monitoring for I/O related counters
 3. SYSDEF TD,RESETCNT - resets counters
 4. <monitor interval - e.g. 1 or more hour at peak>
 5. SIR MON=OFF - stops monitoring
 6. QUERY TD - displays CPU counters
 7. SIR MON - displays SVC counters
 8. SIR SMF. - displays I/O counters
 9. To start next interval, begin with 1.
- when finished: SIR SMF=OFF

z/VSE performance tools:

- z/VSE CPUMON (CPU Monitor) tool - good tool to monitor the CPU utilisation:
 - is based on SIR MON command and QUERY TD to get CPU utilization of a workload, may run days
 - measures in user defined intervals
 - monitored data can be loaded into a spreadsheet. Generate a line chart. It shows workload peaks.
- z/VSE Health Checker tool - to retrieve, display, and analyze performance relevant data from a z/VSE system.
- The tools can be downloaded from [here](#).

If you migrate from ECKD to SCSI devices, our measurements showed that the I/O may be faster to a SCSI disk, but it may require a bit more CPU time because of the emulation FBA to SCSI. We have SCSI white paper too - [z/VSE SCSI Support and Migration Options](#)

Have a good weekend.

-

Tags: hints, migration, hardware, tips, device, tools, upgrade, performance, processor, scsi, vse

No blog entry today (2018-08-09)

I needed to work on other items today and did not had time to write a blog entry.

z/VSE service news: VSE/AF, IUI APAR, LE (2018-08-08)

There are a few new APARs / PTFs available.

VSE/AF

z/VSE 6.2 APAR [DY47786](#) (PTF UD54326): SYSTEM LOOP MAY OCCUR WITH OFFLINE COMMAND WHEN USED IN PARALLEL WITH VTAPE I/O PROCESSING.

z/VSE 6.1 APAR [DY47779](#) (PTF UD54310)

z/VSE 5.2 APAR [DY47785](#) (PTF UD54318)

Error description A tight SYSTEM LOOP may occur when the OFFLINE command is used while VTAPE I/O processing is ongoing. In the problem situation the TAPESRVR partition does not get control to complete the VTAPE I/O request.

z/VSE 6.2 APAR [DY47788](#) (PTF UD54324,UD54325): HARDWAIT FED IS ISSUED DURING CANCEL PROCESSING IF SAVE AREA REQUIRED TO LOAD PHASE IS ALREADY USED FOR CANCEL MESSAGE

z/VSE 6.1 APAR [DY47787](#) (PTF UD54322, UD54323)

z/VSE 5.2 APAR [DY47784](#) (PTF UD54320, UD54321)

Error description: HARDWAIT FED can occur when during cancel processing the dump routine itself is cancelled.

Interactive User Interface (IUI)

z/VSE 6.2 APAR [PI98417](#) (PTF UI56255): SUPPORT NEW DL/I VSE 1.12.1 IN IUI DIALOGUES AND SKELETONS

Error description:

1. Installation support for new DL/I VSE 1.12.1 missing.
2. The LIBDEF chain for the DLI compile skeletons misses the new modification level.
3. The LIBDEF chain for the DLI sample SKDLISMP should reflect the new modification level.

Language environment

z/VSE 6.2 APAR [PH00362](#) (PTF : LE/VSE PROVIDED CUSTOMIZATION JOBS (I-BOOKS OR Z-BOOKS) MAKING USE OF CICS DFHCSDUP UTILITY MAY CANCEL WITH MSG 0S35I

Error description: LE/VSE provided customization jobs making use of CICS TS for z/VSE 2.2 utility DFHCSDUP (and SIZE value not large enough) may fail with the following message due to new load phase size requirements:

0S35I PHASE DFHCSDUP DOES NOT FIT IN LTA OR PARTITION

Tags: service, le, af, iui, support, ptf, vse, apar

z/VM 7.1 announced (2018-08-07)

Today IBM announced a new version of z/VM - z/VM 7.1.

The announcement letter is [here](#).

The title of the announcement letter is:

IBM z/VM V7.1 Continuous Delivery model enables clients to exploit new and innovative z/VM capabilities at their own pace while helping to assure higher availability of their applications

z/VM 7.1 is planned to be available on **September 21, 2018**.

z/VM 7.1 supports z14 Models M01, M02, M03, M04, M05, and ZR1, LinuxONE Emperor II, LinuxONE Rockhopper II, z13, z13s, LinuxONE Emperor, LinuxONE Rockhopper, zBC12, zEC12.

That is z/VM 7.1 includes an Architecture Level Set and requires zEC12 or zBC12 or later systems.

Please see the announcement letter for more details on new functionality.

The announcement letter also includes some information about **z/VM 6.4** ordering, service and lifecycle (end-of-service).

Tags: vse, eos, announcement, service, vm

Linux on IBM Z and LinuxONE: New Redbooks available (2018-08-06)

Today I have another blog entry related to Linux on IBM Z and LinuxONE. There are two new IBM Redbooks.

The Redbooks describe how Oracle databases benefit from the IBM Z and LinuxONE platforms:

- [Oracle on IBM Z](#)
- [Oracle on LinuxONE](#)

Tags: linuxone, oracle, vse, redbook, linux, database

z/VSE manuals for system upgrades (2018-08-03)

Just a few days ago there was a question on VSE-l where to find the z/VSE System Upgrade book.

The best place to find such information is the z/VSE Knowledge Center. There are links to technical articles, hints and tips and the z/VSE PDF library for release specific information.

The link to the z/VSE Knowledge Center welcome page is [here](#). There you can select the release - z/VSE 5.2, 6.1 or 6.2. For example, if you select [z/VSE 6.2](#), the link to the corresponding books is on the right side "[PDF Library](#)".

At the bottom of the z/VSE Knowledge Center page you can find the links to books for older releases - see "Look Up" section.

For z/VSE upgrades I recommend to start with the z/VSE Planning book. Useful information is also in the z/VSE Hints and Tips and in some technical articles / white papers. The links are on the z/VSE knowledge Center page in section "Find Documentation".

I like to point you especially to the "z/VSE Version/Release and Hardware Upgrade" white paper.

The link to the release and hardware status PDF is on the z/VSE Resources page - [here](#).

Have a good weekend.

It's summer. We expect up to 35 C (96 F) for the next days as we had for the whole week.

Tags: documentation, technical, article, knowledge_center, book, upgrade, migration, bookshelf, white_paper, vse

Linux on IBM Z: New SLES 15 publications available (2018-08-02)

There are new publications available for the new SUSE Linux Enterprise Server 15 on IBM Z or LinuxONE:

- **Device Drivers, Features, and Commands on SUSE Linux Enterprise Server 15**

This document describes the device drivers available to SUSE Linux Enterprise Server 15 for the control of IBM Z devices and attachments. It also provides information on commands and parameters relevant to configuring Linux on IBM Z. New security features include protected key support for accelerated cryptographic operations, a true random number generator, and support for multiple cryptographic domains.

- **Using the Dump Tools on SUSE Linux Enterprise Server 15**

This document describes tools for obtaining dumps of Linux for IBM Z instances. It describes how to use DASD, tape, and SCSI dump devices, as well as how to use VMDUMP and kdump.

- **Kernel Messages on SUSE Linux Enterprise Server 15**

This document describes the IBM Z specific kernel messages issued by SUSE Linux Enterprise Server 15.

You can download those from:

- [IBM Knowledge Center](#)
- [developerWorks](#)

Tags: linux, knowledge_center, vse, documentation, sles, suse

2019 VM Workshop (2018-08-01)

It's still early, but may be you want to mark your calendars for the 2019 VM Workshop.

It is scheduled for June 27-29, 2019 at Virginia Commonwealth University in Richmond, Virginia.

The link to the VM Workshop web pages is [here](#).

Tags: conference, vse, vm_workshop

Next Linux webcast tomorrow: Enterprise Content Management (ECM) (2018-07-31)

There is a new Linux on IBM Z webcast scheduled for tomorrow.

Topic: ECM for Linux on z Systems -A case study with WAS Cluster and Spectrum Scale

Date: August 1, 2018

Time: 11:00 AM EST

Abstract: This presentation will give an overview of an end-to-end scale-out case study for multiple Enterprise Content Management (ECM) nodes in a WebSphere Application Server (WAS) Cluster. Spectrum Scale was used as the underlying parallel filesystem to share the FileNet File Storage Area among the ECM nodes. The presentation covers **setup aspects** as well as **performance results** for the system under test.

The presentation and registration link is on the Linux on IBM Z and LinuxONE webcast page - [here](#).

Tags: vse, webcast, live-virtual-class, linux, lvc

z/VSE service news: CICS TS for z/VSE PTF in error (2018-07-30)

You may have seen Mike's post on VSE-L. In that case today's z/VSE service post is not new to you. It is related to all CICS TS releases on z/VSE.

Just if you didn't see that:

Please do not apply

CICS TS for VSE/ESA 1.1.1 APAR [PI89039](#) (PTF UI54412), CICS TS for z/VSE Version 2 APAR [PI94223](#) (2.1 PTF UI54745, 2.2 PTF UI54746): DFHFC0313 AND DFHFC0314 MESSAGES NOT BEING ISSUED WHEN THEY SHOULD BE.

The corrected APARs will show up in the CICS TS fix lists:

- [CICS TS for VSE/ESA 1.1.1 fix list](#)
- [CICS TS for z/VSE 2.1 fix list](#)
- [CICS TS for z/VSE 2.2 fix list](#)

Tags: vse, apar, cics, support, ptf, service

Next blog entry on Monday (July 30) (2018-07-26)

I didn't have time today and will leave early tomorrow. Therefore you will see my next blog entry on Monday.

We have a nice weather in our area, close to the Black Forest (Germany). It's about 32 C (90 F).

Enjoy your weekend.

Tags: vse

New Doc Buddy Release available (2018-07-25)

End of last year I informed you about IBM Doc Buddy: a mobile app for iOS and Android devices - [here](#). You can search messages and codes and product related information issued for IBM Z products online and offline. Doc Buddy is available in the app stores.

The Doc Buddy team just released Version 2.2. This new release also aggregates mainframe content including blogs, videos, IBM Knowledge Center topics, and Thought Leader opinions.

More information is on the Doc Buddy web page - [here](#).

Please let me know, if you like Doc Buddy. ... and what information you would like to see in Doc Buddy ?

Tags: bloc, message, code, doc-buddy, vse

z/VM Knowledge Center (2018-07-24)

Many of our z/VSE and Linux users run their systems in z/VM guests. Therefore the z/VM Knowledge Center may be a valuable resource, if you are looking for z/VM information.

The link to the z/VM 6.4 Knowledge Center is [here](#).

Tags: knowledge_center, vm, documentation, information, vse

IBM Redbook updated: Connectivity Handbook (2018-07-23)

End of last week the IBM Redbook team provided an update of the IBM Z Connectivity Handbook.

The publication describes the connectivity options that are available for use within and beyond the data center for the IBM Z family of mainframes, which includes these systems:

z14, z14 ZR1, z13, z13s. zEC12 and zBC12.

The download link for this Redbook is [here](#).

Tags: connectivity, z13s, redbook, handbook, zbc12, z13, zec12, vse, z14

z/VSE 6.2 Hints and Tips: Summary of changes (2018-07-20)

Yesterday I had a blog entry related to the z/VSE Capacity Measurement Tool (CMT), where I referred to the z/VSE 6.2 Hints and Tips book.

Today I want to describe the summary of changes in the book since the z/VSE 6.1 edition. May be you see interesting information for your z/VSE environment.

The following chapters have been changed to reflect z/VSE 6.2:

- Chapter 1, "System Control Program": Information about stand-alone dump program on SCSI disk has been added.
- Chapter 2, "Internal Attention Routine Commands": The section "SIR" has been updated. The SIR HELP command "SIR HELP" and "SIR SMF" now show the new operand ZHPF.
- Chapter 4, "Console": The section "CORCMD" has been updated. It now shows the CORCMD TRACE.
- Chapter 5, "Job Control": The new Job Control program return codes have been described.
- Chapter 7, "Librarian": The section "Restore IJSYSRS - IJSYSRS corrupted" is new.
- Chapter 8, "VSE/VSAM" is updated.
- Chapter 9, "VSE/ICCF": The following section has been added - "View Library Members"
- Chapter 12, "Capacity Measurement Tool": is new. It gives a short introduction to the Capacity Measurement Tool (CMT) with useful references.
- Chapter 13, "Language Environment for VSE (LE/VSE)": several sections have been updated to show the changes with modification level LE/VSE 1.4.10:
 - "LE/VSE 1.4.10 in z/VSE 6.2"
 - "LE/VSE Attention Routine Interface and Commands"
 - "LE/VSE Run-time Options"
- Chapter 14, "z/VSE Security and Security Migration" has been reworked.
- Chapter 15, "CICS TS for z/VSE 2.2" on page 247 has been updated. The sections "Version dependent functions" and "Error Message DFHPA1107 During CICS TS Startup" are new.
- Chapter 18, "Interactive Interface, System Files and Configuration": The following sections have been updated:
 - "Hints and Tips for Fast Service Upgrade (FSU)" Information about the media for FSU has been added.
 - The following sections are new:

- "Activate TCP/IP messages in the Online Message File"
- "CICS TS CSD Migration"
- "DFHCSDUP Utility"
- "Apply PTF from the internet"
- "Transferring Tape Image Files to virtual Tape"
- "How to define and use auxiliary trace file"
- Chapter 21, "VSE Health Checker" is updated
- Chapter 22, "Debug Tool for VSE/ESA (LE)" has been updated, especially the following sections
 - "CICS Considerations" has been updated and shows the correct usage of the DFHCSDUP utility.
 - "VSE Partition Requirements"
- Chapter 23, "Miscellaneous Hints and Tips": The section "EREP Hints and Tips" has been added.
- Chapter 25, "z/VSE Initial Installation using an Installation Disk" is updated.

z/VSE 6.2 Hints & Tips book can be downloaded from [here](#).

Have a good weekend.

Tags: documentation, tips, vse, hints

z/VSE Capacity Measurement Tool (2018-07-19)

Today I briefly want discuss the Capacity Measurement Tool (CMT), that is delivered with the z/VSE base product since we introduced sub-capacity pricing in z/VSE V4.

When CMT is started, SCRT89 accounting records are created and filed automatically in the CMT datasets on z/VSE every four hours. The user can then extract records for the reporting period on z/VSE. Based on these records the sub-capacity report is created using SCRT. In ICCF (IUI) library 59 we provide the following skeletons:

- **SKCMT** to prepare and activate the capacity measurement tool
- **SKCMTINI** to initialize the files used by the capacity measurement tool
- **SKCMTREP** to extract the records written by the capacity measurement tool

The above is a new section in the **z/VSE 6.2 Hints & Tips** book, that can be downloaded from [here](#).

A good reference is also the **z/VSE Best Practices Using SCRT** (Java Version) with z/VSE document, that can be downloaded from [here](#), see section Sub-Capacity Reporting (SCRT) on web page.

Tags: `scrt, cmt, article, sub-capacity, capacity_measurement_tool, capacity, vse, technical`

Linux on IBM Z news: SLES 15 is available (2018-07-18)

If you use the z/VSE Connectors with Linux on IBM Z you might be interested in any news related to the SUSE Linux Enterprise Server (SLES). This week SUSE released **SLES 15 z System**.

The download page with a product description is [here](#).

Tags: sles, connector, suse, vse, linux, download

Linux on IBM Z Webcast: Multi Factor Authentication (2018-07-17)

There is a new Linux on IBM Z webcast scheduled for tomorrow.

Topic: Multi Factor Authentication for Linux on IBM Z using a centralized z/OS LDAP infrastructure

Date: Wednesday, July 18th, 2018

Time: 11:00 AM EST / New York, 5:00 PM CET / Germany

Duration: 75 minutes

The most common method for authenticating users is by the use of passwords, which is today often no more sufficient in mission critical systems. Therefore Multi Factor Authentication (MFA) gets growing importance. This addresses regulatory and industry requirements for strong privileged user authentication (for example, the actual version of the Payment Card Industry Data Security (PCI-DSS) standard requires to use MFA for administrators). In this session we will show how a Linux on IBM Z server can be configured in a way that privileged users logon using the IBM TouchToken for iOS application to generate a one-time password and how the MFA can be performed using services of a central z/OS system with RACF/LDAP/MFA infrastructure.

The registration link is on the Linux on IBM Z and LinuxONE webcast page - [here](#).

Tags: security, live-virtual-class, linux, ldap, vse, zos, webcast, lvc

2018 VM Workshop presentations available (2018-07-16)

In between most of the VM Workshop presentations are available in the 2018 Presentation Archives.

My z/VSE presentations will be added soon.

The VM Workshop 2018 was held in Greensboro, NC on June 28 - June 30, 2018.

It covered sessions related to z/VM, z/VSE, Linux on IBM Z, LinuxOne and IBM Z hardware.

You can download the PDFs [here](#).

Tags: linuxone, vse, presentations, vm_workshop, linux, vm, conference

Next blog entry on Monday (July 16, 2018) (2018-07-12)

I am not in the office. Therefore you can expect my next blog entry on Monday.

Have a good weekend.

Tags: vse

Download location of the MQ Client for z/VSE changed (2018-07-11)

The WebSphere MQ Client for VSE got a new "home". Now it is easier to find it. You can download the client from the z/VSE Download page as a zip file. It can be downloaded from [here](#).

The "View details" link points to a section in the z/VSE 6.2 Knowledge Center "Using the z/VSE MQ Client Trigger Monitor for Asynchronous Inter-Program Communication".

As you may remember the MQ Server for z/VSE is out of service since September 2015.

Therefore, if you are dependent on messaging, you can use the MQ Client and MQ Trigger Monitor on z/VSE as a replacement and connect to a MQ server on a supported MQ platform.

Tags: vse, download, mq, trigger_monitor, connector, client

TCP/IP documentation available on z/VSE Knowledge Center (2018-07-10)

The documentation for both TCP/IP stacks is now available in the z/VSE PDF library on the z/VSE 6.2 Knowledge Center.

That is the documentation for

- IBM IPv6/VSE 1.3
- IBM TCP/IP for z/VSE 2.2

which run on z/VSE 6.2.

You can download the PDF files [here](#).

Tags: vse, book, knowledge_center, documentation, ipv6_vse, tcpip

z/VSE service news: VSE/AF, VSE/POWER, TCP/IP APARs (2018-07-09)

Links to the latest APARs for z/VSE components and products are listed on the z/VSE corrective service page - [here](#).

Below are some new APARs:

VSE/AF

z/VSE 6.2 APAR [DY47774](#) (PTFs UD54311, UD54312): ENDLESS LOOP IN VSE SUPERVISOR RAS ROUTINES WITH A CHANNEL CHECK AND NO LPUM IN IRB ESW

z/VSE 6.1 APAR [DY47773](#) (PTFs UD54308, UD54309)

z/VSE 5.2 APAR [DY47772](#) (PTFs UD54303, UD54304)

Error description: When an I/O completes with a channel check (subchannel-status = Channel-Control check or Interface-Control check) and there is no valid LPM in the IRB ESW, VSE channel check processing enters an endless loop. This occurs because VSE neither checks the LPUM validity flag nor takes an LPUM of 00 into account.

z/VSE 6.2 APAR [DY47788](#) (PTFs UD54324, UD54325): HARDWAIT FED IS ISSUED DURING CANCEL PROCESSING IF SAVE AREA REQUIRED TO LOAD PHASE IS ALREADY USED FOR CANCEL MESSAGE

z/VSE 6.1 APAR [DY47787](#) (PTFs UD54322, UD54323)

z/VSE 5.2 APAR [DY47784](#) (PTFs UD54320, UD54321)

Error description: Hardwait FED occurs if TCBXXSA holds cancel message for ERR47 or ERR48 and dump routine cannot issue message and free TCBXXSA area. This happened because dump routine was intercepted by an erroneous vendor program which caused a cancel of the dump routine. The area is then freed late in the cleanup process. Any service in the cleanup process that also requires TCBXXSA will enter hardwait.

VSE/POWER

z/VSE 6.2 APAR [DY47783](#) (PTF): MSG 1Q35A JOB END INDICATION MISSING ON CUU DOES NOT SHOW JOBNAME TO OPERATOR

z/VSE 6.1 APAR [DY47782](#) (PTF UD54316)

z/VSE 5.2 APAR [DY47781](#) (PTF UD54315)

Error description: When message 1Q35A is issued, VSE/POWER already knows the jobname. presenting the jobname to the operator will help to determine why job end is missing.

This APAR resolves a customer requirement - see RFE (Request For Enhancement) [101034](#).

TCP/IP for VSE/ESA 1.5F

APAR [PI99059](#) (PTF UI56457): APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F

ZP15F023 ZP15F142 ZP15F150 ZP15F239 ZP15F351 ZP15F358 ZP15F361
ZP15F364 ZP15F365 ZP15F367 ZP15F371 ZP15F372 ZP15F373 ZP15F376
ZP15F377 ZP15F381 ZP15F382 ZP15F383 ZP15F386 ZP15F387 ZP15F388
ZP15F389 ZP15F390 ZP15F392 ZP15F393

ZP15F400 ZP15F401 ZP15F403

Zap descriptions are listed in the APAR text.

Tags: support, service, vse, tcpip, vse-power, ptf, af, apar

White Paper updated: z/VSE ECKD to SCSI migration (2018-07-06)

Yesterday I had a blog entry related to our SCSI disk support, [VSE/VSAM on SCSI disks](#). Today I have a bit more about SCSI.

Just in case you are planning to use SCSI disks as z/VSE system or data disks, we prepared a white paper: z/VSE SCSI Support and Migration Options.

This white paper was just updated and can be downloaded from z/VSE's technical article page - [here](#).

Some time ago I had a blog entry about SCSI information - [here](#).

In z/VSE 6.2 we enhanced our SCSI support with the following:

- Tapeless initial installation using SCSI or FBA disks
 - Support for stand-alone dump on SCSI disks
- Recommendation: The stand-alone dump file should not be allocated on DOSRES (IPL device) SCSI disks.

Please let us know, if you have any questions about z/VSE's SCSI support - and where we should add or change information in our documentation.

Thanks in advance.

Have a good weekend.

Tags: eckd, migration, white_paper, technical, article, vse, disk, dasd, scsi

VSE/VSAM catalogs on SCSI disks (2018-07-05)

At the VM workshop I had a discussion about SCSI configuration. A question was: Can a VSE/VSAM master catalog be allocated on an ECKD disk and the user catalogs / files on a SCSI disk ?

The answer is yes. z/VSE supports both. The master catalog can also be defined on a SCSI disk and user catalogs on ECKD.

However, once a file is started on a particular device type, it can only be extend on the same device type

That is you can setup mixed ECKD and SCSI environments as well as the traditional ECKD only - or SCSI only environments.

See also my other blog posts related to SCSI - [here](#). .. or use the tag "scsi" on right of this blog web page to search for all related blog entries.

Tags: scsi, catalog, vse, vsam, eckd

Next Linux on IBM Z webcast today, next blog entry July 5 (2018-07-03)

I just returned from the VM workshop today. In my last blog entry I mentioned that you see my next one on July 5.

However, I think today is an interesting webcast for Linux on IBM Z users. Therefore an earlier post.

Title: Managing Performance Best Practices for IBM z/VM and Linux on IBM Z and LinuxONE

Date / Time: July 3, 2018 11:00 AM EST

Abstract: In this session, the speaker takes a two fold approach to best practices for z/VM and Linux management. First, the top performance attributes as determined by z/VM development, are introduced, reviewed for comprehension, and examples are shown on how to monitor for these performance attributes. Second, discussion on functions and features that should be enabled in your performance tool and why to better manage your end user's expectations and understand the performance attributes more completely. Attendees new to z/VM and Linux will gain insight into what are necessary attributes to monitor in order to maintain a healthy z/VM and Linux environment. All attendees will gain best practice recommendations for the latest versions of z/VM and Linux.

The registration link is on the Linux on IBM Z and IBM LinuxONE webcast page - [here](#).

Tags: performance, vse, lvc, webcast, linux, zvm, live-virtual-class

VM Workshop, next blog entry on July 5, 2018 (2018-06-27)

I will be at the VM Workshop in Greensboro, North Carolina, which starts on June 28, 2018.

Therefore you will see my next blog entry, when I am back.

Tags: conference, vm_workshop, vse

Next Linux Webcast tomorrow (2018-06-26)

The next Linux on IBM Z webcast is scheduled for June 27, 2018, 11 am EST.

Topic: Continuous availability and Disaster Recovery for Linux on IBM Z with GDPS

Abstract: This session is intended to give an overview of GDPS to provide Continuous Availability and Disaster Recovery for IBM z Systems and how Linux on IBM Z can be integrated in GDPS environments. The focus is on Linux on Z guest under z/VM and the required configuration and set up.

The registration Link is on the Linux webcast page - [here](#).

DL/I 1.12.1 available (2018-06-25)

The new DL/I 1.12.1 update is now available. This major update provides DL/I partitioning, which lifts the 4 GB limitation for DL/I segment types.

DL/I 1.12.1 is only available for z/VSE 6.2. The former DL/I 1.12.0 can also run on z/VSE 6.2. It is now end of marketing, that is DL/I 1.12.0 can no longer be ordered.

Migration from DL/I 1.12.0 to 1.12.1 should be an easy task. If you don't use partitioning, the database will not change. More migration details are described in the DL/I 1.12.1 Release Guide. The Release guide is available in the z/VSE PDF library [here](#). It's a link on the [z/VSE 6.2 Knowledge Center](#).

The partitioning function splits a DL/I segment type into partitions (VSAM datasets). DL/I 1.12.1 comes with an exit, that selects the correct partition for the records to be retrieved. Each dataset can be up to about 4 GB in size. To migrate to DL/I partitioning you have to add the number of partitions and a 5 or 6 character database name to the Database Descriptor (DBD), unload the database, run the DBDgen / ACBgen with the new partition parameters and do a database reload.

This fulfills customer requirement [RFE 67331](#) - DL1 increase 4 GB sequent Limit size.

Tags: rfe, requirements, availability, vse, partitioning, dli, shopz

z/VM continuous delivery (2018-06-22)

Many z/VSE users run their systems in z/VM guests. Therefore I have another z/VM topic for today.

z/VM puts out new function on a continuous basis. To learn about new enhancements going out through continuous delivery and the proposed schedules see the [Continuous Delivery page](#).

To be notified when this function becomes available see the [New Function APARs page](#).

See also the z/VM service web page for additional service topics [here](#).

Have a good weekend.

Tags: vm, new_function, news, vse, continuous_delivery, service

z/VM 7.1 preview announcement and service information (2018-06-21)

In April I informed you about the z/VM 7.1 preview - see my [blog entry](#). This announcement also has some statements of z/VM 6.4 service.

Just in case you didn't catch that, I extracted that information below. See also disclaimer in announcement letter.

"When z/VM V7.1 becomes available, z/VM V6.4 will receive only corrective service.

IBM intends to keep z/VM V6.4 orderable for 18 months after the general availability of z/VM V7.1.

For planning purposes, z/VM V6.4 users will receive corrective service for 30 months after the general availability of z/VM V7.1.

The planned release cycle for z/VM V7 means z/VM V6.4 service support will overlap the planned availability of z/VM V7.2 by six months."

Please read more details in the [z/VM 7.1 preview announcement letter](#). As of this letter the planned availability of z/VM 7.1 is third quarter, 2018.

Tags: eos, vm, preview, vse, end-of-service, service, announcement

White paper updated: z/VSE Version/Release and Hardware Upgrade (2018-06-20)

We just updated the z/VSE Version/Release and Hardware Upgrade white paper on the technical article web page.

This white paper is especially useful (we hope), if you want to migrate to a new release, preferably z/VSE 6.2. It also has considerations, if you plan to upgrade your processor or devices.

The white paper can be downloaded from [here](#). Please contact me, if there are any questions, that are not answered.

Tags: migration, hardware, vse, release, upgrade, device, processor, disk, version, tape

DL/I 1.12.1 Release Guide available (2018-06-19)

Now we are close to the availability of the new DL/I Partitioning function, which can be ordered from Shopz starting June 22, 2018.

This new function eliminates the 4 GB limit of a segment type. See also my related blog entries - from [April](#) and [last October](#).

As a first step the DL/I 1.12.1 Release Guide is now available. It describes DL/I Partitioning in detail.

You can download this book from the IBM Publication Center or the [z/VSE 6.2 Knowledge Center](#) -> PDF Library (see More topics on the upper right). Here the direct [link](#).

Tags: vse, guide, kc, knowledge_center, release, pdf, documentation, dli

How to find information about z/VSE's hardware and release status (2018-06-18)

If you bookmarked the link to z/VSE's hardware information, this may no longer work with the new z/VSE web pages.

Therefore please use [this link](#) to the "z/VSE hardware and release status" on the Resources tab. This corresponding PDFs give the hardware status for supported and unsupported z/VSE releases.

The hardware status provides tables for the z/VSE support of IBM servers, adapters and crypto cards, IBM Storage (DASD, SCSI disks, tape) and recommendations for microcode updates.

IBM Redbook updated: Security on IBM z/VSE (2018-06-15)

The updated IBM Redbook "Security on IBM z/VSE" is now available for download from the IBM Redbook servers.

This Redbook does include the latest security functionality related to z/VSE.

The download link for the Redbook is [here](#).

Have a good weekend.

Tags: security, redbook, documentation, vse

Next blog entry on Friday (June 15) (2018-06-12)

I plan my next blog entry on Friday.

z/VSE service news: upload data for Level 2, tape delivery dropped (2018-06-11)

Today I want to point you to z/VSE's hot service news on the z/VSE service and support web pages.

Upload of customer data requires IBM Id

Starting May 25th, upload of customer material for problem determination changes. Before upload of material, all customers must identify with their IBM Id. Furthermore plain FTP server for manual data upload will be discontinued. Instead FTPS (FTP over TLS) encryption will be enforced to meet legal requirements. For more details see the Enhanced Customer Data Repository (ECuRep) web page.

Tape delivery in Shopz will be discontinued

As stated in the IBM Software Announcement 218-118 dated March 6, 2018, on July 1, 2018, delivery of PTFs for z/OS, z/VM, and z/VSE on tape is planned to be discontinued with an effective date of July 16, 2018. IBM plans to support Internet and DVD delivery options for product and PTF delivery in Shopz. For further details see Washington Systems Center Flash 10889.

For the links referred in above text, please visit the hot service news on the "z/VSE service & support Introduction" page, [here](#).

Tags: vse, delivery, tape-less, service, dump, shopz, support

How to configure OSA-ICC printer sessions (2018-06-08)

There was a discussion on VSE-L how to configure OSA-Express Integrated Console Controller (OSA-ICC) printer sessions on z/VSE. Kevin gave a configuration example.

First a few words about OSA-ICC. It is integrated into IBM Z servers (z9 and higher). The support is available via the 1000BASE-T Ethernet feature (CHPID type OSC). The OSA-ICC function supports the emulation of TN3270E (RFC 2355) and non-SNA DFT 3270. That is it allows to attach local terminals without the need to use a terminal controller. You can configure OSA-ICC on the Hardware Management Console (HMC) or Service Element (SE) console.

If you need to configure a printer attached to OSA-ICC with z/VSE, you can also use the z/VSE (IUI) hardware definition dialogs.

After sign-on as administrator you see the main panel (z/VSE Function Selection):

- Select 2 - Resource Definition, now you are on panel "Resource Definition"
- select 4 - Hardware Configuration and IPL, the you are on the corresponding panel
- select 1 - Configure Hardware, then you are on "Hardware Configuration: Unit Address List"
- Press PF6 to add a new address, you are on "Hardware Configuration: Add a device"
- Enter the address(es) of the device and enter a "?" in line "Device name"
- Press enter, now you are prompted for the device name and you are on panel "Hardware Configuration: Device Group"
- select 1 - Local non SNA (Terminals/PCs), now you are on "Selection list: Devices"
- On the bottom of the list you see DSC printers, select e.e DSCPRT
- press enter, you are on "Hardware Configuration: Non-SNA Terminal List (your newly defined device is listed)"
- press PF5 to process the device to be added, back on panel "Hardware configuration: Unit address list"
- press PF5 to process (prepare to update IPL, CICS and VTAM definitions), now you are on "Hardware Configuration: Catalog startup members"
- press enter to prepare update job, you are on "Job disposition" panel
- press enter to submit job (press enter again, if you have already an ICCF member with job name, or change job name and press enter)

On the z/VSE console you see the progress of the job. If completed shutdown your system and re-IPL.

Now you can use the printer, e.g. with the CICS Report Controller. It can not be used as a VSE/POWER spooled device.

I don't have such a printer and therefore can not verify, if that works.

I am interested in any feedback about such configurations and usage with z/VSE.

Have a good weekend.

Tags: vse, icc, printer, non-sna, configuration, osa-icc, osa

z/VSE conference in October (2018-06-07)

It's some time until October, but may be you want to mark your calendars for an international conference in Germany for z/VSE users.

Conference: 12th European GSE / IBM Technical University for z/VSE, z/VM, KVM and Linux on IBM Z

Location: Dresden, Germany

Date: 22nd -24th October 2018

Motto: IBM Z and Virtualization as Bridge to the Future

Topics: Subjects for IT Managers and Technical Professionals in an IBM Z Environment

The link to registration and agenda can be selected on left top of the conference web page - [here](#).

You will also find that conference on z/VSE's new "Events and education" web page - [here](#).

... but the next conference is scheduled for end of this month - the VM Workshop - see my blog entry [here](#).

Tags: vse, conference, vm_workshop

DL/I 1.12.0 end of marketing announced (2018-06-06)

There was no blog entry yesterday, because developerWorks (my hosting platform) was offline.

Yesterday IBM announced end of marketing (eom) for several products. One of them also affects z/VSE.

Release to be withdrawn (end of marketing) June 22, 2018:

Product name	Version	Product number
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IBM DL/I VSE	1.12.0	5746-XX1
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The corresponding announcement letter is [here](#).

With the end of marketing this product can no longer be ordered. DL/I 1.12.1 will be available June 22, 2018. It will replace DL/I 1.12.0.

See also my related DL/I blog entry [here](#) (April announcement).

Tags: eom, end-of-marketing, dli, announcement, vse

IBM z14 ZR1 and new LinuxONE servers available (2018-06-04)

The new entry model of the IBM z14 Model ZR1 (z14 ZR1) and the new entry model of LinuxONE the IBM LinuxONE Rockhopper II (Rockhopper II) both become generally available on May 31, 2018. They were announced on April 10, 2018.

The z14 ZR1 is the new low end to midrange server for (z/VSE) mainframe workloads.

The data sheets for the two servers are here:

- [z14 ZR1](#)
- [Rockhopper II](#)

Announcement letters are here:

- [z14 ZR1](#)
- [Rockhopper II](#)

Links to related z14 ZR1 IBM Redbooks are [here](#).

Before you upgrade to z14 ZR1, please use the corresponding PSPs (Preventive Service Planning) buckets for z/VSE and z/VM to prepare your systems:

- z/VSE PSP bucket - [Upgrade 3907DEVICE, Subset 3907/ZVSE](#)
- z/VM PSP bucket - [Upgrade 3907DEVICE, Subset 3907/ZVM](#)

For hardware and software migrations / upgrades we have a white paper too on the z/VSE technical articles page

- [z/VSE Version/Release and Hardware Upgrade](#).

The link to that page is in the [IBM Knowledge Center for z/VSE](#) (see Find Documents section).

Tags: announcement, availability, upgrade, vse, psp, redbook, z14

Next blog entry on Monday - June 4 (2018-05-31)

We had a public holiday on Thursday and I am not in the office on Friday. Therefore you can expect my next one on Monday.

Have a good weekend.

Tags: vse

z/VSE service news: TCP/IP for z/VSE 2.1 and CICS APARs (2018-05-30)

The last blog entries occurred twice. Sorry. It seems to be a software problem, I will try to resolve that.

We just released a new IBM TCP/IP for z/VSE 2.1 APAR (z/VSE 6.1). It includes many zaps as listed in the APAR description.

As usual more information about the zaps is on the CSI support web page - [here](#).

APAR [PI96701](#) (PTF UI55313): TCP/IP FOR Z/VSE SERVICE PACK 2.1.9

There are also new APARs for CICS TS. The links to the CICS TS fix lists are on the z/VSE corrective service web page - [here](#).

The new z/VSE support web pages are [here](#).

Tags: support, ptf, service, tcpip, apar, vse, cics

How to find z/VSE technical articles and hints & tips (2018-05-29)

On Friday I informed you about the new z/VSE web pages - see [here](#).

Some information is moved to the IBM Knowledge Center for z/VSE - see [this link](#).

In the section "Find Documentation" you can find the links to the Hints & Tips books as well as the link to the technical articles.

The direct link to z/VSE Hints & Tips and technical articles is [here](#).

Tags: technical, vse, tips, article, hints

How to find z/VSE technical articles and hints & tips (2018-05-29)

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The direct link to z/VSE Hints & Tips and technical articles is [here](#).

Tags: article, vse, hints, tips, technical

2018 VM Workshop - a conference with z/VSE track (2018-05-28)

We are approaching the 2018 VM Workshop. It is still time to register.

This conference is scheduled from **June 28 to June 30** in Greensboro, NC, USA.

It covers Linux on IBM Z, z/VM and z/VSE topics and also provides hands on lab sessions.

The registration link and more information is on [this page](#).

On the bottom of this page you can view the session list (agenda).

Please see deadlines for polo shirt, Dorm and reception / dinner on reservation page (May 31 deadline).

Tags: vm, vse, linux, vm_workshop, conference

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Tags: vm_workshop, conference, linux, vm, vse

New web pages for IBM Z operating systems (2018-05-25)

The IBM Z operating system web pages got a new structure (z/OS, Linux on Z, z/VM, z/VSE, z/TPF). These new web pages will replace the older ones.

Therefore I recommend to bookmark this [link](#).

If you are only interested in z/VSE, [this link](#) will direct you to the new z/VSE home page.

Even more information about z/VSE is in the IBM Knowledge Center. The link to the z/VSE 6.2 Welcome page is [here](#).

Have a good weekend.

Tags: vse, linux, operating_system, web_pages, vm

z/VSE service news: VSE/AF, TCP/IP (2018-05-24)

Today I have a few new APARs / PTFs for you.

The most important one is the **IBM TCP/IP for z/VSE 2.2** update for z/VSE 6.2. Therefore I start with that one.

APAR [PI95095](#) (PTF UI54581): TCPIP FOR ZVSE SERVICE PACK 2.2.3

The APAR text describes, which zaps are included. The zap description is on the CSI (product fixes) web page - [here](#).

VSE/AF APARs

z/VSE 6.2 APAR [DY47738](#) (PTF UD54267): MSG 0J21I ISSUED WITH INCORRECT MSG TEXT SYS JA=YES ASSUMED BECAUSE OF TURBO DISPATCHER ACTIVATION

z/VSE 6.1 APAR [DY47742](#) (PTF UD54268)

Error description: Message 0J21I SYS JA=YES ASSUMED BECAUSE OF TURBO DISPATCHER ACTIVATION is issued during IPL. However the message number belongs to another message. The correct message number is 0J64I.

z/VSE 6.2 APAR [DY47764](#) (PTF UD54305): INCOMPLETE JOB AND EOJ MESSAGES DURING REDISPLAY - EXCESSIVE USE OF DYQ MESSAGE QUEUE

Error description: During redisplay of console messages, the VSE JOB and EOJ messages are corrupted. For both type of messages, the first line is shown as blanks, only the second line with the DATE and CLOCK values is displayed correctly. This is probably related to an excessive use of the DYQ queue (the console router queue for delayed messages).

z/VSE 5.2 APAR [DY47772](#) (PTFs UD54303 UD54304): ENDLESS LOOP IN VSE SUPERVISOR RAS ROUTINES WITH A CHANNEL CHECKAND NO LPUM IN IRB ESW

Error description: Endless loop in VSE Supervisor RAS routines with a channel check and no LPUM in IRB ESW.

Tags: vse, tcpip, apar, service, support, ptf, af

Hints & Tips for z/VSE 6.2 available (2018-05-23)

Now I am back from my travel after two conferences and a few days vacation and can inform you about the latest news for the z/VSE (mainframe) platform.

I will start with a long expected news: The z/VSE 6.2 Hints & Tips book is available on the z/VSE documentation page. It's a book with 373 pages.

The z/VSE Development Team has updated existing information where needed and added new information to reflect the latest z/VSE enhancements.

We hope, that this book provides information to better understand new and existing functions and make it easier to analyze and solve problems.

You can download the z/VSE Hints & Tips book from [here](#).

Tags: hints, tips, documentation, vse, book

z/VSE 6.2 RSL ? (2018-05-01)

There was a question on a z/VSE 6.2 Recommended Service Level (RSL) on VSE-L today.

There is no z/VSE 6.2 RSL available yet.

RSLs are posted on the z/VSE preventive service web page, [here](#).

Next blog entry on May 23,2018 (Wednesday) (2018-05-01)

I plan the next blog entry for Wednesday May 23, 2018, when I am back in my office.

I am at IBM Systems conferences in Orlando and London. And we have some public holidays in southern Germany.

Tags: vse

New Linux white paper available (2018-04-30)

There is a new white paper available for Linux on IBM Z.

Topic: Linux Channel Bonding Best Practices and Recommendations

This white paper describes channel bonding configurations on different Linux distributions on IBM Z, and explains the recommended options for the Linux bonding driver.

It can be downloaded from the IBM Knowledge Center - [here](#).

Tags: linux, networking, vse, white_paper

z/VSE service news (2018-04-27)

There are new z/VSE 6.2 APARs for [Language Environment](#), [VSE/VSAM](#) and [VSE/AF](#) available.

[CICS for z/VSE and CICS TS for VSE/ESA](#) have new APARs too.

The following APARs are are not yet listed, but available too.

z/VSE 5.2 APAR [DY47768](#) (PTF UD54295): HARDWAIT FEC WHEN PROCESSING A GENERIC ASSGN STATEMENT (LIKE: ASSGN SYSXXX,DISK,VOLID=CCCCC,SHR) WITH NOTOP DISK DEVICES)

Error description: When a generic ASSGN statement is processed (like: ASSGN SYSxxx,DISK,VOLID=cccccc,SHR) and one of the DISK devices is in NOT-OPERATIONAL state, it may happen occasionally that the VSE Supervisor SENESE task runs into a program check. This results in a Hardwait FEC.

z/VSE 6.1 APAR [DY47769](#) (PTF UD54301): CONSOLE MESSAGE "EZA102I FUNCTION CODE X.. NOT SUPPORTED" NEEDS TO BE PREVENTED OUTSIDE OF EZA TRACE.

Error description: Console message "EZA102I Function Code x.. not supported" needs to be prevented outside of EZA trace.

Have a good weekend.

Tags: af, vse, ptf, cics, le, service, apar, support

z/VSE PTF tape delivery will be dropped (2018-04-26)

PTF orders (from Shopz) for z/VM and z/VSE will no longer be delivered on tape. Starting July 16, 2018, it is planned to support Internet and DVD delivery only.

More information is [here](#).

Tags: shopz, service, vse, support, delivery, ptf, tape

Next blog entry on Thursday (April 26) (2018-04-23)

I am at a conference - GSE Spring Meeting. Therefore you will see my next blog entry on Thursday.

Tags: vse

z/VM 7.1 preview (2018-04-20)

Last week I informed you about important announcements for the mainframe, z/VSE and z/VM. I am not sure, if you read the z/VM 7.1 preview.

It does not only inform you about the z/VM 7.1. plans, it also provides information about the current z/VM 6.4 release.

-- When z/VM V7.1 becomes available, z/VM V6.4 will receive only corrective service.

-- IBM intends to keep z/VM V6.4 orderable for 18 months after the general availability of z/VM V7.1.

-- For planning purposes, z/VM V6.4 users will receive corrective service for 30 months after the general availability of z/VM V7.1.

-- Planned availability for z/VM 7.1 is 3rd quarter 2018.

Please see the IBM disclaimer for future plan in the announcement letter.

The announcement letter is [here](#).

Have a good weekend.

Linux on IBM Z performance white paper: HiperSockets in a KVM environment (2018-04-19)

The Linux on IBM Z performance team just published a white paper in the IBM Knowledge Center.

Title: Exploiting HiperSockets in a KVM Environment Using IP Routing with Linux on Z - Results and Findings

The IBM Z platforms provide the HiperSockets technology feature for high-speed communications. This paper demonstrates how to set up, configure, and exploit the advantages that HiperSockets offer in an environment supporting KVM virtual machines.

The white paper can be downloaded [here](#).

Tags: hipersockets, vse, performance, linux, kvm, white_paper

z13 / z13s end of marketing announced (2018-04-18)

Last week IBM announced the end of (withdrawn from) marketing for the IBM Z servers z13 and z13s. The last dates you can order the withdrawn products are one day before the effective withdrawal dates.

See the announcement letter for withdrawn dates. The announcement letter is [here](#).

z13 / z13s are the last servers that support IPL in ESA/390 architecture.

With z14 / z14 ZR1 IPL is only possible in z/Architecture mode. That is VSE/ESA and z/VSE 3.1 releases can not be IPLed on these servers, because these releases require ESA/390 architecture IPL.

z/VSE V4 can only IPL on z14 / z14 ZR1 in a z/VM guest, not in LPAR. z/VSE V5 and z/VSE V6 can IPL in LPAR or z/VM guest. PTFs may be required.

Tags: vse, z13, eos, end-of-service, z13s

IBM Redbook blog: z14 ZR1 (2018-04-17)

The new IBM z14 ZR1 mainframe was announced last week, see the [announcement letter](#).

The iBM Redbooks team posted a "5 things to know" blog entry related to this announcement.

Topic: "Five things to know about the IBM z14 Models (M01-M05 and ZR1)".

The Redbooks blog entry is [here](#).

Tags: announcement, redbook, z14, mainframe, vse, blog

Next blog entry on Tuesday, April 17 (2018-04-14)

I am on a business trip. Therefore you can expect my next blog entry on Tuesday.

Have a good weekend..

Tags: vse

New IBM Redbooks are available (z14 ZR1, disk, tape, LinuxONE) (2018-04-12)

New / updated IBM Redbooks for the new mainframe IBM z14 ZR1 announced on Tuesday this week are now available:

- [IBM z14 Model ZR1 Technical Introduction, SG24-8550](#)
- [IBM Z Connectivity Handbook, SG24-5444](#)
- [IBM Z Functional Matrix, REDP-5157](#)

There are 3 other IBM Redbooks / Redpapers that might be of interest:

- [IBM DS8880 and IBM Z Synergy \(disk storage\)](#)
- [IBM TS7700 Release 4.1 and 4.1.2 Guide \(tape storage\)](#)

... and ...

- [Consolidation Planning Workbook: Practical migration from x86 to Linux ONE \(Draft\)](#)

Tags: redpaper, vse, linuxone, tape, z14, disk, redbook

z/VSE 6.2 service news: Debug Tool APAR (2018-04-11)

Yesterday there was a discussion about a Debug Tool problem on VSE-L. Dovid, thanks for reminding me.

The Debug Tool requires an update, because of the new CICS TS for z/VSE V2 releases. We resolved that issue with an APAR some time ago.

APAR [PI75848](#) (PTF UI44467): ENHANCE DT/VSE WITH CICS TS FOR Z/VSE

PROBLEM DESCRIPTION: This APAR is required to run DT/VSE with CICS/TS for z/VSE 2.1.0 or a follow-on CICS TS release.

Tags: service, debug_tool, cics, support, apar, vse

Today's announcements: z/VSE 6.2 and DL/I 1.12.1 update, a new z14 ZR1, z/VM V7.1 (2018-04-10)

Today are at least two important IBM announcements for z/VSE customers:

- 1) z/VSE 6.2 and DL/I update
- 2) z14 ZR1 - a new IBM Z midrange mainframe

Besides that there were 2 more announcements that might be of interest.

- 3) z/VM 7.1 preview
- 4) a new LinuxONE server

Let's start with the z/VSE announcements:

z/VSE 6.2 is now available since December 1, 2017 - see my related [blog entry](#). In between we got very positive feedback about its new functionality and the new release is well accepted.

With the z/VSE 6.2 availability announcement last October, we already mentioned that there will be a DL/I update called DL/I partitioning. The refresh of DL/I VSE V1.12 - DL/I VSE V1.12.1 introduces a partitioning function for hierarchical direct (HD) databases. This eliminates the 4 GB limit of a segment type and thus allows clients to meet the needs for growing DL/I.

Let's start with the z/VSE announcements:

1. In between we got very positive feedback about z/VSE 6.2's new functionality and the new release is well accepted. z/VSE 6.2 will now be enhanced with a new DL/I 1.12 refresh - DL/I 1.12.1. DL/I VSE 1.12.1 can only run on z/VSE 6.2. The former DL/I VSE V1.12.0 is supported on z/VSE 6.2 too. Migration to the new DL/I VSE 1.12.1 should be easy. If you don't use partitioning, the database will not change. The availability is planned for June 22, 2018.

There is another z/VSE 6.2 enhancement for IBM Storage: z/VSE will allow for the backup of data using ICKDSF Flashcopy while the z/VSE PAV (Parallel Access Volume) support is active and thus fulfill customer requirements.

This enhancement will be provided as PTF at a later time.

The z/VSE announcement letter is [here](#).

2. Now to the new midrange mainframe - z14 ZR1:

z/VSE 5.2, z/VSE 6.1 and z/VSE 6.2 support the IBM z14 and z14 ZR1 with PTFs.

The support is already available with the general availability version of z/VSE V6.2, which include:

- Elliptic Curve Cryptography (ECC) with a Crypto Express6S in a z14 may result in accelerated data-in-flight encryption.
- The Vector Facility for z/Architecture of a z14, also referred to as Single Instruction Multiple Data (SIMD), may improve performance and is supported by z/VSE for user applications.
- High performance FICON for z Systems (zHPF) may improve the performance of selected input/output-intensive user applications.

Features exclusive to z14 include:

- Configurable Crypto Express6S for data encryption and SSL acceleration
- FICON Express16S+
- OSA-Express6S family

The IBM z14 ZR1 announcement letter is [here](#).

The z/VSE prerequisites (APARs, considerations, etc.) for z14 are described in the Preventive Service Planning (PSP) bucket (UPGRADE: 3906DEVICE, SUBSET: 3906/ZVSE) - [here](#), available since some time. The z14 ZR1 PSP is [here](#).

The z14 ZR1 PSP is for UPGRADE: 3907DEVICE, SUBSET: 3907/ZVSE

There was also an announcement about a new LinuxONE server: IBM LinuxONE Rockhopper II

The announcement letter is [here](#).

... and there is a z/VM 7.1 preview announced. The announcement letter is [here](#).

Tags: dli, z14, announcement, linuxone, vm, vse

Next webcast: IBM Secure Service Container (2018-04-09)

The next webcast is scheduled for April 25, 2018, 11:00 AM EST.

Topic: IBM Secure Service Container

Abstract: Clients expect cloud applications to be fast, always available, and their data to be protected - without fail. In this session, you'll hear about how Secure Service Container (SSC), an IBM-exclusive open technology, enables secure creation and deployment of next-generation applications, both on- and off-premises. SSC protects the full stack from external and insider threats, enables automatic encryption of data in-flight and at-rest, and is trusted and tamper-resistant during installation and runtime. It also requires no applications changes.

The z/VSE Network Appliance is based on SSC.

That information and the registration link is [here](#).

Tags: lvc, vse, webcast, vna, security

z/VSE 6.2: VSAM space considerations (2018-04-06)

You may decide to upgrade to z/VSE 6.2 via an initial installation or Fast Service Upgrade (FSU), if you want to upgrade from z/VSE 6.1. If you are coming from z/VSE Version 5, you have to do an initial installation, because FSU from z/VSE Version 5 to z/VSE Version 6 is not supported.

The z/VSE 6.2 system layout (DOSRES, SYSWK1) changed. Please consider that you need more VSE/VSAM space for the PRD1 and PRD2 libraries:

- PRD1 about 6000 more library blocks,
- PRD2 about 1000 more library blocks.

Please see the z/VSE 6.2 Planning book for details. It can be downloaded from [here](#).

Have a good weekend.

Tags: installation, fsu, fast_service_upgrade, vse, vsam

2018 VM Workshop - Early Bird Special will end soon (2018-04-05)

The 2018 VM Workshop is a conference, that provides 2 and a half day full with sessions covering Linux on IBM Z, z/VM and z/VSE. It is scheduled from **June 28 to June 30, 2018** in Greensboro, NC, USA.

The Early Bird Special ends on April 30, 2018.

More information and the registration page can be found on this [link](#).

Tags: linux, conference, vm_workshop, vm, vse

z/VSE 6.2 service news: LISTCAT APAR DY47755 (2018-04-04)

I hope you enjoyed Easter last weekend. In between it is spring in southern Germany.

Last week I informed you about a VSE/VSAM LISTCAT problem and APAR DY47755. You may have read it on VSE-L: The PTF is now available for download from Shopz.

z/VSE 6.2 APAR [DY47755](#) (PTF UD54300): IDC3009I ** VSAM CATALOG RETURN CODE IS 74

Error description: LISTCAT ALL of Master Catalog returns IDC3009I ** VSAM CATALOG RETURN CODE IS 74 - REASON CODE IS IGG0CLAZ-4

LISTCAT ALL or LISTCAT USERCATALOG of Master Catalog returns IDC3009I ** VSAM CATALOG RETURN CODE IS 74 - REASON CODE IS IGG0CLAZ-4 due to incorrect sanity check for Usercatalog (U-type) catalog records.

Tags: vsam, service, ptf, vse, support, apar

Happy Easter ! Next blog entry on Wednesday - April 4 (2018-03-30)

We have a holiday today and on Monday. I will be back on Wednesday.

Happy Easter !!

Tags: vse

Conference with z/VSE sessions in London (2018-03-29)

Beginning of this month I informed you about the upcoming conferences - IBM Systems Technical University, GSE and VM Workshop - see [here](#).

Today I want to remind you, that the early bird saver rate for the IBM Systems Technical University in London, United Kingdom is only available until March 31, 2018. This conference is scheduled from **May 14 to May 18, 2018**. More information (agenda, registration link, ...) is [here](#).

Speaker topics are IBM z14, IBM z/OS Ver 2.3, IBM z/VM Ver 6.4, Linux on z Systems, LinuxONE, IBM z/VSE, IBM Storage, Performance, Monitoring and Capacity Planning, Professional Development, Security and Pervasive Encryption, System Networking, CICS, IMS, WebSphere, APIs and Blockchain, DB2, Spark and Machine Learning for z/OS, DevOps and Application Development, Hybrid cloud.

I will give the following z/VSE sessions:

- z/VSE Update
- Security on z/VSE
- z/VSE Hints & Tips: Migration to new hardware and releases

If you have any topic to discuss, just let me know and we can meet during the conference.

I am looking forward to see you there.

Do you want to order z/VSE 6.2 ? - REF fixed (2018-03-28)

On March 12 I informed you, that the z/VSE 6.2 order together with the PTFs was rejected. See my blog entry - [here](#). That is if you specify REF.

Now this issue is fixed and you can use REF as usual. With this field you get all PTFs since z/VSE 6.2.0 together with your z/VSE 6.2 order. However, this will just be a very few PTFs.

Tags: support, ref, order, ptf, vse, service, shops

Do you use the ASI Master Procedure (\$ASIPROC) ? (2018-03-27)

Today's blog entry is related to the ASI Master Procedure (\$ASIPROC).

If you are not aware of it, you can use one ASI Master Procedure (\$ASIPROC) to IPL z/VSE systems tailored to their CPU ids.

A typical example of using an ASI master procedure is an environment with multiple z/VSE systems sharing the DOSRES (system residence) disk device or an environment where two or more z/VSE systems run as guest systems under VM.

In the \$ASIPROC you can specify the IPL and JCL procedure that should be used dependent on the CPU id.

The \$ASIPROC and its content / syntax is described in the z/VSE Guide to System Functions. This book can be downloaded from [here](#).

Tags: ipl, vse, procedure, asiproc

z/VSE service news: LISTCAT All problem - APAR DY47755 (2018-03-26)

Today I noticed a discussion on VSE-L about APAR DY47755.

The problem occurs on z/VSE 6.2 only and will be fixed by this APAR: LISTCAT ALL of the Master Catalog returns IDC3009I ** VSAM CATALOG RETURN CODE IS 74 - REASON CODE IS IGG0CLAZ-4

The verification (test) of the corresponding PTF is in the very last stages. I will keep you posted, when it is available.

Tags: apar, ptf, vse, vsam, support, service

Where to find z/VSE information (2018-03-23)

The [z/VSE home page](#) can always be used as a start, if you are looking for z/VSE related information.

However, in between z/VSE has a nice IBM Knowledge Center appearance. There you can find links in good structured information. You also can select supported releases and get to release specific information and documentation.

The Knowledge Center for z/VSE is [here](#).

Have a good weekend.

Our weekend in Germany will be shorter, because we switch to daylight savings time on Sunday.

How to find required ISV PTFs for z/VSE releases (2018-03-22)

If you want to upgrade to a new z/VSE release, preferred z/VSE 6.2, you usually check, if your ISV (Vendor) software requires any updates.

I hope we made it a bit easier to find the corresponding information on the z/VSE Vendor product status web pages.

All listed vendors support the z/VSE releases in service - z/VSE 5.2, z/VSE 6.1, z/VSE 6.2.

You can find this web page [here](#).

Tags: support, vse, isv, vendor, service

Next blog entry on Thursday (2018-03-20)

I did not have time today for a blog entry and will have too many meetings tomorrow.

Therefore I plan my next one for Thursday, March 22.

How to retrieve information about your z/VSE system (2018-03-19)

The SIR Attention Routine (console) command provides important information about your system.

Just use the SIR with out a parameter or SIR SYS to display the following information on the console:

- (VM) CPUID and VSE CPUID - CPUID composed of the CPU Identification Number along with the Version Code followed by the Model Number your native system is running on. VSE CPUID shows the virtual CPUID, if the z/VSE system is running in a z/VM guest.
- PROCESSOR= processor type and serial number
- LPAR= No= LPAR name and number
- CPUs (Ded. Shr.) number of configured CPUs and number of dedicated or shared CPUs in LPAR
- Cap. logical partition capability adjustment factor. Less then 100%, if you hard-capped - the LPAR absolute capping
- VM-SYSTEM. z/VM release and z/VM service level
 - USERID - z/VM guest userid
 - VMCF= - if ON, you may submit z/VSE console commands from CMS guests to z/VSE
 - CPUs - virtual CPUs defined for the z/VM guest
 - Cap. - maximum cap. cap value defined for z/VM guest.
- PROC-MODE - processor mode - always z/Arch(64-BIT) since z/VSE 4.1
- IPL(xxx) - IPL cuu (VSE device address) and IPL time and date
- SYSTEM = z/VSE xxx - z/VSE release / refresh level and date of release / refresh
- VSE/AF xxx - VSE/AF release number and latest APAR and service date (APAR close date)
- VSE/POWER xxx - last APAR fix and date applied to VSE/POWER
- IPL-PROC - specifies the IPL procedure (default \$IPLESA)
- JCL-PROC - specifies the JCL procedure, that was used during the IPL process (as of teh IPL or \$ASIPROC)
- SUPVR - IPLed z/VSE Supervisor name
- TURBO-DISPATCHER (xx) ACTIVE - xx shows the service level of the Turbo Dispatcher
- The following fields are only displayed, if the corresponding function is active:
 - HARDWARE COMPRESSION ENABLED
 - CAPACITY MEASUREMENT ACTIVE

- PAV SUPPORT ACTIVE
- SEC. MGR. = BASIC SECURITY = ONLINE - security manager related information. "BASIC" is the default = Basic Security Manager (BSM). Otherwise the name of the External Security Manager (ESM) as specified in the SYS EMS command.
- SECURITY = ONLINE - may be appended with "and BATCH", if SYS SEC=YES is specified in the IPL procedure (DTSECTAB - batch security)

A more detailed example is shown in the z/VSE Hints & Tips book. You may download it from the z/VSE Documentation page [here](#).

In case you open a PMR the SIR output should also go with it.

Tags: information, service, sir, vse, command, service_level

z/VSE service news: CICS APARs (2018-03-16)

Today I have 2 new APARs for the CICS Transaction Server for z/VSE 2.2 (CICS TS for z/VSE 2.2), which is part of the z/VSE 6.2 base.

The CICS Level 3 team added those APARs to their Fix List.

[APAR PI91507](#) (PTF UI53706): USING CICS WEB SUPPORT RECEIVES DFHAP0001 ABEND CODE 0C6/AKEA AT OFFSET X'FFFFFFFF' IN MODULE DFHWBBLI.

Error description: This problem only occurs in CICS for z/VSE 2.2 (430) as distributed with z/VSE 6.2. DFHAP0001 Abend code 0C6/AKEA offset X'FFFFFFFF' in DFHWBBLI

Each abend results in an ASRA transaction dump as well as the AP0001 dump. The type of program check can vary depending on the failing PSW address and could also be 0C1 or 0C4. You might see a similar abend reported at offset x'FFFFFFFF' in DFHWBA.

The problem can also affect the CICS Explorer. There might be subsequent abends in other modules and a PC0409 abend that causes CICS to terminate.

The problem only occurs when Monitoring is active in the system, i.e SIT MN=ON. This may be dynamically enabled by Vendor CICS Performance Monitors.

[APAR PI91103](#) (PTF UI53707): RFS DISKR COMMAND FAILS WITH RETURN CODE 12

Error description: Customer migrated from z/VSE 5.2 to z/VSE 6.1. As part of the process they tailored the REXX for CICS component and migrated over, their existing Rexx File System (RFS) VSAM clusters. They then tailored and made use of the new supplied CIC*.PROC members in PRD1.BASE. Afterwards, they were able to successfully execute the provided IVP (CICIVP1.PROC) without any issue. However, any attempt to access members in the RFS fails with a RC=12 from any 'RFS DISKR' command. This includes the internal 'RFS DISKR' command invoked as part of the internal REXX EDIT Server for full screen edit.

The "Fix list for CICS TS for z/VSE 2.2 is [here](#).

Have a good weekend.

Mainframe operating systems at one place (2018-03-15)

At the IBM web pages the mainframe (IBM Z) operating systems have their own web page - z/OS. Linux on z Systems, KVM on z Systems, z/Transaction Processing Facility (z/TPF), z/VM and z/VSE.

Each one has its own section with a short summary and a link to its home page.

The IBM Z operating system web page is [here](#).

New VOLUME command (performance) options (2018-03-14)

The VOLUME command displays on the console a short summary of the volumes on disk or tape devices. The output shows volume usage, volumes that are shared with other systems, device capacity, device type and more.

The volume command senses all devices for that information, which can take some time on large configurations, especially if you added dummy devices for later use e.g. for VTAPES or VDISKS (no VTAPE / VDISK defined, or not backed by real devices). For dummy devices the z/VSE Supervisor has to scan all I/O subchannels to verify, if there is any device attached. This is an CPU intensive loop. During this time, your attention routine (AR) might be blocked. AR has a higher priority than all other user task, including e.g. CICS, VTAM, TCP/IP. That is the VOLUME command may also impact the processing of user tasks.

You may use the OFFLINE command to avoid the subchannel scan for dummy devices and ONLINE before you want to use them.

With z/VSE 6.2 we introduced new parameters to reduce this impact. Now you can limit the output of devices to DISK, VDISK, ECKD, FBA (and SCSI), TAPE, VTAPE or USED / UNUSED devices.

The VOLUME command is described in the z/VSE System Control Statements book. It can be downloaded from the z/VSE Documentation page - [here](#).

Tags: vtape, vse, volume, command, ar, tape, vdisk, disk, device

z/VSE 6.2 delivery (2018-03-13)

Today I will describe how z/VSE 6.2 is delivered.

The z/VSE 6.2 operating system and/or related Optional Products are delivered either on DVD ROM or through Internet delivery. See also the ReadMe file, which is part of the delivery.

z/VSE 6.2 on DVD-ROM

3 files of the z/VSE operating system and the 12 files of the installation disk utilities are on one DVD and the optional products are on a separate DVD in stacked format (one file)

- the Operating System DVD contains:
 - ReadMe File
 - z/VSE Base (AWS format)
 - z/VSE Extended Base (AWS format)
 - DB2 Server for VM & VSE Help Text (AWS format)
 - 12 Files (utilities) to create an installation disk
- the Optional Product DVD contains:
 - ReadMe File
 - Optional Products (VSE stacked format, one AWS file)

z/VSE 6.2 via Internet delivery

to be downloaded, you will receive following files

- ReadMe File
- z/VSE Base (AWS format)
- z/VSE Extended Base (AWS format)
- DB2 Server for VM & VSE Help Text (AWS format)
- Zip file containing the 12 files to create an installation disk (ZIP format)
-
- Optional Products (delivered in separate AWS files, one per optional product)

Internet delivery is provided via [IBM Shopz](#).

Please refer to Program Directory manual (chapter 2.2) on [z/VSE documentation page](#) for more information regarding the file structure.

The installation instructions, which describe the next steps for processing these files, can be found in manuals

- z/VSE 6.2 Installation, SC34-2678-01, or
- z/VSE 6.2 System Upgrade and Service, SC34-2680-01,

both available at the

- [z/VSE documentation page](#)
- [IBM Knowledge Center](#)
- [IBM Publications Center](#)

Tags: operating_system, download, dvd, installation, shopz, vse, optional_product, delivery

Do you want to order z/VSE 6.2 ? (2018-03-12)

I recommend to upgrade to z/VSE 6.2 as soon as possible to stay in a serviced environment for a long term, because z/VSE 5.2 service ends October 31, 2018 and z/VSE 6.1 service ends June 30, 2019.

You can order z/VSE 6.2 via IBM Shopz - [here](#). You need to license all products that you require on z/VSE 6.2, even if they come with the z/VSE 6.2 base or extended base, such as CICS TS for z/VSE 2.2, IBM TCP/IP for z/VSE 2.2 or IBM IPv6/VSE 1.3 - see the z/VSE 6.2 Program Directory for details - [here](#).

If you want to order z/VSE 6.2 together with the PTFs, you usually use the REF field to get all PTFs since a specific level. For z/VSE 6.2 that would be z/VSE 6.2.0. Here is a problem today, that we will fix. If you specify REF, your order will be rejected.

Until this will be fixed, don't specify REF, instead specify the PTFs as listed in on the z/VSE service and support page - corrective service - [here](#).

There are just a few APARs / PTFs so far with no prereqs.

Tags: upgrade, shopz, support, vse, service, migration

Next blog entry on Monday, March 12, 2018 (2018-03-06)

I need to skip the next days. That is you will see my next blog entry next Monday.

I wish you a good rest of the week.

Tags: vse

Next conferences (2018-03-05)

Today I summarize the conferences with z/VSE sessions. Below you can find the dates with links to the conference web pages.

- April 15 - 17 Cairo, Egypt [IBM Systems Technical University](#)
- April 23 - 25. Nuremberg, Germany [GSE Fruehjahrstagung \(conference language: German\)](#)
- April 30 - May 4 Orlando, Florida [IBM Systems Technical University](#)
- May 14 - 18 London, United Kingdom [IBM Systems Technical University](#)
- June 28 - 30 Greensboro, North Carolina [VM Workshop 2018](#)

Tags: vm_workshop, vse, ise, conference, zuniversity

z/VSE service: VSE Virtual Tape Server updated (2018-03-02)

In my z/VSE service [blog entry on February 16](#) I informed you about z/VSE Connector APARs PI92815 (z/VSE 6.2), PI92814 (z/VSE 6.1) and PI92810 (z/VSE 5.2) for the z/VSE releases in service.

The VSE Virtual Tape Server is updated for these APARs. The update is available for download from the z/VSE Download page for connectors - [here](#).

Have good weekend.

Tags: service, vtape, server, download, vse, apar, support, connector

Linux webcast: Securing your data with HyperSecure DBaaS (2018-03-01)

Today I have again a Linux topic. The next Linux webcast is scheduled for **March 7, 2018** at 11:00 AM EST.

Topic: Securing your data with HyperSecure DBaaS

Abstract: Is your (client) data really safe? Do you wish to provision a secure boot fully encrypted client Database without specialized skills? Do you have the need to monitor and maintain a secure DBaaS environment while only the client controls access to his data? And all of this by providing a highly available Database automatically? This session explains you how the IBM Cloud Service HyperSecure DBaaS addresses these questions.

The registration link is on the new Linux on IBM Z and IBM LinuxONE webcast page - [here](#).

Reminder: International Linux on IBM Z and IBM LinuxONE Workshop (2018-02-28)

Some weeks ago I informed you about the International Linux on IBM Z and IBM LinuxONE Workshop.

It is scheduled for **March 21-22, 2018** in the IBM Lab in Boeblingen, Germany. You can still register until March 14.

Agenda highlights are

- What's New - Linux on IBM Z
- Upstream news KVM
- Database as a Service (DBaaS)
- Secure Service Container (SSC) for IBM Z
- Continuous availability with GDPS and xDR
- z/VM update
- Container and IBM Z in the Cloud
- Multi Factor authentication in a Linux for IBM Z environment
- End-to-end Protection for Data-at-rest in Linux on IBM Z and LinuxONE
- z14 Performance Update & Testing Experience
- SCSI over FCP for Linux on IBM Z
- Experiences with PostgreSQL on Linux on IBM Z

More information, the links to the agenda and registration are on the IBM web page - [here](#).

Daylight Saving Time (DST) change is coming soon (2018-02-27)

Today a reminder as every year. The Daylight Saving Time (DST) change is coming soon.

Many countries change to Daylight Saving Time (DST) in March. E.g. Canada and the USA will change on March 11, 2018 (most states), Germany on March 25. The clock is turned forward one hour at 2 am.

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#).
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

Tags: vse, ast, daylight_saving_time

z/VSE Service: FILE PROTECT error with z/VM 6.4 (2018-02-26)

If the VTOC is placed at the end of a volume, z/VSE might get a FILE PROTECT error on z/VM 6.4, if STP_STIMESTAMPING is enabled in the z/VM system.

This issue is resolved with

z/VM 6.4 APAR [VM66104](#) (PTF UM35279): Z/VSE GUEST FAILS WITH UNIT CHECK/FILE PROTECT ERROR

Error description: z/VSE guest program failing with Unit Check and sense indicating File Protect error. This fails only on 640. Previous releases report Unit Check with End of Cylinder.

As a workaround disable STP_TIMESTAMPING and instead enable STP_TIMEZONE in z/VM, if STP is required for time zone synchronization only in that particular z/VM system (not guest).

Tags: stp, vse, file_protect, vtoc, vm

Linux webcast topic changed: PostgreSQL on Linux on IBM Z (2018-02-23)

Sorry, my colleagues changed the topic for the upcoming Linux webcast. The topic "ECM for Linux on z Systems -A case study with WAS Cluster and Spectrum Scale" I announced yesterday, will be scheduled later this year.

The new topic is: Open Source on IBM Z: Experiences with PostgreSQL on Linux on IBM Z

Date: February 28, 2018 at 11:00 AM EST

Abstract: There is a huge momentum at Linux on IBM Z customers regarding Open Source solutions. Some customers are already running mission-critical solutions based on Open Source software on top of Linux, some are evaluating Open Source solutions for their projects, but virtually everybody is at least looking at them. This session introduces the PostgreSQL Open Source database, with a strong focus on how to performance-tune it. The audience will learn about the most important performance-related PostgreSQL settings, what to consider regarding typical production-related tasks like backup and restore, and how to design a high-performance PostgreSQL environment.

The registration link is [here](#)

Have a good weekend.

Linux webcast: ECM for Linux on IBM Z case study (2018-02-22)

The Linux team created a new web page for Linux on IBM Z and IBM LinuxONE webcasts. The next one is scheduled for **February 28, 2018**.

Topic: ECM for Linux on z Systems -A case study with WAS Cluster and Spectrum Scale

Abstract: This presentation will give an overview of an end-to-end scale-out case study for multiple Enterprise Content Management (ECM) nodes in a WebSphere Application Server (WAS) Cluster. Spectrum Scale was used as the underlying parallel filesystem to share the FileNet File Storage Area among the ECM nodes. The presentation covers setup aspects as well as performance results for the system under test. After registering, you will receive a confirmation email containing information about joining the webinar.

The registration link is [here](#) - on the new web page.

Tags: linux, webcast, vse, lvc, live-virtual-class

z/VSE conference: GSE spring meeting in Nuremberg (2018-02-21)

Today I want to remind you about the **GSE spring meeting** in Nuremberg for z/VSE, z/VM, KVM and Linux on IBM Z topics. The conference language is German.

It is scheduled from **April 23 to 25, 2018**.

The room contingent is reserved until February 23, 2018. You can still register thereafter. However, there may be no free rooms in the conference hotel.

The links to the agenda and reservation are [here](#).

Tags: gse, conference, vse

z/VSE LVC today: CICS TS Performance (2018-02-20)

Just a quick reminder: Today (**February 20, 2018**) is our first z/VSE Live Virtual Class (LVC) this year on CICS Performance.

Topic: What Mother Never Told You About CICS TS for z/VSE Performance

This presentation is based on what Mike Poil have learned while working in CICS Level 3 Service at Hursley as a result of his own performance evaluations, resolving customer performance PMRs and working onsite with customers on performance issues. While some of the information can be found in previous LVC and WAVV presentations, it has been brought up-to-date and enhanced. It may add to or correct information in the current CICS TS for VSE/ESA Performance Guide. Real world examples and Mike's own performance evaluation results are included.

More information is [here](#).

Tags: performance, lvc, cics, live-virtual-class, vse

z/VSE service: PSP for z/VSE 6.2, z/VSE Installed Software Report Tool (2018-02-19)

Last week there was an entry on VSE-L with title "PSP for z/VSE 6.2". Thanks for that, Kevin !

Kevin got too many PTFs not related to z/VSE 6.2 from IBM Shopz. I assume, he used the z/VSE Installed Software Report Tool output to order the PTFs. The tool generates the report from the z/VSE History File based on the CLC (component level code). The reason for that many PTFs is, that the IBM IPv6/VSE product has the same CLC (F10) as a very old end of service VSE component - VSE/SP Unique Code 5.1.0. MSHP will ignore the superfluous PTFs. So that will not cause any problem.

Remark: IBM TCP/IP for z/VSE 2.2 and IPv6/VSE 1.3 are pre-installed on z/VSE 6.2. If you don't have a license for one of these products, please run the corresponding delete jobs (DELTCPIP or DELIPV6) from ICCF library 59.

So you can reduce the number of PTFs, if IPv6/VSE is not licensed.

We will also add a description to the Hot Service News - [here](#).

If you are interested in the z/VSE Installed Software Report Tool, you can download it [here](#).

Tags: ptf, vse, tools, news, service, isr, software_report, shopz, download, psp, support

z/VSE service news: connectors, crypto, CICS TS, LE (2018-02-16)

If you installed z/VSE 6.2, we recommend to install the two APARs described in this blog entry. Otherwise you may get the following problem in your CICS environment:

DFHKE1800 without any preceding error message. USERS AFFECTED:

- All OpenSSL users using crypto cards. RECOMMENDATION: INSTALL DY47749 ON PTF UD54274.
- All Connector Users. RECOMMENDATION: INSTALL PI91225 on PTF UI52573

In my blog entry from January I informed you about those 2 APARs, see [here](#). This time I added CICS related information.

z/VSE 6.2 APAR [DY47749](#) (PTF UD54274): LDAP SIGN ON VIA SSL/TLS FAILS, IF CRYPTO CARDS ARE USED

Error description: When using the z/VSE LDAP client with OpenSSL via the LE/C multiplexer (EDCTCPMC), an error occurs, if Crypto Express cards are used. The error is caused by an incorrect switching to key zero for accessing a card, but not switching back to the correct CICS key. This APAR corrects key zero handling in phase IJBCRLIB for accessing crypto cards.

z/VSE 6.2 APAR [PI91225](#) (PTF UI52573): MISC PROBLEMS IN VSE CONNECTORS

Misc problems in VSE Connectors:

- 1.) The VSE Connector Server configured to use SSL/TLS may hang or drop the connection when uploading large amounts of data
- 2.) When performing an LDAP signon via the VSE Connector Server the second and any subsequent signon attempt fails with FDBK=112 when LDAP signon is configured to use SSL.
- 3.) When a batch program that uses EXCI (External CICS Interface) also uses the VSAM Redirector (with EXIT='IESREDIR') it may receive EXCI error 419 (CICS_AFCB_PRESENT).

... and now new APARs:

z/VSE Connectors

z/VSE 6.2 APAR [PI92815](#) (PTF UI53401): THE VSE VTAPE SERVER DOES NOT ALLOW TWO OR MORE VTAPES FROM THE SAME IP AND FOR THE SAME CUU AT THE SAME TIME

z/VSE 6.1 APAR [PI92814](#) (PTF UI53403)

z/VSE 5.2 APAR [PI92810](#) (PTF UI53402)

Error description: The VSE VTAPE Server does not allow two or more VTAPES from the same IP address and for the same CUU at the same time. This can happen when multiple z/VSE systems are connecting to the VTAPE Server through one Fast Path to Linux on System z (LFP) system, or through one z/VM VSE IP Assist (VIA) system, or through one z/VSE Network Appliance (VNA) system, so that those z/VSE systems appear under the same IP address to the VTAPE Server.

Language Environment

z/VSE 6.2 APAR [PI91645](#) (PTF UI52866-62W): OPERATION EXCEPTION (OC1) DURING CONDITION HANDLING FOR INTER-LANGUAGE APPLICATION (ILC) USING COBOL AND PL/I

Error description: LE/COBOL event handling may fail during cleanup processing when experiencing conditions in interlanguage communication scenarios using COBOL and PL/I programs. The detailed symptom might be similar to:

```
CEE3321C EXECUTION FAILED WITH VSE CANCEL CODE 20 AND  
INTERRUPTION CODE 01
```

z/VSE 6.2 APAR [PI91646](#) (PTF UI52865-62K): LE/VSE CONDITION MANAGEMENT MAY NOT DETECT ALL INTERNAL CONDITIONS IF RAISED FOR CICS APPLICATIONS

Error description: ON ERROR unit handling for interrupts (if present in PLI/CICS applications) may not be entered for special event cases such as a `FIXEDOVERFLOW` or `SIZE` condition. From an outside point of view it may look like the condition (if raised) is ignored. A secondary symptom can also be that no LE/VSE dump (`CEE5DMP`) is taken in such a situation.

Have a good weekend.

z/VSE standalone dump to analyze problems (2018-02-15)

The z/VSE standalone dump is a tool to take a dump in case of a severe error (e.g. hardwait or system loop). The z/VsE Level 2 team may ask for it to analyze a problem. Therefore you should have a standalone dump tape or disk prepared. Best would be, if you do that during the migration to a new z/VSE release.

A standalone dump is a dump of selected parts of virtual storage. The program records the shared space and the partitions in separate files on the standalone dump tape or on a disk device. Before you can take a stand-alone dump, you have to prepare a tape or disk device on a running z/VSE system. You may use the DOSVSDMP utility. The easiest way to do that is to use the IUI dialog. If you want to write the stand-alone dump to disk, first find free space on a disk device, e.g. via the IUI dialog 2 Resource Definition -> 3 Display VTOC. I recommend to create the stand-alone dump not on DOSRES.

- For tape use the IUI dialog 4 Problem Handling -> 6 Dump Program Utilities -> 1 Create Standalone Dump Program on Tape.
- For disk use the IUI dialog 4 Problem Handling -> 6 Dump Program Utilities -> 2 Create Standalone Dump Program on Disk.

You can create the stand-alone dump on ECKD devices since a long time. With z/VSE 6.2 you can also create a standalone dump on SCSI or FBA devices.

You may set the priority order for partitions, data spaces and memory objects via the Job Control "// OPTION" statement.

If you have to take a standalone dump, please "store status" first and IPL the stand-alone dump program on tape or disk.

A standalone dump program should always be re-created on the new release, if you upgrade to a new release or service refresh (SPE) via initial installation or Fast Service Upgrade (FSU), and whenever you apply a PTF that affects the standalone dump.

More information about the standalone dump program and tools is described in the z/VSE Guide for Solving Problems. It can be downloaded from the z/VSE documentation page [here](#).

Tags: vse, stand-alone_dump, problem, dump

z/VSE release migration: performance (2018-02-14)

In each new z/VSE release we provide new functionality. Some enhancements are addressing new hardware, some z/VSE's batch and online software stack. If the enhancements affect the main path of the system, it could be that those have minimal impact on CPU resources. If you run application, that make heavy use of system services such as I/O, you may see up to 5% additional CPU usage in case you migrate to a new release. Often the additional CPU requirements per release are less than 3%. If you can benefit from enhancements of the new release you can even get better CPU utilization or elapsed times.

If you plan to migrate to a new processor or new release, please migrate to the new processor first and run your current workload for a while, then migrate to the new release. So it would be easier to detect performance issues.

Tags: vse, migration, performance, release, upgrade, processor

No blog entry today (2018-02-13)

I will skip today, because I am not in the office.

Enjoy carnival !

Migration to new hardware or a new z/VSE release (2018-02-12)

We describe some migration hints and tips in the "z/VSE Version/Release and Hardware Upgrade" white paper. It can be downloaded from the z/VSE technical article web page - [here](#).

Just from past experience, if there are customer complaints about performance differences on the new environment, in most cases there are no historical data from the old environment.

In such a case it is hard, if not impossible to analyze the cause of the problem. Therefore good practice is to gather (performance) data from the old environment before the migration/upgrade, such as console logs, CPU utilization and elapsed times, I/O timings, etc. Best would be a workload, that can repeatedly run with same results. The white paper gives some additional tips what to consider.

Please let me know, if you have any tips from your migration experiences, that are not covered..

Tags: migration, white_paper, performance, upgrade, vse, paper, documentation, document, technical

IBM Redbook: z14 Technical Guide (2018-02-09)

The new IBM Redbook "**IBM z14 Technical Guide**" was just uploaded to the IBM Redbook pages.

You can find it [here](#).

Table of contents:

- Chapter 1. Introducing the IBM z14
- Chapter 2. Central processor complex hardware components
- Chapter 3. Central processor complex system design
- Chapter 4. Central processor complex I/O system structure
- Chapter 5. Central processor complex channel subsystem
- Chapter 6. Cryptographic features
- Chapter 7. Operating system support
- Chapter 8. System upgrades
- Chapter 9. Reliability, availability, and serviceability
- Chapter 10. Environmental requirements
- Chapter 11. Hardware Management Console and Support Elements
- Chapter 12. Performance
- Appendix A. IBM Secure Service Container framework
- Appendix B. Channel options
- Appendix C. Native Peripheral Component Interconnect Express
- Appendix D. Shared Memory Communications
- Appendix E. IBM Dynamic Partition Manager
- Appendix F. IBM zEnterprise Data Compression Express

Have a good weekend.

Tags: redbook, guide, z14, technical, vse

System Integrity web page (2018-02-08)

Are you aware of the IBM Z System Integrity web page ? You can find it [here](#).

This page contains links to integrity statements and security portals for z/OS, z/VM, z/TPF and z/VSE. It also has a link to the IBM Z Security portal.

For z/VSE the security and system integrity portal is on the z/VSE service and support preventive service page - [here](#). There is no need to register for the IBM Z Security Portal.

We just added information to the z/VSE security and system integrity portal. See update for February 6.

Tags: service, security, support, integrity, vse

IBM Redpaper: IBM DS8880 and IBM Z Synergy (2018-02-07)

Today I celebrate my 1001st blog entry. I started on February 6, 2013.

I just saw an IBM Redpaper draft on the Redbook pages, that might be of interest : IBM DS8880 and IBM Z Synergy.

You can download that paper from [here](#).

I know, it is more high end related. Therefore please let me know, if I should make you aware about such publications.

z/VSE 6.1 end of service announcement (2018-02-06)

Today there were several **end of service** announcements, which also affect z/VSE.

The following announcements were made:

Releases to be withdrawn from service on **June 30, 2019**:

Product name	Version	Product number
• IBM CICS Transaction Server for z/VSE	2.1.0	5655-VSE
• IBM IPv6/VSE	1.2.0	5686-BS1
• IBM TCP/IP for z/VSE	2.1.0	5686-CS1
• IBM z/VSE	6.1.0	5686-VS6

That is all releases specific to z/VSE 6.1 and z/VSE 6.1 itself will go out of service on June 30, 2019.

If you want to stay in a supported environment, you have some time for a migration to z/VSE 6.2 with CICS TS for z/VSE 2.2, TCP/IP for z/VSE 2.2 and IPv6/VSE 1.3.

The announcement letter is [here](#).

Tags: vse, announcement, service, support, eos, end-of-service

Concurrent microcode upgrade with z/VSE (2018-02-05)

Last year I had already a blog entry on this subject. Just last weeks I had multiple enquiries about "Concurrent Microcode upgrade with z/VSE" for IBM System Storage. Therefore I re-post this topic today.

z/VSE does not support concurrent microcode upgrade during a z/VSE system is active. Therefore I strongly recommend to shutdown the z/VSE system(s) for disk storage microcode upgrades, do the upgrade and re-ipl the z/VSE system. I would not plan the upgrade, if dependent z/VSE systems are still active.

The following recommendations are on the z/VSE web page - [here](#).

Concurrent microcode upgrade for IBM System Storage

Please consult your device documentation.

Recommendation for **IBM Disk Storage**:

- (E)CKD disks: z/VSE recommends to shutdown the z/VSE system prior to the microcode upgrade for local disks and also if remote disks are coupled via PPRC.
- FCP-attached SCSI disks: z/VSE does not support concurrent microcode upgrade for FCP-attached SCSI disks.

Recommendation for **IBM Tape Storage**:

z/VSE with the latest service level supports concurrent microcode upgrade for IBM Tape Storage. z/VSE recommends to take the tape units offline (z/VSE OFFLINE command) prior to the microcode upgrade or use the next maintenance window. Once the upgrade completed, take the tape units online again (z/VSE ONLINE command). Please check with your software vendors (e.g. tape management systems), if they support concurrent microcode upgrade.

Tags: concurrent, update, vse, service, tape, support, microcode, upgrade, disk

IBM Redbook: Security on z/VSE update ? (2018-02-03)

Sorry for the late blog entry. My notes crashed and therefore I lost the content for Friday's blog entry.

For today I want to have your input / feedback for the security Redbook.

This Redbook is some years old in between and we had new releases, which added new security functionality such as firewall support for our TCP/IP stacks, crypto enhancements, new dialogs, HTTP 1.1 in CICS, etc.

- Should we updated the Redbook "Security on IBM z/VSE" ?
- Is there anything that we should add ?

You can download the Redbook from [here](#).

Have a good weekend.

Tags: update, security, redbook, vse

z/VSE security portal (2018-02-01)

Two years ago we introduced the z/VSE security portal. Today I want to remind you about this section on the z/VSE preventive service & support page.

We strongly recommends that users of the z/VSE Operating System validate the currency of security and System Integrity service and take action to promptly install all security and integrity PTFs.

The z/VSE security portal is [here](#).

Tags: portal, support, security, vse, service

z/VM service: Red Alerts (2018-01-31)

Today's blog entry is related to z/VM users. Are you aware of the **z/VM service Red Alert** web page ?

This page is intended to provide information about potential high-impact items and in some cases prior to the opening of an APAR.

The Red Alerts web page is [here](#).

Tags: red_alert, service, vse, vm

Next z/VSE LVC: CICS TS Performance (2018-01-30)

We plan the next z/VSE Live Virtual Class (LVC) for Tuesday, **February 20, 2018**.

Topic: What Mother Never Told You About CICS TS for z/VSE Performance

This presentation is based on what Mike Poil have learned while working in CICS Level 3 Service at Hursley as a result of his own performance evaluations, resolving customer performance PMRs and working onsite with customers on performance issues. While some of the information can be found in previous LVC and WAVV presentations, it has been brought up-to-date and enhanced. It may add to or correct information in the current CICS TS for VSE/ESA Performance Guide. Real world examples and Mike's own performance evaluation results are included.

More information is [here](#).

Tags: vse, performance, cics, live-virtual-class, lvc

z/VSE service news: AF and Connector APARs and CICS (2018-01-29)

Today I have a few new APARs for VSE/AF and z/VSE Connectors.

VSE/AF

z/VSE 6.2 APAR [DY47749](#) (PTF UD54274): LDAP SIGN ON VIA SSL/TLS FAILS, IF CRYPTO CARDS ARE USED

z/VSE 6.1 APAR [DY47732](#) (PTF UD54262)

Error description: When using the z/VSE LDAP client with OpenSSL via the LE/C multiplexer (EDCTCPMC), an error occurs if Crypto Express cards are used. The error is caused by an incorrect switching to key zero for accessing a card, but not switching back to the correct CICS key. This APAR corrects key zero handling in phase IJBCRLIB for accessing crypto cards.

z/VSE6.2 APAR [DY47737](#) (PTF UD54270): HARDWAIT FFF WHEN SYSTEM RUNS OUT OF PROCESSOR STORAGE USING 64-BIT I/O APPLICATIONS

Error description: 1) HW FFF when system runs out of processor storage using 64-bit I/O applications, 2) The DUMP command does not print 64-bit general registers (only 31-bit registers)

z/VSE Connectors

z/VSE 6.2 APAR [PI91225](#) (PTF UI52573): MISC PROBLEMS IN VSE CONNECTORS

Error description: Misc problems in VSE Connectors:

- 1.) The VSE Connector Server configured to use SSL/TLS may hang or drop the connection when uploading large amounts of data
- 2.) When performing an LDAP signon via the VSE Connector Server the second and any subsequent signon attempt fails with FDBK=112 when LDAP signon is configured to use SSL.
- 3.) When a batch program that uses EXCI (External CICS Interface) also uses the VSAM Redirector (with EXIT='IESREDIR') it may receive EXCI error 419 (CICS_AFCB_PRESENT).

z/VSE 6.1 APAR [PI88355](#) (PTF UI51983): VSE CONNECTOR SERVER CONFIGURED TO USE SSL/TLS HANGS OR DROPS CONNECTION WHEN UPLOADING LARGE AMOUNTS OF DATA

Error description: The VSE Connector Server configured to use SSL/TLS may hang or drop the connection when uploading large amounts of data

You can find these APARs on the z/VSE corrective service page [here](#).

The best start for **CICS APARs** is with the "Fixes by version for CICS products - [here](#).

Tags: connector, cics, vse, support, af, service

Any proposals for blog entries or LVCs ? (2018-01-26)

Today I want to get your input for blog entries or Live Virtual classes (LVCs).

What are the areas of interest I should address in my blog ? Are there specific functions or topics I should describe ?

We also need topics for the z/VSE Live Virtual Classes. The next LVC planned for February will address CICS performance. I will inform you, when the LVC web page is updated.

Do you have any proposals for LVCs we should provide ?

I am looking forward to your feedback.

Have a good weekend.

z/VSE 6.2: more enhancements (2018-01-25)

Two days ago I had a blog entry on some minor z/VSE 6.2 enhancements - see [here](#). I forgot two customer requirements that we implemented in z/VSE 6.2.

The requirement "**JCL return code on z/VSE job cancel**" was raised in the **Request for Enhancements (RFE) tool**. The RFE id is 79183.

You can use [this link](#) to get to the RFE tool to search for existing requirements or submit new requirements. More information is on the z/VSE requirements page - [here](#).

To search for a requirements you need to log in with your IBM id.

Back to the JCL return code requirement: The direct link to requirement z9183 is [here](#).

Prior to z/VSE 6.2, when a VSE Job gets canceled, the JCL return code is not updated. So it could happen that a VSE job is terminated with a maximum return code of 0 (or with no return code at all), although the job was canceled by the VSE system or by the operator. z/VSE 6.2 provides new Job Control standard options (STDOPT) which, when defined, will automatically set a JCL return code when a job is canceled. There are different STDOPTS for abnormal termination, operator cancel, and JCL cancel situations. Each of these STDOPTS may be temporarily overwritten with a Job Control OPTION statement within a job. The VSE system behavior is unchanged if neither the new STDOPT nor the new OPTION statements are specified. The Job Control and Attention Routine commands QUERY STDOPT and QUERY OPTION are extended to show the setting of the new standard and temporary options.

To provide even more flexibility in automatic job processing, z/VSE 6.2 also extends the Job Control SET command to set the JCL last return code and the maximum return code.

One more enhancement: **parameter for LPAR name:**

z/VSE 6.2 provides a new pre-defined system level symbolic parameter named IJBLPNM. This parameter contains the name of the LPAR where z/VSE is running (either native or as a VM).

The **z/VSE 6.2 Release Guide** gives a quick overview about the z/VSE 6.2 enhancements. It can be downloaded from the z/VSE documentation page - [here](#).

Tags: jcl, enhancements, vse, attention_routine

z/VSE service news: RSLs available (2018-01-24)

New Recommended Service Levels (RSLs) are available for z/VSE 5.2.0 and z/VSE 6.1.0. The RSL cutoff was December 30, 2017.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#)

z/VSE 6.2: some minor enhancements (2018-01-23)

In past blog entries I already discussed new functions provided with z/VSE 6.2 (see my summary [here](#)). Today I want to discuss some minor enhancements not yet mentioned. Those enhancements fulfill customer requirements.

VSE/AF

VOLUME console command

new parameters are added:

ACTIVE / INACTIVE

ACTIVE limits the output to devices that have an active status in the STATUS column

DISK | VDISK | TECKD | TFBA | TAPE | VTAPE

limits the output to the given device types, VOLUME DISK limits the output to CKD, ECKD and FBA disks.

QT (Query Tape) console command

new parameters are added:

ACTIVE / INACTIVE

ACTIVE limits the output to devices that have an active status in the STATUS column

VTAPE command / statement

A new TIMEOUT parameter is added.

Specifies the maximal number of seconds that VTAPE command processing waits for the Tape Data Handler partition to become operational.

n must be a decimal number in the range 1 - 900. If the TIMEOUT parameter is omitted, a default of 10 seconds is in effect.

See the z/VSE 6.2 System Control Statements for details.

VSE/POWER

PSTART / PSTOP PNETSNA / PNETTCP / PNETSSL command

to start / stop a connection to all other nodes via SNA, TCP/IP or TCP/IP SSL support

See the z/VSE 6.2 VSE/POWER Administration and Operation for details.

VSE Connectors

VSEScript Server Trace function

A new trace option is added. It can be enabled in the properties file globally and maintained via the traceon / traceoff commands. There are 3 trace areas: INSTRUCTIONS, CONDITIONS and PARAMETERS.

See the z/VSE 6.2 e-business Connectors User's Guide for details.

Interactive Interface

Sort VSE/POWER biggest entries for all queues by size: Select Operations (on z/VSE Function Selection panel) -> Manage Batch Queues - > new option 7 = Biggest Queue

See z/VSE 6.2 Administration for details

The z/VSE 6,2 books are on the z/VSE Documentation page - [here](#).

Tags: enhancements, connector, vse-power, af, vse, iui

z/VSE - z/VM end of service dates (2018-01-22)

This blog entry is a reminder for the z/VSE and z/VM end of service dates.

Let's start with the **z/VM** releases that are end of service since **December 31, 2017**, which are z/VM 5.4 and z/VM 6.3. More information is [here](#).

The only supported z/VM release today is z/VM 6.4. It supports processors z114 and z196 or higher. See the z/VM 6.4 General Information book for details.

It can be downloaded from the IBM Knowledge Center - [here](#).

Now to **z/VSE 5.2** and related products: z/VSE 5.2 end of service is **October 31, 2018**.

The following products will go end of service at that date:

- IBM CICS Transaction Server for VSE/ESA 1.1.1 - 5648-054
- IBM TCP/IP for VSE/ESA 1.5.0 - 5686-A04
- IBM z/VSE 5.2.0 - 5609-ZV5
- IBM z/VSE Central Functions 9.2.0 - 5686-CF9
- IBM IPv6/VSE 1.1.0 - 5686-BS1

The eos announcement letter is [here](#). You may also visit the z/VSE status web page [here](#).

The releases in service after October 2018 are z/VSE 6.1 and z/VSE 6.2.

Please migrate to a supported release. My recommendation is z/VSE 6.2 and z/VM 6.4.

Linux LVC: From Containers to Cloud with Linux on IBM Z (2018-01-19)

Today I have again a Linux topic: The first Live Virtual Class (LVC) is planned for **Wednesday, January 24, 2018**.

Time: 11:00 AM EST / New York, 5:00 PM CET / Germany

Duration: 75 minutes

Topic: From Containers to Cloud with Linux on IBM Z

Containers have been hyped for some time now. This webcast will outline usage and attributes of container solutions in the context of Linux on IBM Z. You will also learn about current approaches and projects and how all that relates to Cloud setups.

More information and the registration link will be posted - [here](#).

Have a good weekend.

New IBM Redpaper: Security and Linux on z Systems (2018-01-18)

There is a new IBM Redpaper available for download on the IBM Redbook web pages.

Title: Security and Linux on z Systems

This Redpaper discusses security practices for running Linux on z Systems on the IBM z14. It examines the unique security and integrity features that the IBM Z platform brings to the enterprise. It also examines pervasive encryption and its role in protecting data at rest.

Table of contents:

- Chapter 1. Why Security and Encryption
- Chapter 2. Data security and Linux on Z Systems
- Chapter 3. Pervasive encryption: Data-at- rest encryption
- Chapter 4. Pervasive encryption: Data in flight encryption
- Chapter 5. IBM Secure Service Container

You can download the Redpaper - [here](#).

Tags: redbook, linux, vse, redpaper, encryption, security

International Linux on IBM Z and IBM LinuxONE Workshop (2018-01-17)

For today's blog entry I have a workshop scheduled for March 21-22, 2018, in the IBM Germany Lab in Boeblingen for Linux on IBM Z users.

It is the International Linux on IBM Z and IBM LinuxONE Workshop.

Agenda highlights are

- What's New - Linux on IBM Z
- Upstream news KVM
- Database as a Service (DBaaS)
- Secure Service Container (SSC) for IBM Z
- Continuous availability with GDPS and xDR
- z/VM update
- Container and IBM Z in the Cloud
- Multi Factor authentication in a Linux for IBM Z environment
- End-to-end Protection for Data-at-rest in Linux on IBM Z and LinuxONE
- z14 Performance Update & Testing Experience
- SCSI over FCP for Linux on IBM Z
- Experiences with PostgreSQL on Linux on IBM Z

More information and the registration link is on the IBM web page - [here](#).

Tags: vse, linux, linuxone, conference, vm, workshop

Happy New Year ! Conferences in 2018 (2018-01-16)

I wish you a **happy, successful and healthy New Year !**

As a start I want to summarize the conferences where we plan z/VSE sessions (with links to the conference web pages):

- March 6-8 [IBM Systems Technical University](#) in Cairo, Egypt
- April 23-25 [GSE Fruehjahrstagung 2018](#) in Nuernberg, Germany (Language: German)
- June 28-30 [VM Workshop 2018](#) in North Carolina Agricultural and Technical State University, Greensboro, NC, US
It is targeted to z/VSE users running z/VSE in z/VM guests as well as in LPARs (without z/VM).
- October 22-24 [12th European GSE/IBM Technical University](#) for z/VSE, z/VM and Linux on z Systems in Dresden, Germany (Language: English, German)

Conference dates are also available on z/VSE's event web page - [here](#).

Tags: conference, vse, gse, vm_workshop

Merry Christmas - next blog entry on January 16, 2018 (2017-12-18)

This is my 985th blog entry since I started in February 2013. In 2017 I had more than 170 entries.

Today's entry will be my last one for this year. You can expect my next blog entry on **January 16, 2018**.

I wish you and your families a Merry Christmas and a happy, successful and healthy New Year.

Enjoy your holidays.

New IBM Redpaper: Scale up for Linux on IBM Z (2017-12-15)

On the IBM Redbook pages I found a paper about Linux on IBM Z, that may of interest for you.

IBM Redpaper title: Scale up for Linux on IBM Z

This book was written by IBM IT specialists who have experience implementing IBM Z solutions, especially Linux on IBM LinuxONE (LinuxONE) or IBM Z servers. Therefore, the content of this book follows the guidelines from Linux and z/VM regarding LinuxONE and IBM Z installations. The preferred practices described in this book are gathered from the experiences of those specialists in hundreds of projects at IBM and customer environments.

The paper can be downloaded from [here](#).

Enjoy your weekend.

IBM Z white paper: Network Storage Protocols in a KVM Environment (2017-12-14)

The IBM KVM / Linux performance team just published a new white paper.

Title: IBM Z: Network Storage Protocols in a KVM Environment NFS/SMB/iSCSI Report

This white paper describes the performance difference among NFS, SMB, and iSCSI network storage protocols when running FIO (flexible I/O tester) workloads in a KVM environment.

You can download the white paper from the IBM Knowledge Center - [here](#).

Tags: workload, linux, performance, white_paper, vse, kvm

New IBM Z software pricing and SCRT web pages (2017-12-13)

There is a new set of IBM Z software pricing web pages available. They contain information and links about pricing, Multi-Version Measurement (MVM), licensing (e.g. monthly license charge - MLC), tools, resources (e.g. latest pricing news) and a help section.

The "Tools" section has information about SCRT (sub-capacity reporting tool) and links to the latest downloads for different platforms (SCRT Java tool on z/OS, Windows, Linux) and a "How to" link with additional information, e.g. for z/VSE.

The IBM Z software pricing pages are [here](#) and the corresponding "Tools" section [here](#).

Please see also my blog entries related to MVM and SCRT. Just select the tag "SCRT" on the right of my blog. As a result you will see a list of SCRT related blog entries - like that.

Tags: pricing, sub-capacity, vse, multi-version_measurement, scrt, mvm

z/VSE Service news: CICS, AF and connector server APARs (2017-12-12)

There are a few new APARs for z/VSE 5.2 and z/VSE 6.1 components available.

You can find the latest z/VSE APARs on the z/VSE corrective service and support web pages - [here](#).

CICS TS APARs are on the [CICS TS for z/VSE 2.1](#) or [CICS TS for VSE/ESA 1.1.1](#) fixlists.

VSE/AF

z/VSE 6.1 APAR [DY47740](#) (PTF UD54266): LINUX FAST PATH DOES NOT HANDLE ETIMEDOUT CORRECTLY. THIS MAY CAUSE A LOOP IN THE SOCKET APPLICATION

z/VSE 5.2 APAR [DY47739](#) (PTF UD54265)

Error description

When Linux Fast path receives an ETIMEDOUT error during receiving of data, this is not correctly indicated to the socket application. It may cause that SELECT reports the socket as ready, but a subsequent RECV does not have anything to receive. This may cause a loop in a socket application working with non-blocking sockets.

Connector Server

z/VSE 6.1 APAR [PI88355](#) (PTF UI51983): VSE CONNECTOR SERVER CONFIGURED TO USE SSL/TLS HANGS OR DROPS CONNECTION WHEN UPLOADING LARGE AMOUNTS OF DATA

z/VSE 5,2 APAR [PI88354](#) (PTF UI51982)

Error description

The VSE Connector Server configured to use SSL/TLS may hang or drop the connection when uploading large amounts of data.

CICS TS

CICS TS for z/VSE 2.1 APAR [PI84983](#) (PTF UI52079): RFS DISKR COMMAND FAILS WITH RETURN CODE 12

Error description

Customer migrated from z/VSE 5.2 to z/VSE 6.1. As part of the process they tailored the REXX for CICS component and migrated over, their existing Rexx File System (RFS) VSAM clusters. They then tailored and made use of the new supplied CIC*.PROC members in PRD1.BASE. Afterwards, they were able to successfully execute the provided IVP (CICIVP1.PROC) without any issue. However, any attempt to access members in the RFS fails with a RC=12 from any 'RFS DISKR' command. This includes the internal 'RFS DISKR' command invoked as part of the internal REXX EDIT Server for full screen edit.

Tags: apar, service, af, connector, cics, support, vse

z/VSE LVC: z/VSE 6.2 presentation and replay available (2017-12-11)

We just uploaded the presentation and replay of the last Live Virtual Class (LVC). You can download them from our LVC web page.

Title: **z/VSE 6.2** (held on November 28, 2017)

The LVC web page is [here](#).

Tags: replay, live-virtual-class, lvc, presentations, vse

Next LVC on December 13: Linux on IBM Z - What's New? (2017-12-08)

The next Linux Live Virtual Class (LVC) is scheduled for Wednesday, **December 13, 2017**.

Topic: Linux on IBM Z - What's New?

Abstract: This presentation will give an overview of the Linux on IBM Z project. It will show Linux as an very active open source project and will give you insight into what makes Linux so special. During this session you will learn about the newest features of the Linux kernel and what these features can do for you.

The registration link is on the z/VM LVC web page - [here](#).

Have a good weekend.

Tags: vse, live-virtual-class, lvc, news, linux

New IBM Redbook for IBM Storage (2017-12-07)

If you are interested in IBM Storage devices, the new IBM Redbook "IBM DS8880 Architecture and Implementation" may be useful.

You can download that book [here](#).

This book describes the concepts, architecture, and implementation of the IBM DS8880 family. The book provides reference information to assist readers who need to plan for, install, and configure the DS8880 systems.

Tags: vse, redbook, eckd, device, scsi, disk, storage

DB2 for VM end of marketing announced (2017-12-06)

Yesterday IBM also announced the end of marketing (eom) for DB2 for VSE and VM 7.5 (VM / Windows features only - product number 5697-F42).

The following VM features will be withdrawn from marketing March 12, 2018:

- S0149S6 Client Edition VM
- S0149SB Client Edition VM
- S00T41G REXX SQL VM
- S00T3SR REXX SQL
- S00TC2G Control Center VM
- S00TC29 Data Restore VM
- S00TC1P DB2 Server VM
- S00TBZL QMF for VM

The following Windows features of IBM DB2 Server for VSE and VM will be withdrawn from marketing March 12, 2018:

- S00T41N QMF for Windows feature of DB2
- S00T41P QMF for Windows feature of QMF
- S00T3SX QMF for Windows

After the eom date those features can no longer be ordered. The end of marketing announcement with more details is [here](#).

Tags: vse, vm, end-of-marketing, db2, announcement, eom

z/VSE 6.1 end of marketing announcements (2017-12-05)

Today IBM announced the end of marketing (eom) for z/VSE 6.1 and related products.

Releases withdrawn from marketing December 1, 2017:

- IBM TCP/IP for z/VSE 2.1.0 (product number 5686-CS1)
- IBM IPv6/VSE 1.2.0 (product number 5686-BS1)
- IBM z/VSE 6.1.0 (product number 5686-VS6)

Release withdrawn from marketing January 28, 2018 (no longer orderable since December 1, 2017):

- IBM CICS Transaction Server for z/VSE 2.1.0 (product number 5655-VSE)

After the eom date those products can no longer be ordered. New z/VSE Shopz orders get z/VSE 6.2 and related products.

The end of marketing announcement with more details is [here](#).

How to get the z/VSE status and supported hardware (2017-12-04)

I am often asked for the status of z/VSE releases and about supported processors, IBM storage and adapters.

You can find that information on our z/VSE pages. Start with the [z/VSE home page](#), select "About z/VSE" (Browse z/VSE)) on your right. On the "About z/VSE" page, click on the "Status" tab. Here is the direct [link](#). There you see the status of supported releases. Below that table and notes is a link about "[Information on unsupported z/VSE and VSE/ESA releases](#)".

Further down you can find the z/VSE server support per release, z/VSE support for adapters and crypto, and z/VSE Storage support.

z/VSE 6.2 is GA ! (2017-12-01)

Today is the GA date of z/VSE 6.2 and related products such as CICS TS for z/VSE 2.2, IBM IPv6/VSE 1.3 and IBM TCP/IP for z/VSE 2.2. You can order z/VSE 6.2 on Shopz.

Below is a short summary about the z/VSE 6.2 content:

- Hardware support
 - High Performance FICON (zHPF)
 - z13 / z14 Vector Facility (Single Instruction Multiple Data - SIMD)
 - Elliptic Curve Cryptography (ECC) accelerated with CryptoExpress5S of z13 / z13s or CryptoExpress6S on z14, exploited by openSSL
 - FlashCopy Space Efficient (SE) for Extent Space Efficient (ESE) volumes configured in an DS8880
 - Tapeless initial installation using SCSI or FBA disks
 - Support for stand-alone dump on SCSI disks
- CICS TS for z/VSE 2.2 enhancements
 - CICS Explorer enhancements (define programs, files, etc.)
 - Channels & containers enhancements
 - HTTP 1.1 upgrade for CICS Web Support (CWS)
 - Assembler main (Language Environment) support for applications
- Connector enhancements
 - z/VSE SOAP engine to exploit Channels and Containers
 - new z/VSE Representational State Transfer (REST) engine with JSON (JavaScript Object Notation) support
 - z/VSE database connector enhancements
- Security enhancements
 - Basic Security Manager (BSM) enhancement
 - IUI dialog for batch resources (DTSECTAB security)
 - SSL/TLS support of openSSL or SSL of TCP/IP stack in CICS Web Support
 - EZA Multiplexer and EZA openSSL support
 - SSL/TLS connection to secure remote VTAPE network transfer
 - LDAP sign-on enhancements
 - VSE/POWER enables TLS 1.0 (and higher) for PNET SSL connections
- Networking enhancements
 - Linux Fast Path (LFP) running as z/VM guest can communicate with with a TCP/IP stack in LPAR

- IBM IPv6/VSE 1.3
 - New FTP server security interface
 - SSH copy facility
 - TXT2PDF generation facility
- IBM TCP/IP for z/VSE 2.2
 - Provides TLS 1.1 and 1.2 support

More information about z/VSE 6.2 is on the [z/VSE web page](#) or in my blog - see z/VSE 6.2 related blog entries since October 10.

The z/VSE 6.2 [Release Guide](#) provides short descriptions to each new function. z/VSE 6.2 books are uploaded to the [z/VSE documentation page](#).

Have a good weekend !

Tags: release, ga, vse

z/VSE 6.2 now added to the IBM Knowledge Center (2017-11-30)

The IBM Knowledge Center is a good source for any kind of technical information related to IBM products. The z/VSE welcome page is [here](#). On the left you can find the selection for supported releases.

We just added z/VSE 6.2. If you select zVSE 6.2, you get to this [page](#). There you get an overview and some links to z/VSE related information.

On the left you see a "**Table of contents**" tab. It expands to entries for PDF Library, Understanding Syntax diagrams, Continuation of Commands and Statements, ...

Further down you see the most important books in Knowledge Center format.

We hope, you like it. I would be interested in your feedback. Just add a comment to this blog entry or send me an email. Thanks in advance.

Tags: vse, kc, knowledge_center

z/VSE Network Appliance (2017-11-29)

This week I got questions about the z/VSE Network Appliance (VNA).

To refresh memories I will provide details about VNA and how it is used. Then I will answer a question from Victor.

The z/VSE Network Appliance is available for z13, z13s and z14 and can be used with z/VSE 5.1, 5.2, 6.1 and 6.2. z/VSE was the first exploiter of the new infrastructure, called Secure Service Container.

VNA is available at no additional cost. It is provided on request. If you have a valid z/VSE 5.1, 5.2, 6.1 or 6.2 license, you may request VNA on the VNA web page - [here](#). VNA will be serviced through the VSE/AF component of z/VSE.

Just a short description of the z/VSE Network Appliance. If you want to read more, please use my blog entry I posted in February 2016 - [here](#).

The z/VSE Network Appliance (VNA) builds on the z/VSE Linux Fast Path (LFP) function and provides TCP/IP network access without requiring a TCP/IP stack in z/VSE. The appliance utilizes the new Secure Service Container introduced on z13 and z13s servers. The Secure Service Container is a new LPAR (partition) type which, along with an appliance installer, enables the secure deployment of software and firmware appliances. The Secure Service Container LPAR requires CPU resources (e.g. (shared) Intergrated Faciliy for Linux (IFL)) and disk storage. Compared to a TCP/IP stack in z/VSE, the VNA can support higher TCP/IP traffic throughput while reducing the processing resource consumption in z/VSE. z/VSE V5 and 6.1 systems connecting over HiperSockets to VNA need to run in an LPAR. It can not be accessed from a z/VM guest. With z/VSE 6.2 you can even access the VNA from a z/VM guest. For z/VM environments we also provide the z/VM IP Assist (VIA), available on z114 and z196 or higher. VIA provides network access for TCP/IP socket applications running on z/VSE as a z/VM guest.

I got the following question:

Are there any standard TCP/IP applications, that are provided with VNA ?

No, VNA is an appliance, it just provides the network access. The socket application has to run on z/VSE and connects through the Linux Fast Path to the VNA LPAR.

Most of the IBM provided socket applications can be used with the VNA, such as the z/VSE connectors, applications that use the EZA socket interfaces ,... If you

want to run e.g. FTP, you can use the IPv6/VSE applications. TCP/IP for z/VSE applications (FTP, ...) cannot access VNA.

Tags: tcpip, vse, linux_fast_path, appliance, application, vna, network, lfp

You can order z/VSE 6.2 now (2017-11-28)

Shopz is setup for z/VSE 6.2. That is you can order z/VSE 6.2 now, which includes all z/VSE 6.2 related products and optional products. It will GA end of this week - December 1, 2017.

z/VSE 6.2 will be delivered on DVD or electronically (not on tape).

Please see the z/VSE 6.2 Program Directory and Release Guide for more information. Both books can be downloaded from the z/VSE documentation page - [here](#).

Tags: ga, order, ordering, vse, shopz

CICS TS for z/VSE 2.2 enhancements (2017-11-27)

z/VSE 6.2 includes a new CICS TS release - CICS TS for z/VSE 2.2. It replaces CICS TS for z/VSE 2.1 on z/VSE 6.2 and is not supported on z/VSE 6.1. CICS TS for z/VSE 2.1 is still supported on z/VSE 6.1.

Below you will find a summary of the CICS TS for z/VSE 2.2 enhancements:

- Enhancements to the CICS Explorer to more easily manage CICS resources:
 - Define new CICS resources and modify or delete existing resources.
 - Monitor, control, and update dynamic storage areas and global temporary storage queue statistics.
 - Support "definitions" views for selected CICS resources.
- OpenSSL for CICS Web Support will give more flexibility and allow to take advantage of the OpenSSL security.
- An upgrade of CICS Web Support (CWS) to HTTP 1.1:
CWS has been upgraded to comply with HTTP 1.1, providing support for the latest web browsers and applications. New function has been added to improve performance and security, such as
 - persistent connections - send keep alive headers to leave the connection open,
 - pipelining - sending of multiple requests without waiting for a response before sending the next request,
 - chunking - The body of a message is transferred as a series of chunks, each with its own size indicator and data.
- Enhancements to the CICS Channels & Containers API:
CICS TS for z/VSE 2.1 available with z/VSE 6.1 introduced Channels & Containers. The corresponding APIs allow to exchange larger amount of data between CICS applications than the CICS COMMAREA (limited to 32K). CICS TS for z/VSE 2.2 will further enhance Channels and Containers and provide support for
 - UTF-8 and UTF-16, for use in data conversion, when using the channels and containers API.
 - APPEND parameter for PUT CONTAINER, to append specified data to existing container data.
 - BYTEOFFSET parameter for GET CONTAINER, to retrieve data at a specified offset in a container.
- Additional CICS API enhancements - support for
 - date and time stamp formats that are in general use across the internet.

- Language Environment (LE) MAIN for Assembler applications. A new translator option (LEASM) will be provided, which causes LE functions to be used and set up the program's environment.
- relative addressing instructions in Assembler programs (without base register)

The CICS Web Support (CWS) and z/VSE web services (SOAP) provide direct access to CICS applications. SOAP can now exploit Channels & Containers, in addition to CICS COMMAREA. z/VSE 6.2 also provides a new z/VSE Representational State Transfer (REST) engine with JSON (JavaScript Object Notation) support to access CICS transactions.

The CICS TS enhancements are described in detail in the CICS TS for z/VSE 2.2 Enhancements Guide. You can download the guide [here](#).

Tags: enhancements, cics, vse

z/VSE 6.2: Security enhancements (2017-11-24)

Some blog entries ago I promised to give you an overview about the security related enhancements in z/VSE 6.2.

Here they are:

- **OpenSSL component of z/VSE (z/VSE Cryptographic Services):**
 - is upgraded to OpenSSL 1.0.2h to benefit from newer SSL/TLS functions for enhanced data in flight encryption.
 - The Elliptic Curve Cryptography (ECC) hardware acceleration with a Crypto Express6S in CCA coprocessor mode is transparently used. If the hardware is not available, the ECC software implementation continues to be used.
- Clients can choose to use OpenSSL for their online and batch applications for enhanced data at rest and data in flight security and more flexibility
- **Ability to use OpenSSL for CICS Web Support:**
 - Clients using CICS Web Support with SSL/TLS are now able to choose between the OpenSSL component delivered as part of the z/VSE operating system and the SSL component of a TCP/IP stack. This simplifies the configuration, gives clients more flexibility, and allows them to take advantage of the OpenSSL security.
- **EZA 'Multiplexer' and EZA OpenSSL support:**
 - The EZA 'Multiplexer' simplifies the use of the EZA interface with any TCP/IP stack. Clients can configure which EZA interface phase is to be used for a given TCP/IP stack ID.
 - It also allows clients to use OpenSSL for the EZA SSL/TLS interface, independent of the used TCP/IP stack.
- Ability to use SSL/TLS connections for remote VTAPES to achieve transport layer encryption of sensitive tape data during network transfer.
- **Basic Security Manager (BSM) simplifies the administration of batch resources:**
 - The z/VSE Basic Security Manager (BSM) distinguishes between repositories for online and batch security definitions. The repository to protect batch resources is the phase DTSECTAB. It contains library, sublibrary, member, and file definitions. Whereas online resources can be easily maintained using the dialogs of the Interactive User Interface (IUI), the DTSECTAB needs to be updated for each batch resource. To simplify the administration of batch resources, z/VSE provides a common interface for both online and

batch resources. An IUI dialog is offered that builds a DTSECTAB with the resources specified.

- Enhanced LDAP sign-on support:
 - z/VSE provides a RESET option for the LDAP user mapping tool to clear the cached password hash for a user. This forces a full LDAP sign-on to be performed next time the user signs in.
 - z/VSE provides wildcard support for the CHANGE and DELETE commands of the LDAP user mapping tool to allow modification or deletion of multiple user records with one command. This, for example, allows clients to generate a new VSE password for all mapped users with one command.
- VSE/POWER enables TLS 1.0 (and higher) for PNET SSL connections.
- IBM IPv6/VSE V1.3 enhancements:
 - New FTP server security interface to simplify security definitions:
 - FTP access to the z/VSE file system is protected using the Basic Security Manager (BSM) or any other External Security Manager (ESM) product that clients may choose. This allows clients to simplify their security definitions by using the resource class FACILITY as a single source.
 - SSH (Secure Shell) copy facility for secure file transfer using SSH to and from z/VSE:
 - This facility uses a Linux pass-through image to facilitate an SSH connection to a remote host, providing for secure file transfer using SSH to and from z/VSE. It is compatible with the IBM TCP/IP for z/VSE product, LFP, z/VM IP Assist, and the z/VSE Network Appliance.
 - Enhanced security through encrypted password facility: Passwords are no longer stored as clear text on the system.
- IBM TCP/IP for z/VSE V2.2 enhancements: It delivers support for the TLS 1.1 and TLS 1.2 protocols for enhanced security.

The summary of z/VSE 6.2 security enhancements are from the z/VSE 6.2 Release Guide. You can download this book from the z/VSE Documentation web page - [here](#).

Have a good weekend.

Tags: enhancements, vse, security

z/VSE 6.1 ordering (2017-11-23)

If you still need z/VSE 6.1 please order it now from Shopz, because with z/VSE 6.2 GA (next week) it is no longer possible to order z/VSE 6.1.

The only reasons to migrate to z/VSE 6.1 instead of z/VSE 6.2, I can think of, are

- z/VSE 6.1 supports z10 processors. z/VSE 6.2 supports z114 / z196 or higher.
- Your z/VSE vendor software is not yet ready for z/VSE 6.2.

Vendors got early z/VSE 6.2 drivers. That is most of them (if not all) will be ready to support z/VSE 6.2. Just check with your vendor.

I recommend to go to z/VSE 6.2. It is well tested and the feedback from beta customers showed a good quality.

For US: Happy Thanksgiving !

Tags: shopz, ordering, vse

LVC Reminder: z/VSE 6.2 (2017-11-22)

This is a reminder for the next z/VSE Live Virtual Class (LVC) scheduled for **November 28, 2017**.

Title: **z/VSE 6.2**

Short before the z/VSE V6.2 GA you will get an overview about the enhancements and new functions of z/VSE V6.2. This session covers hardware exploitation, the new CICS TS for z/VSE V2.2, network enhancements (TCP/IP for z/VSE V2.2, IPv6/VSE V1.3), security enhancements such as TLS 1.2, ease of use items as well as fulfilled customer requirements.

More details are on our LVC page - [here](#).

Tags: live-virtual-class, vse, lvc

z/VSE 6.2 books available (2017-11-21)

We just uploaded the z/VSE 6.2 books to the publication center. I recommend to start with the z/VSE 6.2 Program Directory and Release Guide. Both books are also on the z/VSE documentation web page - [here](#).

The z/VSE 6.2 bookshelf is [here](#).

z/VSE 6.2 GA is planned for December 1, 2017.

Tags: bookshelf, book, documentation, vse

Next LVC: Linux on IBM z14: Performance and testing experiences (2017-11-20)

The next Live Virtual Class (LVC) is scheduled for **November 29, 2017** (Wednesday).

Topic: Linux on IBM z14: Performance and testing experiences

Abstract: The next generation of the IBM mainframe has arrived: IBM z14. In this session, we cover two topics:

1. What do you need to consider from a Linux perspective before an upgrade? Which distributions and kernel levels are supported and other things you may need to prepare before rolling in the new machine.
2. The first performance results from a Linux perspective. This is mainly focused on the great performance improvements provided by the new hardware, however we will also discuss a few items that require exploitation by software.

The schedule and registration link is on the z/VM LVC web page [here](#).

Tags: test, lvc, vse, performance, linux, live-virtual-class, z14

Next blog entry on Monday (November 20) (2017-11-16)

I can not write a blog entry today and tomorrow. Therefore you will see my next entry on Monday.

Have a good weekend.

Tags: vse

GSE presentations available (2017-11-15)

In October 2017 the 11th European GSE/IBM Technical University for z/VSE, z/VM, KVM and Linux on IBM z Systems was held in Hamburg, Germany. PDFs of some presentation are now available on the z/VSE presentation web page.

The presentations are [here](#).

Tags: presentations, conference, technical, linux, vse, vm, gse

Doc Buddy updated (2017-11-14)

In October I had a blog entry about IBM Doc Buddy and mentioned, that this app will provide more information about IBM products, not just message explanations.

With the Doc Buddy mobile app available for iOS and Android devices, you can search messages and codes and product related information issued from IBM Z products online and offline. Doc Buddy is available in the app stores. More information is [here](#).

Doc Buddy is now updated to hold additional content for z/VSE. You may subscribe to z/VSE related information and will be informed, if there is any news. As a start we added a z/VSE 6.2 blog entry.

Do you see any additional value, if we re-link my blog entries ? Doc Buddy would provide those nicely formatted for mobile devices.

In Doc Buddy on the "Discover" tab the Influencers are listed. There you can find information I provided.

Please let me know, if you like Doc Buddy. ... and what information would you like to see in Doc Buddy ?

I am looking forward to your feedback.

Tags: code, app, doc-buddy, blog, message, vse

z/VSE 6.2: Networking enhancements (2017-11-13)

Today I will describe the networking enhancements provided with z/VSE 6.2.

A quick overview about the key enhancement that come with z/VSE 6.2 is summarized in my GA announcement blog entry - [here](#).

z/VSE 6.2 networking enhancements consist of enhancements in the Linux Fast Path (LFP), IBM TCP/IP for z/VSE 2.2 and IBM IPv6/VSE 1.3.

Linux Fast Path (LFP)

LFP allows selected TCP/IP applications to access the network without requiring a TCP/IP stack on z/VSE. LFP is already available in a z/VM guest, or LPAR environment. With z/VSE 6.2 LFP running as a z/VM guest can now also communicate with a TCP/IP stack (on Linux) in an LPAR or with the z/VSE Network Appliance.

IBM IPv6/VSE 1.3

IBM IPv6/VSE 1.3 replaces IBM IPv6/VSE 1.2 on z/VSE 6.2. It provides the following enhancements:

- A new FTP server security interface: FTP access to the z/VSE file system will be protected using the Basic Security Manager (BSM) or any other External Security Manager (ESM) product that clients may choose. This will allow to help simplify your security definitions by using the resource class FACILITY as a single source.
- Enhanced security through encrypted password facility: Passwords are no longer stored as clear text on the system.
- SSH copy facility: This facility uses a Linux pass-through image to facilitate an SSH connection to a remote host, enabling for secure file transfer using SSH to and from z/VSE. It is compatible with the IBM TCP/IP for z/VSE product, LFP, z/VM IP Assist, and the z/VSE Network Appliance.
- TXT2PDF generation facility: This facility is based on the Open Source txt2pdf utility and converts a text file into a Portable Document Format (PDF) file. It provides many options to control the conversion, output appearance, and final presentation.

IBM TCP/IP for z/VSE 2.2

IBM TCP/IP for z/VSE 2.2 replaces IBM TCP/IP for z/VSE V2.1 on z/VSE 6.2. With z/VSE 6.2 it supports TLS 1.1 and TLS 1.2 protocols for enhanced security.

Besides the TCP/IP enhancements there are security / encryption enhancements that I will cover in a future blog entry.

You just need to wait a few more weeks to get z/VSE 6.2. It's GA is **December 1, 2017**.

Tags: network, linux_fast_path, tcpip, ipv6_vse, networking, enhancements, lfp

CICS TS for z/VSE 2.2 web pages updated (2017-11-10)

As I mentioned in earlier blog entries, that z/VSE 6.2 contains the new CICS TS for z/VSE 2.2 release. As we are close to GA - December 1, 2017, more and more web pages are updated to new releases.

Just this week the CICS team introduced a new platform summary page and updated the system requirements page.

The CICS TS for z/VSE 2.2 platform summary page is [here](#), the system requirements page is [here](#).

Have a good weekend.

Tags: vse, web_pages, platform, cics

SCRT Java version - z/VSE best practices (2017-11-09)

Since this month you have to use the Java version of SCRT, see also my related blog entry - [here](#).

z/VSE does not have a Java environment. Therefore SCRT has to run on a non-z/VSE platform. If you automated the SCRT reporting on z/VSE, you need to include the new environment into your automation process. We just released a white paper that provides **best practices for the SCRT Java version**. You can find that [here](#).

Below is the table of contents of that document:

- Possibilities to use CMT on z/VSE with the Java Version of SCRT
- Preparing z/VSE to Record and Extract the SCRT89 Records on z/VSE
- Preparing the Java Platform to Run the SCRT
- Using FTP to Transfer SCRT89 Records from z/VSE to a Java Platform
- Using REXX and Host File
- Transfer Program (Referred to as IND\$FILE)
- Using the VSE Script Connector to Execute the IJBCMTRP Utility on z/VSE
- Using the SCRT Command Line Interface
- Automation of Monthly Tasks with a Batch File or Shell Script
- References

Please let us know, if there is anything missing.

Tags: report, best_practices, sub-capacity, vse, java, scrt, mlc

Next z/VSE LVC: z/VSE 6.2 (2017-11-08)

We scheduled the next Live Virtual Class (LVC) on **November 28, 2017**.

Title: **z/VSE 6.2**

Short before the z/VSE V6.2 GA you will get an overview about the enhancements and new functions of z/VSE V6.2. This session covers hardware exploitation, the new CICS TS for z/VSE V2.2, network enhancements (TCP/IP for z/VSE V2.2, IPv6/VSE V1.3), security enhancements such as TLS 1.2, ease of use items as well as fulfilled customer requirements.

More details are on our LVC page - [here](#).

Tags: lvc, vse, overview, live-virtual-class

z/VSE upgrade white paper updated (2017-11-07)

We just updated the "z/VSE Version/Release and Hardware Upgrade" document on our web page for technical articles. You may download it [here](#).

This document gives hints and tips about software and hardware upgrades and proposes the necessary steps. It already considers the latest release - z/VSE 6.2 - and its products.

Please let me know if you have any input for that document or if you have additional recommendations. Thanks in advance.

Tags: migration, vse, upgrade, release, version, hardware

z/VSE 6.2: More flexibility with LFP (2017-11-06)

In the z/VSE 6.2 GA announcement on October 10 (see [my blog entry](#)), we described a networking enhancement for the Linux Fast Path (LFP) function.

Short summary, what LFP is:

Besides the two TCP/IP stacks we also provide the LFP function that bypasses the TCP/IP stack on z/VSE - or doesn't require one for selected TCP/IP applications. A TCP/IP application on z/VSE can communicate with a LFP daemon (small program) running on Linux on z Systems. The daemon communicates through the Linux TCP/IP stack with the network.

LFP may communicate between LPARs or z/VM guests, but not from z/VM guest to LPAR or vice versa today.

A Linux instance (distribution) is required except if you use the [z/VSE Network Appliance](#) (z13, z13s or higher) or the [z/VSE z/VM IP Assist](#) (VIA - z196, z114 or higher).

The **z/VSE 6.2 enhancement** is described as follows:

The z/VSE Linux Fast Path (LFP) allows selected TCP/IP applications to access the network without requiring a TCP/IP stack on z/VSE. LFP is already available in a z/VM guest, or LPAR environment. To offer clients more connectivity options, LFP running as a z/VM guest can now also communicate with a TCP/IP stack in an LPAR or with the z/VSE Network Appliance.

That is you can now use LFP in any combination - LPAR to LPAR, z/VM guest to z/VM guest, or z/VM guest to LPAR.

If you are interested in VIA or want to use VIA, this function is described in the z/VSE TCP/IP Support book. You can find that book [here](#). For the z/VSE Network Appliance (VNA) please use the documentation available for download [here](#). VNA will be included into the z/VSE 6.2 TCP/IP Support book.

There is also an old but good article, that describes LFP - [here](#).

Tags: appliance, lfp, tcpip, networking, linux_fast_path, vna, vse, via

Next Blog entry on Monday (November 6) (2017-10-30)

I have only limited access to my email this week and we have 2 public holidays.

Therefore I plan my next blog entry for Monday next week.

z/VSE 6.2: DL/I partitioning (2017-10-27)

In the z/VSE 6.2 GA announcement letter (see my [blog entry](#), GA December 1, 2017) we described a DL/I 1.12 enhancement, that we will deliver after GA (not this year).

We call this enhancement "DL/I partitioning", which is described as follows:

DL/I introduces a partitioning function for hierarchical direct (HD) databases. Partitioning of a database allows users to increase the database storage capacity for one segment type up to 8 gigabytes (GB, may be more). This eliminates the current limitation of 4 GB. The partitioning function allows DL/I applications to transparently handle growing data.

The partitioning function will be made available as a PTF for DL/I VSE V1.12 after general availability of z/VSE V6.2.

The partitioning function splits a DL/I segment type into partitions (VSAM datasets). we will provide an exit, that selects the correct partition for the records to be retrieved. Each dataset can be up to about 4 GB in size. To migrate to DL/I partitioning you have to add the number of partitions and a 6 character database name to the Database Descriptor (DBD), unload the database, run the DBDgen / ACBgen with the new partition parameters and do a database reload. The partitioning function will come as a PTF for DL/I 1.12 and can only be used with z/VSE 6.2.

Have a good weekend.

Tags: enhancements, partitioning, dli, vse

Presentations of completed Live Virtual Classes (2017-10-26)

If you are looking for presentations of completed Live Virtual Classes (LVC), the z/VM LVC page is good address.

The z/VM page holds presentations for completed classes related to z/VM, Linux on z Systems, KVM on z Systems and z/VSE.

The z/VM LVC web page is [here](#).

If you are just interested in z/VSE, the web page for z/VSE completed classes is [here](#).

Tags: vse, vm, lvc, presentations, linux, kvm, live-virtual-class

Next blog entry on Thursday - October 26, 2017 (2017-10-23)

I am at the international GSE Conference in Hamburg, Germany (Monday - Wednesday).

Therefore you will see my next blog entry on Thursday.

z/VSE security: Migrate your DTSECTXN to the BSM control file (2017-10-20)

In July I had a short [blog entry](#) about the migration of the old DTSECTXN, which holds the definitions for transaction security, to the Basic Security Manager (BSM) control file. In between we got more detailed questions about the DTSECTXN and its migration.

Therefore my colleague Monika looked into that again and will provide more details in the z/VSE Version (Release) and Hardware Upgrade paper, available [here](#). Thanks, Monika. The update will be uploaded within the next weeks. I will keep you posted, when that update is available.

Just a short summary about the DTSECTXN migration:

Up to z/VSE V3.1.0, CICS transactions were protected using the access control table DTSECTXN. Starting with z/VSE V3.1.1, the BSM control file was introduced. The BSM control file uses the resource class TCICSTRN to protect CICS transaction. Up to z/VSE V6.1, DTSECTXN can exist in parallel to the BSM control file. That is, CICS transactions can still be protected using DTSECTXN. Since z/VSE V6.1, the IUI dialog, that supports the migration from DTSECTXN to the BSM control file, is no longer available. On z/VSE V6.2, DTSECTXN is not supported, that is the BSM will only use the transaction resource definition of the BSM control file. Transactions, that only had the security definitions in the DTSECTXN, can no longer be executed.

Note: Up to z/VSE V6.1, if the DTSECTXN phase is available, it is used by the BSM, even if the transactions are also defined in the BSM control file. Therefore, once you have completed the migration from DTSECTXN to the BSM control file, delete the DTSECTXN phase from your system. You can migrate the DTSECTXN definitions to the BSM control file on either your source or on your target system. The recommendation is to do the migration on your source system. The migration is described in detail in the z/VSE 5.2 Administration manual. It is on the z/VSE documentation page, [here](#).

Have a good weekend.

Tags: vse, upgrade, migration, dtsectxn, security

Support of SCRT classic version ends, new SCRT update available (2017-10-19)

Today's blog entry is for sub-capacity customers.

SCRT (Sub-Capacity Reporting Tool) is available as classic and Java version. If you are using SCRT to report your MSU usage, you are already aware of the two versions.

As mentioned in earlier blog entries the support of the SCRT classic version **ends this month (October 2017)**. That is all customers have to use the SCRT Java version starting in November. Reports from the classic version will then no longer be accepted.

A new update of SCRT (IBM Sub-Capacity Reporting Tool) Java version is available - SCRT 25.1.0. You can download the latest SCRT version [here](#). More information on SCRT, sub capacity pricing, supported operating systems and price metrics is [here](#).

We also provide an SCRT sample on our web page - "Transfer SCRT89 records via the Host Transfer File (HTF) from the host to a workstation for further processing using SCRT". You can download the REXX sample [here](#).

Soon we will also upload a technical article on how to use SCRT together with z/VSE, e.g. with a sample for automation. It will show up [here](#). I will provide a blog entry, when it is available.

Tags: vse, sub-capacity, java, scrt

z/VSE service news: AF, Connector APARs (2017-10-18)

Today I have just a few new APARs, that we recommend to apply to your z/VSE system.

VSE/AF

z/VSE 6.1 APAR [DY47732](#) (PTF UD54262): CORRECT KEY0 HANDLING WHEN USING CRYPTO CARDS

z/VSE 5.2 APAR [DY47731](#) (PTF UD54261)

Error description: When using the z/VSE LDAP client with OpenSSL via the LE/C multiplexer (EDCTCPMC), an error occurs if Crypto Express cards are used. The error is caused by an incorrect switching to key zero for accessing a card, but not switching back to the correct CICS key. This APAR corrects key zero handling in phase IJBCRLIB for accessing crypto cards.

z/VSE Connectors

z/VSE 6.1 APAR [PI85232](#) (PTF UI50049): THE Z/VSE SOAP ENGINE V2 PRODUCES AN INVALID LITERAL SOAP MESSAGE

z/VSE 5.2 APAR [PI85230](#) (PTF UI50048)

Error description: The z/VSE SOAP Engine V2 produces an invalid literal SOAP message. The SOAP message misses namespace prefixes for XML nodes at certain places inside the SOAP message.

z/VSE 6.1 APAR [PI87690](#) (PTF UI50476): THE USE OF VSAM REDIRECTOR IN A BATCH PARTITION THAT ALSO USES EXCI CAUSES EXCI ERROR 419 (CICS_AFCB_PRESENT)

Error description: When a batch program that uses EXCI (External CICS Interface) also uses the VSAM Redirector (with EXIT='IESREDIR') it may receive EXCI error 419 (CICS_AFCB_PRESENT).

z/VSE 6.1 APAR [PI87713](#) (PTF UI50638): LDAP SIGNON VIA VSE CONNECTOR SERVER FAILS WITH FDBK=112 ON A SECOND ATTEMPT WHEN LDAP SIGNON IS CONFIGURED TO USE

z/VSE 5.2 APAR [PI87711](#) (PTF UI50637)

Error description: When performing an LDAP signon via the VSE Connector Server the second and any subsequent signon attempt fails with FDBK=112, when LDAP signon is configured to use SSL. As long as the LDAP signon attempt is using the cached password hash, it works. Once it needs to connect to the LDAP server for a second time, it fails while initializing the SSL library.

You can find the latest APAR information per z/VSE component on the z/VSE corrective service page - [here](#).

Tags: support, af, apar, service, vse, connector

z/VSE Quick Reference / new version of Doc Buddy available (2017-10-17)

Over the weekend there was a discussion on VSE-L about the **z/VSE Quick Reference mobile application for Android**, that you could download from the z/VSE home page. The app does contain some unresolved links, because the content of web pages moved. We decided to no longer enhance this app and removed it from the web page, because it is hard to track all link changes. If you are looking for any kind of z/VSE information, please start with our web page - [here](#). On your right hand you see the "Browse z/VSE" section, where you can find the most important topics as a start.

You may also use **this blog** to search for a specific topic, just use the Tags section on your right to "Find a tag".

Now to the subject for today:

A new version of **IBM Doc Buddy** is available. With the Doc Buddy mobile app available for iOS and Android devices, you can search messages and codes issued from IBM Z products online and offline. Doc Buddy is / will be extended with additional content, such as blogs and videos. I hope to get more z/VSE related information into it. I will keep you posted.

Doc Buddy is available in the app stores. More information is [here](#).

Tags: message, doc-buddy, reference, app, vse

Next z/VM LVC on Wednesday: What It Means to Measure Your z/VM Security (2017-10-16)

The next Live Virtual Class (LVC) is scheduled for Wednesday - **October 18, 2017**.

Topic: What It Means to Measure Your z/VM Security

Abstract: What does it mean for an operating system, application, or hypervisor to be "secure" or "securable"? What do certifications like the Common Criteria and FIPS 140-2 prove (and not prove) about your software? If someone comes around with a clipboard asking for proof that your system is secure, do you know how to provide it? And if a new vulnerability with a fancy logo blows up on social media, do you know where to go to find out if your IBM Z system is impacted? This session explores the security lifecycle to explain the "how" and "why" of end-to-end security management. z/VM will be used as the illustrative example, but **the lessons also apply to Linux on z and the other IBM Z operating systems**. Topics will include security certifications for the various levels of z/VM, the security controls related to the most common industry regulations, and an exploration of security-related service for z/VM.

The registration links is on the z/VM LVC web page - [here](#).

Tags: live-virtual-class, lvc, vm, vse, security

z/VSE 6.2 news: GA announcement - next blog entry on October 16 (2017-10-10)

On April 11, 2017 we announced the preview for z/VSE 6.2. So you know most of the content of this new release already.

Today we have exciting news: **The GA (general availability) announcement of z/VSE 6.2.**

Orders for new z/VSE 6.2 licenses will be accepted from November 28, 2017.

z/VSE 6.2 is planned to be **available on December 1, 2017**. It can run on z114, z196, zBC12, zEC12, z13, z13s and z14.

Below is a quick overview what you can expect in z/VSE 6.2:

- Hardware support
 - High Performance FICON (zHPF)
 - z13 / z14 Vector Facility (Single Instruction Multiple Data - SIMD)
 - Elliptic Curve Cryptography (ECC) accelerated with CryptoExpress5S of z13 / z13s or CryptoExpress6S on z14, exploited by openSSL
 - FlashCopy Space Efficient (SE) for Extent Space Efficient (ESE) volumes configured in an DS8880
 - Tapeless initial installation using SCSI or FBA disks
 - Support for stand-alone dump on SCSI disks
- CICS TS for z/VSE enhancements (CICS TS for z/VSE 2.2)
 - CICS Explorer enhancements (define programs, files, etc.)
 - Channels & containers enhancements
 - HTTP 1.1 upgrade for CICS Web Support (CWS)
 - Assembler main (Language Environment) support for applications
- Connector enhancements
 - z/VSE SOAP engine to exploit Channels and Containers
 - new z/VSE Representational State Transfer (REST) engine with JSON (JavaScript Object Notation) support
 - z/VSE database connector enhancements
- Security enhancements
 - Basic Security Manager (BSM) enhancement
 - IUI dialog for batch resources (DTSECTAB security)
 - SSL/TLS support of openSSL or SSL of TCP/IP stack in CICS Web Support
 - EZA Multiplexer and EZA openSSL support

- SSL/TLS connection to secure remote VTAPE network transfer
- LDAP sign-on enhancements
- VSE/POWER enables TLS 1.0 (and higher) for PNET SSL connections
- Networking enhancements
 - Linux Fast Path (LFP) running as z/VM guest can communicate with with a TCP/IP stack in LPAR
 - IBM IPv6/VSE 1.3
 - New FTP server security interface
 - SSH copy facility
 - TXT2PDF generation facility
 - IBM TCP/IP for z/VSE 2.2
 - Provides TLS 1.1 and 1.2 support
- DL/I 1.12 enhancement (via PTF after GA)
 - DL/I partitioning for direct (HD) databases (removed 4GB segment type limitation)

Fast Service Upgrade (FSU) from z/VSE 6.1 to z/VSE 6.2 supported. You can not use FSU from z/VSE V5 to z/VSE 6.1 or z/VSE 6.2.

Product delivery of z/VSE on DVD and electronically only.

The announcement letter with the z/VSE 6.2 GA is [here](#).

The CICS TS for z/VSE 2.2 announcement letter is [here](#).

I will provide more details about z/VSE 6.2 in a **Live Virtual Class (LVC)**, planned for **November 28, 2017**.

Additional remark: If you plan to migrate to **z/VSE 6.1**, please order z/VSE 6.1 now, because if z/VSE 6.2 is orderable (November 28), z/VSE 6.1 can no longer be ordered.

My recommendation: If you migrate from z/VSE Version 5 or earlier and you are on the z114 / z196 or higher, I would directly go to z/VSE 6.2 to get the benefits of the additional functionality.

I am at the zUniversity conference in Munich all week. Therefore you will see **my next blog entry on Monday October 16**.

Tags: letter, announcement, vse, ga

Next blog entry on Tuesday - October 10 (2017-10-05)

I got a new laptop and need to move my data. Therefore you will not see a blog entry the next few days.

Next week I will have z/VSE sessions at the zUniversity in Munich, Germany. More about this conference is [here](#).

I plan my next blog entry for Tuesday.

Have a good weekend.

New z/Architecture POP available (2017-10-04)

If you are a Assembler programmer, you may be interested in the latest IBM z/Architecture Principles of Operation (POP). This updated book is available for download.

The POP describes the architecture of the mainframe and holds the specification of Assembler (machine) instructions.

You can download the book and reference summary from the IBM Publication Center - [here](#).

- 1) Select a country
- 2) Search for publications
- 3) Enter Publication number: SA22-7832-11 for the POP - or SA22-7871-09 for the reference summary.

Tags: pop, principle, vse, operation, book, zarchitecture

LVC: z/VSE Security - presentation available, next blog entry on October 4 (2017-09-28)

Last week we had the z/VSE Live Virtual Class (LVC) on z/VSE Security: News on z/VSE Security, Crypto Support and OpenSSL for z/VSE.

Now the presentation and playback of this session are available on our LVC page for download - [here](#).

We have a long weekend. Therefore I plan my next blog entry on October 4, 2017.

Have a good weekend.

Tags: `crypto, lvc, security, vse, openssl, live-virtual-class, presentations`

Clock changes (Daylight Saving Time ends) soon (2017-09-27)

In October and beginning of November many countries change their clocks to winter time, that is one hour backward. In Germany we change our clocks on October 29, in the USA on November 5.

That is it's again time to prepare for that change.

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#). The statement related to CICS TS on z/VSE is also true for CICS TS for z/VSE V2.
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

Tags: winter_time, vse, daylight_saving_time, clock, dst

Where to find information about tools for z/VSE backups (2017-09-26)

Today's blog entry is related to the backup of z/VSE data. Just recently we got questions about backup tools. The most important backup tools come with the z/VSE product. Others may be provided by vendors.

In this blog entry I will only address z/VSE product tools.

Back up policies depend on your requirements and guidelines. I assume you all do regular backups of your data to recover e.g. from data corruption. It is good practice to backup the whole system before hardware or z/VSE upgrades to restore the z/VSE environment just in case anything fails.

z/VSE provides backup tools (utilities) for the major components, such as VSE/VSAM, Db2, DL/I, VSE/POWER, VSE/AF Librarian (to backup libraries), etc. The book **z/VSE System Utilities** gives a good "Overview of saving data" (chapter 1). This book is on our documentation page [here](#).

We also uploaded a technical article about "**z/VSE release and hardware upgrade**", which provide backup information too. It can be downloaded [here](#).

Besides the backup tools, that are used to backup component data, you may use **VSE/Fast Copy** to backup the entire z/VSE system. This tool is described in z/VSE System Utilities too.

There are online and standalone versions of Fast Copy. Before you start an online backup, please shutdown all partitions of the system including VSE/POWER to ensure data integrity. Then start the Fast Copy backup in partition BG.

Please let me know, if you have any questions or requirements for z/VSE backups.

Tags: vse, tools, backup, upgrade, utilities, migration

Next Linux on IBM z Systems (IBM Z) LVC: Pervasive Encryption with Linux (2017-09-25)

The next Linux on IBM z Systems (IBM Z) Live Virtual Class (LVC) is scheduled for **Wednesday, September 27, 2017**.

Topic: What is Pervasive Encryption with Linux on IBM z Systems (IBM Z)?

Abstract: Pervasive Encryption with Linux on IBM z Systems (IBM Z) comprises a collection of improvements of the Linux on z Systems crypto stack that will become available over time, starting with the availability of the IBM z14 server -- note, it is not a feature that can be switched on or off. The Pervasive Encryption improvements will be transparent to existing applications and are targeted to improve the usability and performance of encrypting/decrypting data in-flight and at-rest leveraging the improved CPACF functions of the z14 server. Data in-flight will benefit from the improvement of the openssl cryptography library that is used by many open source applications. Data at-rest will benefit from the end-to-end full volume encryption using dm-crypt. The Linux dm-crypt technology will be enabled to use CPACF protected keys, a wrapping-key technology that allows the usage of cryptography without ever exposing plain text keys in memory accessible by an operating system. In addition to open source components, IBM products will benefit from pervasive encryption due to IBM Java and GSKit exploiting the improved CPACF functions. The IBM Secure Service Container technology for securely deploying software appliances on IBM Z is an additional aspect of pervasive encryption with Linux on z Systems (IBM Z). IBM is working with the Linux distribution partners to get the functionality included in Linux for z Systems (IBM Z).

More information including the registration link is on z/VM's LVC web page - [here](#).

Tags: live-virtual-class, vse, lvc, encryption, vm, linux

z/VSE Fast Service Upgrade (2017-09-22)

Just lately we got some questions about the z/VSE Fast Service Upgrade (FSU), I addressed this topic in earlier blog entries, want to summarize that with this blog entry and give additional information.

Traditionally you use the FSU process to upgrade your system to the current maintenance level. That is you perform an FSU to install a new modification level of z/VSE (or service refresh).

If you want to upgrade to

- z/VSE 5.2 - you have 2 options: initial installation or FSU. You may use FSU to upgrade from z/VSE 4.3 or z/VSE 5.1 to z/VSE 5.2.
- z/VSE 6.1 - you have to perform an initial installation. FSU to z/VSE 6.1 is not supported.
- upcoming z/VSE 6.2 you have again 2 options: initial installation or FSU from z/VSE 6.1. An upgrade from z/VSE 5.2 to z/VSE 6.2 requires an initial installation.

Unlike an initial installation, the FSU does not replace user data and hardware configuration tables. It only replaces system data. So FSU may reduce the effort to upgrade to a new z/VSE release.

We offer FSU to new refresh levels or new z/VSE versions / releases since VSE/ESA 2.4 without the need for an initial installation.

An initial installation was only required from releases prior to VSE/ESA 2.4, because of adaptations to the CICS Transaction Server in VSE/ESA 2.4 (first VSE release with the CICS TS)..

Because of the new CICS version - CIICS TS for z/VSE 2.1 in z/VSE 6.1 - an initial installation is also required to migrate from z/VSE 5.2 to z/VSE Version 6.

Now I have some hints and tips - Thanks for this summary, Elke.

The FSU process can be started with the z/VSE IUI dialogs.

If you plan to use FSU, we recommend the following preparation steps:

- -- Read the following chapters in the z/VSE 5.2 (or z/VSE 6.2, when available) books:
 - z/VSE Planning, chapter "Installing z/VSE via FSU"
 - z/VSE System Upgrade and Service, chapter " What you must know before you start with the fast service upgrade"

- Contact your vendors, if they have any updates for your target system. If so, get their updates and instructions before you start with the FSU process.
- Backup your system / data
- Check, if necessary VSAM space is available
- If you changed the location of serviced files, did you use the dialog "141 Verify Location of Involved Serviced Files" ?
- Check the RDR queue, if there are old FSU jobs (D RDR,*DTRFSU); delete such jobs.
- Check in your primary ICCF library, if there is an old FSU job (default name: DTRFSU or FSUPREP): delete or rename it.
- Have the new z/VSE tape available (real tape or virtual tape in VSAM space).

FSU preparation:

- If you want to upgrade to a new service refresh, do a down-level check (can be selected on IUI panel "1431 Down-Level Check")
- Now you have to start with FSU preparation
- Use dialog "1432 FSU Preparation", to create the preparation job. Run that job.
Attention: It is essential that the dialog "1432 FSU Preparation" is done and the created job runs and is finished, before the dialog "1433 FSU Installation" is used to create a job!

Fast Service Upgrade step:

- After the FSU preparation job finishes successful, create the FSU installation job and submit it.
- At the console you should see the following messages (Stage 1 Job DTRFSU14).
 - If you do an FSU from z/VSE 5.1 to 5.2:
 - * THIS FAST SERVICE UPGRADE IS
 - * FROM Z/VSE 5.1 TO Z/VSE 5.2
 - If you do an FSU from z/VSE 5.2 to 5.2.x
 - * THIS FAST SERVICE UPGRADE IS
 - * A REFRESH OF Z/VSE 5.2
 - If you do an FSU from z/VSE 6.1 to 6.2 (when z/VSE 6.2 is available)
 - * THIS FAST SERVICE UPGRADE IS
 - * FROM Z/VSE 6.1 TO Z/VSE 6.2
- If this is not the expected information, end the job stream and redo the FSU preparation.

- The z/VSE system, where FSU stage 1 runs, was IPLed from DOSRES. Be sure that all jobs run successfully. The last job is DTRCLFSU.
- Important: When stage 1 has finished:
 - SHUTDOWN ALL PARTITIONS EXCEPT POWER.
If you miss to end a job, this job will run, if IPLed from SYSWK1 (stage 2), and it may impact FSU jobs.
 - Remember to POFFLOAD the POWER files.

For stage 2 you have to use \$\$JCLFSU.

- On stage 2 (IPLed from SYSWK1), the system runs without security..
- If you need to restart from DOSRES after the POWER files are migrated, you need to perform a cold start.
 - You can request a cold start with Command MSG BG within a ten-second time limit, after message IESI0211 was issued by z/VSE during the startup of partition BG or via LOADPARM ...P specified during system IPL.

Now a few tips for pitfalls that might happen during FSU:

FSU preparation step not executed

- For FSU the IUI dialog 1432 (FSU Preparation) must be selected and the created job must run. This step is important to get to a successful FSU. In case you forget this step, the error messages do not show this problem at first. Below are some messages that might indicate that situation:

STEP 24B REFRESH MESSAGE FILE FAILURE:

BG 0000 * STEP 24B: REFRESH MESSAGE FILE

BG 0000 4191I TAPE FILE PROCESSING FAILURE RC=084 IN SYS004=181

ACTUAL BLOCK CONTAINS A RECORD WITH INCONSISTENT RECORD LENGTH
(RECFORM=SPN AND VAR)

- STEP 27: UPDATE RESIDENCE failed.
- Product CF951C and CF951D not found.
- The listed products are on the old VSE level.

Space problem during FSU to z/VSE 5.2

- During FSU to z/VSE 5.2, IBM TCP/IP for VSE/ESA 1.5F is installed in library PRD2.TCPIPC. The library resides in the VSAM master catalog. If there is not enough space available, the FSU will abend in job DTRFSU4D

with the following message: 1QC3I MEMBER IPNCSD.Z NOT FOUND IN PRD2.TCPIPC

- See the z/VSE 5.2 Planning book section Release Upgrade: VSAM Space considerations for a Release Upgrade via FSU. There you get more information on the amount of free space required. So you can calculate the additional space for the master catalog.

Remark:

- IBM TCP/IP for z/VSE V2 is installed in PRD2.TCPIPC on z/VSE Version 6.
- IBM IPv6/VSE is installed in PRD2.TCPIPB on z/VSE Version 6.

More information about FSU is described in the z/VSE Planning book. Fast Service Upgrade is described in detail in the z/VSE System Upgrade and Service book. Both books are on the [z/VSE documentation web page](#).

Have a good weekend.

Tags: fast_service_upgrade, upgrade, service, installation, vse, fsu, refresh

New Linux on z Systems articles: Hardware crypto support (2017-09-21)

The Linux on z Systems (IBM Z - Linux on the mainframe) team just published two new articles about the hardware cryptographic support of Linux for the IBM Z and IBM LinuxOne servers.

- Hardware cryptographic support for IBM Z and IBM LinuxONE with Ubuntu Server - [here](#)
- Hardware cryptographic support of IBM z Systems for OpenSSH in RHEL 7.2 and SLES 12 SP1 - [here](#)

Tags: vse, linuxone, linux, article, hardware, crypto

Next conferences with z/VSE sessions (2017-09-20)

The next conference with z/VSE sessions is the IBM Z Technical University in Munich, Germany.

It is scheduled for October 9 - 13, 2017. The agenda and registration is [here](#). Sessions are in English.

On October 23 - 25, 2017 the 11th European IBM / GSE TU for z/VSE, z/VM and Linux on IBM z Systems conference is scheduled in Hamburg, Germany.

This conference has general sessions in English and tracks in English and German. The agenda and registration is [here](#).

Tags: conference, gse, zuniversity, vse

z/VSE reminder: SCRT Java version mandatory for November reports, REXX sample (2017-09-19)

In June I had a blog entry about the SCRT versions.

Today SCRT (Sub-Capacity Reporting Tool) is available as classic and Java version. If you are using SCRT to report your MSU usage, you are already aware about the two versions.

This blog entry is a reminder that you have move to the Java version. That is starting with the **November 2017** reporting, you have to use the Java version. Reports from the classic version will then no longer be accepted.

The latest SCRT version provides a command line interface and supports 24- and 64-bit Java Virtual Machines (JVM). It can be downloaded from [here](#).

We just uploaded a REXX/VSE sample, that shows how to utilize REXX/VSE to transfer SCRT89 records via the Host Transfer File (HTF) from z/VSE to a workstation for further processing using SCRT.

The sample can be downloaded from [here](#). The SCRT sample is at the end of the list.

LVC reminder, CICS course (2017-09-18)

Today I don't have much news. Some topics I have in mind need more preparation.

Please consider to attend tomorrow's **Live Virtual Class** (LVC) about z/VSE Security - more information is [here](#).

Today I found a **course** at the IBM Redbook pages, that might be of interest for users that run z/OS in addition to z/VSE - Introduction to CICS. The material is z/OS related. [Here](#) are the details.

z/VSE service: AF / VTAPE / security, CICS APARs (2017-09-15)

There were a few new APARs during vacation time for VSE/AF / VTAPE.

VSE/AF / VTAPE

I informed you about this z/VSE 5.2 APAR already in August, Now the z/VSE 6.1 APAR is available too.

z/VSE 5.2 [DY47726](#) (PTF UD54252): HARDWAIT FEC ON CANCEL

TAPESRVR, FORCE

z/VSE 6.1 [DY47727](#) (PTF UD54253)

Error description: Hard-wait FEC UNEXPECTED SYSTEM-TASK CANCELTION when performing CANCEL of the Virtual Tape Data Handler partition (TAPESRVR) with parameter FORCE.

VSE/AF

The following APARs fix **security issues** (vulnerabilities) in zlib.

z/VSE 5.2 APAR [DY47720](#) (PTF UD54250): UPGRADE TO ZLIB 1.2.11

z/VSE 6.1 APAR [DY47721](#) (PTF UD54251)

Problem description: This is a zlib upgrade due to known security issues: CVE-2016-9840, CVE-2016-9841, CVE-2016-9842.

You can find the APAR information on the z/VSE corrective service web page [here](#).

CICS APARs are listed on the fix list for [CICS TS for VSE/ESA 1.1.1](#) and [CICS TS for z/VSE 2.1](#).

Have a good weekend.

Tags: vse, vtape, support, zlib, service, af

Next LVC addressing z/VSE Security on September 19 (2017-09-14)

The next z/VSE Live Virtual Class (LVC) is scheduled for **September 19, 2017**.

Topic: News on z/VSE Security, Crypto Support and OpenSSL for z/VSE

This session will show how to exploit z/VSE Security and Crypto features like the new OpenSSL support and Encryption Facility for z/VSE. We will discuss recent technology news such as Diffie-Hellman key exchange and Elliptic Curve cryptography and how it can be used with z/VSE. In addition, IBM mainframe cryptographic technology, including Crypto Express and CP Assist for Cryptographic Function (CPACF) are discussed.

Those details and the registration link is on our LVC web page - [here](#).

Tags: lvc, security, vse, live-virtual-class

IBM z14 available today (2017-09-13)

I am back from vacation and had a good time, but it was too short as always ;-) I hope, you enjoyed summer too.

I am not sure, if you have seen the z/VSE RSL (Recommended Service Level) blog entry I posted during my vacation. You can get the RSLs [here](#).

Let's start with an exciting topic.

The new mainframe - **IBM z14** - is available today.

For a quick overview about the z14 please see the announcement letter [here](#). z14 IBM Redbooks are available too to get deep insight into z14 technology. The z14 Redbook page is [here](#).

In my [z14 blog entry](#) I described, how z/VSE supports the z14.

The **z/VSE** prerequisites (APARs, considerations, etc.) for z14 are described in the **Preventive Service Planning (PSP)** bucket (UPGRADE: 3906DEVICE, SUBSET: 3906/ZVSE) - [here](#).

Users, that run z/VSE as **z/VM** guest may be interested in the z/VM PSP too, it is [here](#).

Tags: z14, psp, availability, mainframe, service, rsl, support

New z/VSE RSLs available (2017-08-17)

I am not yet back in my office, but I think this post is important enough for a post in between.

New Recommended Service Levels (RSLs) are available for z/VSE 5.2 and z/VSE 6.1 with cutoff date June 30, 2017.

You can get the RSLs [here](#)

Summer break, next blog entry planned for September 13, 2017 (2017-08-10)

I won't be in the office for the next weeks. Therefore you will see my next blog entry on September 13, 2017.

Enjoy the summer.

z/VSE service news: AF, REXX APARs (2017-08-09)

There are few APARs available.

VSE/AF

z/VSE 5.2 APAR [DY47722](#) (PTFs UD54239, UD54240): REIPL ENHANCEMENT
z/VSE 5.1 is end of service. Therefore PTFs can no longer be built. APAR
DY47722 describes a fix for the REIPL command.

The REIPL command will be enhanced to support the new z14.
Affected users: z/VSE running in an LPAR image on z14 (D/T3906) and ECKD
system disk (DOSRES).

The REIPL command will also be used during initial installation. The
recommendation is, if you install a new z/VSE 5.2 system on z14:
When an automatic installation of z/VSE 5.2 fails after Tape Restore with a
hardwait on the REIPL from DOSRES, the installation can be continued by a
manual IPL from the new DOSRES device.

z/VSE 5.2 [DY47726](#) (PTF UD54252): HARDWAIT FEC ON CANCEL
TAPESRVR, FORCE

Error description: Hard-wait FEC UNEXPECTED SYSTEM-TASK CANCELLATION
when performing CANCEL of the Virtual Tape Data Handler partition
(TAPESRVR) with parameter FORCE.

REXX/VSE

z/VSE 5.2 APAR [PI84232](#) (PTF UI48656): REXXCPUM DID NOT REPORT CPU
USAGE OF DYNAMIC PARTITIONS

Error description: REXXCPUM did not report CPU usage of dynamic partitions.
The CICS exit ARXITCPU did not report the dynamic partitions.

Tags: support, vse, rexx, apar, z14, service, af

z/VM service for z14 (2017-08-08)

The z/VM team prepared a web page, where they list the required service (APARs) to run z/VM on the new z14 mainframe.

The web page is [here](#).

Tags: apar, vse, support, z14, service, vm

Linux on z Systems (IBM Z) workshop (2017-08-07)

If you are located in the New York area, the following workshop in **Poughkeepsie, NY** might be of interest.

It is scheduled for **September 18-19, 2017**.

More details are available [here](#).

Agenda highlights are

- What's New - Linux on IBM z Systems
- Linux Open Source Ecosystem, Microservices and Integration options
- Docker running on IBM Z
- Blockchain running on IBM Z
- Spectrum Scale
- Linux on IBM z Systems: Channel Bonding Interface - Best Practices
- Pervasive Encryption with Linux on IBM z Systems
- z/VM 6.4 and Continuous Delivery of New Function

If you are interested, please register [here](#) by **September 11th, 2017**.

Tags: workshop, vse, linux, vm

Reschedule for LVC: OpenStack enablement for System z DPM hypervisor (2017-08-04)

Some days ago I informed you about the Live Virtual Class (LVC): OpenStack enablement for System z DPM hypervisor. This LVC is rescheduled to **Wednesday, August 30, 2017.**

Topic: OpenStack enablement for System z DPM (Dynamic Partition Manager) hypervisor

Abstract: On IBM Z and IBM LinuxOne machines, certain workloads run better in a partition of the firmware-based PR/SM (Processor Resource/System Manager) hypervisor, than in a virtual machine of a software hypervisor such as KVM or z/VM. OpenStack nova-dpm project (along with networking-dpm and os-dpm projects) provides a Nova virtualization drive for the PR/SM hypervisor of IBM Z and IBM LinuxOne machines that are in the DPM (Dynamic Partition Manager) administrative mode. The DPM mode enables dynamic capabilities of the firmware-based PR/SM hypervisor that are usually known from software-based hypervisors, such as creation, deletion and modification of partitions (i.e. virtual machines) and virtual devices within these partitions, and dynamic assignment of these virtual devices to physical I/O adapters.

The z/VM and KVM hypervisors on z Systems (IBM Z) and LinuxONE machines are supported by separate Nova virtualization drivers:

- KVM is supported by the standard libvirt/KVM driver in the openstack/nova project.
- z/VM is supported by the z/VM driver openstack/nova-zvm-virt-driver project.

The registration link is on the z/VM LVC web page - [here](#).

Have a good weekend.

Tags: live-virtual-class, lvc, kvm, linux, vse, hypervisor

z/VSE: Intelligent / Programmable Workstation Support - IWS (2017-08-03)

Today there was a post on VSE-L about the so call Intelligent Workstation Support (IWS) or better known as programmable workstation support. The corresponding services exist since a long time.

They are described in the book VSE/ESA Programming and Workstation Guide. The book is on the z/VSE bookshelf. The links to the bookshelves are on our documentation page - [here](#).

There is also an IUI dialog available with the following functions - just select 3 (Operations) - 8 (Personal Computer Move Utilities).

- List and Process User Files in Host Transfer File
- Move VSAM Files to Host Transfer File
- Move Files from Host Transfer File to VSAM
- Move ICCF Members to Host Transfer File
- Move Files from Host Transfer File to ICCF
- PC File Transfer

Please let me know, if this is the information you are looking for.

Tags: programmable_workstation, networking, vse, iws, pws

45 years ago: VM/370 announced (2017-08-02)

Today I have a blog entry about z/VM's history.

45 years ago, on **August 2, 1972**, IBM announced VM/370 (Virtual Machine Facility/370) - the first VM release. Congratulations to the z/VM team ! As of the announcement letter the availability was planned for November 30, 1972.

The announcement letter stated the VM/370 support, e.g. for the System/370 models 135, 145, 168. May be a few of you still remember those times. The major functions were multiple concurrent virtual machines with virtual storage support and time sharing support provided by a conversational subsystem (CMS).

Other VM/370 highlights were:

- The execution of multiple concurrent operating systems, such as DOS, DOS/VS (today's z/VSE), OS/MFT, MVT, VS1, VS2 and VM/370 itself.
- Virtual storage facilities for operating systems which do not support dynamic address translation (DAT), such as OS/MFT.
- A general purpose time sharing system suitable for both problem solving and program development available to customers with a 240K byte Model 135.
- Capability of running many types of batch problem-solving applications from a remote terminal with no change in batch programs.
- Up to 16 million bytes of virtual storage available to each user.
- Capability of performing system generation, maintenance, and system testing concurrent with other work.
- A high degree of security, isolation, and integrity of user systems.
- The ability for many users to test privileged code in their own virtual machines.
- An aid in migration from one operating system to another.
- Device address independence for all supported operating systems.
- Multiple forms of disk protection, e.g. preventing users from writing and/or accessing specific disks.
- Ability to use virtual machines to provide backup for other systems.
- Options to improve the performance of selected virtual machines.
- Ability to run many System/370 emulators in virtual machines

45 years later z/VM is the best hypervisor, I know. Without z/VM we could not develop new functions for z/VSE.

If you want to get the latest news about z/VM, please visit the z/VM web page - [here](#).

Tags: vse, vm, history, operating_system

Next conference: IBM Z Technical University (2017-08-01)

The next conference with z/VSE sessions is the IBM Z Technical University in Munich, Germany.

It is scheduled for **9 - 13 October 2017**.

The early bird price is valid through August 11th, 2017.

A list of topics and the registration link are [here](#).

Tags: vse, technical, zuniversity, conference

CICS2WS Toolkit update available (2017-07-31)

The CICS2WS 2.7.2 Toolkit was just uploaded to z/VSE's download page.

The CICS2WS Toolkit is a development tool, that helps you to use Web Services with your existing CICS programs. The tool reads WSDL files and Copybooks and creates proxy code that you may use as a layer between your existing programs and the z/VSE SOAP engine. The proxy code is generated as Assembler program, therefore you do not need a COBOL or PL/I compiler.

It allows a z/VSE system to act as a Web Service provider (server) and as a Web Service requester (client) and can create proxy code for both scenarios.

You can download the CICS2WS Toolkit from [here](#).

Tags: web_service, soap, vse, cics, cics2ws, download, tools

z/VSE security: DTSECTXN not supported on z/VSE 6.2 (2017-07-28)

Just a few weeks ago I got feedback from customers, that they still use the CICS transaction security table (DTSECTXN). It's time to migrate this table.

End of last year I had a blog entry about the migration of DTSECTXN - [here](#).

For details how to migrate the DTSECTXN definitions to the BSM control file, refer to the z/VSE Administration book. Links to the z/VSE books are [here](#).

In the upcoming z/VSE 6.2 the DTSECTXN will no longer be considered (will be ignored by z/VSE). Therefore, if you still use DTSECTXN to define access control to CICS transactions, please migrate your definitions to the BSM Control File as soon as possible, but before the upgrade to z/VSE 6.2.

Have a good weekend.

Tags: security, migration, vse, dtsectxn

z/VSE service news: AF APARs (2017-07-27)

There are a few new VSE/AF APARs available.

z/VSE 5.2 APAR [DY47715](#) (PTF UD54235): UPDATE FOR Z/VSE CRYPTO DEVICE DRIVER

Error description: Update for z/VSE crypto device driver.

z/VSE 5.2 APAR [DY47717](#) (PTF UD54238): HARD WAIT FFF IN CONSOLE SUPPORT

z/VSE 6.1 APAR [DY47724](#) (PTF UD54247)

Error description: Hardwait FFF occurred in console support when processing a message that was issued during task termination.

z/VSE 5.2 APAR [DY47719](#) (PTF UD54241, UD54242): HARDWAIT FED DURING AOM PROCESSING

z/VSE 6.1 APAR [DY47725](#) (PTF UD54248, UD54249) will be available soon.

Error description: Hardwait FED during AOM processing, especially during DS8K upgrade.

Tags: support, service, apar, af, vse

LVC: OpenStack enablement for System z DPM hypervisor (2017-07-26)

The next Live Virtual Class (LVC) is scheduled for **August 2, 2017**.

Topic: OpenStack enablement for System z DPM hypervisor

Abstract: On IBM z Systems and IBM LinuxOne machines, certain workloads run better in a partition of the firmware-based PR/SM (Processor Resource/System Manager) hypervisor, than in a virtual machine of a software hypervisor such as KVM or z/VM. OpenStack nova-dpm project (along with networking-dpm and os-dpm projects) provides a Nova virtualization drive for the PR/SM hypervisor of IBM z Systems and IBM LinuxOne machines that are in the DPM (Dynamic Partition Manager) administrative mode. The DPM mode enables dynamic capabilities of the firmware-based PR/SM hypervisor that are usually known from software-based hypervisors, such as creation, deletion and modification of partitions (i.e. virtual machines) and virtual devices within these partitions, and dynamic assignment of these virtual devices to physical I/O adapters.

The z/VM and KVM hypervisors on z Systems and LinuxONE machines are supported by separate Nova virtualization drivers:

- KVM is supported by the standard libvirt/KVM driver in the openstack/nova project.
- z/VM is supported by the z/VM driver openstack/nova-zvm-virt-driver project.

The registration link is on the z/VM LVC web page - [here](#).

Tags: kvm, linuxone, vse, linux, openstack

Next blog entry on Wednesday - July 26 (2017-07-24)

I plan my next blog entry for Wednesday.

Tags: vse

LE/VSE callable services (2017-07-21)

Today I have a technical topic for the z/VSE Language Environment (LE), which is relevant for all languages with LE runtime: LE callable services.

An overview of application programming services and examples that can be used cross-language is given in LE/VSE Programming Reference (SC33-6685), Chapter 3 LE/VSE Callable Services.

The major solution areas, that can be covered with coding LE/VSE callable services, are:

- Condition Handling
- Date and Time
- Dynamic Storage
- General
- Initialization and Termination
- Locales
- Math
- Message Handling
- National Language Support

Callable services use naming conventions starting with prefix CEE.

It is recommended to run the programs calling these services in AMODE(31). If you are running AMODE(24), AMODE switching is performed implicitly in case the specified LE/VSE runtime option is ALL31(OFF). However, many calls requiring AMODE-switching can decrease performance.

Callable Services can be invoked from any LE/VSE Conforming High-Level Language (HLL). There are many sample programs on callable services located in the default LE/VSE installation sublibrary PRD2.SCEEBASE.

In general the parameter list for invoking callable services are the following:

CEExxxx

The name of the service.

parm1 parm2 ... parmn

Optional or required parameter passed to or returned from the callable service

fc

The feedback code is indicating the result of a service. You may omit the

feedback code for C or PL/I application. For COBOL you must specify it.

The code is also important because services can call other services which can generate feedback codes.

Example:

CEEGTST - Allocates storage from a heap whose ID you specify.

CEEGTST (heap_id,size,address,fc)

For details on invoking callable services refer to the LE/VSE Programming Reference book SC33-6685. The book can be downloaded from the z/VSE documentation page - [here](#).

Have a good weekend.

Do you know the IBM Interactive Product Catalog App ? (2017-07-20)

We talked about the z14 and my colleague pointed me to an App I was not aware of.

It is the **IBM Interactive Product Catalog** App, available for iOS and Android mobile devices.

With the App you can select servers, storage and storage networking. If you select servers, you can view LinuxONE, POWER and IBM Z servers.

On IBM Z you have z14, z13, z13s, zEC12, zBC12. If you select one of these models, you can walk through all components of e.g. z14 and zoom in and out (select "Explore Product Animation" on top).

You can download the App from the corresponding App Stores.

Tags: vse, z13, app, catalog, z14

Introducing IBM z14 (2017-07-19)

On IBM Redbooks there is a whole web page with links to technical information about the new z14 mainframe.

A brief summary of the z14 capabilities is in the IBM Redbook blog entry - 5 Things to Know about IBM z14 - [here](#)

The z14 page is [here](#).

Tags: technical, redbook, mainframe, z14, vse

Sub-capacity pricing for z/VM announced (2017-07-18)

Yesterday there was an announcement that may be of interest for you too. Sub-capacity pricing for z/VM was announced.

IBM introduces **sub-capacity pricing for z/VM V6** along with sub-capacity terms for select z/VM-based programs running in a z/VM operating environment.

The IBM License Metric Tool (ILMT) is used to determine z/VM sub-capacity program licensing requirements.

The corresponding announcement letter is [here](#).

Tags: pricing, ilmt, vse, sub-capacity, vm

New mainframe announced - z14 - IBM Z - z/VSE support (2017-07-17)

Today (July 17, 2017) IBM announced a new mainframe - **IBM z14**. For details about this important announcement see the announcement letter - [here](#).

z14 is planned to be available on September 13, 2017.

With this announcement "z Systems" is also changed to "IBM Z" (capital letter Z).

In this blog entry I briefly describe the **z/VSE support for z14**. I know it's a bit early, but if you plan to upgrade, you can already prepare your z/VSE system. You can also see, how z/VSE exploits this new mainframe.

z14 is z/Architecture only.

Up to z13, IPL was done in ESA/390 mode. The operating system decided to switch in z/Architecture mode or stay with ESA/390. Since z/VSE V4 z/VSE switches into z/Architecture mode early during the IPL process.

With z14, IPL is performed in z/Architecture mode only. No switch to ESA/390 mode is possible.

Exception: IPL in z/VM guest

The z/VM operating system offers a restricted ESA/390 compatibility mode for SET MACH ESA

Remark: SET MACH Z = z/Architecture mode IPL

z/VM PTFs need to be applied.

z14 machine type and PSP bucket

The z14 machine type is M/T 3906.

All prerequisites (APARs, considerations, etc.) for z14 are described in the Preventive Service Planning (PSP) bucket (UPGRADE: 3906DEVICE, SUBSET: 3906/ZVSE)

You can search for PSPs [here](#). The z14 PSP is not yet online.

z/VSE support:

z/VSE supports z14 with z/VSE 5.2 and later.

No PTFs are required to run z/VSE 5.2 or later on z14 (see z/VSE 5.2 IPL / installation on z14 below).

There are PTFs for IOCP, EREP, HLASM. These are listed in the PSP bucket.

Crypto Support:

z14 offers the new Crypto Express6S card. A z/VSE toleration PTF (z/VSE 5.2, 6.1) is required to use the configurable Crypto Express6S:

- z/VSE 5.2 - APAR [DY47715](#)
- z/VSE 6.1 - APAR [DY47716](#)
- z/VSE 6.2 - support included, no APAR required

To use the Crypto Express6S card in a z/VM guests, a z/VM PTF is required too. z/VSE supports the Crypto Express6S in (CCA) coprocessor and accelerator mode.

- More domain support (more than 16 domains) for Crypto Express6S (already introduced with Crypto Express5S):
 - More domain support on a z14 means, the Crypto Express6S can be shared among all 85 LPARs.
 - The support is already included in above APARs.
- PKCS #11 (EP11) coprocessor is not supported

New FICON Express16S+ (FICON-attached devices and FCP-attached SCSI disks)

The FICON Express16S+ is transparent for z/VSE. It supports 16 Gbps and auto negotiates 8 and 4 Gbps. 2 Gb control units cannot be attached.

z/VSE supports 3 modes of operation:

- CHPID FC for FICON attachment (tape, ECKD-disk, controller) and CTC (channel-to-channel)
- CHPID FCP for FCP-attached SCSI disks
- CHPID FC for zHPF (High Performance FICON) - support planned for z/VSE 6.2

New OSA-Express6S family of cards.

The OSA cards are transparent for z/VSE. z/VSE supports CHPID TYPE OSC, OSD, OSE, OSX

Carry forward OSA cards are OSA Express4S and later. All can be configured using OSA/SF in z14 HMC.

That is the OSA/SF software product is not required.

Vector Facility SIMD (Single Instruction Multiple Data) support - introduced with z13

Supported for user applications planned for z/VSE 6.2

QVS Support for absolute group capping (already on z13):

APAR [DY47646](#) - z/VSE 5.2

APAR [DY47647](#) - z/VSE 6.1

z/VSE 5.2 IPL / installation on z14

- z/VSE 5.2 on **ECKD DOSRES / SYSWK1 in LPAR mode**
For the Attention Routine (AR) REIPL command a PTF is required: APAR for REIPL - [DY47722](#)
 - Automatic Installation of z/VSE 5.2 in LPAR and ECKD DOSRES:
After restore of IJSYSR1 is complete (message on console), system enters hardwait FFD (because REIPL fails).
 - Circumvention:
After restore of IJSYSR1, when system entered hardwait, IPL DOSRES device manually.
Automatic installation continues without problems (both installation disk and tape)
- z/VSE 5.2 on **SCSI / FBA in LPAR mode**
 - no PTF required
- z/VSE 5.2 on **ECKD / SCSI / FBA on z/VM**
 - no PTF required

SCRT:

z/VSE customers need to use the latest SCRT version.

z/VSE, VSE/ESA releases out of service

z/VSE 5.1

APAR [DY47654](#) (PTF UD54170) must be applied before IPL on a z14 can be performed.

AR REIPL (in LPAR on ECKD) is not possible. Patch available in APAR [DY47722](#).

Initial Installation of z/VSE 5.1 is NOT possible.

z/VSE V4

- In LPAR mode: z/VSE V4 can not be IPLed.
- In z/VM guest: z/VSE V4 can be IPLed in z/VM ESA/390 compatibility mode - SET MACH ESA

z/VSE V3 and VSE/ESA in LPAR or z/VM guest:

All those releases can not IPL / do not run on z14.

The [z/VSE status pages](#) will be updated the next days.

z/VM:

z14 PTFs are required for z/VM 6.3 and 6.4.

Tags: mainframe, support, ibm_z, vse, z14, z, psp, service

Updated IBM Redbook for the Storwize V7000 (2017-07-14)

More than 10 years ago z/VSE introduced its SCSI support. That is you can direct attach SCSI devices to z/VSE. Such devices can be used for system and data disks. You can even run your z/VSE systems on SCSI only.

No ECKD devices are required in that case. With SCSI support there are more disk options available. On the z/VSE status web page you can see supported ECKD and SCSI devices. This web page is [here](#).

One of the supported SCSI devices is the IBM Storwize V7000. If you use or want to use this device, the following IBM Redbook might be of interest.

The Redbook "**IBM System Storage SAN Volume Controller and Storwize V7000 Best Practices and Performance Guidelines**" was just updated. The link to the download is [here](#).

Have a good weekend.

Tags: scsi, redbook, disk, storwize, vse

Linux LVC: Establish an Enterprise Analytics Hub (2017-07-13)

The next Linux Live Virtual Class (LVC) is scheduled for **Wednesday, July 19th, 2017**.

Topic: Establish an Enterprise Analytics Hub on Linux on IBM z Systems and LinuxONE

Abstract: The session positions Linux on z and LinuxONE for hosting an Analytics Hub for Databases, Cloud and z/OS data. It highlights the options to build an Analytics Hub with various different Analytic scopes. It will outline the components but also the interfaces and Analytic results possible with the different types of data, from structured and core transactional to non-structured and social media data. In conjunction with Watson technologies and Machine learning you can enable an Analytics Hub with high potential to extend your business and inhibit fraud.

The **registration link** is on the z/VM LVC web page - [here](#).

Tags: vse, lvc, linux, live-virtual-class

News on CICS Explorer for z/VSE (2017-07-12)

The CICS Explorer is the new systems management framework for CICS TS. It provides read-only capabilities (CICS TS for VSE/ESA) and update capability (CICS TS for z/VSE) for CICS resources. The CICS Explorer consists of a CICS Explorer client and a CICS TS server extension. We just updated its section on the z/VSE product page.

The latest CICS Explorer client can be downloaded by selecting the appropriate IBM CICS Explorer / Eclipse Neon Operating System package on the download page. There is the same CICS Explorer client for z/OS and z/VSE. Please use [this link](#), if you want to download the CICS Explorer.

Thanks for your feedback, Ken.

Tags: cics-explorer, cics, download, vse

z/VSE - 64 bit virtual considerations (2017-07-11)

We introduced 64 bit virtual with z/VSE 5.1. In between more and more applications use 64 bit registers for data and addresses as well as 64 bit addressing mode. 64 bit virtual gives more options for larger virtual storage in memory. It improves the management and sharing of data. E.g. you may replace a data space (limited to 2 GB) with a memory object and do no longer need to care about ALETs. Memory objects are not limited to 2 GB.

There are some consideration that you should have in mind, if you change your applications to use 64 bit register or addressing mode:

- 64 bit areas (areas above the bar - above 2 GB)
 - In z/VSE 64 bit areas can be allocated as memory objects (via IARV64). Use SAM64 instruction to switch into 64 bit mode to access the area above 2 GB.
 - Memory objects can be allocated for data only. Instruction execution above the bar (residency mode - RMODE 64) is not supported.
 - Memory objects (shared or private) are allocated above 4GB in virtual storage. The virtual storage 2GB to 4GB-1 is not used to avoid addressing with registers that have the AMODE at bit 32.
- Compilers
 - High Level Assembler programs are supported only.
 - High level languages (COBOL, PL/I, C, RPG, ...) do not support 64 bit registers or 64 bit mode. the AMODE 64 attribute should not be used.
- System services
 - Addressing mode (AMODE) 64 is not supported by most system services.
 - LOAD / CDLOAD and the linkage editor
 - Most z/VSE system services (Supervisor, VSAM, BAM, DL/I, ...)
 - OS/390 services
 - SVC-like space switching Program Calls (ss-PCs)
- Data areas (including control blocks)
 - for system services are to be allocated below the bar (below 2 GB).
 - I/O buffers may be allocated above the bar, if you use EXCP.
- 64 bit registers and AMODE should not be used in ICCF pseudo partitions
- Exits

- STXIT AB, IT, PC, OC: The high order halves of the 8 byte register is only saved into the exit save area and restored at EXIT IT, OC, PC, if you use AMODE=ANY64, see z/VSE System Macros Reference.
- The ANY64 save area is described by macro MAPSAVAR. Please note that there is a low half and high half register save area.
- 64 bit registers or addressing mode should not be used in all other exits, such as JCL or accounting exits.
- Services in online environment do not support 64 bit registers or AMODE 64
- CICS considerations
 - CICS services do not save / restore the high order half of 64 bit registers.
 - The program must save them before invoking a CICS service and restore them afterwards.
 - The program has to switch into AMODE 31 or 24 before invoking a CICS service

z/VSE's 64 bit virtual implementation is described in detail in the book **z/VSE Extended Addressability**. It can be downloaded from the z/VSE Documentation page - [here](#) - or the z/VSE bookshelf.

Tags: rmode, 64-bit, vse, amode, application, address

Reminder - 11th European GSE / IBM TU conference early bird offer ends on July 14 (2017-07-10)

This blog entry is a reminder for the 11th European IBM / GSE TU for z/VSE, z/VM and Linux on IBM z Systems conference.

The conference is scheduled **from October 23 to October 25, 2017** in Hamburg, Germany. It has general sessions in English and tracks in German and English.

The conference web page with links to the registration and agenda is [here](#).

The early bird offer ends on **July 14, 2017**.

Tags: conference, technical, vse, gse

DL/I requirement: Increase 4 GB sequent Limit size (2017-07-07)

Since some time we have a DL/I requirement in the Request for Enhancements (RFE) tool. Its title is "DL1 increase 4 GB sequent Limit size" with the RFE id 67331 - here the [link](#).

The requirement requests to increase the hierarchical direct (HD) database storage for one segment type beyond today's limitation of 4 GB.

I am currently looking into this requirement. Please vote on that requirement, if you need this enhancement for your DL/I environment.

... and please send me an email, if you would like to participate in a beta.

I am looking forward to your feedback.

Have a good weekend.

Tags: vse, rfe, requirements, dli

z/VSE service news: CICS TS for VSE APARs (2017-07-06)

The CICS TS for VSE service team just published, that new PTFs are available for CICS TS for VSE/ESA and CICS TS for z/VSE on their fix lists.

- The fix list for CICS Transaction Server for VSE/ESA 1.1.1 is [here](#).
- The fix list for CICS Transaction Server for z/VSE 2.1 is [here](#).

Tags: vse, support, ptf, apar, service, cics

Concurrent microcode upgrade with z/VSE (2017-07-05)

About 16 month ago I posted a blog entry about z/VSE recommendations for concurrent microcode upgrade for IBM System Storage. I just got again questions about that subject.

Therefore I want to re-post this blog entry. You can also find it, if you search for the tag "microcode" in my blog.

z/VSE does not fully support concurrent microcode upgrade during a z/VSE system is active. Therefore I strongly recommend to shutdown the z/VSE system(s) for disk storage microcode upgrades, do the upgrade and re-ipl the z/VSE system. I would not plan the upgrade, if dependent z/VSE systems are still active.

The following recommendations are on the z/VSE web page - [here](#):

Concurrent microcode upgrade for IBM System Storage: Please consult your device documentation.

Recommendation for **IBM Disk Storage**:

- (E)CKD disks: z/VSE recommends to shutdown the z/VSE system prior to the microcode upgrade.
- FCP-attached SCSI disks: z/VSE does not support concurrent microcode upgrade for FCP-attached SCSI disks.

Recommendation for **IBM Tape Storage**:

z/VSE with the latest service level supports concurrent microcode upgrade for IBM Tape Storage. z/VSE recommends to take the tape units offline (z/VSE OFFLINE command) prior to the microcode upgrade or use the next maintenance window. Once the upgrade completed, take the tape units online again (z/VSE ONLINE command). Please check with your software vendors (e.g. tape management systems), if they support concurrent microcode upgrade.

Tags: tape, upgrade, vse, scsi, microcode, disk, dasd

How to format the z/VSE lock file (2017-07-04)

If you want to synchronize a resource between (e.g. a VSAM file - share option 4) multiple z/VSE systems, you can use the z/VSE DASD sharing support. DASD Sharing requires a lock file, where all systems that participate in sharing are registered with their CPU id. The lock file also hold the resource names, lock option and status byte. See my related blog entry for more details - [here](#).

If you want to add or remove a z/VSE (CPU) system from DASD sharing, you may need to format the lock file. Before doing that, all z/VSE systems that share the lock file must be **shutdown completely**.

Under z/VM the guest should be logged off. In LPAR a CPU reset should be performed.

Then you can start formatting the lock file from one z/VSE system:

- IPL with a load parameter - character 'P' in the third position (e.g. "..P").
 - LPAR: Specify the load parameter on the Load panel.
 - z/VM: Specify the load parameter in the IPL command:
Example: IPL 200 LOADPARAM ..P
- The IPL process will stop and prompt for "OIO3D ENTER SUPERVISOR PARAMETERS OR ASI PARAMETERS":
 - Reply "STOP=DLF" (DLF = Define the Lock file IPL command) or, if you also want to specify the IPL or ASI procedure, append the "STOP=DLF" at the end.
Examples: STOP=DLF or IPL=\$IPLESA,JCL=\$\$JCL,STOP=DLF
- The IPL process will stop before processing the DLF command, print the original command on the console, and prompt for the DLF command:
 - Reply with the original DLF command, but change the option "TYPE=N" to "TYPE=F" (to format the lock file), and make any additional required changes:
e.g. If you add a CPU, you may need to increase the number of CPUs (NCPU=).
 - You may be prompted for DUPLICATE NAME ON VOLUME or OVERLAP ON UNEXPIRED FILE for DOS.LOCK.FILE.
 - Enter "DELETE", if you are OK with the displayed information,
- After the DLF command is processed and the lock file is formatted, IPL prompts for additional commands.
- Enter "0" to continue. IPL tries to process the original DLF command, which fails, because it is already processed.
- Enter "0". The z/VSE system now continues with the remaining IPL process.

The other z/VSE systems that participate in DASD sharing can now be IPLed (with DLF parameter TYPE=N).

Tags: lock, format, vse, lock_file, lock_manager, dasd_sharing

VM Workshop 2017: Presentations available for download (2017-07-03)

The **VM Workshop 2017** conference was just 10 days ago. My colleagues told me it was again a success with many good discussions, feedback and lots of interest in provided sessions - see agenda.

The VM Workshop page is [here](#). The presentations can be downloaded from the 2017 Presentation Archives - [here](#)

For the US - enjoy your holiday tomorrow.

Tags: vm_workshop, download, conference, presentations, vse

Updated Redbook: DS8870 Data Migration Techniques (2017-06-30)

There is new update available for the IBM Redbook: DS8870 Data Migration Techniques.

The Redbook mainly addresses z/OS environments and products. However, some of the described techniques and migration steps may also be applicable for z/VSE environments.

You can get the link to the Redbook - [here](#).

Have a good weekend.

Tags: disk, migration, redbook, documentation, vse

New SCRT update available (2017-06-29)

In between I made 900 blog entries since I started with this blog in February 2013.

Today I have news for subcapacity pricing customers.

A new update of SCRT (IBM Sub-Capacity Reporting Tool) Java version is available - SCRT 24.11.3.

You can download the latest SCRT - classic and Java - versions [here](#). There is also a change log.

More information on SCRT, sub capacity pricing, supported operating systems and price metrics is [here](#).

... and my last blog entry on SCRT - Transition to Java version - is [here](#).

Tags: vse, sub-capacity, classic, scrt, aewlc, mwlc, java

Do you plan to order z/VSE 6.1 ? (2017-06-28)

If you already ordered z/VSE 6.1, you may skip this blog entry.

If you plan to upgrade to z/VSE 6.1 in the future, I recommend to order z/VSE 6.1 from Shopz before z/VSE 6.2 availability in 4th quarter 2017.

Reason: If you remember past z/VSE releases, the ordering of the prior release may no longer be possible after the GA of the new release. z/VSE 5.2 was an exception.

The new Multi-Version Measurement (MVM) should help to order a new version earlier. See my related MVM blog entries, start with the latest one - [here](#).

Tags: upgrade, shopz, availability, vse, order, ga

Enrollment open for 11th European GSE / IBM TU conference (2017-06-27)

GSE just announced that the enrollment for the 11th European IBM / GSE TU for z/VSE, z/VM and Linux on IBM z Systems conference is now open. The conference is scheduled from **October 23 to October 25, 2017** in Hamburg, Germany. It has general sessions in English and tracks in German and English.

The early bird offer is valid until July 14, 2017. Please enroll online until **August 31, 2017**.

The conference page is [here](#).

Tags: vse, technical, gse, conference

Next z/VM LVC: z/VM 6.4: Preparation & Use (2017-06-26)

The next z/VM Live Virtual Class (LVC) is scheduled for Wednesday, June 28, 2017.

Topic: z/VM 6.4: Preparation & Use

Abstract: z/VM 6.4 was generally available on November 11, 2016 and brought a lot of new capability to the z/VM environment. This presentation reviews some of the key changes in the release. First we'll look at your existing system and discuss what will be different when you go to z/VM 6.4. Next we'll look at what you should change prior to IPLing z/VM 6.4, things like expanded storage or changes for HyperPAV paging. We'll wrap things up with a discussion of how you exploit some of the new features after you are running z/VM 6.4.

The registration link is on the z/VM LVC web page - [here](#).

Tags: lvc, zvm, vse, live-virtual-class

z/VSE service news: VSE/AF, Connectors (2017-06-23)

There are a few new APARs available for the VSE/AF and z/VSE Connectors components..

VSE/AF

z/VSE 5.2 APAR [DY47714](#) (PTFs UD54232, UD54232) : HARD WAIT FFF IN SGMIH

z/VSE 6.1 APAR [DY47718](#) (PTFs UD54236, UD54237) - available soon
Error description: HARDWAIT X'FFF' in SGMIH routine MISINTHD near label MIHEXIT1.

z/VSE Connectors

z/VSE 6.1 APAR [PI81584](#) (PTF UI47276): VSE SOAP ENGINE V2 WORKING AS CLIENT RETURNS EIBRESP2=4 (INTERNAL ERROR) WHEN NO HTTP PROXY IS CONFIGURED IN RULES

z/VSE 5.2 APAR [PI81583](#) (PTF UI47275)

Error description: The z/VSE SOAP Engine V2 working as client returns EIBRESP2=4 (INTERNAL ERROR) when calling IESOACLN when no HTTP proxy is configured in the rules used with the web service.

z/VSE 6.1 APAR [PI81522](#) (PTF UI47293): VSAM CAPTURE EXIT FAILS TO CONNECT TO AN WEBSPPHERE MQ SERVER WITH MQCCODE=0002 MQRCODE=085B

z/VSE 5.2 APAR [PI81520](#) (PTF UI47292)

Error description: The VSAM Capture Exit (IESVSCAP) fails to connect to an WebSphere MQ server with MQCCODE=0002 MQRCODE=085B when operating with MODE=MQCLIENT.

Have a good weekend.

Tags: support, vse, af, connector, ptf, apar, service

z/VM 6.2 end of service this month (2017-06-22)

Many z/VSE users run their systems in z/VM guests.

Therefore I want to remind you, that z/VM 6.2 end of service is June 30, 2017. Please migrate to z/VM 6.4 to stay in a supported environment.

You can find the end of service dates for z/VM releases [here](#).

There you will also see, that z/VM 5.4 and z/VM 6.3 end of service is planned for December 31, 2017.

So it's time to plan for a z/VM 6.4 migration too.

Tags: migration, eos, vm, vse, end-of-service, support, service

Transition to SCRT Java version (2017-06-21)

Last October I had a blog entry about today's subject, see [here](#).

SCRT (Sub-Capacity Reporting Tool) is available as classic and Java version. If you are using SCRT to report your MSU usage, you are already aware about the two versions.

This blog entry is a reminder, that the classic version will be replaced by the Java version in **October 2017**. That is starting with the November reporting, you have to use the Java version.

Reports from the classic version will then no longer be accepted.

Tags: java, classic, msu, vse, scrt, billing

MQ Appliance upgraded (2017-06-20)

Today's blog entry may be of interest for z/VSE user's, that are dependent on an MQ solution.

As described in earlier posts, the Websphere MQ for z/VSE had end of service in September 2015.

You may use the MQ Client for VSE together with MQ trigger monitor and a MQ server on another platform as an alternative. See my blog entry [here](#).

The MQ for z/VSE migration paper might be helpful. It is on our technical article page [here](#).

Instead of a MQ server on another platform (e.g. on Linux) the MQ appliance can be an option too. The MQ appliance is available since some time. It was just upgraded to the latest software level, see the announcement letter for details - [here](#).

The MQ Appliance is available in two options:

- The M2000A for larger enterprise workloads.
- The M2000B for smaller workloads and lower processing capacity.

Next conference this week: VM Workshop 2017 (2017-06-19)

I want to start the week with a reminder.

The VM Workshop 2017 will start on Thursday - **June 22-24, 2017** - at Ohio State University in Columbus, OH. It is still time to register.

We see that conference as the replacement for the former WAVV conference. My colleagues are there.

The VM Workshop covers sessions for z/VM, Linux on z System and z/VSE users. z/VSE sessions address z/VSE users running their systems in LPAR or z/VM guests.

The registration and agenda are [here](#).

Tags: vse, linux, wavv, vm, conference, vm_workshop

New requirement feature for z/VSE vendor products, next blog entry on June 19 (2017-06-14)

First - we have a public holiday tomorrow and I won't be in the office on Friday. Therefore my next blog entry will be on Monday - June 19, 2017. Have a good weekend.

Customer requirements are a key element of the z/VSE release content. Therefore we are always looking for requirements. Thanks for the requirements you submitted so far.

To submit a requirements you may use our [contact page](#) - or the Request for Enhancement (RFE) web tool. I posted some information in last December - [here](#). You may also search for and vote on existing requirements, if you use the RFE web tool. To do so you have to sign on with your IBM id. The RFE web page is [here](#).

A new RFE feature is, that you now can submit requirements for vendor (ISV) applications / products. We will discuss such requirements with z/VSE ISVs and provide feedback.

To submit a requirement you can select "I want to specify the brand, product family, and product".

Please use the following selection for z/VSE ISV requirements:

Brand:	Servers and Systems Software
Product family:	Request Platform Support for ISV Apps
Product:	z Ecosystem Software
Component:	(component you want to submit a requirement for)
Operating system:	z/VSE

For completeness, below is the selection for z/VSE requirements:

Brand:	Servers and Systems Software
Product family:	z Systems Software
Product:	z/VSE
Component:	(component you want to submit a requirement for)
Operating system:	z/VSE

There are some more fields, you may want to fill out.

... and the selection for CICS TS requirements:

Brand:	Servers and Systems Software
Product family:	Transaction Processing
Product:	CICS Transaction Server
Component:	Runtime (or Explorer)
Operating system:	z/VSE

Tags: rfe, requirements, vendor, isv, vse

no blog entry today - June 13, 2017 (2017-06-13)

I am not in the office today. Therefore I plan my next blog entry for tomorrow.

Have a good day.

Tags: vse

z/VSE service news: IBM TCP/IP update (2017-06-12)

There is a new update available for IBM TCP/IP for VSE/ESA 1.5F.

APAR [PI80116](#) (PTF UI47047): UPDATE FOR TCP/IP FOR VSE/ESA 1.5F

Error description: Update for TCP/IP for VSE/ESA 1.5F with these zaps:

ZP15F326 ZP15F327 ZP15F334 ZP15F335 ZP15F336
ZP15F337 ZP15F338 ZP15F339 ZP15F342 ZP15F345
ZP15F346 ZP15F347 ZP15F350 ZP15F352 ZP15F353
ZP15F355 ZP15F357

Just for completeness: We released the last IBM TCP/IP for z/VSE 2.1 update in March 2017:

APAR [PI76044](#) (PTF UI44562): TCP/IP FOR Z/VSE V2.1 SERVICE PACK 2.1.8

Error description: TCP/IP for z/VSE V2.1 service pack 2.1.8

More details are [here](#).

Tags: tcpip, support, vse, service, update

z/VSE BSM: Control File corrupted (2017-06-09)

This blog entry is related to the z/VSE Basic Security Manager (BSM). One of the BSM repositories is the BSM Control File (BSTCNTL). It contains, e.g. profiles for resource classes. BSTCNTL is a VSE/VSAM KSDS file.

I did not see so far, that a BSTCNTL file was corrupted. This blog entry describes the steps to repair such a corruption just in case.

An indication for a BSTCNTL corruption might be, if you can't IPL your z/VSE system with SYS SEC=YES as usual and get messages (e.g. if BSM starts in partition FB):

```
FB 0118 BST312I INTERNAL ERROR. GetClSta FAILED WITH RC = 00
FB 0011 BST210E THE DB SUBTASK HAS TERMINATED UNEXPECTEDLY.
```

A backup of your BSTCNTL file with the BSTSAVER tool is required to repair it.

With the following steps you can recreate the BSTCNTL file:

- IPL with SYS SEC=RECOVER
 - The system will come up without security.
 - You can prepare all your jobs (ID statement required).
 - Delete and define the BST control file (see job example BSM1)
 - Initialize the BST control file (see job example BSM2)
- IPL with SYS SEC=YES
 - Load the system entries to the BSTCNTL (see job example BSM3)
 - Add your own entries to BSTCNTL created by the BSTSAVER
 - See SKBSTSAV in ICCF library 59

----- Job example BSM1-----

```
* $$ JOB JNM=BSM1,CLASS=0,DISP=D
// JOB BSM1 - BSTFILE REPAIR 1
// EXEC IDCAMS,SIZE=AUTO
  DELETE (VSE.BSTCNTL.FILE) CL NOERASE PURGE -
  CATALOG(VSESP.USER.CATALOG)
DEFINE CLUSTER(NAME(VSE.BSTCNTL.FILE) -
FILE(BSTCNTL) -
RECORDS (2000 1000) -
TO (99366) -
INDEXED -
```

```

KEYS(255 4) -
RECORDSIZE(400 65535) -
CONTROLINTERVALSIZE(4096) -
SPANNED -
SHR(4) -
VOLUMES (DOSRES,SYSWK1)) -
DATA (NAME (VSE.BSTCNTL.FILE.@D@)) -
INDEX (NAME (VSE.BSTCNTL.FILE.@I@)) -
CATALOG(VSESP.USER.CATALOG)

```

```
/*
```

```
/*
```

```
* $$ EOJ
```

```
----- Job example BSM2-----
```

```

* $$ JOB JNM=BSM2,CLASS=0,DISP=D
// JOB BSM2 - INITIALIZE BSM CONTROL FILE
// EXEC BSTVINIT          INIT BSM CONTROL FILE
/*
/*
* && EOJ

```

```
----- Job example BSM3-----
```

```

* $$ JOB JNM=BSM3,CLASS=0,DISP=D
// JOB BSM3 - LOAD BSM CONTROL FILE
// ID statement required
// EXEC BSTADMIN          LOAD BSM CONTROL FILE
* $$ SLI MEM=IESZSCXI.Z
* $$ SLI MEM=IESZSCXN.Z
/*
/*
* && EOJ

```

Thanks, Elke.

Have a good weekend.

Tags: security, corrupted, bsm, vse, control_file

New z/VSE web page: Multi-Version Measurement (2017-06-08)

Some weeks ago I provided more details about our new Multi-Version Measurement (MVM) - see [here](#).

In between we prepared a new web page to summarize MVM. Please let us (me) know, if you have any questions - or if there is anything that we should add.

The new web page is [here](#).

Tags: pricing, measurement, mwlc, aewlc, mpo, vse, multi-version_measurement, zelc, mvm

Next conference: VM Workshop 2017 (2017-06-07)

The next conference is the VM Workshop 2017 with lots of z/VM, Linux on z System and z/VSE sessions. z/VSE sessions address z/VSE users running their systems in LPAR or z/VM guests.

It is scheduled for **June 22-24, 2017** at Ohio State University in Columbus, OH. It is still time to register.

The agenda and registration are on the VM Workshop 2017 web pages - [here](#).

Tags: linux, vse, conference, vm, vm_workshop

Next z/VM LVC: z/VM 6.4 Upgrade in Place Installation, next blog entry June 7 (2017-05-23)

I have to post this blog entry in between. I still plan my next one on June 7, because I am still traveling.

The next z/VM Live Virtual Class (LVC) is scheduled for **Wednesday, May 31, 2017**.

Topic: z/VM 6.4 Upgrade in Place Installation

Abstract: In addition to the traditional z/VM installation process, z/VM has been enhanced to support a new upgrade in place installation technique. This technique will enable you to upgrade an existing z/VM 6.2 or z/VM 6.3 system to the new z/VM 6.4 release with minimal impact to the current running system. In this presentation we will cover an overview of this new installation technique, planning considerations, and a walk through of all the steps in the process.

You can find the registration link on the z/VM LVC web page - [here](#).

Tags: vse, upgrade, zvm, migration, installation, lvc, live-virtual-class

z/VSE 6.2 Preview: DBCLI enhancements, next blog entry on June 7, 2017 (2017-05-18)

Today I will give some more details about the z/VSE Database Connector enhancements we previewed in April. You can use these new interfaces with the z/VSE 6.2 release planned for the 4th quarter 2017 - see [announcement letter](#). The z/VSE Database connector - also called Database Call Level Interface (DBCLI) - was introduced with z/VSE 5.1.1. z/VSE applications may use DBCLI to access relational database servers on non-z/VSE platforms, such as IBM DB2, Oracle, Microsoft SQL Server, MySQL. z/VSE programming languages Assembler, C, Cobol, PL/I and batch REXX are supported.

z/VSE will contain the following new functionality:

- DBCLI batch query provides a tool to connect to a database, execute a SQL statement and retrieve the results, without any application programming efforts. The tool can be started in a VSE partition via the "// EXEC IESDBCLIB" job control statement with input from SYSIPT or PARM=.
- DBCLI interactive query tool adds a graphical 3270 user interface to connect to a database, execute SQL statements and retrieve results. You can setup queries and retrieve results interactively without any application programming effort. The tool can be started with the CICS transaction IDBT.
- DBCLI CICS REXX support will be added to z/VSE 6.2. Instead of using ADDRESS LINKPGM, a CICS REXX user defined command will be used. That is a CICS REXX program with DBCLI calls need to define a DBCLI command such as "DEFCMD DBCLI CALL = CALL IESDBCIR (CICSLOAD" at the start. After the DBCLI command is defined. DBCLI calls can be performed.

Next week I am attending the **IBM Systems Technical University** (see [my blog entry](#)) in Orlando, then we a few public holidays in Germany and I plan for a few vacation days. May be we can meet in Orlando. Therefore you will see my next blog entry on June 7, 2017. I will update you in between, if there is any important news.

Tags: database, dbcli, vse, db2, preview

New IBM Redbook available: Migration to CICS Transaction Server for z/VSE (2017-05-17)

We published a new IBM Redbook for z/VSE: Migration to CICS Transaction Server for z/VSE. I hope you will like it and it is useful for your CICS environments.

Abstract

The IBM CICS Transaction Server for z/VSE (CICS TS for z/VSE) 2.1 provides functions to improve application programming, system programming, system management, and data security and availability. With CICS TS for z/VSE 2.1, you can use the extended functionality of Basic Security Manager. CICS TS for z/VSE 2.1 can be administrated by the IBM CICS Explorer function on a workstation, which allows CICS management in a convenient way.

This IBM Redbooks publication provides information to help you install, tailor, and configure the CICS TS for z/VSE 2.1 product. The book is intended for IBM z/VSE customers and IBM technical personnel who are responsible for planning and migrating to IBM z/VSE 6.1 and CICS TS for z/VSE 2.1.

The book also provides information to help you understand the affect of migrating to CICS TS for z/VSE 2.1. It provides detailed guidance and samples for installing and configuring CICS TS for z/VSE 2.1.

Also included in the book is a description of the CICS TS for z/VSE 2.1 features and capabilities and the affect of removing obsolete functions. The book also covers security and performance issues and provides samples for first level problem determination through the use of memory dumps or the use of trace tools.

You can download the Redbook [here](#).

Tags: cics, vse, cics-explorer, migration, redbook

z/VSE service news: VSE/AF, connector and openssl APARs (2017-05-16)

There are a few new APARs / PTFs available for connectors, openssl and VSE/VSAM, see below.

VSE/AF APARs

z/VSE 6.1 APAR [DY47708](#) (PTF UD54226): ABEND OF VSE CONNECTOR SERVER WHEN ACCESSING A LIBRARY

z/VSE 5.2 APAR [DY47707](#) (PTF UD54225)

Error description: The VSE Connector Server (IESVCSRVR) may abend in routine LIBRIO when accessing a library. The abend is due to passing a 31 bit address to a service that expects 24 bit addresses only.

z/VSE 6.1 APAR [DY47706](#) (PTF UD54224): SECURITY FIXES FOR OPENSLL ON Z/VSE.

z/VSE 5.2 APAR [DY47705](#) (PTF UD54223)

Error description: Security fixes for OpenSSL on z/VSE. CVE-2016-2177, CVE-2016-2182, CVE-2016-6306

Please monitor z/VSE's security service section to get the latest news - [here](#).

VSE/VSAM APARs

z/VSE 6.1 APAR [DY47703](#) (PTF UD54227): CONVERT SHOWCAT TO SUPPORT 31-BIT AREA

z/VSE 5.2 APAR [DY47696](#) (PTF UD54217)

Error description: SHOWCAT AREA= ... with area residing in 24-bit storage works fine. If area resides in 31-bit storage, SHOWCAT returns with rc04 (Area not large enough)

For the latest service news please see z/VSE's service and support web page - [here](#).

The CICS TS for z/VSE 2.1 service page is [here](#) and the CICS TS for VSE/ESA 1.1.1 - [here](#).

Tags: vsam, support, vse, apar, af, service, ptf, openssl

Next conference: 2017 IBM Systems Technical University (2017-05-15)

The next conference with z/VSE sessions is scheduled for next week (**May 22 - 26, 2017**) - the 2017 IBM Systems Technical University (**zUniversity**).

The conference location is **Orlando, Florida**. The registration and agenda is on the conference page - [here](#).

It covers the platforms IBM z Systems, IBM Power Systems and IBM Storage.

My z/VSE sessions are on Monday and Tuesday. I will be available at the conference for any z/VSE related discussions until Thursday next week.

Tags: vse, conference, zuniversity

Linux LVC: Blockchain on LinuxONE (2017-05-12)

The next Linux Live Virtual Class (LVC) is scheduled for **May 17th, 2017** at 11:00 a.m. EST.

Topic: IBM Blockchain High Secure Business Network (powered by LinuxONE)

Abstract: The Blockchain offerings have been updated with the availability of the Hyperledger 1.0. The HSBN based on LinuxONE is our only supported offering for 1.0. This webcast will explain the architecture of the HSBN based on the Hyperledger 1.0 and what value add we provide on top of open source project.

The registration link is on the z/VM LVC web page - [here](#).

Have a good weekend.

Tags: blockchain, vse, live-virtual-class, linuxone, lvc,
linux

New Doc Buddy release available (2017-05-11)

IBM Doc Buddy V1.3 is now available for download in the Apple App and Google Play stores.

Doc Buddy is a no charge mobile application that enables retrieving z Systems message documentation. Many z Systems "components" are already available on Doc Buddy such as message explanations for z/OS, z/VM, Linux on z Systems, TPF - and for z/VSE too. See my related blog entry - [here](#).

This release includes major search enhancements:

- The app now supports online search in addition to offline search. You can get instant search results if you are connected to the Internet. Online search is enabled by default in Settings.
- An overview of the app features is provided for first-time app users to help you get started.
- Messages of these products are added: Tivoli OMEGAMON for Storage on z/OS and Tivoli OMEGAMON XE on z/VM and Linux.

More information about this new release is [here](#).

Tags: documentation, doc-buddy, support, vse, message

German GSE Conference next Monday, next blog entry on May 11 (2017-05-05)

The German Guide Share Europe (GSE) conference is scheduled for next week - Monday to Wednesday (May 8 to 10) - in Hanover. The conference language is German. I will be there.

The agenda and registration page of the 2017 GSE Fruehjahrstagung (GSE Spring Meeting) is [here](#).

Therefore I plan my next blog entry for Thursday (May 11), because I will not be in my office until then.

Have a good weekend.

z/VSE 6.2 Preview: new CICS TS for z/VSE release (2017-05-04)

Today I want to continue with the z/VSE 6.2 enhancements as announced in the preview. The announcement letter is [here](#). z/VSE is planned to be available in the 4th quarter of 2017.

z/VSE 6.2 will contain a new CICS release - CICS TS for z/VSE 2.2. It replaces CICS TS for z/VSE V2.1. CICS TS for z/VSE 2.2 can not run on prior z/VSE releases, and prior CICS TS releases can not run on z/VSE 6.2. You may use Fast Service Upgrade (FSU) from z/VSE 6.1 to migrate to z/VSE 6.2. A migration from z/VSE V5 requires a new installation. In that case FSU is not supported.

Now I have some more details about CICS TS for z/VSE 2.2. It will provide the following enhancements:

- Enhancements to the CICS Explorer to more easily manage CICS resources:
 - Define new CICS resources and modify or delete existing resources.
 - Monitor, control, and update dynamic storage areas and global temporary storage queue statistics.
 - Support "definitions" views for selected CICS resources.
- OpenSSL for CICS Web Support will give more flexibility and allow to take advantage of the openSSL security.
- An upgrade of CICS Web Support (CWS) to HTTP 1.1:
 - CWS has been upgraded to comply with HTTP 1.1, providing support for the latest web browsers and applications. New function has been added to improve performance and security., such as persistent connections - send keep alive headers to leave the connection open,
 - pipelining - sending of multiple requests without waiting for a response before sending the next request,
 - chunking - The body of a message is transferred as a series of chunks, each with its own size indicator and data.
- Enhancements to the CICS API to provide:
- CICS TS for z/VSE 2.1 available with z/VSE 6.1 introduced Channels & Containers. The corresponding APIs allow to exchange larger amount of data between CICS applications than the CICS COMMAREA (limited to 32K). CICS TS for z/VSE 2.2 will further enhance Channels and Containers and provide
 - Support for UTF-8 and UTF-16, for use in data conversion, when using the channels and containers API.

- Support for the APPEND parameter for PUT CONTAINER, to append specified data to existing container data.
- Support for the BYTEOFFSET parameter for GET CONTAINER, to retrieve data at a specified offset in a container.
- Support for date and time stamp formats that are in general use across the internet.
- Support for Language Environment (LE) MAIN for Assembler applications. A new translator option (LEASM) will be provided, which causes LE functions to be used and set up the program's environment.

Tags: preview, announcement, cics, vse

z/VSE service news: Fix for VSE/POWER APAR available (2017-05-03)

The fixes for the VSE/POWER APARs are now available. That is you can apply the APARs for the new function as described in my [earlier blog entry](#) "VSE/POWER commands with positional operand *JOBN can now address jobs with matching end of jobname "JOBN"".

VSE/POWER

z/VSE 6.1 APAR [DY47712](#) (PTF UD54229-61G): AFTER INSTALL OF DY47704, POWER SAS APPLICATION GENERATED WITH NEW PWRSPPL WILL RECEIVE RC/FDBK=08/10 FROM VSE/POWER

z/VSE 5.2 APAR [DY47709](#) (PTF UD54228-52G)

Error description: When new PWRSPPL version DY47704 / DY47700 is used to assemble VSE/POWER Spool Access Support application, it will create SPL with incorrect SPLOFORM. Application will receive RC/FDBK 08/10 from VSE/POWER. Do not install PTFs UD54222-61G or UD54219-52G.

See also the z/VSE service & support web page - [here](#).

Tags: ptf, service, apar, support, vse-power, vse

z/VSE 6.2 Preview: zHPF support - next blog entry on May 3, 2017 (2017-04-28)

Today I want to describe another enhancement announced in the [z/VSE 6.2 Preview](#) and available in forth quarter 2017 - the High Performance FICON for z Systems (zHPF) support.

The zHPF channel Input/Output (I/O) architecture can improve the execution of small block I/O requests. z/VSE will translate applicable I/O commands into the zHPF protocol and thus transparently exploit the zHPF protocol for user applications. No adaptation is required. Multiple channels commands are sent as a single entity to the control unit. That is the channel forwards a chain of commands and has no longer to keep track of each single CCW (Channel Command Word). This may lead to reduced overhead and increases the I/O rate on a channel. The performance benefits depend on your workload. zHPF support is provided for ECKD channel commands.

A few implementation details:

- The common I/O APIs will not change. z/VSE translates channel commands at low level I/O interfaces.
- z/VSE will not provide APIs to use the zHPF commands in applications.
- z/VSE requires z/HPF implementation phase 1 (There are 2 implementation phases, 0 and 1).
- The z/VSE conversion routine scans the I/O operation codes of the CCW chain and checks whether the request is eligible for a translation.
- Whenever a zHPF I/O request results in an I/O error, the request is retried as standard I/O.

The SYSDEF SYSTEM command is extended by a new zHPF parameter. After IPL completed you can start the zHPF support via SYSDEF SYSTEM,ZHPF=START. You may stop the zHPF support via SYSDEF SYSTEM,ZHPF=STOP, and restart it any time. So you can easily verify, if your workload can benefit from z/VSE's zHPF support. I/O timings can be verified via the SIR SMF command.

We have a long weekend, because May 1 is a public holiday in Germany. Therefore I plan my next blog entry for Wednesday - May 3.

Have a good weekend.

Tags: vse, zhpfc, device, preview, io, announcement, eckd

z/VSE 6.2 Preview: Vector register support (2017-04-27)

In the following weeks I will post additional information of new functionality, we want to deliver with z/VSE 6.2 in the forth quarter 2017 - see my [z/VSE 6.2 Preview blog entry](#)..

Today I will start with the **vector register support** in z/VSE 6.2.

The IBM z13 / z13s processors introduces a new vector facility for z/Architecture (also called SIMD - single instruction, multiple data). A new set of vector instructions are available. They are described in the latest z/Architecture Principles of Operation (POP). These vector instructions work on up to 32 128-bit registers.

To minimize the required virtual storage for the vector register save area, z/VSE 6.2 provides a new VECTOR macro to activate and deactivate the vector support in an application (VSE task). If an activation request is successful, a vector register task save area is allocated in the 31 bit system GETVIS area. At deactivation this area is freed. The VSE interrupt handler stores the vector registers into that save area. When the task is dispatched again, those registers are restored.

Assembler applications, that exploit vector registers, may see good performance improvements.

If you want to read more about the vector facility, see the z/Architecture POP for details. It can be downloaded from the IBM Publication Center - [here](#).

Tags: assembler, vector, vse, program, preview, application

z/VM service: end of service releases (2017-04-26)

Many z/VSE users are running their systems in z/VM guests, because z/VM provides more flexibility than running z/VSE in LPAR. Therefore I want to remind you about the end of service (EOS) dates for the following releases:

- z/VM 5.4 EOS December 31,2017
- z/VM 6.2 EOS June 30, 2017
- z/VM 6.3 EOS December 31, 2017

This will leave only z/VM 6.4 in service after December 31, 2017. Please migrate to z/VM 6.4 to stay in a supported environment.

See the z/VM service web page for more details - [here](#).

Also on that page: If you are interested in new z/VM functions, there is a link to the "new function APAR web page".

Tags: eos, end-of-service, vm, zvm, vse

z/VSE service news: VSE/POWER APAR update (2017-04-25)

A few weeks ago I informed you about a VSE/POWER new function APAR: "VSE/POWER commands with positional operand *JOBNAME can now address jobs with matching end of jobname "JOBNAME", see [here](#).

Please do not yet install the corresponding PWRSPPL PTFs, because a problem showed up. We will provide a PTF shortly, that will correct this problem. Below are the new APAR/PTF numbers.

VSE/POWER

z/VSE 6.1 APAR [DY47712](#) (PTF UD54229-61G): AFTER INSTALL OF DY47704, POWER SAS APPLICATION GENERATED WITH NEW PWRSPPL WILL RECEIVE RC/FDBK=08/10 FROM VSE/POWER

z/VSE 5.2 APAR [DY47709](#) (PTF UD54228-52G)

Error description: When new PWRSPPL version DY47704 / DY47700 is used to assemble VSE/POWER Spool Access Support application, it will create SPL with incorrect SPLOFORM. Application will receive RC/FDBK 08/10 from VSE/POWER.

Do not install PTFs UD54222-61G or UD54219-52G.

Tags: service, vse-power, support, apar, ptf, vse

Reminder: Linux on z Systems LVC on April 26 (2017-04-24)

This is a reminder for the next Linux on z Systems Live Virtual Class (LVC). It is scheduled for Wednesday, April 26. I posted that a few weeks ago.

Topic: OpenStack for KVM with Ubuntu on IBM z System

Date: Wednesday, April 26, 2017 - 11:00 AM EST / New York, 4:00 PM CET / Germany

Abstract: This session is divided into three parts, each with an equal time share of 15-20 minutes. We will start with a recap what Infrastructure as a Service (IaaS) is all about to resolve some minor potential misconceptions. After that, an overview of the most important capabilities of OpenStack are shown. The most common (at least in the past) pain points and mitigations are discussed too. Eventually, after having enough context, we take a look at Ubuntu and OpenStack on z. This includes deployment, operations and supported features. This session will bring you benefit if you're new(-ish) to OpenStack, evaluating IaaS solutions, and care about the user/operators-view.

The registration link is [here](#).

Tags: `live-virtual-class, ubuntu, lvc, vse, kvm, linux`

z/VSE LVC: z/VSE latest news & z/VSE 6.2 presentation available (2017-04-21)

10 Days ago we held a z/VSE Live Virtual (LVC) class with the latest news about z/VSE and with details of our z/VSE 6.2 preview announcement.

Thanks for the very positive feedback. I plan to provide more details about specific z/VSE 6.2 functions in upcoming blog entries.

In between we uploaded the presentation and playback to our Live Virtual Class (LVC) web page. You can download them from [here](#).

Have a good weekend.

Facts about z/VSE Multi-Version Measurement (2017-04-20)

In the past I had already several blog entries related to z/VSE Multi-Version Measurement (MVM). You may use the tag "MVM" to search for these entries. Today I want to summarize some information about MVM, because I believe it's a good thing for z/VSE customers.

MVM was announced in February.

First a few links:

- [MVM announcement letter](#)
- [MVM section on the IBM z Systems Software Pricing page](#)
- [Products eligible for MVM](#)
- [Sub-capacity Reporting Tool \(SCRT\) download page](#)

Now some facts:

- MVM replaces the Migration Pricing Option (MPO).
- The latest SCRT release, available since April 10, is required for MVM. SCRT data collected in April and submitted May 2 - 9 is the basis for the June 1 billing.
- SCRT will calculate the combined concurrent peak (indicated by "(All)" in the report) by adding up the LPAR values where any version of the program is running. For billing purposes, all MSUs within a given family will be reported on a concurrent peak basis and priced at the cost of the latest version of the program within the family.
- Customers using zELC, AEWLC and MWLC pricing are eligible for MVM.
- The following VSE Versions are eligible for MVM: VSE/ESA V1, VSE/ESA V2, z/VSE 3.1, z/VSE V4, z/VSE V5, z/VSE V6. They can be used in any combination.
- You may run different versions simultaneously for an unlimited duration during a program version upgrade. You can combine unsupported releases and request MVM.
- If there are any non-sub-capacity z/VSE versions running on a machine, you will be billed at the highest version price as full capacity. E.g. if you combine versions prior to z/VSE V4, the customer has to pay for full capacity.
- MVM is only possible for versions within the same machine. Multiple machines can not be combined.
- Do you need to request MVM? It depends: sub-capacity (SCRT) customers and full capacity customers using SVC (Single Version Charging) do not

need to request MVM. Any other customer paying e.g. for 2 versions need to request MVM.

Tags: mpo, mvm, vse, scrt, sub-capacity, pricing

z/VSE service news: connector, openssl, CICS TS PTFs available (2017-04-19)

There are some new APARs / PTFs available. Please apply at least the openssl fixes.

VSE/AF

z/VSE 6.1 [DY47708](#) (PTF UD54226) : ABEND OF VSE CONNECTOR SERVER WHEN ACCESSING A LIBRARY

z/VSE 5.2 [DY47707](#) (PTF UD54225)

Error description: The VSE Connector Server (IESVCSR) may abend in routine LIBRIO when accessing a library. The abend is due to passing a 31 bit address to a service that expects 24 bit addresses only.

z/VSE 6.1 [DY47706](#) (PTF UD54224): SECURITY FIXES FOR OPENSSL ON Z/VSE.

z/VSE 5.2 [DY47705](#) (PTF UD54223)

Error description: Security fixes for OpenSSL on z/VSE. Fixes vulnerabilities CVE-2016-2177, CVE-2016-2182, CVE-2016-6306.

This information is also available on the z/VSE corrective service & support page - [here](#).

CICS TS

There are also new CICS TS for z/VSE 2.1 and CICS TS for VSE/ESA 1.1.1 PTFs available.

The CICS TS for z/VSE 2.1 support information is [here](#) and the CICS TS for VSE/ESA 1.1.1 information is [here](#).

VSE/POWER message 1QAAI USERID SYSTCPIP UNKNOWN BY VM (2017-04-18)

A few days ago there was a discussion about that subject on VSE-L. Today I have a more detailed information about VSE/POWER message 1QAAI. Thanks for the details, Martin.

Message 1QAAI is shown when VSE/POWER prints output to z/VM via a LST task started with option VM, e.g. PSTART LST,00E,ABC,,VM

The output is intersected by a call to VM/CP which passes the target user ID. If this userid is not defined in z/VM, the RC from z/VM is translated into message 1QAAI .

The most common causes are:

1. the LST task is started for the wrong class(es) and picks up the wrong output(s)
2. the output did not receive the designated properties. This happens quite often for a * \$\$ LST statement which does not include the LST operand, e.g. * \$\$ LST LST=02E,CLASS=...

Recommendations:

1. avoid the default output class A in PSTART LST,cuu,class(es),,VM and avoid specifying the same output class for multiple tasks, e.g. LST task and AUTOFTP
2. make sure that all generated output has the designated properties , for details see paragraph "Important Specifications for Output Spooling" in VSE/POWER Administration and Operation" manual.

Don't forget to set non-default properties for the job log spooled to SYSLST by * \$\$ LST LST=SYSLST,... . If you don't need the job log, use * \$\$ LST LST=SYSLST,PURGE=0,DISP=H,... which will delete the job log, if the job ends with RC=0 and will keep it with disposition H for analysis if RC>0.

Tags: vm, vse-power, userid, message, vse

z/VSE versions supported on z Systems hardware, next blog entry on April 19 (2017-04-13)

Today I want to summarize z/VSE versions / releases and supported z Systems servers:

- **z/VSE 5.1** (end of service): z9 EC, z9 BC, z10 EC, z10 BC, z196, z114, zEC12, zBC12, z13, z13s
- **z/VSE 5.2** (end of service October 31, 2018): z9 EC, z9 BC, z10 EC, z10 BC, z196, z114, zEC12, zBC12, z13, z13s
- **z/VSE 6.1**: z10 EC, z10 BC, z196, z114, zEC12, zBC12, z13, z13s
- **z/VSE 6.2** (GA 4Q 2017): z196, z114, zEC12, zBC12, z13, z13s

The latest z Systems server status for supported releases is [here](#).
... and for unsupported releases - [here](#).

I plan to post the next blog entry on Wednesday - April 19, 2017.
We have a public holiday on Friday and Monday.

Have a good weekend - and Happy Easter !

Tags: vse, server, status

z/VSE Multi-Version Measurement: New SCRT release available (2017-04-12)

In March I informed you about the Multi-Version Measurement (MVM) - see my blog entry [here](#). I see a good potential for some savings, if you run multiple versions of eligible z/VSE products. Therefore please see the MVM announcement and web page and let me know, if you have any questions. MVM can be used by full capacity as well as sub-capacity customers.

Since Monday a new release of the Sub-Capacity Reporting Tool (SCRT) is available - SCRT V24.2.0 (Classic version), SCRT V24.11.0 (Java version). Those releases are required, if you want to use MVM. You can start to collect the data for April, and submit them in May as usual. MVM start in June 1. That is the April report can be the first one for MVM billing in June.

The SCRT download page is [here](#).

z/VSE 6.2 Preview announced (2017-04-11)

Exciting news: Today we announced a preview of our next z/VSE Version 6 release - z/VSE 6.2.

z/VSE 6.2 is planned to be available in the **4th quarter of 2017**. It can run on z114, z196, or later.

Below is a quick overview of what you can expect in z/VSE 6.2:

- Hardware support
 - High Performance FICON (zHPF)
 - z13 Vector Facility (Single Instruction Multiple Data - SIMD)
 - Elliptic Curve Cryptography (ECC) accelerated with CryptoExpress5S of z13 / z13s, exploited by openSSL
 - FlashCopy Space Efficient (SE) for Extent Space Efficient (ESE) volumes configured in an DS8880
 - Tapeless initial installation using SCSI or FBA disks
 - Support for stand-alone dump on SCSI disks
- CICS TS for z/VSE enhancements
 - CICS Explorer enhancements (define programs, files, etc.)
 - Channels & containers enhancements
 - HTTP 1.1 upgrade for CICS Web Support (CWS)
- Connector enhancements
 - z/VSE SOAP engine to exploit Channels and Containers
 - new z/VSE Representational State Transfer (REST) engine with JSON (JavaScript Object Notation) support
 - z/VSE database connector enhancements
- Security enhancements
 - Basic Security Manager (BSM) enhancement
 - IUI dialog for batch resources (DTSECTAB security)
 - SSL/TLS support of openSSL or SSL of TCP/IP stack in CICS Web Support
 - EZA Multiplexer and EZA openSSL support
 - SSL/TLS connection to secure remote VTAPE network transfer
 - LDAP sign-on enhancements
- Networking enhancements
 - Linux Fast Path (LFP) running as z/VM guest can communicate with with a TCP/IP stack in LPAR
 - IBM IPv6/VSE 1.3
 - New FTP server security interface
 - SSH copy facility

- TXT2PDF generation facility
- IBM TCP/IP for z/VSE 2.2
 - Provides TLS 1.1 support
- Fast Service Upgrade (FSU) from z/VSE 6.1 to z/VSE 6.2 supported. You can not use FSU from z/VSE V5 to z/VSE 6.1 or z/VSE 6.2.
- Product delivery of z/VSE on DVD and electronically only.

The announcement letter with the z/VSE 6.2 preview is [here](#).

z/VSE 6.2 fulfills the Statements of general Direction (SODs) announced April 2016 - see my related blog entry - [here](#).

You may listen to my **Live Virtual Class (LVC) later today**, where I will provide more details about z/VSE 6.2. The registration link is [here](#).

... and I will provide more details in upcoming blog entries.

Tags: announcement, vse, preview

Next Linux LVC: OpenStack for KVM with Ubuntu on IBM z System (2017-04-10)

The next Linux on z Systems Live Virtual Class (LVC) is scheduled for Wednesday, April 26.

Topic: OpenStack for KVM with Ubuntu on IBM z System

Date: Wednesday, April 26, 2017 - 11:00 AM EST / New York, 4:00 PM CET / Germany

Abstract: This session is divided into three parts, each with an equal time share of 15-20 minutes. We will start with a recap what Infrastructure as a Service (IaaS) is all about to resolve some minor potential misconceptions. After that, an overview of the most important capabilities of OpenStack are shown. The most common (at least in the past) pain points and mitigations are discussed too. Eventually, after having enough context, we take a look at Ubuntu and OpenStack on z. This includes deployment, operations and supported features. This session will bring you benefit if you're new(-ish) to OpenStack, evaluating IaaS solutions, and care about the user/operators-view.

The registration link is [here](#).

... and the next z/VSE LVC is tomorrow (see [my blog entry](#) from Thursday last week).

Tags: vse, kvm, lvc, linux, ubuntu, live-virtual-class

2017 VM Workshop agenda available - including many z/VSE sessions (2017-04-07)

In between the agenda of the **2017 VM Workshop** with lots of z/VM, Linux on z System and z/VSE sessions is available. The z/VSE sessions address z/VSE users running their systems in LPAR or z/VM guests.

The VM Workshop is scheduled for **June 22-24, 2017** at Ohio State University in Columbus, OH.

The registration and agenda is [here](#).

Have a good weekend.

Tags: vse, vm_workshop, conference, wavv

Reminder: next z/VSE LVC on April 11 (2017-04-06)

With this blog entry I want to send a reminder about our next z/VSE Live Virtual Class (LVC) on **April 11, 2017**. There will be for sure some news for you.

Topic: z/VSE Latest News

Abstract: z/VSE V6.1 is generally available since November 2015. Further functional enhancements and device support will be applied to z/VSE. Watch this webcast to get an overview on latest z/VSE news including an overview and a dive into selected new features.

More information and the registration link is [here](#).

How to find information about Linux on z Systems and LinuxONE (2017-04-05)

Many z/VSE users implemented [z/VSE's PIE](#) (Protect, Integrate, Extend) strategy, that is they connected z/VSE with Linux on z Systems.

In the IBM Knowledge Center there is page that might be of interest for Linux on z Systems and LinuxONE users.

It provides links to the following information:

- Library overview (technical documentation)
- Distributions
- Administration and configuration
- Performance
- Virtualization
- High availability
- Security
- Service, support and Troubleshooting
- Database as a service solution

The web page is [here](#).

Tags: pie, information, linuxone, linux, knowledge_center, vse

Do you use / plan to use SCSI devices with your z/VSE ? (2017-04-04)

z/VSE may be installed on ECKD and SCSI devices. Our z/VSE status pages list the release status as well as supported processors and devices - for supported and unsupported VSE releases - see [here](#).

In my blog I had several posts about z/VSE on SCSI, such as

- [z/VSE ECKD to SCSI migration](#)
- [Some information about z/VSE's SCSI support](#)
- [Do you have your data on SCSI disks ?](#)

z/VSE's SCSI support and migration options are summarized in a white paper, that can be downloaded [here](#).

If you are using or plan to use an **IBM Storwize V5000**, please read the Preventive Service Planning (PSP) letter "V7.7.0.x Configuration Limits and Restrictions for IBM Storwize V5000" - [here](#).

You can't configure this device with NPIV (N_Port ID Virtualization) currently. NPIV is an industry standard technology that provides the capability to assign multiple unique world wide port names (WWPNs) to one FCP adapter.

Tags: vse, device, support, npiv, scsi

z/VSE internal commands for debugging (2017-04-03)

There are internal system commands, that might be useful in case you want to debug the system. Those commands are described in the z/VSE Supervisor Diagnosis Reference manual (DRM). Besides the commands the DRM describes the design of the z/VSE Supervisor and how it exploits the z/Architecture. The DRM can be downloaded from the z/VSE documentation page - [here](#).

The syntax of debug commands are described in Chapter 3: Diagnostic and Debugging Aids. Under Debugging Facilities we describe the **DEBUG**, **LOCATE** and **SHOW** command.

- The **DEBUG** command traces key events of the z/VSE Supervisor, such as interrupts, I/O, dispatcher entries and exits, etc.
- The **LOCATE** command scans the virtual storage for the next occurrence of either a character-, or a hexadecimal-character string.
- The **SHOW** command displays a defined number of bytes from a given address in the specified address space / partition on the operator console.

Please also read the disclaimer at the beginning of the Debugging Facilities section.

Tags: documentation, locate, command, drm, supervisor, debug, show, vse

Parallel Access Volume (PAV) Support in z/VSE (2017-03-31)

This week there was a discussion about z/VSE's Parallel Access Volume (PAV) support. I had a few posts about PAV in the past. This blog entry is to update you on PAV.

Parallel Access Volume (PAV) is an optional licensed feature on the IBM System Storage. Parallel access volumes are managed by creating multiple addresses for a single logical device. z/VSE supports one base device and up to 7 alias devices. With basic PAV support for ECKD devices z/VSE can access such a PAV device in parallel, which allow more than one I/O operation to be processed for a single logical device. This may give significant performance benefits dependent on your workload.

The PAV error recovery was improved in 2014. Since then it is very stable. If you still run the unsupported z/VSE 4.3 or z/VSE 5.1 releases, please make sure that APARs DY47396 (for z/VSE 4.3) and DY47501 (for z/VSE 5.1) are applied. Those improvements are included into z/VSE 5.2 and z/VSE 6.1.

z/VSE's PAV support is described in the z/VSE Planning and z/VSE Administration books. We also have a PAV white paper on our z/VSE web page. The white paper is [here](#) and the books on our [documentation web page](#) as usual.

... and there is an Enterprise Tech Journal article still available - [here](#).

Some more information about z/VM's PAV support is [here](#).

Have a good weekend.

Tags: device, vse, pav, disk, io, eckd

z/VSE service news: VSE/POWER new function and AF APARs (2017-03-30)

About three weeks ago I informed you about a new function - enhanced wild card support - available as VSE/POWER PTF - see [here](#). The PTF was for z/VSE 5.2. In between this function is also available for z/VSE 6.1.

VSE/POWER APARs

z/VSE 5.2 APAR [DY47700](#) (PTF UD54218 / UD54219): VSE/POWER COMMANDS WITH POSITIONAL OPERAND *JOBN DON'T ADDRESS JOBS WITH MATCHING END OF JOBNAME "JOBN"

z/VSE 6.1 APAR [DY47704](#) (PTF UD54218 / UD54219): VSE/POWER COMMANDS WITH POSITIONAL OPERAND *JOBN DON'T ADDRESS JOBS WITH MATCHING END OF JOBNAME "JOBN"

See APAR description for details.

... and there is a new VSE/AF APAR addressing SIR SMF command. SIR SMF can be used to retrieve the I/O Subsystem Measurement Data (to retrieve I/O counters). How to activate SIR SMF can be displayed via SIR ? on the console.

VSE/AF APAR

z/VSE 5.2 APAR [DY47702](#) (PTF UD54220): OS03I PROGRAM CHECK INTERRUPTION CODE 01 IN ATTENTION ROUTINE WHEN SIR SMF IS USED
Error description: When SIR SMF activates System Measurement Facility, Attention Routine may program check.

Tags: vse-power, apar, vse, ptf, support, af, service

How to display the physical and related VSE I/O device address (2017-03-29)

With z/VSE 4.3 we introduced 4-digit device addresses.

That is you can define device addresses up to X'FFFF'. The 4-digit device address is called physical address (pcuu) and is defined for the z/VM guest or LPAR. During the IPL process the pcuu is mapped to a 3-digit device address - the VSE address (cuu). After IPL complete z/VSE uses VSE addresses.

You may use the **QUERY IO** Attention Routine command to display the relationship of the physical address of a device and the corresponding VSE address on the console. The QUERY IO command can also be invoked from the system console, by pointing the cursor to a VSE address and pressing the PF11 key. You may display the relationship for all devices or a selected device.

The QUERY IO command is described in the z/VSE System Control Statements book, It's available on our [documentation web page](#).

Tags: device, io, address, vse, query

Next conferences: GSE, zUniversity, VM Workshop (2017-03-28)

Today I want to remind you about upcoming conferences.

- May 8-10 - [GSE Fruehjahrstagung](#) in Hanover, Germany (Language: German)
- May 22-26 - [zUniversity](#) (2017 IBM Systems Technical University) in Orlando, Florida, USA.

My sessions are on Monday and Tuesday, addressing the following topics: Latest News on z/VSE, z/VSE Hardware Exploitation, z/VSE Hints & Tips. I am available at the conference for any discussions (Monday through Wednesday).

See also the IBM Redbook blog entry

["5 Reasons to Attend the Orlando IBM Systems Technical University](#)

- June 22-24 - [VM Workshop 2017](#) in the Ohio State University, Columbus, Ohio, USA (Language: English)

This conference is for Linux on z Systems, z/VM and z/VSE users. We see this conference as a replacement for the former WAVV conference. It is targeted to z/VSE users running z/VSE in z/VM guests as well as in LPARs (without z/VM).

I am looking forward to see you at these conferences.

z/VSE connectors updated (2017-03-27)

We just updated some z/VSE connectors on our tools web page.

Updated tools are:

- [Keyman/VSE](#) - to manage the z/VSE specific public key infrastructure
- [CICS2WS Toolkit](#) - a development tool that helps to use Web Services with existing CICS programs
- [VSE Navigator](#) - a graphical user interface (GUI) for z/VSE

Tags: update, vse, connector

New IBM Redbooks available addressing DS8000 storage (2017-03-24)

There are new IBM Redbooks / Redpapers available related to DS8000 disk devices.

The Redbooks / Redpapers are:

- [IBM DS8880 Data-at-rest Encryption](#)
- [DS8000 Copy Services](#)
- [IBM DS8880 Architecture and Implementation \(Release 8.2.1\)](#)
- [DS8000 Global Mirror Best Practices](#) (I mentioned this one in an earlier blog entry)

Have a good weekend.

Tags: disk, vse, redbook, dasd

Where to get DB2 for VSE license keys (2017-03-23)

Yesterday I was asked if the DB2 Server for VSE & VM product requires a license key and if so, where to get it.

The answer is: The product requires a license key. I asked the DB2 Server for VSE & VM Level 2 team, where I can get a license key.

They pointed me to a support web page. The web page "Obtaining your DB2 Server for VSE Permanent Key" is [here](#).

Tags: db2, vse, key, license

SOD: Docker on Linux on z Systems (2017-03-22)

I know, some of my z/VSE blog readers are also interested in Linux on z Systems.

On Monday there was an interesting announcement about Docker containers and Linux on z Systems.

A Statement of Direction (SOD) was announced: IBM plans to deliver **Docker Datacenter for Linux on IBM z Systems and LinuxOne servers**.

The announcement details are [here](#).

Tags: vse, sod, linux, announcement, docker, statement_of_direction

z/VSE Appliances (VNA, VIA) (2017-03-21)

This is my 850th blog entry.

There was a discussion on VSE-L about the Linux Fast Path (LFP) and z/VSE Appliances. Therefore I want to summarize what z Systems processors provide.

The z/VSE Network Appliance (VNA) and the z/VSE z/VM IP Assist (VIA) can be exploited with z/VSE's Linux Fast Path (LFP) function.

First a few details about the **Linux Fast Path (LFP)**:

With LFP a TCP/IP application on z/VSE can communicate with a small program (LFP daemon) running on Linux on z Systems. The daemon communicates through the Linux TCP/IP stack with the network or application on the same Linux. LFP may communicate between LPARs or z/VM guests. A Linux instance (distribution) is required. LFP does not require a TCP/IP stack on z/VSE, however.

The z114, z196, zBC12, zEC12, z13 and z13s processors provide an appliance called **z/VSE z/VM IP Assist (VIA)**, that can be exploited by LFP. With VIA the processor provides the functionality to communicate to the network without having a Linux distribution installed. If you are interested in VIA or want to use VIA, this function is described in the z/VSE TCP/IP Support book. You can find that book [here](#). There is a technical article about VIA too. It is [here](#).

The **z/VSE Network Appliance (VNA)** for z13 and z13s is available since June 30, 2016.

VNA builds on the z/VSE Linux Fast Path (LFP) function and provides TCP/IP network access without requiring a TCP/IP stack in z/VSE. The appliance utilizes the new IBM Secure Service Container Infrastructure introduced on z13 and z13s servers. The Secure Service Container is a new LPAR (partition) type which, along with an appliance installer, enables the secure deployment of software and firmware appliances. The Secure Service Container LPAR requires CPU resources (e.g. (shared) Intergrated Faciliy for Linux (IFL)) and disk storage. Compared to a TCP/IP stack in z/VSE, the VNA can support higher TCP/IP traffic throughput while reducing the processing resource consumption in z/VSE. z/VSE systems connecting over HiperSockets to VNA need to run in an LPAR. It can not be accessed from a z/VM guest.

For z/VM environments we provide the z/VM IP Assist (VIA). VIA provides

network access for TCP/IP socket applications running on z/VSE as a z/VM guest.

The z/VSE Network Appliance (VNA) is provided as a downloadable package. It can then be deployed with the Secure Service Container appliance installer. If you want to get VNA or have any questions (VIA or VNA), please use z/VSE's VNA contact page - [here](#).

In summary, the VIA function is available for z/VSE systems running as z/VM guests. The z/VSE Network Appliance is available for z/VSE systems running without z/VM in LPARs. Both provide network access for TCP/IP socket applications that use the Linux Fast Path; however, no TCP/IP stack is required on the z/VSE system, and no Linux on z Systems need to be installed. You may get performance benefits and save CPU cycles on z/VSE. You just need to provide CPU resources (a (shared) IFL) and a small amount of disk space.

If your z/VSE system need to communicate with an application on Linux on z Systems over LFP within the same processor, I would directly connect to that Linux. Then you have similar performance benefits as with VNA.

VNA and VIA are provided for z/VSE 5.1, 5.2 and 6.1. They are available at no additional cost.

Next z/VSE LVC: z/VSE latest news (2017-03-20)

We just scheduled the next z/VSE Live Virtual Class (LVC) for **April 11, 2017**.

Topic: z/VSE Latest News

Abstract: z/VSE V6.1 is generally available since November 2015. Further functional enhancements and device support will be applied to z/VSE. Watch this webcast to get an overview on latest z/VSE news including an overview and a dive into selected new features.

More information and the registration link is [here](#).

Tags: vse, live-virtual-class, lvc

z/VSE service news: TCP/IP; next blog entry on March 20 (2017-03-14)

There are new IBM TCP/IP for z/VSE 2.1 and IBM TCP/IP for VSE/ESA 1.5F APARs / PTFs available to provide the latest service level.

IBM TCP/IP for z/VSE 2.1 APAR [PI76044](#) (PTF UI44562): TCP/IP FOR Z/VSE V2.1 SERVICE PACK 2.1.8

Error description: TCP/IP for z/VSE V2.1 service pack 2.1.8. Details are [here](#).

IBM TCP/IP for VSE/ESA 1.5F APAR [PI70120](#) (PTF UI41417): FIXES (ZAPS) FOR TCP/IP 1.5F

Error description: Fixes (zaps) for TCP/IP 1.5F: ZP15F137 ZP15F301 ZP15F302 ZP15F304 ZP15F311 ZP15F312, ZP15F313 ZP15F315 ZP15F316 ZP15F317 ZP15F318 ZP15F321, ZP15F323 ZP15F324 ZP15F325 ZP15F328 ZP15F330 ZP15F333

More details are [here](#).

I am not available the next days. Therefore you will see my next blog entry on Monday (March 20).

Tags: tcpip, apar, ptf, support, service, vse

New Multi-Version Measurement section (2017-03-13)

A month ago IBM announced Multi-Version Measurement (MVM) for z/VSE. MVM removes the 18 month limitation as of the Migration Pricing Option (MPO). That is the only difference between MPO und MVM. You may run different versions of a program simultaneously for an unlimited duration during the version upgrade. More information is in my blog entry - [here](#).

In between there is a new MVM section on the IBM z Systems Software Pricing page - [here](#).

Tags: vse, pricing, migration, mvm, mpo, multi-version_measurement

z/VSE 5.2 end of marketing on Monday (March 13) (2017-03-10)

Today I want to remind you about the end of marketing (eom) of z/VSE 5.2 and related products. The eom is on **March 13, 2017**.

After that eom date you can no longer order:

- the z/VSE 5.2 base product
- CICS TS for VSE/ESA 1.1.1
- IBM TCP/IP for VSE/ESA 1.5F
- IBM IPv6/VSE 1.1

My blog entry to the end of marketing announcement is [here](#).

The end of service (eos) for those products was announced too: October 31, 2018. My corresponding blog entry is [here](#).

That is please consider the migration to z/VSE 6.1.

Have a good weekend.

z/VM LVC: Security for z/VM 6.4 on March 15 (2017-03-09)

The next z/VM Live Virtual Class (LVC) is scheduled for **March 15, 2017**.

Topic: Security for z/VM 6.4 - News and How To's

Abstract: If you've been watching the news lately, you'll know that risks and threats to the security of your data centers are always adapting and evolving. Fortunately, so is z/VM. This presentation covers the latest information on z/VM security features, including technical functions new to z/VM 6.4. Topics will include changes to default security settings, usability enhancements for the RACF for z/VM Security Server, and cryptopgrahy-related enhancements.

The registration link is [here](#).

Tags: vse, security, lvc, live-virtual-class, vm

New IBM Redbooks addressing tape / disk storage (2017-03-08)

There are two new IBM Redbooks / Redpapers, that might be of interest for z/VSE users.

[DS8000 Global Mirror Best Practices](#)

This Redpaper reviews the architecture and operations of the IBM DS8000 Global Mirror function. The document looks at different aspects of the solution in terms of performance, infrastructure requirements, data integrity, business continuity, and impact on production.

[IBM TS7700 Release 3.3](#)

This Redbook describes the architecture of the latest TS7700 virtual tape solutions, provides planning and operation information.

Tags: redpaper, documentation, vse, redbook

VSE/POWER: Enhanced wild card support (2017-03-07)

Some weeks ago there was a discussion on VSE-L about the position of the wild card in VSE/POWER commands. We took that as a requirement and will enhance the VSE/POWER wild card support in an APAR.

Today: When you specify e.g. the `PALTER LST,*SYSA,CLASS=0` command, it addresses the same LST outputs as `PALTER LST,SYSA*,CLASS=0` which lists all LST outputs starting with SYSA. The position of wild card is not considered due to historical reasons.

With the z/VSE 5.2 APAR [DY47700](#) you can search job names ended with the specified characters. The corresponding PTF will be available within the next days. A z/VSE 6.1 APAR will follow.

z/VSE 5.2 APAR [DY47700](#): VSE/POWER COMMANDS WITH POSITIONAL OPERAND *JOBN DON'T ADDRESS JOBS WITH MATCHING END OF JOBNAME "JOBN"

The 'SET SEARCH=*JNAME' autostart statement is introduced to activate this functionality.

See the APAR description for more information.

Tags: vse-power, support, vse, apar, service

How to resolve "Job catalog label statement is active" in z/VSE dialog (2017-03-06)

Today I have again a tip.

Last Friday I already mentioned the Interactive Interface dialogs for "File and Catalog Management" (option 2-2, if you sign-on to SYSA). There you can define / display / process files or catalogs.

I wanted to display a VSAM catalog and got the message "Function cannot be used. Job catalog label statement is active." The same was true for all other options. The reason could be wrong label information. The dialog help (PF1) showed the label in error.

Help text: "A job catalog label (within catalog file name MYLABEL) has been found either in the System Standard Label Area, or in the temporary/permanent partition label area of the CICS partition. Job catalogs are not supported by the File and Catalog Management dialog. Please remove the Job Catalog label form the respective label area."

You may use "EXEC LSERV" to print all labels and verify, if the given label in the help text is correct (in my case MYLABEL).

To resolve that problem I used a job to delete the label with "// OPTION STDLABEL=DELETE" to delete MYLABEL.

After I deleted the label I can again use the "File and Catalog Management" options.

Tags: vse, dialog, management, catalog, label

How to remove VSE/VSAM user catalog entries (2017-03-03)

Most of my test systems run in a z/VM guest, because it's easier to setup, reconfigure, trace and test such environments. I often use temporary disks, especially for VSE/VSAM files. After logoff of such a guest those temporary disks are no longer available. After logon and IPL of a z/VM guest those temporary disks are no longer accessible. However, the user catalog entries are still in the VSAM master catalog.

You can easily see those entries, if you use the Interactive Interface dialog "DISPLAY OR PROCESS A CATALOG, SPACE" (option 2-2-5, if you sign-on to SYSA).

You can not delete such user catalogs within the dialog. Instead you can use the VSAM EXPORT DISCONNECT function to remove the user catalog entry from the master catalog.

Example:

```
// JOB  REMCAT
// EXEC  IDCAMS,SIZE=AUTO
      EXPORT MY.TEMP.CATALOG -
          DISCONNECT
/*
/ &
```

More information is in the VSE/VSAM Commands book. You may download it from the z/VSE documentation page - [here](#).

Have a good weekend.

Tags: documentation, vse, catalog, vsam

How to determine the z/VSE system level (2017-03-02)

The procedure SPLEVEL displays the level of z/VSE, the installation date and the Copyright statement.

Just use the JCL statement "// EXEC PROC=SPLEVEL" in a job or in e.g. PAUSEBG.

More details are provided by the SIR attentions routine command. On the console you may enter **SIR** or **SIR SYS**.

The SIR / SIR SYS output shows in output line

- 1) The CPUID of the processor and the CPUID of the z/VM guest,
- 2) The processor model and LPAR name,
- 3) The CPUs in LPAR and capping value,
- 4) If running on z/VM: the z/VM release, service level and z/VM guest userid,
- 5) If running on z/VM: the number of virtual CPUs of the guest and z/VM cap. value.
- 6) z/Architecture mode, VSE IPL device address

The most important 3 lines for our service team are line 7 through 9:

The z/VSE release (refresh) level,
The latest VSE/AF release and APAR level of the base component,
The VSE/POWER release and APAR level.

Therefore please provide the output of the SIR (SIR SYS) command, if you contact IBM service.

Tags: vse, sir, service_level, level, apar

Do you plan to migrate to z/VSE 5.2 ? (2017-03-01)

This is a reminder: If you plan to migrate to z/VSE 5.2 and did not yet order the z/VSE 5.2 product, you should order it before March 13, 2017.

This is the z/VSE 5.2 end of marketing date. It is not possible to order z/VSE 5.2 after that. We also announced the end of service for z/VSE 5.2, which is October 31, 2018. See my corresponding blog entry - [here](#).

Therefore I recommend to migrate to z/VSE 6.1.

Tags: vse, end-of-service, end-of-marketing, migration

Service news: z/VM APAR may reduce overhaed for z/VSE guests, next blog entry on March 1, 2017 (2017-02-22)

Today I have another z/VM APAR, that may reduce the system overhead for z/VSE guests, e.g. if you upgraded from the z/VM 6.3 1501 to the 1601 service level. The z/VM 6.3 1601 service level is required for z13s.

z/VM APAR [VM65998](#): POLLING TOO FREQUENT WHEN CRYPTO IS INACTIVE

Error description: VM65716 altered the limits for frequency of polling for CRYPTO activity. The maximum polling interval allowed was decreased resulting in more frequent polling and higher system overhead when there is little to no CRYPTO activity.

I won't be in the office for a few days. Therefore I will post my next blog entry on Wednesday, March 1, 2017.

Have a good weekend. Enjoy the carnival.

Tags: service, support, apar, vse, vm, performance

Service news: HiperSockets performance in z/VM guests (2017-02-21)

There is a z/VM APAR available, that resolves performance issues when using HiperSockets connections for Linux environments.

I believe, that the corresponding PTF may be beneficial for z/VSE guests too, especially if they connect to Linux guests via HiperSockets.

z/VSE APAR [VM65992](#): HIPERSOCKETS PERFORMANCE ISSUES ON SHORT BUSY

Error description: Using a dedicated HiperSockets device in a virtual machine running Linux exploiting QDIO Enhanced Buffer State Management (QEBSM), may experience slow performance in a very highly contested LPAR to LPAR communication environment. This is an environment where multiple HiperSockets data transmissions occur simultaneously to the same set of QDIO queues. It's this contested environment which increases the likelihood of a HiperSockets device presenting a short busy condition on a Signal Adapter (SIGA) Instruction issued by a program (the Linux Guest in this case). It is the occurrence of a HiperSockets short busy which opens an error window that may cause the problem to occur. Running with QIOASSIST OFF increases the likelihood of seeing this problem.

Tags: support, service, vse, apar, vm

Doc Buddy for z/VSE messages (2017-02-20)

z/VSE messages are uploaded to **IBM Doc Buddy** now.

Doc Buddy is a no charge mobile application that enables retrieving z Systems message documentation. You can download it from the Apple App Store for iOS devices or the Google Play Store for Android devices.

Many z Systems "components" are already available on Doc Buddy such as message explanations for z/OS, z/VM, Linux on z Systems, TPF - and now for z/VSE too.

You can download such components to your device and look up messages without an internet connection. Doc Buddy also includes links to the relevant product support portals and supports calling a contact from the app.

You may also receive alert messages concerning a specific component.

I recommend to download the app from the corresponding store and download messages for component z/VSE. If you look up a z/VSE message and z/VSE messages are not yet downloaded, you will see a "more" link. This also gives you the option to download the messages.

Tags: message, doc-buddy, support, vse

Any feedback on CICS TS for z/VSE book ? Next blog entry on Monday (Feb.20) (2017-02-16)

We are preparing a new **CICS TS for z/VSE** IBM Redbook. It's still a draft, no date yet.

I added the table of contents below. Does the content look OK ? Is there anything missing ? What else would you expect / propose ?

I plan the next blog entry for Monday February 20, 2017.

Have a good weekend.

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Tags: vse, redbook, documentation, cics

xml to csv data conversion for z/VSE's CPUMON tool (2017-02-15)

The z/VSE CPU Monitor Tool (CPUMON) is intended to help customers to measure the CPU utilization of their z/VSE system over a period of time. Especially when you plan for a processor upgrade it is important to know the CPU utilization of your z/VSE system over a day or a week. The CPUMON output can be used to estimate the size of the new processor.

You may get the CPUMON output as delimited file (CSV) for use with e.g. Microsoft Excel or as XML file as input to the zCP3000 capacity planning tool. If you wanted to get both formats, you had to run CPUMON twice. Therefore a customer asked us to provide a tool that converts CPUMON XML data to CSV. So the tool could just produce XML data, and if required you may get the CSV output in addition. Thanks for that requirement.

The updated CPUMON package now includes such a conversion tool. You can download the updated CPUMON package [here](#). More information about CPUMON is in my blog entry [here](#).

Tags: vse, download, capacity, tools, cpumon

z/VSE pricing: Multi-Version Measurement (MVM) (2017-02-14)

Today IBM announced that Multi-Version Measurement (MVM) replaces Single Version Charging for eligible z/OS and z/VSE software programs. MVM also replaces the Migration Pricing Option (MPO), and the IPLA Migration Grace Period. For z/VSE 6.1 we introduced MPO for products with version changes, that is z/VSE V6 itself, CICS TS for z/VSE V2 and IBM TCP/IP for z/VSE V2. See my MPO blog entry [here](#). MPO is limited to 18 month.

The **good news** is that MVM removes this time limit. That is the only difference between MPO und MVM. You may run different versions of a program simultaneously for an unlimited duration during the version upgrade. All sub-capacity machines that run multiple versions of a sub-capacity-eligible program under MVM will be measured and priced according to MVM terms. SCRT will calculate the combined concurrent peak (indicated by "(All)" in the report) by adding up the LPAR values where any version of the program is running. For billing purposes, all MSUs within a given family will be reported on a concurrent peak basis and priced at the cost of the latest version of the program within the family.

June 1, 2017, is the earliest billing effective date for programs under MVM terms. SCRT V24.2.0 or SCRT V24.11.0 are required for MVM. They are planned to be available on April 10, 2017.

Until then you continue with MPO. The z/VSE "[How to buy](#)" web page will be updated to MVM after that date.

z/VSE Versions supported by MVM are

z/VSE V4, z/VSE V5, z/VSE V6, CICS TS for z/VSE V2, CICS TS for VSE/ESA V1, IBM TCP/IP for z/VSE V2, IBM TCP/IP for VSE/ESA V1.

More details are described in the MVM announcement letter - [here](#).

Tags: pricing, multi-version_measurement, mvm, scrt, vse, mpo, sub-capacity

How to call a console command from a z/VSE job (2017-02-13)

Today I wanted to understand the CPU usage of a specific job. That is I had to reset the CPU counters before application start and wanted to see the CPU utilization at the end.

I could enter the console commands SYSDEF TD,RESETCNT (to reset counters at start) and QUERY TD (to show results at the end) on the z/VSE console. I had to rerun that sequence multiple times.

In such a case it is easier to use the DTRIATTN Utility. With DTRIATTN you can include console commands into the VSE/POWER job itself.

The (Attention Routine / console) commands to be executed are passed to the system using a Supervisor interface (SVC 30). The command will be processed asynchronous. However, that doesn't harm in my case, because the Attention Routine has a higher priority than the z/VSE partitions.

Examples:

```
// EXEC DTRIATTN,PARM='SYSDEF TD,RESETCNT' - resets the CPU counters
```

```
// EXEC DTRIATTN,PARM='QUERY TD' - displays the output of the QUERY TD command on the console
```

There are some limitations:

- Commands must be passed to the program in the PARM field, only one PARM field is allowed.
- The length of the parameter is limited to 72 characters.
- Only one command can be executed at a time.

The DTRIATTN Utility is also described in z/VSE Hints and Tips book with a few more examples. You can download the book [here](#).

Tags: vse-power, job, console, vse, command

z/VSE service news: RSLs are available (2017-02-10)

New Recommended Service Levels (RSLs) are available for z/VSE 5.2.0 and z/VSE 6.1. The RSL cutoff was December 31, 2016.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Have a good weekend.

Linux on z Systems workshop planned for March (2017-02-09)

An International Linux on z Systems Workshop is planned for March 28-29, 2017 at the IBM Lab Boeblingen, Germany.

More information and how to register is [here](#).

Tags: vse, linux, workshop

HiperSockets VCHID (z13, z13s) for z/VSE (2017-02-08)

Today there was a question on VSE-L about the VCHID (virtual channel id) definition in the IOCDS (Input/Output Configuration Data Set). The IOCDS describes the I/O and LPAR configuration.

I had a related blog entry about VCHID two years ago - see [here](#).

For z13 (M/T 2964) and z13s (M/T 2965), CHPID TYPE=IQD requires the new parameter VCHID for HiperSockets.

VCHID is similar to PCHID (physical channel id) for physical devices. VCHID is a fixed number to be assigned in the IOCDS. This number will survive an IML. Prior to the introduction of the external VCHID parameter, a VCHID was assigned internally by the system. This internal VCHID was different after each IML.

VCHID is only allowed for M/T 2964 and later. A Valid range for VCHID is 7C0 - 7FF. If VCHID is not specified the IOCP (Input/Output Configuration Program) generation will fail with message 'VCHID missing'.

Below is an example of a VCHID definition:

```
CHPID
PATH=(CSS(0,1,2,3),F5),SHARED,PARTITION=(...),CHPARM=84,VCHID=7E6,TYPE=IQD
```

```
CNTLUNIT CUNUMBR=8601, *
      PATH=((CSS(0),F5),(CSS(1),F5),(CSS(2),F5),(CSS(3),F5)),UNIT=IQD
IODEVICE ADDRESS=(8603,029),CUNUMBR=(8601), *
      PARTITION=(...),UNIT=IQD
```

The VCHID parameter is described in the "z Systems Input/Output Configuration Program User's Guide for ICP IOCP", [here](#).

z/VSE requirements (e.g. APARs) for the processors z13 are described in the z13 PSP (Preventive Service Planning) bucket for z/VSE - [here](#) and the z13s PSP for z/VSE - [here](#).

Tags: vchid, iocp, hipersockets, vse, configuration, iocds

z/VSE 5.2 end of service announcement (2017-02-07)

Today there were several end of service announcements, which also affect z/VSE.

The following announcements were made:

Versions withdrawn from service on **October 31, 2018**:

- IBM CICS Transaction Server for VSE/ESA 1.1.1 - 5648-054
- IBM TCP/IP for VSE/ESA 1.5.0 - 5686-A04
- IBM z/VSE 5.2.0 - 5609-ZV5
- IBM z/VSE Central Functions 9.2.0 - 5686-CF9

Release withdrawn from service on **October 31, 2018**:

- IBM IPv6/VSE 1.1.0 - 5686-BS1

That is all versions / releases specific to z/VSE 5.2 and z/VSE 5.2 itself will go out of service on October 31, 2018.

If you want to stay in a supported environment, you still have more than 18 month for a migration to z/VSE Version 6 with CICS TS for z/VSE V2, TCP/IP for z/VSE V2 and IPv6/VSE 1.2.

The announcement letter is [here](#).

Tags: support, eos, vse, service, end-of-service

4th anniversary of my z/VSE blog (2017-02-06)

Today is the 4th anniversary of my blog.

I started February 6, 2013. In between I have 827 blog entries. Most of them are still relevant.

If you want to get information about a specific topic, you can use tags (like an index) and search for the topic.

Just use "Find a Tag" in the column on your right - or click on the topic on the Tag cloud below (see image).

The screenshot shows the 'Ingolf's z/VSE Blog' interface. At the top left is the blog title. Below it is a navigation bar with 'All posts' and sorting options: 'Sort by: Date', 'Title', 'Likes', 'Comments', and 'Views'. The main content area features a post titled 'New z/VSE requirements' by Ingolf24, dated Feb 3, with 461 visits. The post text discusses requirements for the Request for Enhancement (RFE) tool, mentioning RFE 98529 and RFE 99132. To the right of the post are 'G+1' and '0' buttons, and a 'Tweet' link. Below the post is a 'Tags' section with a list of tags: af, announcement, apar, article, blog, cics, conference, connector, device, disk, documentation, download, end-of-marketing, end-of-service, gse, hardware, installation, kvm, linux, live-virtual-class, lvc, mainframe, migration, mobile, network, openssl, performance, presentations, processor, ptf, redbook, requirements, rsl, scsi, security, service, storage, support, tape, tcpip, tips, tools, vm, vm_workshop, vsam, VSE, vse-power, wavv, zuniversity, zvm. A red arrow points to the 'Find a Tag' link in the sidebar. The sidebar also includes a 'Stop Following this Blog' button and an 'About this blog' section.

Tags: anniversary, vse, blog, tag

New z/VSE requirements (2017-02-03)

The last weeks I got new requirements in the Request for Enhancement (RFE) tool. May be you want to vote on those requirements.

- [RFE 98529](#): A new POWER exit routine
Create a new exit routine to be called before writing account record to the account file.
The routine will be able prevent the record from being written or (and this is only optional) change fields in the record.
- [RFE 99132](#): Enhancement in resource locking by some VSE tools
Some VSE system tools, like INFOANA and MSHP, seem to lock resources external even though those resources were local.
The tools should be improved so that they set only internal lock for local resources.

You can open new and search for existing requirements in RFE - [here](#). See also my requirements blog entry - [here](#).

On VSE-L there was a discussion on a VSE/POWER wild card references, see [here](#).

I will take this as a requirement. It would be nice, if you could open an RFE for that one too.

Enjoy your weekend.

Tags: vse, requirements, vse-power, rfe

Next Linux on z Systems Live Virtual Class on February 8 (2017-02-02)

The next Live Virtual Class (LVC) addressing the Linux on z Systems platform is scheduled for **February 8, 2017 at 11 AM EST**.

Topic: The IBM Enterprise Integration Hub on Linux on z Systems and LinuxONE

Abstract: This session illustrates solution concepts that you can use now to easily enforce business rules and IT processes, integrate cross platform services, micro-services and Open Source technologies even in a Hybrid Cloud, to become the most agile and innovative integrated business. For business processes that need to comply with Industry standards and require real time data flow control at the same time, this session highlights those solution components.

More information and the registration link will show up on the z/VM LVC web page within the next days - [here](#).

Tags: `live-virtual-class, linux, vse, vm, lvc`

Daylight Saving Time (DST) change is coming (2017-02-01)

I am a bit early, but may be this blog entry has value for your planning. It's a reminder as every year.

Many countries change to Daylight Saving Time (DST) in March. E.g. Canada and the USA will change on March 12, 2017 (most states), Germany on March 26. The clock is turned forward one hour at 2 am.

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#).
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

Tags: daylight_saving_time, vse, dst

Monitoring of z/VSE's CPU utilization (2017-01-31)

Today I got a question on how to monitor the CPU utilization of z/VSE. You should know the utilization of your current z Systems processor, e.g. to size the new one.

You may use any performance monitor from z/VSE vendors - or for a basic measurement you can use the CPUMON tool. The CPUMON tool can be downloaded from the z/VSE download page - [here](#).

You can get the measured results as XML or spreadsheet format.

Since I started my blog I posted many topics. So you can try to find a related blog entry by using tags on the right column of the blog page. If you enter e.g. "cpu" in the "Find a tag" field, you can select corresponding blog entries for cpu and cpumon. Just click one of them and you will get the blog entries listed.

More details about the CPUMON tool are in the blog entry - [here](#).

Tags: utilization, vse, cpu, cpumon

z/VSE Hints and Tips: REXX and suspended console (2017-01-30)

Just recently we got a questions about a failing REXX/VSE GETMSG function.

GETMSG may fail with function code 8 and the message "ARX565I MCSOPMSG FAILED RC=(0012,000)" meaning that the console is suspended. A REXX program can react on a suspended console by deactivating this console and activating it again. I don't go into more detail for now, instead want to point you to the z/VSE Hints and Tips book. There you can find more details on how to resolve that situation, see chapter REXX/VSE, section "Console Command Environment".

The **z/VSE Hints and Tips** book is provided by the z/VSE development team. You can download it [here](#).

Tags: tips, rexx, vse, documentation, hints

Do you plan to upgrade to z/VSE 5.2 ? (2017-01-27)

This is just a reminder for z/VSE users, that want to upgrade to z/VSE 5.2.

z/VSE 5.2's end of marketing is **March 13, 2017**. After that date you can no longer order z/VSE 5.2, CICS TS for VSE/ESA 1.1.1, IBM TCP/IP for VSE/ESA 1.5F (including GPS for that release) and IBM IPv6/VSE 1.1. See my related blog entry - [here](#).

If you plan to upgrade to z/VSE 5.2, please order those products before March 13, 2017. I recommend to upgrade to z/VSE 6.1.

You may use Fast Service Upgrade (FSU) to z/VSE 5.2 (from z/VSE 5.1 or z/VSE 4.3). For z/VSE 6.1 you need an initial installation.

... and upgrade to the latest service level. A good choice is the Recommended Service Level (RSL) - see our z/VSE service & support web page - [here](#).

Please consider the upgrade requirements of your vendor products.

We also prepared a technical article about "z/VSE Release and Hardware Upgrade" with some tips - [here](#).

Have a good weekend.

Tags: vse, migration, release, end-of-marketing, upgrade, fast_service_upgrade, eom

2017 VM Workshop - any proposals for z/VSE sessions ? (2017-01-26)

On December 5 I informed you that the registration for the **2017 VM Workshop** opened. You can register [here](#).

The VM Workshop is planned for Thursday to Saturday, **June 22-24, 2017 at Ohio State University in Columbus, OH.**

Besides z/VM and Linux on z Systems sessions, you can expect many z/VSE sessions - as last year. The z/VSE sessions are for users running in z/VM guests as well as for users running z/VSE in LPARs (without z/VM).

We are currently preparing the input for the **2017 VM Workshop**. What kind of sessions / topics would you like to see at this conferences ? We are also looking for z/VSE users, that volunteer for a session and talk about their experience with z/VSE, e.g. about operation, software / hardware migration, etc.

Please send your proposals to my email id - see "About this blog" section (on the right).

To give you an idea, what sessions we had last year at the **2016 VM Workshop**, see below:

- VSE/VSAM for Beginners
- z/VSE Trends, Directions and Announcements
- Customer Implementations Leveraging z/VSE in a z/VM Environment with Linux
- Implementing the new z/VSE Network Appliance in IBM z13 and z/VSE's z/VM IP Assist function
- Forty Years of z Systems Evolution with z/VSE, z/VM and Linux at Fratelli Carli S.P.A.
- Best Practices to secure your z/VSE system and data using new security and crypto features
- Using the Latest and Greatest z/VSE Connector Features for Mobile, Analytics and Asynchronous Processing
- z/VSE Tapeless Installation
- Workshop: Eclipse Based Development of z/VSE Based Applications
- CICS/TS for z/VSE 2.1 - New Functions
- Implementing Security End-to-End from Your Mobile Device to the CICS Backend

Tags: vm_workshop, conference, wavv, vse

z/VSE Live Virtual Class: TCP/IP presentation and replay available (2017-01-25)

We just uploaded the presentation and replay of the last Live Virtual Class (LVC), held by Don Stoeber (CSI International). Thanks, Don.

You can download it from our LVC web page.

Title: CSI TCP/IP for VSE Update (held on January 17, 2017)

The LVC web page is [here](#).

Tags: lvc, vse, tcpip, live-virtual-class

z/VSE security: Migration to z/VSE 6.1 (2017-01-24)

Today's blog entry is related to the z/VSE Basic Security Manager (BSM).

z/VSE 6.1 requires a new installation. That is you need to migrate your security definitions.

When you want to migrate user and application entries from the z/VSE 5.2 BSTCNTL (BSM Control File) to z/VSE 6.1, you can use skeleton SKBSTSAV in ICCF library 59 to create BSTADMMIN control statements for backup on z/VSE 5.2 and restore on z/VSE 6.1.

If you still use the old security concept based on DTSECTXN, you should migrate to the BSM profile concept (TCICSTRN) on z/VSE 5.2. On z/VSE 6.1 the IUI dialog does no longer support the DTSECTXN migration.

Last December I wrote a blog entry about DTSECTXN migration - see [z/VSE security: migration of the CICS transaction security table](#).

Now some more details about the DTSECTXN migration. It is described in the z/VSE 5.2 Administration manual, chapter 24:

To migrate CICS transactions and their security keys contained in table DTSECTXN to transaction profiles in the BSM control file, you should:

1. Ensure that parameter SPOOL has been set to YES ("CICS SPOOLER ACTIVE") in the CICS System Initialization Table (SIT).
2. Create Group Profiles From All user ID Definitions, and Connect User IDs to Groups.
 - 2a. Use Fast Path 211 to display the Maintain User Profiles panel,.
 - 2b. Press PF6 to create a job which (when submitted) will:
 1. Create group profiles from the transaction security keys.
 2. Connect all user-IDs to their corresponding group profiles.

Just in case you can not go back to z/VSE 5.2, the following instructions allow the migration on z/VSE 6.1.

- 1.) Define CEDA for XSPR transaction:

```
CEDA DEF TRAN(XSPR) GROUP(VSESPG) PROG(IESXSPR) TWASIZE(400)
CEDA INSTALL TRAN(XSPR) GROUP(VSESPG)
```
- 2.) Create security definitions for XSPR transaction
2-8-1-1 (TCICSTRN) add XSPR profile with UNIVERSAL ACCESS=2

3.) Perform security rebuild 2-8-3

4.) Run the transaction in the CICS command line (PF6):

```
XSPR IESTBGRI
```

A BSTADMIN job is created to integrate user profiles (type 2-3) into GROUP profiles. The job is accessible in the POWER/PUNCH queue.

Ensure that CICS SPOOL access is enabled in the SIT.

The z/VSE 5.2 Administration manual can be downloaded from the z/VSE documentation page - [here](#).

Tags: vse, migration, security, dtsectxn

Do you still use SNA Networking in your z/VSE environment ? (2017-01-23)

The last weeks I got questions about SNA (Systems Network Architecture). Maybe you are also interested in that topic.

The questions are related to the following products:

- 5648-063 IBM Advanced Communication Function/Network Control Program (ACF/NCP) 7.8.1
- 5688-035 IBM X.25 NCP Packet Switching Interface (NPSI) 3.9.0

Both products are removed from the z/VSE 6.1 optional product tape.

ACF/NCP is end of marketing since some time and was withdrawn from service on August 31, 2016. Therefore it can not be ordered anymore. See the product life cycle dates in the announcement letter - [here](#).

NPSI is also withdrawn from service since some time, see the product life cycle dates - [here](#).

If you are using the **Communication Controller for Linux on System z**. This product was withdrawn too. See this link for more information - [here](#).

There you will find the link to the related announcement letter and IBM Redbook: A Structured Approach to Modernizing the SNA Environment, which you can download [here](#).

Tags: sna, vse, redbook, tcpip, networking, ncp

z/VSE service news: LE APAR (2017-01-20)

There were new Language Environment APARs for z/VSE released. Below are the details.

z/VSE 5.2 APAR [PI71676](#) (PTF UI42766): SEGMENT TRANSLATION EXCEPTION DURING COBOL TERMINATION

Users affected: COBOL/VSE and/or VS COBOL II customers running with LE/VSE enabled COBOL programs.

Problem description: LE/COBOL termination processing may experience z/VSE cancel code 20 and interruption code 10.

z/VSE 6.1 APAR [PI74353](#) (PTF): LE/COBOL SEGMENT TRANSLATION EXCEPTION WITH INTERNAL SORT, SEGMENT TRANSLATION EXCEPTION DURING COBOL TERMINATION

Sysroute of [PI66469](#) and [PI71676](#).

You can always get the latest service news from our z/VSE Service and Support web page - [here](#).

Have a good weekend !

Tags: vse, ptf, service, language_environment, apar, support, le

News about Linux on z Systems (2017-01-19)

As you know the z/VSE connectors may best integrate with Linux on z Systems solutions, e.g. by using HiperSockets.

Today I want to point you to new information for Linux on z Systems:

- You may download an IDC white paper on Linux:
[Ladies and Gentlemen - Start Your Linux on z Engines!](#)
This white paper takes a look at the drivers that are providing new opportunities for IT to leverage larger enterprise-class scaleup systems.
- A [Linux on z Systems ebook](#) from the IBM Systems Magazine with articles on:
 - Why more z Systems customers are running Linux
 - Enabling the API economy
 - The advantage of Linux on IBM z over scale-out servers
- A Linux on z Systems ebook with case studies:
[IBM z Systems: The mainframe solution driving modern enterprise success](#)
Learn from client cases who run Linux on IBM z servers in combination w/ existing z/OS or z/VSE workloads, addressing today's marketplace
- ... and Linux on z Systems related web pages with a new design:
 - [Linux on z Systems](#)
 - [Server virtualization](#)
 - [z/VM](#)
 - [KVM for IBM z Systems](#)

Tags: kvm, linux, white_paper, vse, virtualization, article, vm

How to install z/VSE 6.1 ? (2017-01-18)

For z/VSE 6.1 an initial installation is required. You can't use Fast Service Upgrade (FSU) from z/VSE 5.1 or z/VSE 5.2 to z/VSE 6.1.

z/VSE can be ordered via Shopz on tape, DVD or via the internet.

Since z/VSE 5.2 you can install z/VSE from DVD or use the install image and tools to generate an installation disk. The installation disk has to be a **3390 ECKD disk**.

After the IPL of the installation disk or tape you can select to install z/VSE 6.1 on supported SCSI or ECKD devices. You can generate an installation disk and install z/VSE in LPAR or as a z/VM guest for the base installation only.

Components / products on the extended base tape or optional product tape images can be installed via the z/VSE VTAPE (virtual tape) support - or from real tape.

If you have a **SCSI-only** disk environment for LPAR or z/VM, you need to have a real tape attached to install z/VSE 6.1. If you are running on z/VM you might think of a temporary disk for the installation disk defined with DEF T3390, but this does not work. z/VM doesn't provide an ECKD emulation on SCSI.

We plan to solve this in the future as you may have seen in our April 2016 announcement as Statement of general direction (SOD) on "**Tapeless initial installation using a SCSI installation disk**"

IBM intends to support initial installation using a SCSI installation disk. The announcement letter is [here](#). As usual please see also the SOD disclaimer.

For more information on SCSI see my blog entry "[z/VSE ECKD to SCSI migration](#)" with additional links.

See the z/VSE 6.1 Installation book for details. You can download it [here](#).

Tags: dvd, eckd, installation, vse, install, tape-less, scsi, disk

CICS Explorer client updated (2017-01-17)

An updated CICS Explorer client is available for download.

It is available for z/VSE and z/OS (same client). The download link is on the CICS Explorer support page - [here](#).

The CICS Explorer consist of the CICS Explorer client and the CICS Transaction Server (CICS TS) server extension, which is the system management component of CICS TS. The client can run on any supported workstation. The server extension was delivered as PTF for CICS TS for VSE/ESA 1.1.1 and is integrated into CICS TS for z/VSE 2.1. The client connects via TCP/IP to the server and communicates with HTTP requests.

The CICS Explorer client supports monitoring for CICS TS for VSE/ESA 1.1.1 - and - monitoring and update capabilities for CICS TS for z/VSE 2.1.

My last blog entry on the CICS Explorer was last October - [here](#). It addressed CICS Explorer quick filters.

Tags: explorer, service, support, vse, cics, cics-explorer

New (updated) IBM Redbooks available (2017-01-16)

Today I want to inform you about new (updated) IBM Redbooks, that might be of interest for z/VSE users.

Those IBM Redbooks are related to hardware:

- [IBM z Systems Connectivity Handbook](#): It describes the connectivity options that are available for use within and beyond the data center for the IBM z Systems family of mainframes.
- [IBM z13 and IBM z13s Technical Introduction](#): It introduces the latest IBM z Systems platforms, the IBM z13 and IBM z13s. It includes information about the z Systems environment and how it can help integrate data, transactions, and insight for faster and more accurate business decisions.
- [IBM DS8880 Product Guide \(Release 8.2.1\)](#): It gives an overview of the features and functions that are offered by the IBM DS8880 models with Release 8.2.1.
- There are also new IBM Redbooks available on other IBM Storage, such as an [Introduction to Storage Area Networks](#), [Implementing the IBM Storwize V3700](#), [Implementing the IBM Storwize V5000 Gen2 \(including the Storwize V5010, V5020, and V5030\)](#), [Introducing and Implementing IBM FlashSystem V9000](#). You can find those IBM Redbooks on the "Trending web page" - [here](#).

We plan for a **CICS TS for z/VSE** Redbook. Is there any topic, that you would like to be addressed ? I am looking forward to your feedback. Thanks.

z/VSE Conferences in 2017 (2017-01-13)

Today I want to give you the dates for the conferences where we plan to provide z/VSE sessions, with links to the conference web pages.

January 25-26 [z/VSE Kolloquium](#) in Boeblingen, Germany (Language: German)

May 8-10 [GSE Fruehjahrstagung](#) in Hanover, Germany (Language: German)

June 22-24 [VM Workshop 2017](#) in the Ohio State University, Columbus, Ohio, USA (Language: English)

We see this conference as a replacement for the former WAVV conference. It is targeted to z/VSE users running z/VSE in z/VM guests as well as in LPARs (without z/VM).

October 23-25 [11th European GSE/IBM Technical University](#) for z/VSE, z/VM and Linux on z Systems
in Hamburg, Germany (Language: English, German)

This information is also available on z/VSE's event web page - [here](#).

Have a good weekend.

Tags: conference, gse, vm_workshop, vse

Happy and successful New Year ! Live Virtual Class Reminder: TCP/IP (2017-01-12)

I wish you a happy, successful and healthy New Year !

Thanks for reading my blog.

As a start I have a reminder for you. Next week we have our first Live Virtual Class (LVC).

Topic: CSI TCP/IP for VSE Update

This session will review recent changes, maintenance, and new features in the CSI TCP/IP for VSE product..

Speaker: Don Stoever, CSI

Date: Tuesday, January 17, 2017

More information is on the z/VSE LVC web page - [here](#).

Tags: lvc, live-virtual-class, tcpip, vse

Merry Christmas, next blog entry on January 12, 2017 (2016-12-20)

Today is my last working day this year. You can expect my next blog entry on January 12, 2017

I wish you and your families a Merry Christmas and a happy, successful and healthy New Year.

Enjoy your holidays.

Tags: vse

Are you interested in new tools for the z/VSE Language Environment ? (2016-12-19)

The z/VSE Language Environment (LE) team just uploaded new "LE z/VSE Run-Time Library Add-Ons" for download.

The LE z/VSE Add-on Library provides some extra run-time library extensions exploitable by all LE-enabled languages, which are designed to enhance the already capable functions available with LE z/VSE. In addition to these extensions are some further library functions that provide optional interfaces to assist with the use of these extensions by non-C/VSE applications.

You can download them [here](#).

Tags: le, vse, language_environment, download, tools

Next blog entry on Monday (December 19) (2016-12-14)

I need to skip blog entries for the next days.

Have a good weekend.

Tags: vse

How to open a requirement for z/VSE ? (2016-12-13)

There was a question on VSE-L today: How to open a requirement ?

Customer requirements are a key element of the z/VSE release content. Therefore we are always looking for requirements. ... and **thanks for your requirements**.

To submit a requirements you may use our [contact page](#) (as Jeff mentioned) - or the Request for Enhancement (RFE) web tool. I posted the information below last January:

You may also search for and vote on existing requirements, if you use the Request for Enhancement (RFE) web tool.

To do so you have to sign on with your IBM id. The RFE web page is [here](#).

To **submit a requirement** you can select "I want to specify the brand, product family, and product".

Please use the following selection for z/VSE requirements:

Brand:	Servers and Systems Software
Product family:	z Systems Software
Product:	z/VSE
Component:	(component you want to submit a requirement for)
Operating system:	z/VSE

There are some more fields, you may want to fill out.

... and the selection for CICS TS requirements:

Brand:	Servers and Systems Software
Product family:	Transaction Processing
Product:	CICS Transaction Server
Component:	Runtime (or Explorer)
Operating system:	z/VSE

Tags: requirements, rfe, cics, vse

z/VSE security: migration of the CICS transaction security table (2016-12-12)

Before z/VSE 3.1.1 you had to define access control to CICS transactions via the transaction security table DTSECTXN.

Since z/VSE 3.1.1 the Basic Security Manager (BSM) control file replaced the use of DTSECTXN. Migration programs were provided for you to migrate your security-related transaction data from DTSECTXN to the BSM control file.

With z/VSE 6.1, the IUI dialog 285 (Define Transaction Security (DTSECTXN)), which provided migration support for the DTSECTXN, does no longer exist. It is recommended to migrate the DTSECTXN to the BSM control file before you upgrade to z/VSE 6.1. If you want to migrate the DTSECTXN on your z/VSE 6.1 system, you can use migration jobs offered by z/VSE, but not the IUI dialog.

In a future z/VSE release the DTSECTXN will no longer be considered (will be ignored by z/VSE). Therefore, if you still use DTSECTXN to define access control to CICS transactions, please migrate your definitions to the BSM Control File as soon as possible.

For details how to migrate the DTSECTXN definitions to the BSM control file, refer to the z/VSE Administration book. Links to the z/VSE books are [here](#).

Tags: cics, vse, security, dtsectxn, migration

Where can I find the status of z/VSE releases and supported hardware ? (2016-12-09)

The last days I got questions about the support of z/VSE releases and if a specific hardware is support by a release. I also saw such a question on VSE-L.

We have a status web page, where we show the GA, the end of marketing and end of service dates as well as links to the announcements for supported and unsupported releases.

This page also lists supported hardware and what you need to consider, such as processors, network / I/O / Crypto cards, IBM Storage (ECKD / SCSI disks, tape, controller, virtual tape server, ...).

The web page for supported z/VSE releases is [here](#), and for unsupported z/VSE releases [here](#).

Have a good weekend.

Tags: end-of-marketing, eos, end-of-service, status, processor, vse, eom, storage

Live Virtual Class presentation for download: IBM IPv6/VSE 1.2 (2016-12-08)

In Tuesday's Live Virtual Class (LVC) Jeff presented new functions of IBM IPv6/VSE 1.2 and the functions they added to BSI's product.

In between his presentation is available for download. It's on the LVC web page - [here](#).

Tags: presentations, tcpip, ipv6_vse, lvc, live-virtual-class, vse

End of marketing announced for z/VSE 5.2 products (including IBM TCP/IP for VSE/ESA) (2016-12-07)

In between I posted more than 800 blog entries. I hope, that those had some value for you.

Yesterday there was an end of marketing announcement (eom) related to z/VSE. The end of marketing for a specific product means, that the product can no longer be ordered via Shopz.

It was announced, that the eom of IBM TCP/IP for VSE/ESA 1.5 and the GPS (General Print Server) Feature of IBM TCP/IP for VSE/ESA 1.5 will be on March 13, 2017. The replacement product is IBM TCP/IP for z/VSE 2.1 and the corresponding GPS feature. Both are available on z/VSE 6.1.

The eom announcement letter is [here](#).

That also means that all z/VSE 5.2 related products, such as z/VSE 5.2, CICS TS for VSE/ESA 1.1.1, IBM IPv6/VSE 1.1, IBM TCP/IP for VSE/ESA 1.5 (including GPS for that release) are no longer orderable after March 13, 2017.

See my z/VSE 5.2 eom blog entry in June - [here](#).

If you plan to migrate to z/VSE 5.2, please order those products before March 13, 2017. I recommend to migrate to z/VSE 6.1. More information on z/VSE 6.1 is [here](#) and the latest announcement - [here](#).

Tags: eom, vse, end-of-marketing, tcpip

Linux on z Systems Live Virtual Class on single sign-on (2016-12-06)

The Linux team scheduled a new Live Virtual Class (LVC) for tomorrow.

Topic: An integrated Single Sign-On Solution with Linux on z Systems, z/OS, and Microsoft Active Directory

Date: Wednesday, December 7, 2016

Abstract: In spring 2016, the Client Center Boeblingen performed a complex Proof-of-Concept for a large European bank. One of the primary goals of this project was to realize a fully integrated Single Sign-On (SSO) solution with WebSphere Application Server running on Linux on z Systems, CICS Transaction Server on z/OS, and Microsoft Active Directory. Besides the SSO requirement, another major goal of this PoC was to demonstrate to the client that this setup is able to provide a full audit trail for their transactions - with User IDs flowing all the way from the WebSphere-based front-end to CICS Transaction Server and z/OS RACF in the back-end. This session will highlight the architecture of this solution, the different technologies included, and how they were integrated in order to address the client's specific needs.

More information and the registration link is on the z/VM LVC web page [here](#).

Tags: live-virtual-class, vse, linux, security, lvc

2017 VM Workshop with z/VSE sessions (2016-12-05)

This time the registration for the 2017 VM Workshop opened very early. That is you get enough time to plan your participation.

Besides z/VM and Linux on z Systems we plan to provide several z/VSE sessions like this year. For z/VSE we see the VM Workshop as a replacement for the former WAVV conference.

The VM Workshop is planned for Thursday to Saturday, **June 22-24, 2017 at Ohio State University in Columbus, OH.**

More information on the VM Workshop and registration are [here](#).

Tags: conference, vse, vm_workshop

z/VSE Live Virtual Class - CSI TCP/IP for VSE Update - rescheduled (2016-12-02)

On Wednesday I informed you, that the Live Virtual Class (LVC) "**CSI TCP/IP for VSE Update**" will be delayed. See my blog entry [here](#).

Now a new date is available: It is scheduled for Tuesday, **January 17, 2017**.

The z/VSE LVC web page is already adjusted - see [here](#).

Have a good weekend.

Tags: `lvc, live-virtual-class, vse, tcpip`

No blog entry today (Dec. 1) (2016-12-01)

I am not in the office. Therefore I will not post a blog entry today.

Tags: vse

z/VSE Live Virtual Classes on TCP/IP - one next week, the other delayed (2016-11-30)

Today I want to remind you about our next Live Virtual Class (LVC). See also my earlier blog entry on this topic - [here](#).

The LVC with topic "**IBM IPv6/VSE 1.2 What's New!**" is scheduled for **December 6, 2016**.

The LVC with topic "**CSI TCP/IP for VSE Update**" will be delayed because of a schedule conflict. I will inform you, when I have more.

... or as always you can see the latest LVC new on our web page - [here](#), which also holds more information and the registration link.

Tags: `ipv6_vse, vse, live-virtual-class, tcpip, lvc`

How to FTP a VSE/POWER job into the VSE/POWER RDR queue (part 2) (2016-11-29)

It's late again, but I want to blog the continuation of yesterday's blog entry..

Yesterday I described, how to FTP a job into the VSE/POWER Reader (RDR) queue, where z/VSE acts as a FTP server.

Today I use z/VSE as a FTP client. The reason is, that I needed to install z/VSE in an LPAR, where I don't have network access from my PC. This system is connected to an internal network.

I installed z/VSE from DVD with the HMC (Hardware Management Console) tools.

Then I prepared a Windows folder with the jobs I wanted to transfer to the installed z/VSE system as described yesterday. I copied the folder content to an USB stick and mounted it to the PC with the HMC. I configured TCP/IP on the newly installed z/VSE system and use again TCP/IP for VSE/ESA, but could also use IPv6/VSE.

After I verified that the network is operational, the next step is to transfer the jobs on USB to the RDR queue.

I started the TCP/P partition and prepared a job for batch FTP with the ICCF editor (z/VSE as FTP client). A job like this:

```
* $$ JOB JBM=FTPJOB,CLASS=0,DISP=L
// JOB FTPJOB
// OPTION LOG
// OPTION SYSPARM='00'
// EXEC FTPBATCH,SIZE=FTPBATCH
LOPEN
LUSER SYSA (local z/VSE user)
LPASS <password>
OPEN <IP address of HMC>
USER <user id of HMC FTP server (see below under "Enable FTP access" - be
careful, in most cases the HMC user id / password are lower case. Therefore
switch the ICCF editor to lower case.>
PASS <password of HMC FTP server>
LCD POWER.RDR.ALL (you may also use LCD POWER, LCD RDR, LCD ALL)
ASCII (or Binary dependent on the job you want to transfer, e.g. a catalog job for
```

```
a phase should be transferred in Binary)
LSITE RECFM F
LSITE LRECL 80
GET MYJOB.JOB (the job to be transferred to the RDR queue)
QUIT
/*
/&
* $$ EOJ
```

You may also use the interactive FTP application in CICS.

The setup of the HMC FTP server is easy:

I selected "HMC Management" tools and selected "Enable FTP access to Mass Storage Media" to setup a FTP server. The dialog asked for the IP address of the FTP client (z/VSE).

A selection menu for the media is shown. I selected the USB stick. The next panel shows the user id and password to use for the file transfer.

Now I submitted my FTPJOB, which transferred MYJOB.JOB into the VSE/POWER RDR queue.

If you want to transfer more jobs, just modify FTPJOB and submit.

Tags: vse-power, vse, hmc, job, ftp, installation

How to FTP a VSE/POWER job into the VSE/POWER RDR queue (2016-11-28)

Today I have a late blog entry for you.

Sorry, that I did not blog the last days. I am investigating a customer issue, and my daughter gave birth to a baby, my first grandchild. Therefore I am a bit busy.

I am currently preparing a standalone z/VSE environment in LPAR using install from DVD (z/VSE 5.2) and FTP for data and applications.

I only have a TCP/IP connection to that z/VSE system from my Windows PC.

Usually my test systems are running in a z/VM guest. From z/VM CMS it's easy to punch a VSE/POWER job into a z/VSE guest.

It's a bit more work to get it into a LPAR.

I developed the job on CMS using XEDIT, then I FTPed it (via Personal Communication, but you may use any other FTP tool) into a Windows folder. You may use text, if the job just contains Job Control (JCL) statements or binary, if it e.g. contains JCL and phase.

I started z/VSE in LPAR and configured the IP stack. I used TCP/IP for VSE/ESA. You may use IPv6/VSE instead too.

You can get configuration member IPINIT00.L from sublib PRD2.TCPIPC, copy (e.g. into your primary ICCF lib), modify it to your needs and catalog it into PRD2.CONFIG.

If you want to transfer a job into the POWER reader (RDR) queue the following statement should be included:

```
DEFINE FILE,TYPE=POWER,PUBLIC='POWER'
```

After I modified the configuration member I recycled TCP/IP.

The next step is to FTP into the z/VSE RDR queue. I use the FTP client from the WINDOWS Command Prompt.

First I switch to the folder, where my job is located. You will see corresponding messages in the Command Prompt and on the z/VSE console.

Ping your z/VSE system to verify, if you can reach it from your Command Prompt.

Enter FTP with z/VSE's IP address. You will be prompted for the user id and password.

If that's OK, you can enter the FTP statements:

```
ascii (or bin dependent on your prior FTP / job)
cd power.rdr.all (change directory to the z/VSE RDR queue)
put testdsk.job (sent my test job to the RDR queue. I use disposition (DISP)=L to
leave the job in the queue and alter it later).
```

Now you may QUIT from FTP and leave the Command Prompt.

I know, there are other ways to achieve the same thing. You may share them, if you want, e.g. in the comments section ;-)

Tags: vse, vse-power, queue, ftp, tips

Next blog entry on Monday (November 28) (2016-11-24)

I have to delay the next blog entry again. Sorry,

Have a good weekend.

No blog entry today (11/23) (2016-11-23)

I worked on a customer issue all day and therefore did not prepare a blog entry.

If you have any topics for my blog, please let me know.

... and for the US: Enjoy Thanksgiving and your long weekend.

Tags: vse

z/VSE service news: SDAID and IUI APARs (2016-11-22)

Today I have new APARs for you. They are related to z/VSE components VSE/AF (SDAID) and IUI and fix minor issues.

VSE/AF

DOSVSDMP PROGRAM CHECKS ON IJBXDM5 WHEN PRINTING SDAID BUFFER FROM REMOTE VTAPE WHICH WAS CREATED BY DUMP BUFFER, CUU

z/VSE 5.2 APAR [DY47694](#) (PTF UD54215)

z/VSE 6.1 APAR [DY47697](#) (PTF UD54216) - will be available soon

Program check in DOSVSDMP printing a SDAID trace on tape. The SDAID trace was defined with OUTDEV BUFFER=256 and the buffer was written to tape by DUMP BUFFER, cuu command.

IUI

WRONG CREATION DATE SHOWN IN VSAM DIALOG

z/VSE 5.2 APAR [PI71319](#) (PTF UI42165)

z/VSE 6.1 APAR [PI71358](#) (PTF UI42335) - will be available soon

The panel IESFILDETD on IUI (Interactive User Interface) shows wrong century in four digits for the year of CREATION DATE, such as 2086261 appeared. Since this problem VSAM file was actually created on 1986 (not on 2086) the CREATION DATE should be shown as 1986261.

The APARs will also show up on z/VSE's corrective service web page the next days - [here](#).

Tags: ptf, af, iui, vse, apar, service, support

KVM for z Systems Network Performance - Best Practices and Tuning Recommendations (2016-11-21)

My colleagues just uploaded a new paper to the developerWorks web pages. It related to KVM and Linux on z Systems guests.

This paper explores different system configurations (running KVM guests), different networking configuration choices, as well as tuning recommendations for the KVM host and KVM guest environments to achieve greater network performance on the IBM z Systems platforms.

You can download it [here](#).

Tags: paper, kvm, networking, linux, performance, vse

VSE/VSAM tips (2016-11-18)

Today I have two VSE/VSAM tips for you.

The first one is related to an VSAM I/O error:

VSAM I/O ERROR AFTER RESTORE TO VOLUMES WITH DIFFERENT DEVICE TYPE AND MODEL

Customer RESTORED to a VOLUME List of Mixed 3390 Mod 3 and MOD 9 DASD. Trying to BACKUP the Catalog afterwards resulted in IDC31329I DISK I/O ERROR.

REPRO resulted in

```
IDC3302I ACTION ERROR
IDC3314I ** RECORD OUT OF SEQUENCE:
IDC3351I ** VSAM I/O RETURN CODE IS 52
```

It is not specifically stated in the RESTORE Command, however, RESTORE does a DEFINE of a CLUSTER and is thus coupled to all restrictions of the DEFINE Command. This includes the specification with regard to the VOLUMES parameter, i.e. If several volumes are specified with the VOLUMES parameter, they must be of the same device type and model, otherwise unpredictable results and/or data corruption can occur.

You can avoid this problem, if you only use VOLUMES of the same Device Type and Model in the RESTORE VOLUME List.

We will also describe that in information APAR II14828.

The second one is related to IDCAMS REPRO.

IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 4 WHEN USING FROMKEY AND TOKEY

Performing an IDCAMS REPRO with the parameters FROMKEY and TOKEY receive "IDC0001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 4" with no additional warning.

You can resolve that issue by changing TOKEY to a KEY that is present in the DATA. The CC 4 only indicates that DATA was not found with a TOKEY as high as specified.

We will describe that in information APAR II14829.

.... and with our next VSE/VSAM book updates.

Have a good weekend.

Tags: vse, apar, tips, information, vsam

No blog entry today (2016-11-17)

I have to skip the blog entry today, because of other high priority work.

Tags: vse

New z/VSE Live Virtual Classes on TCP/IP (IPv6/VSE and TCP/IP for z/VSE) (2016-11-16)

We just scheduled 2 Live Virtual Classes (LVCs) for December.

- **IBM IPv6/VSE 1.2 What's New!**

IBM IPv6/VSE 1.2 became available with z/VSE 6.1. This presentation will look at the new features and updates available in IBM IPv6/VSE 1.2 and even a sneak peek at some even newer features available now from Barnard Software, Inc. and possibly soon from IBM too.

Speaker: Jeffrey Barnard, BSI

Date: Tuesday, December 6, 2016

- **CSI TCP/IP for VSE Update**

This session will review recent changes, maintenance, and new features in the CSI TCP/IP for VSE product..

Speaker: Don Stoeber, CSI

Date: Wednesday, December 7, 2016

More information is on our LVC web page - [here](#).

Tags: tcpip, live-virtual-class, lvc, ipv6_vse, vse

Updated IBM Redbooks available: z13 & z13s (2016-11-15)

There are updated IBM Redbooks available for the z13 and z13s mainframes:

- [IBM z13 Technical Guide](#)
- [IBM z13s Technical Guide](#)
- [IBM z13 and IBM z13s Technical Introduction](#)
- [IBM z13 Configuration Setup](#)

Tags: z13s, vse, redbook, z13

Linux on z Systems ebook / articles (2016-11-14)

Today I have a few articles for you addressing Linux on z Systems, which are included into the new Linux on z Systems ebook - [here](#).

See links to articles below:

- [Open to Opportunity - Why more z Systems customers are running Linux](#)
- [Small and Efficient - The IBM z13s can consolidate Linux workloads at a lower cost](#)
- [A Better Option - Businesses see the benefits of using Linux on z Systems over scale-out servers](#)

z/VM 6.4 available today (2016-11-11)

As announced a few weeks ago, the new z/VM 6.4 release is now available.

z/VM 6.4 requires a z114 / z196 server or higher.

Below are key z/VM 6.4 enhancements:

- Support for up to 2 TB of memory
- Increased efficiency with HyperPAV
- Easier migration with enhanced upgrade-in-place infrastructure
- Improved operations with ease-of-use enhancements
- Improved SCSI support
- Increased scalability by exploiting Guest Enhanced DAT (1 MB frames for z/VM guests)
- Integration of new CMS Pipelines functionality
- Availability of IBM Wave for z/VM as optional, priced feature

More information is in my related [blog entry](#) (including the end of service dates of prior z/VM releases) and in the [announcement letter](#).

Have a good weekend.

Tags: availability, vm, announcement, vse

z/VSE service news: CICS TS for VSE/ESA APAR (2016-11-10)

About a month ago I informed you about CICS TS APARs, see [here](#).

In between the APAR / PTF for CICS TS for VSE/ESA is finalized.

DFHMN0002 SEVERE ERROR CODE X'0223' DFHMNMN

PROBLEM DESCRIPTION: Forcepurging a task results in message DFHMN0002. A severe error (code X'0223') has occurred in module DFHMNMN being issued.

CICS TS for VSE/ESA 1.1.1 APAR [PI63849](#)

See the fix list for CICS TS for VSE/ESA 1.1.1 is [here](#).

The CICS TS for z/VSE 2,1 PTF is still pending.

Where to find hints & tips (z/VSE, Linux, z/VM) (2016-11-09)

The **Linux on z Systems** team just released new white papers, that can be downloaded.

Those white papers are on the Linux on z Systems tuning hints & tips pages - [here](#).

There you can find a lot of information about performance tuning. The new white papers address [KVM](#) and [enterprise content management](#).

If you are looking for **z/VSE** hints and tips, those are summarized in the [Hints and Tips for z/VSE](#) book or in the [Technical articles and white paper](#) section.

The [z/VM Technical Resource](#) web page holds some links to tips related to the **z/VM** environment..

Tags: linux, vm, vse, tips, hints

z/VSE 6.1 install from DVD: wrong AWS file name leads to IPL error (2016-11-08)

We just got noticed that there is a problem, if you try to install z/VSE 6.1 from DVD.

IPL from DVD will fail, because the AWS file name is wrong. The correct file name should be VSE610EN.AWS instead of ZVSE610EN.AWS.

As a circumvention you may burn your own DVD with the corrected name.

We will change that in Shopz.

Thanks for your feedback, Ken.

More information on "Install from DVD" (tape-less installation) introduced with z/VSE 5.2 is in an earlier blog entry - [here](#).

Tags: problem, vse, dvd, ipl, installation

New Live Virtual Class - z/VM 6.4: A Customer Driven Release on Nov. 9 (2016-11-07)

Last Friday I had a [blog entry](#), where I asked for topics that we should address in future Live Virtual Classes (LVCs).

Today I recommend our next LVC for z/VM users.

Topic: z/VM 6.4: A Customer Driven Release

Date: Wednesday, November 09, 2016

Abstract: z/VM 6.4 was announced on October 25th and will be generally available on November 11th. This session will discuss what is new with z/VM 6.4 and the value it brings. This newest release was driven by customer requirements and priorities. It addresses both technology enhancements to improved scaling and total cost of ownership as well as systems management improvements. We'll discuss items such as HyperPAV for z/VM ECKD paging, 2TB real memory support, improved SCSI management, and new CMS Pipelines library.

More information and the registration link is on z/VM's LVC web page - [here](#).

Tags: `live-virtual-class, vm, lvc, vse`

Live Virtual Classes: Any topics we should address ? (2016-11-04)

We will schedule two more Live Virtual Classes (LVCs) this year, I assume in December. Both will address the TCP/IP stacks (TCP/IP for z/VSE and IPv6/VSE). As always, you will be informed about the topic, date and time in my blog and on our LVC web page [here](#).

We also started planning LVCs for next year. I would like to get your input for future LVCs.

LVCs are live web-based education sessions.

What LVC topics should we address ? Do you need topics for beginners ? Or - are topics for experts more appropriate ?

Should LVCs discuss concepts, hints & tips or products specific features, configurations, administration, ... ?

Should we have more LVCs from vendors, addressing vendor products ?

I am looking forward to you feedback.

Have a good weekend.

Tags: vse, lvc, live-virtual-class

z/VSE service news: IBM TCP/IP for VSE APARs (2016-11-03)

There are updates for the IBM TCP/IP for z/VSE 2.1 and IBM TCP/IP for VSE/ESA 1.5F products available.

IBM TCP/IP for z/VSE 2.1

APAR [PI70804](#) (PTF UI41806)

This APAR is an update to the refresh available since September - see my blog entry [here](#). Refresh level 2.1.7+.

The zaps of the 2.1.7 service pack are described on CSI's service page - [here](#).

IBM TCP/IP for VSE/ESA 1.5F

APAR [PI70120](#) (PTF UI41417)

Error description: Fixes (zaps) for IBM TCP/IP for VSE/ESA 1.5F

ZP15F137 ZP15F301 ZP15F302 ZP15F304 ZP15F311 ZP15F312
ZP15F313 ZP15F315 ZP15F316 ZP15F317 ZP15F318 ZP15F321
ZP15F323 ZP15F324 ZP15F325 ZP15F328 ZP15F330 ZP15F333

Tags: apar, service, vse, ptf, support, tcpip

How to find a product's lifecycle information ? (2016-11-02)

I wasn't in the office the last two days, because of a public holiday. Therefore you did not see blog entries on Monday and Tuesday.

In today's blog entry I want to inform you, where to find lifecycle information of a given product. Sometimes you may want to know, e.g. if a product's end of service date is announced.

One of the software support pages show the lifecycle dates of IBM software products.

You can search for the product or just browse the lifecycle information of all products - "Software A - Z".

If you locate the product, the resulting table shows the product name, release, GA and end of support date, if announced.

If you click on the product / release, you will get additional information including the end of marketing date, if announced, and links to the corresponding announcement letters.

The lifecycle information is [here](#).

Tags: service, support, lifecycle, vse

New KVM for IBM z Systems release available today (2016-10-28)

Besides the z/VM 6.4 announcement there was a KVM for IBM z Systems release announced on Tuesday, too.

Kernel-based Virtual Machine (KVM) provides a new virtualization option for Linux on z Systems, available since more than a year. That is you may choose to run Linux in an LPAR, a z/VM guest or KVM guest.

Just today a new KVM for IBM z Systems release is available: **KVM for IBM z Systems V1.1.2**.

KVM for IBM z Systems can run on IBM LinuxONE, zBC12, zEC12, z13s and z13. The new KVM release supports SUSE SLES 12 SP1 or later - and Canonical Ubuntu 16.04 LTS, or later LTS releases.

Key new V1.1.2 functions:

- Guest operating system installation from CD or DVD
- Dynamic add virtual CPUs to a running guest
- Same virt-manager applications and virt-install tools as on x86
- Pacemaker and Crocosync to ensure high availability of critical resources
- Web browser based installer
- text-based installer options
- Kimchi tool to support user management, user activity logging, system module functionalities
- IBM License Metric Tool to manage IBM software licensing entitlements

You can find more detailed information in the announcement letter - [here](#).

Enjoy your weekend.

Tags: kvm, availability, linux, announcement, vse

z/VM 6.4 availability announcement (2016-10-27)

On Tuesday the z/VM team announced the planned availability (GA) date for z/VM 6.4. It is **November 11, 2016**.

z/VM 6.4 requires a z114 / z196 server or higher.

Below are key **z/VM 6.4 enhancements**:

- Support for up to 2 TB of memory
- Increased efficiency with HyperPAV
- Easier migration with enhanced upgrade-in-place infrastructure
- Improved operations with ease-of-use enhancements
- Improved SCSI support
- Increased scalability by exploiting Guest Enhanced DAT (1 MB frames for z/VM guests)
- Integration of new CMS Pipelines functionality
- Availability of IBM Wave for z/VM as optional, priced feature

The announcement letter also holds some **statements of general direction (SODs)**, such as

- A future z/VM release requires a zBC12 or zEC12 as the minimum level of server.

More SODs are in the corresponding section of the announcement letter. See also the SOD disclaimer in announcement letter.

The announcement letter with more information is [here](#).

Just a reminder: Please consider to migrate to z/VM 6.4 within 2017 to stay in a supported environment - because of the planned **end of service (eos)** dates for z/VM 5.4, 6.2 and 6.3:

- z/VM 5.4 eos - December 31/2017
- z/VM 6.2 eos - June 30, 2017
- z/VM 6.3 eos - December 31, 2017

z/VM life cycle dates are [here](#).

Tags: vse, vm, announcement, eos

New LVC: Linux Crypto Overview on October 26, 2016. (2016-10-25)

There is a new Live Virtual Class (LVC) scheduled for tomorrow for Linux on z System or LinuxOne.

Topic: Linux on z Systems and LinuxONE Crypto Overview

Abstract: Data is the most valuable asset of any IT department and for many companies. Therefore protecting this data is of utmost importance. This holds for both data at rest and for data in flight. Cryptography is the safest technology to protect data from unauthorized access and to prove its integrity and origin. This presentations describes the cryptography hardware support available on z Systems and LinuxOne systems and how Linux on z Systems and LinuxONE can use this HW support to reduce the overhead of encryption to a minimum and to reach the highest levels of protection.

Date: Wednesday, October 26, 2016

Time: 11:00 AM EST / New York, 4:00 PM UK, 5:00 PM CET / Germany

Duration: 75 minutes

More information will show up [here](#).

Tags: `live-virtual-class, vse, lvc, linux, crypto`

Next blog entry on October 27, 2016 (2016-10-24)

I am at the GSE conference in Leipzig. Therefore I will post my next entry on Thursday.

Tags: vse

New IBM Redbook on z/VM Security (2016-10-21)

There was new Redbook just published - "Securing Your Cloud IBM z/VM Security for IBM z Systems and LinuxONE".

It describes the necessary steps to secure your environment for all of the components that are involved in a z Systems cloud infrastructure that uses IBM z/VM and Linux on z Systems.

Table of contents

Chapter 1. Introduction to security on IBM z Systems

Chapter 2. IBM z/VM hypervisor

Chapter 3. IBM Resource Access Control Facility Security Server for IBM z/VM

Chapter 4. Security Policy Management on IBM z/VM

Chapter 5. Securing a Cloud on IBM z/VM environment

Chapter 6. IBM z/VM and enterprise security

This Redbook can be downloaded [here](#).

Have a good weekend.

Tags: redbook, security, vm, linux, vse

IBM Redbook for CICS TS on z/VSE ? (2016-10-20)

As you may know, IBM Redbooks for CICS TS on VSE are old. There are many enhancements in between.

We are currently looking into to write a new Redbook for CICS TS for z/VSE 2.1. What topics would you like to see addressed in such a Redbook ?

The only CICS Redbook that is still available for download is [CICS Transaction Server for VSE/ESA: CICS Web Support](#)

Please send any feedback to my email address.

Tags: vse, redbook, cics

z/VSE service news: VSE/POWER APARs (2016-10-19)

Today I have new APARs / PTFs for you. They are related to VSE/POWER, z/VSE's input / output spooling system.

POWER SAS APPLICATION WITH SPLGOPT=SPLGOFCC FAILS TO RESTART TO CORRECT RECORD NUMBER IF OUTPUT STARTS WITH CONTROL COMMAND(S)

z/VSE 5.2 APAR [DY47692](#) (PTF UD54213)

z/VSE 6.1 APAR [DY47693](#) (PTF UD54214)

USERS AFFECTED: All SAS (Spool-Access Support) applications performing Restart during SAS GET for output with SPLGOFCC.

PROBLEM DESCRIPTION: When SAS application GETs LST or PUN output with OPT=CTLREC and RESTARTs, resulting data buffer may start after requested line.

The z/VSE service and support web page was updated accordingly. It is on the corrective service tab [here](#).

Tags: ptf, support, apar, service, vse-power, sas, vse

z Systems security portal (2016-10-18)

The z Systems security portal hold security and integrity related information and covers z/VSE, z/OS and z/VM. There are links to operating system specific security web pages.

IBM strongly recommends that users of the z/VSE Operating System validate the currency of security and System Integrity service and take action to promptly install all security and integrity PTFs.

The **security portal** is [here](#).

Tags: integrity, service, vse, security, support, ptf, portal

VSE/POWER abnormal termination: Will output in creation be recovered ? (2016-10-17)

Today I have VSE/POWER topic: How is output in creation treated during VSE/POWER queue file recovery after abnormal VSE/POWER termination ?

When VSE/POWER is terminated abnormally, the next warm start goes through Queue file recovery as indicated by

```
1QB7I FULL QUEUE FILE RECOVERY IN PROGRESS
1QB8I QUEUE FILE RECOVERY COMPLETED
```

Afterwards LST and PUN queue entries in creation may be lost.

Partial output produced by the abnormally terminated system will be discarded by recovery, unless the RBC operand (specifies the number of cards (punch records) to be processed before VSE/POWER takes a checkpoint) was specified in the * \$\$ LST or PUN statement and the first checkpoint has been confirmed on disk.

For details see the RBC operand description in VSE/POWER Administration and Operation book, which is on the z/VSE documentation web page - [here](#).

Tags: vse, output, vse-power, termination, recovery

SCRT classic versus Java version (2016-10-14)

The last days there was a discussion on [VSE-L](#) about the new SCRT (Sub-Capacity Reporting Tool) Java tool, which will replace the classic version over time. See also [my blog entry](#) on Wednesday.

The key requirement, as I read from the posts, is to allow an automated process. A command line interface may be a possibility.

Therefore my question: Who would be available to work with our SCRT team to get to an acceptable solution ?

Please send an email to my id, if you are interested.

Enjoy your weekend.

Tags: sub-capacity, pricing, price, aewlc, scrt, mwlc, vse

Do you know CICS Explorer Quick Filters ? (2016-10-13)

End of last year I posted news about the CICS Explorer, that we introduced with CICS TS for VSE/ESA 1.1.1 (for monitoring of CICS resources) and further enhanced it with CICS TS for z/VSE 2.1 (monitoring and update of CICS resource) - see [here](#).

The most current level is CICS Explorer V5.3, which allows to use quick filters. With quick filters you can create views on top of the standard views. E.g. you may create a view just showing all open files.

A while ago there was a related post with some examples on the CICS Developer Center - [here](#).

Tags: `explorer, vse, quick_filters, cics, cics-explorer`

New Sub-capacity Reporting Tool (SCRT) version available (2016-10-12)

z/VSE sub-capacity pricing is available for the AEWLC (Advanced Entry Workload License Charges) and MWLC (Midrange Workload License Charge) price metrics. More information is [here](#).

Sub-capacity pricing is based on a four-hour rolling average utilization of the z/VSE LPARs or z/VM guests observed within a one month reporting period. The Sub-Capacity Reporting Tool (SCRT) allows you to generate Sub-Capacity reports of the measured utilization.

A new version of SCRT was just released. In between there is a classic (24.1.0) and a Java version (24.10.0) of the tool. Both versions can be used to generate reports for z/VSE environments.

You need to use the latest available version of SCRT to report your utilization. More information is [here](#).

Tags: pricing, mwlc, price, sub-capacity, vse, scrt, aewlc

z/VSE service news on security: openssl refresh + bulletin - part 3 (2016-10-11)

On October 4 I had a blog related to our latest OpenSSL update for z/VSE. I described the APARs for z/VSE 5.2 and 6.1 - [here](#).

In between the "z/VSE security and system integrity" section was updated and shows the APAR information too.

We also added a bulletin to that section - "Vulnerability in Triple DES (CVE-2016-2183) on z/VSE ". The bulletin gives more information about the "SWEET32 vulnerability".

The APARs move the TDES cipher suite (0x0A) to GSK_LOW_SECURITY. GSK_LOW_SECURITY should not be used.

The bulletin can be downloaded from "z/VSE security and system integrity" section - [here](#).

The APARs fix several other CVEs (Common Vulnerabilities and Exposures) too.

Please apply these APARs as soon as possible.

Tags: security, vse, vulnerability, openssl, service, bulletin, support, apar, ptf

Are you aware of z/VSE's SIR MON ? (2016-10-10)

SIR (System Information Report) is a z/VSE Attention Routine (AR) command. With SIR you retrieve useful system information. With SIR HELP or SIR ? you can see all SIR parameters.

SIR without a parameter displays e.g. the processor, the z/VM release level (if you are running on z/VM), the z/VSE product / APAR level, CPU usage and resource counters, ...

With **SIR MON** you can retrieve some monitoring information such as SVC (Supervisor Call counters) and resource usage (counters for bound conditions).

The SIR MON functionality is described in the z/VSE Hints & Tips book. You can download it [here](#).

I may use the SIR MON output, if I look into system performance and want to get more details output the workload.

You can start monitoring with SIR MON=ON or specify the counter you want to see. With the SYSDEF TD, RESETCNT command (only if SIR MON is active)) you can reset these counters (as well as the CPU counters). SIR MON=OFF stops monitoring and SIR MON displays the monitoring results on the console. I use SIR MON together with the QUERY TD command to include the CPU counters and non-parallel share.

SVCs are executed as non-parallel code. There are only a few Fast-SVC functions that are running parallel. That is the SVCs contribute to the non-parallel share and may impact multiprocessor exploitation. You may use this information, if you want to tune your multiprocessing environment (e.g. start jobs that are SVC intensive at times with lower CPU utilization) - or just to get some more information about your workload.

If you measure your workload, you may use a e.g. a one hour interval and set up the commands as follows:

- 1) SIR MON=ON
- 2) SYSDEF TD,RESETCNT
- 3) < and enter after e.g. an hour:>
- 4) SIR MON=OFF
- 5) QUERY TD
- 6) SIR MON
- 7) to start next interval begin with 1)

Below is a sample of the SIR MON output:

```

sir mon
AR 0015                MONITORING REPORT
AR 0015                (BASED ON A 0000:00:16.680 INTERVAL)
AR 0015                SVC SUMMARY REPORT
AR 0015 EXCP          =          53  WAIT          =          38  SETIME          =          17
AR 0015 SVC-0D        =          57  SYSIO          =        37949  EXIT IT          =          34
AR 0015 SETIME        =          15  WAITM          =          18  COMREG          =          20
AR 0015 GETIME        =           1  POST          =          26  SVC-31          =          11
AR 0015 TTIMER        =           3  SVC-35          =         109  GETVIS          =          88
AR 0015 FREEVIS       =          69  CDLOAD          =           1  SECTVAL         =           5
AR 0015 FASTSVC       =         579  (UN)LOCK        =           2  SVC-75          =          65
AR 0015 PRODID        =           2  SVC-83          =         200  SVC-84          =         147
AR 0015                SVC-X'6B' DETAIL REPORT
AR 0015 FC-02         =          25  FC-03          =          78  FC-06           =         109
AR 0015 FC-08         =          26  FC-09          =         100  FC-0A           =          76
AR 0015 FC-0D         =          16  FC-0E          =         192  FC-4F           =           1
AR 0015 FC-67         =           1  FC-73          =          60  FC-86           =          22
AR 0015 FC-90         =          62  FC-96          =           7  FC-9F           =         156
AR 0015 FC-B6         =          16
AR 0015                SVC-X'75' DETAIL REPORT
AR 0015 FC-98         =          57  FC-9C          =           8
AR 0015                MVS-SVC'S DETAIL REPORT
AR 0015 SVC-01        =          79  SVC-02          =          43  SVC-22           =           2
AR 0015 SVC-2E        =           2  SVC-2F          =          23  SVC-6B           =         141
AR 0015 SVC-77        =          57

```

Tags: sir, vse, attention_routine, ar, monitoring

Approaching next z/VSE Conference: European IBM / GSE Technical University (2016-10-07)

The next major z/VSE, z/VM, KVM and Linux on z Systems conference is scheduled for this month (in a bit more than 2 weeks) - the 10th European IBM / GSE Technical University for z/VSE, z/VM, KVM and Linux on IBM z Systems.

This conference has general sessions in English, international (English) and German tracks. It is scheduled from **October 24 to 26, 2016** in Leipzig, Germany.

More information, registration and the agenda are [here](#).

I am looking forward to meet you there.

Have a good weekend.

Tags: vse, technical, conference, gse

Usage of System Getvis Subpool \$ARVIS (2016-10-06)

I just noticed a post on the z/VSE discussion list - [VSE-L](#): Does anybody know what the System Getvis Subpool \$ARVIS is used for/by?

The subpool is used by the Attention Routine (AR). ARVIS (= Attention Routine System GETVIS) is the AR working storage.

The reason for the increase are new functionality and that we moved some parts of the Attention Routine into 31 bit storage to free up some 24 bit space, which is still a bottleneck in some cases.

Hope that answers your question.

Tags: vse, ar, vse-l, attention_routine, getvis

Clock changes (Daylight Saving Time ends) soon (2016-10-06)

This month and beginning of November many countries change their clocks to winter time, that is one hour backward. In Germany we change our clocks on October 30, in the USA on November 6.

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#). The statement related to CICS TS on z/VSE is also true for CICS TS for z/VSE 2.1.
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

Tags: clock, dst, daylight_saving_time, winter_time, vse

z/VSE service news: CICS TS for VSE APARs (2016-10-05)

Sorry, that I have some service news in such a short time.

Today I want to inform you about CICS TS for VSE APARs, that where pending (close to be released).

The CICS service shows all known CICS issues on their fix lists:

- The fix list for CICS TS for VSE/ESA 1.1.1 is [here](#) and for CICS TS for z/VSE 2.1 [here](#).

The APARs with pending PTFs are:

DFHMN0002 SEVERE ERROR CODE X'0223' DFHMNMN

PROBLEM DESCRIPTION: Forcepurging a task results in message DFHMN0002
A severe error (code X'0223') has occurred in module DFHMNMN being issued.

- CICS TS for VSE/ESA 1.1.1 APAR [PI63849](#)
- CICS TS for z/VSE 2.1 APAR [PI64335](#)

Tags: vse, service, cics, support, apar

z/VSE service news on security: openssl refresh - part 2 (2016-10-04)

Last week I informed you about the OpenSSL refresh for z/VSE 5.2 and z/VSE 6.1 - see my blog entry [here](#).

z/VSE upgraded OpenSSL to the 1.0.2H level. This refresh fixes several CVEs (Common Vulnerabilities and Exposures).

In between the PTF for z/VSE 6.1 is released too.

Here the links to the APARs again:

z/VSE 5.2 APAR [DY47688](#) (PTF UD54209)

z/VSE 6.1 APAR [DY47689](#) (PTF UD54211)

The APARs will show up on z/VSE's [Security and system integrity](#) section soon.

My recommendation is to apply the OpenSSL PTFs when available (as soon as possible).

Tags: service, vse, support, security, ssl, openssl, encryption

z/VSE service news: VSE/AF APAR, next blog entry on Tuesday (Oct. 4, 2016) (2016-09-30)

Sorry, you did not see a blog entry yesterday, because I had no access to my blog.

Today I have new VSE/AF APAR:

WITH INCONSISTENT ASSIGNMENT CONTROL INFORMATION THE MESSAGE "1S40I SYSTEM ERROR, MODCTB RET.CODE=14" MAY SHOW UP IN A LOOP

z/VSE 5.2 APAR [DY47685](#) (PTF UD54208)

z/VSE 6.1 APAR [DY47690](#) (PTF UD54210)

PROBLEM DESCRIPTION: Under rare conditions with inconsistent control information for tape device assignments with tape drives used for tape encryption it may happen that a // JOB or a /& statement results in an endless loop of messages 1S40I SYSTEM ERROR, MODCTB RET.CODE=14.

USERS AFFECTED: This problem may affect users of tape encryption.

We have a public holiday on Monday. Therefore I plan the next blog entry for next Tuesday.

Tags: vse, ptf, apar, af, support, service

Balancing z/VSE workloads (2016-09-28)

Therefore I want to summarize information about "balancing z/VSE workloads" based on blog entries I posted the last years.

The z/VSE base system provides partition and CPU balancing.

Let's start with **partition balancing**: The PRTY command is used to query and set the priority of static partitions and dynamic classes. You may separate specified partitions via comma or equal sign (=). Static partitions / dynamic classes concatenated with "=" belong to a balanced group. You can have just one balanced group. The PRTY SHARE command is used to allocate a relative share of CPU time to partitions belonging to a balanced group. I described partition balancing in blog entries "[How does z/VSE's PRTY SHARE work ?](#)" and "[z/VSE PRTY command tips](#)". The SHARE value can range from 0 - 9999. If you use small MSECs numbers like MSECs 100, I would go for 3 digit shares. In some calculations for small (1-2 digit) share values it could be that the shares don't show the behavior you would expect, caused by rounding / adjustments.

Now to **CPU balancing**:

The blog entries

"[Are you running your z/VSE system with multiple CPUs active ?](#)" and "[z/VSE: Are you running z/VSE on a multiprocessor ?](#)" describes briefly how z/VSE multiprocessing works and introduces CPU balancing. One scenario for using CPU balancing could be if your workload has different CPU requirements during day and night. CPU balancing starts only additional CPUs, if that's required for the workload. The CPU balancing overhead is very low. Workloads may change their behavior in seconds. Therefore I would use smaller intervals as a start (e.g. the default INT=9) and would not go over 70 with the threshold (THR) value (if about 70 % CPU utilization is reached, an additional CPU will be activated).

You may monitor the CPU utilization and non-parallel share with the **CPUMON tool**. More details are in the blog entry

"[Do you know the CPU utilization of your z/VSE workload ?](#)".

Let me know, if you have more questions.

Tags: prty_share, balancing, prty, vse, cpu-balancing, cpumon, workload, partition-balancing, performance

z/VSE service news: OpenSSL refresh (2016-09-27)

Besides a z/VSE specific SSL (Secure Socket Layer) implementation z/VSE provides OpenSSL for secured SSL communication since z/VSE 5.1 (+ PTF).

Since then IPv6/VSE and many z/VSE components exploit OpenSSL.

Now z/VSE's OpenSSL was upgraded to OpenSSL 1.0.2h (from OpenSSL 1.0.1e).

OPENSSL 1.0.2H REFRESH.

z/VSE 5.2 [APAR DY47688](#) (PTF UD54209)

z/VSE 6.1 [APAR DY47689](#) (PTF UD54211) - it may take a few more days until that PTF is available.

My recommendation is to apply the OpenSSL PTFs when available (as soon as possible).

Our z/VSE service web pages ([Security and system integrity](#)) will be updated.

Tags: openssl, service, security, vse, ssl, encryption, support

New IBM Redbook for Linux on z Systems: Ubuntu (2016-09-26)

Since April the Ubuntu distribution is available for Linux on z Systems. More information on supported distributions is [here](#).

Now you new IBM Redbook is available: The Virtualization Cookbook for IBM z Systems Volume 4: Ubuntu Server 16.04. The Redbook is [here](#).

I had already blog entries for the other volumes:

- [The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3](#)
- [The Virtualization Cookbook for IBM z Systems Volume 2: Red Hat Enterprise Linux 7.1 Servers](#)
- [The Virtualization Cookbook for IBM z Systems Volume 3: SUSE Linux Enterprise Server 12](#)

The Redbook authors recommend to start with the Volume 1, because z/VM hypervisor is the base for the Linux on z Systems installation.

Tags: distribution, zvm, redbook, redhat, ubuntu, suse, vse

IBM TCP/IP for z/VSE 2.1 refresh available (2016-09-23)

Last week I mentioned the IBM TCP/IP for z/VSE 2.1 refresh in my [z/VSE service news blog entry](#).

However, I believe we should promote the refresh in a separate blog entry, because of its security enhancement.

The refresh updates the IBM product to the TCP/IP for z/VSE 2.1 to the 2.1.7 level plus a few fixes.

The demo mode is removed. If you don't have valid license keys (see [my related blog entry](#)), you may get messages:

```
IPN110E Product key validation failed for Stack
IPN103E TCP/IP Unable to initialize
```

Now to the security enhancement, it's worth to upgrade: This refresh introduces Transport Layer Security (TLS) 1.1, which improves cryptographic protocols and fulfills customer requirements.

The refresh is provided through [APAR PI56032](#) (PTF UI35475).

If you have a requirement for TLS 1.2, the newest SSL protocol version, you need to consider the IBM IPv6/VSE 1.2 product.

[IBM TCP/IP for z/VSE 2.1](#) as well as [IBM IPv6/VSE 1.2](#) are only available for z/VSE 6.1.

Have a good weekend.

Tags: tcpip, service, apar, security, vse, tls, support, refresh

Do you know the IBM Systems Magazine web pages ? (2016-09-22)

The IBM Systems Magazine web pages have good articles around the mainframe.

They have several categories such as Administrator, Business & Strategy, Trends, Storage, Case Studies.

Under Trends you can find topics related to z/VM and Linux on z Systems.

The link to web pages is [here](#).

Besides the mainframe you can also find information about other IBM platforms like AIX, Linux on POWER, IBM i.

Tags: vm, mainframe, article, systems_magazine, vse, linux

z/VM Live Virtual Class: z/VM Charge Back Methods and Models - today (2016-09-21)

Sorry for the late notice.

There is a new z/VM Live Virtual Class scheduled for today.

Date: Wednesday, September 21, 2016

Topic: z/VM Charge Back Methods and Models

Duration: 75 minutes

Abstract: How many different cell phone plans are there? Lots. And they each have different pros and cons that can be confusing. This session won't help you pick a cell phone plan, but it will help you if you need to build a model for charging back in a z/VM environment and implement it. The session will review different models for charge back and also look at how accounting and performance data can be used for this.

The registration link is [here](#).

Tags: `live-virtual-class, vse, vm, lvc`

z/VSE Connector downloads updated (2016-09-20)

This is my 750th blog entry since I started this blog on February 6, 2013.

We just updated some z/VSE tools / Java APIs:

- VSE Health Checker - The z/VSE Health Checker is a Java-based system diagnosis utility to retrieve, display, and analyze performance relevant data from a z/VSE system.
- VSE System class library - The z/VSE System class library provides a Java API to access general z/VSE system parameters.
- VSE Security class library - The z/VSE Security class library provides a Java API to access security related z/VSE system parameters.
- Keyman/VSE - Keyman/VSE is a tool to manage the z/VSE specific public key infrastructure.

They are available on our z/VSE Download page - [here](#).

Tags: download, tools, connector, vse, update

Does CICSVR/VSE work with z/VSE 6.1 ? (2016-09-19)

As I described in earlier blog entries z/VSE 6.1 comes with a new CICS Transaction Server version: CICS TS for z/VSE 2.1.

You may use the CICS TS for z/VSE 2.1 announcement letter to get a quick overview of it's new functionality. The announcement letter is [here](#).

Just today I got a question from a customer, if CICS VSAM Recovery (CICSVR/VSE) works with CICS TS for z/VSE 2.1.

We verified in our test environments, that CICSVR/VSE works with CICS TS for z/VSE 2.1. There are no known issues.

That is it is safe to use CICSVR/VSE with z/VSE 6.1.

Tags: vse, cics, cicsvr

New IBM Storage DS8880 - Redbook available (2016-09-16)

With z/VSE's last announcement in July - see [my related blog entry](#) - we also announced the support of the latest IBM Storage technology - the DS8880. That is z/VSE 5.2 and later supports the entry model DS8884 as well DS8886 and DS8888. The product web page is [here](#).

Now the corresponding IBM Redbook is available:

[IBM DS8880 Architecture and Implementation \(Release 8.1\)](#)

Have a good weekend.

Tags: disk, vse, storage, redbook

z/VSE service news: VSE/AF, LE, IUI, TCP/IP for z/VSE (2016-09-15)

After some weeks of vacation and a really good summer I returned and will continue to post news or any information related to z/VSE.

Let's start with the latest service news. There are a few new APARs that may be of interest.

VSE/AF

DEVICE-SPECIFIC MIH VALUE (EXAMPLE: SIR MIH,181=10M) OVERRULES GENERAL MIH VALUE ONLY ONCE.

z/VSE 5.2 APAR [DY47676](#) (PTF UD54198-52C, UD54199-52J)

z/VSE 6.1 APAR [DY47682](#) (PTF UD54204-61C, UD54205-61J)

Error description: When a device-specific MIH interval has been defined (for example SIR MIH,181=10M) and an interrupt becomes missing for this device, the operator msg

```
AR+0013 0E04D P    DEVICE 181  LOST DEVICE END
```

is issued after the device-specific MIH interval. If the interrupt continues to be missing, the device-specific MIH interval is not used anymore to trigger the next occurrence MSG0E04D. Instead, the overall MIH time interval (which is usually much lower) is used.

INFOANA DUMP ANALYSIS SHOWS INCORRECT PROGRAM CHECK ADDRESS FOR SEGMENT TRANSLATION EXCEPTION

z/VSE 5.2 APAR [DY47680](#) (PTF UD54202)

z/VSE 6.1 APAR [DY47681](#) (PTF UD54203)

Error description: When INFOANA is used to analyse e.g. hardwait caused by Segment translation exception, the Program Check Old PSW points to the failing instruction. INFOANA takes the ILC of the failing instruction and subtracts the length of the failing instruction from its address and shows the resulting address and the storage content as failing address and failing instruction. INFOANA should show the actual address and content.

Interactive User Interface (IUI)

EXIT WITH PF9 ON SIGNON SCREEN TO USE TRANIDONLY DROPPED ON Z/VSE 5.2 AND 6.1

z/VSE 5.2 APAR [PI66494](#) (PTF UI39873)

z/VSE 6.1 APAR [PI67021](#) (PTF UI39933)

Error description: APAR PM51052 was not retrofited into z/VSE 5.2. PF9 on signon screen (escape mixed) use mixed case, sould be TRANIDONLY as it is more convenient.

Language Environment (LE/VSE)

LE/VSE DSA LOOP CAUSED BY DLI D106 ABENDS IN CICS ENVIRONMENT

z/VSE 5.2 APAR [PI65522](#) (PTF UI39739)

Error description: Experiencing an DL/1 type D106 abend (deadlock indication) may cause LE/VSE DSA loop and CICS becoming unresponsive in this situation. The event actually triggers CICS to call LE for processing however to-date LE/VSE behavior (in snyc with APAR PQ15103) ignores D106 abends so returning back to CICS.

CICS on it's own may issue APC2 abend but the LE/VSE DSA scan process is impacted in this situation so that it fails and ends up in a CPU loop never being able to exit the process.

LE/COBOL SEGMENT TRANSLATION EXCEPTION WITH INTERNAL SORT

z/VSE 5.2 APAR [PI66469](#) (PTF UI40259)

Error description: COBOL/VSE programs making use of internal sort may abend with segment translation exception (interruption code 10).

TCP/IP for z/VSE 2.1

TCP/IP FOR Z/VSE 2.1 REFRESH

APAR [PI56032](#) (PTF UI35475)

Error description: Refresh for TCP/IP for z/VSE 2.1 (based on 2.1.7), includes support for TLS 1.1, removes demo mode.

The latest service news are always on our z/VSE service page - [here](#).

Tags: vse, af, support, tcpip, service, iui

Next blog entry on September 15, 2016 (2016-08-13)

It's vacation time. I will take some days off.

Therefore you will see my next blog entry on September 15, 2016.

Have a good summer.

Tags: vse

How to install the z/VSE generation feature from virtual tape (2016-08-12)

Today I installed the latest z/VSE 6.1 from disk, downloaded from Shopz (as AWS image). That is I loaded the AWS file into my z/VM guest to a CMS disk and created an installation disk with the provided tools. See z/VSE Installation book, available for download [here](#).

Then I IPLed the installation disk and installed z/VSE. After some tailoring, e.g. for my hardware definitions, I added a virtual tape device (e.g. as 3490E), cataloged the TCP/IP for z/VSE 2.1 license key and configured TCP/IP. Now I restarted my z/VSE system and started TCP/IP. Because I want to compile a Supervisor, I have to install the z/VSE generation feature (gen feature).

I will use the z/VSE virtual tape (VTAPE) to install the gen feature. Therefore I copied the AWS image to my PC and used the VTAPE command with PC's IP address in z/VSE partition BG. I got a connection error. The reason was that our firewall rules do not allow z/VSE to connect to my PC. If your environment allows that access, you may use the IUI dialog to install the gen feature from the remote virtual tape - see later.

That is in my case remote VTAPE is not an option to install the gen feature. So I need to get the AWS file from my PC into a VSAM dataset on z/VSE. On z/VSE I defined a VTAPE file (via skeleton SKVTAPE in ICCF lib 59). Verify, if the VSAM user catalog is large enough. Then I opened a FTP session on my PC (Windows command prompt):

```
c:\temp>ftp <z/VSE's IP address>
User (<z/VSE's IP address>): SYSA          (I used the z/VSE's SYSA userid)
Password: <enter password>
ftp> quote site unix off                 (switch of unix mode)
ftp> bin                                  (switch to binary)
ftp> quote site lrecl 32758               (record size for file)
ftp> quote site recfm v                   (record format to variable)
ftp> put vse610en.aws VSE.VTAPE.FILE     (ftp the z/VSE 6.1 AWS file into the
virtual tape file on z/VSE)
```

That worked fine. I installed the gen feature via the IUI dialog 1 Installation -> 3 Install Generation Feature - install from virtual tape and submitted the generated job. Done.

Have a good weekend.

Tags: installation, vse, generation_feature, gen_feature, vtape, virtual_tape

Do you use the CICS Transaction Gateway to connect to your CICS server ? (2016-08-11)

In 2014 I had a blog entry on the CICS Transaction Gateway (CTG), where I described how CTG requests are processed. That blog entry is [here](#).

The CICS Transaction Gateway for multiplatforms (CTG) provides an API, that may be used in Java applications for multi-user access to CICS servers such as CICS Transaction Server for VSE/ESA 1.1.1 (CICS TS) or CICS TS for z/VSE 2.1. You may communicate from CTG to CICS TS via ECI (External Call Interface) calls over TCP/IP or SNA. The CTG directly connects to the CICS TS for z/VSE server.

The latest release is CICS Transaction Gateway V9.2, released in March 2016. More details about this release are in the corresponding announcement letter - [here](#).

Tags: vse, announcement, cics_transaction_gateway, ctg

IBM TCP/IP for z/VSE 2.1: General Print Server (GPS) feature license (2016-08-10)

In July I had a blog entry about our latest announcement for the IBM TCP/IP for z/VSE 2.1 GPS feature. It is now available for z/VSE 6.1. The blog entry is [here](#).

Today I want to add some more information about licensing:

- Customers using the IBM TCP/IP for z/VSE 2.1 GPS feature on z/VSE 6.1 require a new license when ordering z/VSE 6.1.
- As of July 22, 2016, only the IBM TCP/IP for z/VSE 2.1 GPS feature is available for ordering with z/VSE 6.1.
- The IBM TCP/IP for z/VSE 2.1 GPS feature is eligible for the Migration Pricing Option (MPO).

To ensure licensing of the IBM TCP/IP for z/VSE 2.1 GPS feature, you need to select the product / feature with your z/VSE 6.1 order in Shopz or place an additional order, if you ordered z/VSE 6.1 already.

Please let me know, if you have any question.

For more information see the July announcement letter - [here](#).

Tags: tcpip, vse, gps, license

IBM Redbooks z Systems: Hardware and software blog, KVM (2016-08-09)

Do you already know the IBM Redbooks z Systems: Hardware and software blog ?

The [latest block entry](#) is related to the KVM on z Systems environment. It talks about protecting data and resources, managing and monitoring resources and backing up data and executing data recovery. The corresponding Redbook goes into more detail.

You may browse through the other entries, if there is anything of interest.

The hardware and software blog is [here](#).

Tags: kvm, hardware, blog, redbook, software, vse

z/VSE service news: VSE/AF - VSE/POWER APARs (2016-08-08)

In between there are a few new VSE/AF and VSE/POWER APARs.

VSE/AF APARs

SIR AND SIR SYS SHOW UP WITH SUPERFLUOUS LINES ABOUT VM AND VM CPU UTILISATION

z/VSE 5.2 APAR [DY47671](#) (PTF UD54190)

z/VSE 6.1 APAR [DY47674](#) (PTF UD54194)

Error description: If z/VSE is installed native in a LPAR, then the commands SIR and SIR SYS show up with superfluous lines about VM and VM CPU utilisation meant for a z/VSE guest installation only. The SIR command is changed to show those VM information lines only if z/VSE is installed as a VM guest system.

IPL ENDS IN A DISABLED LOOP AFTER MSG0J62I

z/VSE 5.2 APAR [DY47672](#) (PTF UD54193)

z/VSE 6.1 APAR [DY47677](#) (PTF UD54201)

Error description: IPL hangs after message 0J62I due to a disabled loop. This occurs with an IPL Supervisor Parameters Command F00,\$\$A\$SUPI,VPOOL=128K,VIO=128M,VSIZE=16G,NOLOG,IODEV=1023 .This only occurs with IODEV=1023, many devices to be added and a high value for VIO=.

VSE/POWER APARs

MSG 1QZ1D DOES NOT SHOW NAME OF SUBSYSTEM TO BE PFLUSHED TO OPERATOR

z/VSE 5.2 APAR [DY47673](#) (PTF UD54195)

z/VSE 6.2 APAR [DY47675](#) (PTF UD54196)

Error description: When operator issues 'PFLUSH partition' and a subsystem is found active, e.g. CICS or VTAM or PSF, VSE/POWER issues message 1QZ1D SUBSYSTEM RUNNING IN PARTITION partition-id The operator is not informed which subsystem is running in the named partition and needs to use additional commands to determine which subsystem is running.

The APARs will show up on z/VSE's corrective service web page - [here](#).

Tags: support, service, vse-power, af, ptf, apar, vse

z/VSE LVC: hardware exploitation charts and playback available (2016-08-05)

In between the charts and playback of our last z/VSE Live Virtual Class (LVC) is available on z/VSE's LVC page - [here](#).

The session was on August 2, 2016 with topic: z/VSE exploitation of IBM z Systems hardware and IBM Storage.

Please let me know, if you have any questions.

Have a good weekend.

Tags: charts, lvc, vse, live-virtual-class

z/VSE 6.1 Program Directory updated (2016-08-04)

The z/VSE 6.1 and CICS TS for z/VSE 2.1 Program Directory was just updated.

We made some minor changes and added the TCP/IP for z/VSE V2.1 General Print Server (GPS) feature and a paragraph on the z/VSE Network Appliance.

The Program Directory can be downloaded [here](#).

End of service announcements: z/VM 5.4, NCP (2016-08-03)

Yesterday there were end of service announcements that may be of interest for you. The corresponding announcement letter is [here](#).

The first one is related to **z/VM 5.4**:

z/VM 5.4 will be withdrawn from service on December 31, 2017.

This is a change to the previously announced withdrawal of service for IBM z/VM, V5.4, announced in Software Announcement 208-249, dated August 5, 2008. Withdrawal of service for IBM z/VM 5.4 will no longer be associated with withdrawing support for the z9 EC and z9 BC.

The replacement product is z/VM V6.

z/VM 5.4 is the last release that supports z9 processors. z/VM 6.1, 6.2 and 6.3 require z10 or higher.

As of the z/VM 6.4 preview - see [my blog entry](#) - z/VM 6.4 will only support z196 / z114 processors or higher (Statement of general direction).

The end of service dates for the z/VM releases are on the z/VM End of Service Effective Dates web page - [here](#).

The second one is related to **ACF/NCP**:

IBM Advanced Communication Function/Network Control Program (ACF/NCP, 5648-063) will be withdrawn from service on August 31, 2016. No replacement.

Tags: vm, end-of-service, zvm, support, ncp, service, vse

Next Live Virtual Class - today & tomorrow: z/VSE Hardware exploitation & Installation of Ubuntu Server (2016-08-02)

This morning I had my Live Virtual Class (LVC) on z/VSE hardware exploitation. You can still register for the repeat later today.

Tomorrow is the next LVC for Linux on z Systems environments:

Topic: Fully Automated Installation of Ubuntu Server 16.04 with preseed

Date: Wednesday, August 3, 2016

Abstract: This Live demo session explains and demonstrates how to perform a fully automated installation of Ubuntu 16.04.1 LTS server on z Systems platform.

More information and registration links are [here](#). For the z/VSE session you may go to [z/VSE's LVC page](#) as well.

Tags: linux, installation, live-virtual-class, vse, hardware, lvc, ubuntu

Next z/VSE conference: European IBM / GSE Technical University (2016-08-01)

It's time to register for the next major z/VSE, z/VM, KVM and Linux on z Systems conference - the 10th European IBM / GSE Technical University for z/VSE, z/VM, KVM and Linux on IBM z Systems.

This conference has general sessions in English, international (English) and German tracks. It is scheduled from October 24 to 26, 2016 in Leipzig, Germany. Hotel rooms can be guaranteed until August 24.

More information, registration and the agenda is [here](#).

I am looking forward to meet you there.

Tags: technical, gse, vse, conference

Next LVC on Tuesday (August 2): z/VSE hardware exploitation (2016-07-29)

About 10 days ago, I informed you about the next z/VSE Live Virtual Class (LVC). It is scheduled for Tuesday next week (August 2, 2016).

Topic: z/VSE exploitation of IBM z Systems hardware and IBM Storage

Date: Tuesday, August 2, 2016

Abstract: This session provides information on the latest z/VSE hardware support. It shows how z/VSE 6.1 exploits z Systems and attached devices. It will give a short overview on z/VSE's implementation of PAV, SCSI, OSA, Crypto, FlashCopy, and more. I also added the latest news about z/VSE.

The information for that LVC is posted on z/VSE's web page - [here](#).

Have a good weekend.

Tags: device, live-virtual-class, lvc, hardware, vse, processor

z/VSE 6.1 base and extended base updated (2016-07-28)

The z/VSE 6.1 base and extended base available via Shopz were updated. All PTFs as of June 30, 2016 are now included.

That is if you download or order z/VSE 6.1 you will get z/VSE 6.1 including the latest Recommended Service Level (RSL) with cutoff date June 30.

The latest RSL levels are documented on the z/VSE preventive service page - [here](#).

If you have already z/VSE 6.1 installed, just apply that RSL, and you are on the same level as the new Shopz level.

Remark to the z/VSE 6.1 update: The SPLEVEL.PROC does not contain a date. Therefore you will not see a date during the z/VSE 6.1 startup and in the SIR command output (output line z/VSE 6.1) after installation of z/VSE 6.1. You will just see "z/VSE 6.1 GA".

Tags: rsl, support, base, service, vse, splevel

No blog entry today (July 27) (2016-07-27)

I am not in the office today. Therefore you don't see a z/VSE topic.

Have a nice day.

Options to generate a one-way hash on z/VSE (2016-07-26)

Today a z/VSE user asked, if z/VSE has an API to generate a one-way hash (a cryptographic function) in an application like z/OS has.

z/OS Cryptographic Services provide a callable service to generate a one-way hash (e.g. CSNBOWH) to ensure the integrity of transmitted messages and stored data. This function uses an algorithm to generate a one-way hash (called message digest) from a given input (text).

On z/VSE you have 3 options to generate a one-way hash:

1. IBM TCP/IP for VSE/ESA 1.5F or IBM TCP/IP for z/VSE 2.1: with the functions md5 and sha1, see TCP/IP for VSE Programmer's Guide
2. CPACF: see z/Architecture Principles of Operation, chapter 7: instructions Compute intermediate message digest (KIMD) and Compute last message digest (KLMD).
3. openssl API: see z/VSE TCP/IP Support

All books can be downloaded from the z/VSE documentation page - [here](#).

Tags: crypto, hash, vse, api, service

z/VSE support of 4 digit devices addresses (2016-07-25)

Just last week there was a question about 4 digit device addresses from a z/VSE user, who couldn't find it in the z/VSE 5.1 Release Guide.

He got a good answer and was pointed to the IPL ADD command in the z/VSE System Control Statements.

Today I want to give a bit more information and references for our 4 digit device address implementation.

With z/VSE 4.3 we introduced 4-digit device addresses. The support was announced in the z/VSE 4.3 Release Guide ("Support for Device Addresses up to X'FFFF'"). You can define device addresses up to X'FFFF'. So you are no longer forced to define 3-digit device addresses for z/VSE specific configurations, which simplifies IT environments with different operating systems (Linux on System z, z/OS, z/VM).

The 4-digit device address is called physical address (pcuu) and is defined for the z/VM guest or LPAR. During the IPL process the pcuu is mapped to a 3-digit device address - the VSE address (cuu). After IPL complete z/VSE uses VSE addresses.

More information about 4 digit device addresses is in the z/VSE Planning book. You can also get some tips in the z/VSE Hints and Tips (e.g. z/VSE 6.1 version in chapter 23). Both books are on the z/VSE documentation page - [here](#).

See also my 2014 blog entries about that topic: [z/VSE 4-digit device addresses - QUERY IO tip](#) and [Did you notice that z/VSE supports 4-digit device addresses ?](#)

Remark: You can still only add up to 1024 devices. This limitation does not change.

Tags: disk, cuu, vse, tape, device

CICS Transaction Gateway connecting to z/VSE - some additional resources (2016-07-22)

The CICS Transaction Gateway for multiplatforms (CTG) provides an API, that may be used in Java applications for multi-user access to CICS servers such as CICS Transaction Server for VSE/ESA 1.1.1 or z/VSE 2.1 (CICS TS). You may communicate from CTG to CICS TS via ECI (External Call Interface) calls over TCP/IP or SNA. The CTG directly connects to the CICS TS server.

I provided more details in an older blog entry two years ago - [here](#).

Today I want to point you to additional resources - Featured documents for IBM CICS Transaction Gateway - [here](#).

This page features the most requested documents as well as those identified as valuable in helping answer your questions related to IBM CICS Transaction Gateway (CICS TG).

Have a good summer weekend.

Tags: `cics_transaction_gateway`, `cics`, `vse`, `documentation`

Tips for quick PMR resolution when working with IBM Support (2016-07-21)

Today I have a short video for you. It's a good summary of tips, that help our z/VSE Level 2 team to speed up the PMR resolution.

The Youtube video is [here](#).

Some additional material the z/VSE service team may ask for:

- Issue the SIR command on the console and make a screen shot from the output or prepare the console log output (EXEC PRINTLOG)
The SIR output shows the processor, the z/VM and z/VSE release, VSE Supervisor and VSE/POWER PTF level, number of CPUs, ...
- Prepare the console log output. We scan that for messages and errors.
- Did you change anything before the problem occurred ?
- Did you install new (vendor) products, or PTFs ? Does your workload increase ? Did you migrate to a new processor ?
- Does the problem occur once or multiple times ? Is it reproducible ?
- Does the problem occur on the test or production system ?

Tags: support, service, tips, vse

z/VSE high availability with GDPS, an IBM Redbook update (2016-07-20)

Today we again have about 90 F.

Two years ago I described a connector called GDPS (Geographically Dispersed Parallel Sysplex) client, that can be used for high availability and disaster recovery in computer environments - see [here](#).

To use this connector the z/VSE system needs to run as a z/VM guest. z/VSE supports the heartbeat mechanism of GDPS. Therefore the GDPS system can monitor z/VSE, and in case of a problem can initiate any action.

The latest IBM Redbook edition "IBM GDPS Family: An Introduction to Concepts and Capabilities" is currently being updated and gives a good overview on how GDPS works. The Redbook is [here](#).

Tags: disaster, vse, recovery, high_availability, connector, gdps, redbook

New z/VSE 6.1 announcement: General Print Server feature available and SOD (2016-07-19)

Today a new z/VSE 6.1 announcement letter was posted.

It announces, that the General Print Server (GPS) feature for IBM TCP/IP for z/VSE 2.1 will be available July 22, 2016.

This is in addition to functionality that is already provided with the Application Pak feature of the product. Both features require a license to use them. To get the license for the GPS feature, the GPS feature must be ordered separately. The GPS feature requires that the Application Pak feature is also licensed. More information on the IBM TCP/IP for z/VSE 2.1 Application Pak feature is [here](#).

The announcement letter also reminds you about the availability of the z/VSE Network Appliance on the z13 and z13s servers. New IBM Storage options are supported - the IBM TS7700 R4.0 and TS7760 as well as the IBM DS8880 series (DS8884, DS8886 and DS8888).

... and there is a **Statement of general direction (SOD)** included:

Stabilization of z/VSE support for the IBM System z10 server family: z/VSE V6.1 is the last z/VSE release planned to support the IBM System z10 server family of servers.

The announcement letter is [here](#).

Tags: sod, storage, announcement, tcpip, gps, processor, vse

z/VSE service: VSAM Redirector server updated and APARs (2016-07-18)

In the past I provided some information about the VSAM Redirector, part of the z/VSE e-business connectors component. More information in my related blog entry is [here](#).

The VSAM Redirector allows you to redirect all accesses to a certain VSAM file into any other file system or database on any other (Java-enabled) platform. It consists of two parts:

1. The VSAM Redirector Client is an exit program running on z/VSE. It is called for each VSAM request and forwards it to the VSAM Redirector Server.
2. The VSAM Redirector Server is running on a Java enabled platform. It receives the VSAM requests and translates them into SQL queries or requests to flat files.

The VSAM Redirector Server was just updated. You can download it [here](#).

This update is required for APARs:

- VSAM REDIRECTOR DBHANDLER DOES NOT ALLOW TO SPECIFY ADDITIONAL CONNECTION PROPERTIES IN THE JDBC URL FOR MS SQL SERVER DRIVER
z/VSE 6.1: APAR [PI64083](#)
z/VSE 5.2: APAR [PI64081](#)

Error description: The VSAM Redirector handler "DBHandler" does not allow to specify additional connection properties in the JDBC URL for the Microsoft SQL Server JDBC Driver. It only allows to specify one single connection property, which must be the "DatabaseName" property. Any additional properties are incorrectly treated as separate options of the OPTION string.

Tags: service, vse, apar, connector, support, redirector

Next Live Virtual Classes on KVM and z/VSE, next blog entry on Monday (July 18, 2016) (2016-07-14)

Today I want to inform you about the next Live Virtual Classes (LVCs).

First the **KVM for z Systems LVC**:

Topic: KVM for z Systems Performance

Date / Time: Wednesday, July 20, 2016 at 11:00 AM EST / 5:00 PM CET

Abstract: KVM for z Systems performance has not been presented at conferences before. The session is not intended to compare to other hypervisors and it covers performance aspects of the KVM host, virtual devices, considerations for guest definitions to reach certain performance levels. The session will also give examples how to monitor host and guest.

That information and the registration link will be posted on the z/VM LVC page - [here](#) (not yet posted).

The next LVC is an early notice for a planned **z/VSE LVC**:

Topic: z/VSE exploitation of IBM z Systems hardware and IBM Storage

Date: Tuesday, August 2, 2016

Abstract: This session provides information on the latest z/VSE hardware support. It shows how z/VSE 6.1 exploits z Systems and attached devices. It will give a short overview on z/VSE's implementation of PAV, SCSI, OSA, Crypto, FlashCopy, and more.

The information for that LVC is posted on z/VSE's web page - [here](#).

You can expect my next blog entry on Monday - July 18, 2016.

Have a good weekend.

Tags: education, storage, live-virtual-class, lvc, vse, kvm, hardware, processor

z/VSE: Additional information for message 1YM7t - tape data handler connection problem (2016-07-13)

Just today a customer contacted us, that he got message

```
1YM7t  TAPE DATA HANDLER ENCOUNTERED CONNECTION ERROR
```

caused by an IP address in the VTAPE command with leading zeros, e.g.

```
VTAPE START,UNIT=190,LOC=8.011.003.024:2000,FILE='C:/TEST.AWS'
```

A decimal IP address need to be specified without leading zeros, that is

```
VTAPE START,UNIT=190,LOC=8.11.3.24:2000,FILE='C:/TEST.AWS'
```

After that change his VTAPE command was successful.

We will add the following text to the explanation of message 1YM7t in a future z/VSE Messages and Codes, Volume 1 book / online message explanation file update:

IP address parts in standard dotted-decimal notation can be decimal, hexadecimal, or octal. Numbers are interpreted in C language syntax. A leading 0x implies hexadecimal; a leading 0 implies octal. A number without a leading 0 implies decimal.

z/VSE Messages and Codes books are on the z/VSE Documentation page - [here](#).

Tags: virtual_tape, tcpip, vse, tape, message

z/VSE service news: RSLs are available (2016-07-12)

New Recommended Service Levels (RSLs) are available for z/VSE 5.1.2, z/VSE 5.2.0 and z/VSE 6.1. The RSL cutoff was June 30, 2016.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: vse, rsl, support, service

z/VSE service: TCP/IP for z/VSE 2.1 PTF affects license keys (2016-07-11)

z/VSE 6.1 comes with new TCP/IP stack versions / releases - [IBM TCP/IP for z/VSE 2.1](#) and [IBM IPv6/VSE 1.2](#).

Because of the version change of IBM TCP/IP for z/VSE (1.5F -> 2.1) IBM TCP/IP for z/VSE V2.1 requires a **new license and license key**.

You may also use the [Migration Pricing Option \(MPO\)](#) for this new TCP/IP version.

[DY47668](#): UPDATE FOR IBM TCP/IP FOR Z/VSE V2.1 PRODUCT KEY VALIDATION.

We just released APAR DY47668 (PTF UD54187), that implements a fix in the IBM key validation to no longer accept old IBM TCP/IP for VSE/ESA V1 keys. That is before applying this PTF ensure that you have a valid IBM TCP/IP for z/VSE 2.1 license and license key available.

If you are ready to apply the PTF, I recommend the following procedure:

- apply PTF UD54187
- modify your license key member (replace the old IBM TCP/IP for VSE/ESA application pak license key with the new IBM TCP/IP for z/VSE 2.1 license key)
- catalog the updated member. If the new key is not cataloged, you will be in demo mode after the TCP/IP restart (corresponding messages are displayed).
- shutdown your IBM TCP/IP for z/VSE 2.1 partitions, if still running
- restart the IBM TCP/IP for z/VSE 2.1 partitions

Your TCP/IP stack will successfully initialize and your new license key is active.

Only customers that license TCP/IP for z/VSE 2.1 from IBM are affected by this license key change.

Please let me know, if you have any questions.

Tags: apar, license, tcpip, service, vse, ptf, support

New IBM Redbook: Getting Started with KVM for IBM z Systems (2016-07-08)

Today I want to recommend an IBM Redbook, that was just published.

It provides information about the Kernel-based Virtual Machine (KVM) hypervisor - an open source virtualization technology, new on the mainframe - KVM for IBM z Systems. Besides z/VM it provides an additional virtualization option for Linux on z Systems workloads.

The new IBM Redbook - Getting Started with KVM for IBM z Systems - is the second edition. It explains KVM for z Systems and how it uses the z/Architecture. It focuses on the planning and design of the environment and provides installation, configuration, monitoring and system management information. You can download the IBM Redbook from [here](#).

Have a good weekend.

Tags: vse, kvm, redbook, vm, virtualization

z/VSE: How to close a DL/I database accessed by CICS TS (2016-07-07)

Yesterday there was a post on VSE-L related to DL/I. The question was how to close a DL/I database accessed by CICS, because of a batch job that needed access to the same database.

Today's blog entry describes briefly how to close and re-open the DL/I database. Thanks for that summary, Richard.

When a DL/I database is open in CICS, it may - depending on VSAM share options and mode of access (R/O, R/W) - need to be closed in CICS before it can be used from a DL/I batch job.

The DL/I system calls STOP and STRT can be used to stop or start a DL/I database in a CICS TS / DL/I online environment.

The easiest way to enter DL/I system calls is to use the (pre-generated) DL/I online test program DLZMDLIO (MDLI transaction). DLZMDLIO allows to submit any type of DL/I system call via online dialogs. The user could then e.g. select the DL/I system call STOP or STRT and - together with the name of the database to be stopped or started - pass it to the CICS TS / DL/I online system, one database per dialog. The DLZMDLIO utility is described in Appendix D of the DL/I Diagnostic Guide. The shown CICS Resource Definitions are based on CICS/VSE, but should work with CICS TS too.

Another option is to write a program yourself and use (STOP / STRT) system calls as needed. A description, on how to use DL/I system calls, can be found in Appendix E of the DL/I Data Base Administration book.

When the database is allocated on multiple datasets, all datasets are stopped or started.

The DL/I books are on the z/VSE documentation web page - [here](#).

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Tags: vse, database, dli, hints, cics, tips, technical

z/VM 6.4 preview - more information (2016-07-06)

In February the z/VM team announced a preview for z/VM 6.4. I had a related blog entry on that announcement - see [here](#). z/VM 6.4 is targeted for the fourth quarter 2016.

The links to the announcement letters are on the z/VM 6.4 web page - [here](#).

I did not mention, that this announcement also has a Statement of general direction (SOD) about an architectural level set of z/VM 6.4 to z114 and z196.

Many z/VSE users are running their z/VSE systems in z/VM guests.

Therefore this SOD may be of interest:

Stabilization of z/VM support for the IBM System z10 server family. z/VM V6.3 is the last z/VM release planned to support the IBM System z10 server family of servers. Either an IBM zEnterprise 196 (z196) or an IBM zEnterprise 114 (z114) is the required minimum level of server for z/VM V6.4. Refer to the [IBM Support Portal](#) for the most current support lifecycle information for z/VM.

Please consider:

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. See announcement letter for full text.

Tags: vse, vm, zvm, support, announcement, preview, platform

z/VSE ECKD to SCSI migration (2016-07-05)

Last week I worked on a proposal for a ECKD to SCSI migration. As you may remember I had several blog entry's on z/VSE SCSI support.

The last one was in April "[Some information about z/VSE's SCSI support](#)" with links to additional information.

To make migration easier we also published a paper on our documentation web page - "z/VSE SCSI Support and Migration" - [here](#).

Please let us know, if you have any questions about z/VSE's SCSI support - and where we should add or change information in our documentation.

... but why do post such a migration blog entry today ?

Just yesterday there was a post about a customer's experience during the ECKD to SCSI migration on VSE-L. You can read that [here](#).

Thanks, Kevin. ... and thanks for the requirement :-)

The requirement (Request for Enhancement - RFE) id is **90559**. You may vote on it. The related RFE is [here](#). You need to sign on with your IBM id to view and vote on the requirement.

Tags: experience, migration, eckd, vse, support, scsi, customer

Live Virtual Class - Live Demo: Tape-less z/VSE installation (2016-07-04)

For next week we scheduled a new Live Virtual Class (LVC). I mentioned that in an earlier blog entry.

If you plan to attend please reserve about 90 minutes.

In this session we show how to create an installation disk from an AWS tape and how to use it for z/VSE installation. We also show possible pitfalls and explore how VSEIDISK works.

Date: Tuesday, 12 July, 2016

More information and how to register are on the z/VSE education web page - [here](#).

Tags: vse, installation, tape-less, live-virtual-class, lvc

z/VSE 5.1 is now no longer in service (2016-07-01)

The z/VSE 5.1 end of service date was June 30, 2016. That is z/VSE 5.1 is unsupported since today. z/VSE 5.1 was in service for about 4.5 years, a long time.

We will provide the last z/VSE 5.1 Recommended Service Level (RSL) in a few weeks. It includes the latest PTFs for the z/VSE 5.1 products. Existing PTFs can still be ordered.

If you want to stay in a supported environment, please upgrade to a supported release. You may Fast Service Upgrade (FSU) from z/VSE 4.3 and z/VSE 5.1 to z/VSE 5.2 or do an initial installation with z/VSE 6.1. z/VSE 5.2 requires a z9 or higher, z/VSE 6.1 a z10 or higher. z/VSE 5.2 can still be ordered until March 13, 2017.

If you order z/VSE 6.1, please make sure, that you get a new license and key for IBM TCP/IP for z/VSE 2.1 (if you use that TCP/IP version).

You may use the Migration Pricing Option (MPO), if you migrate to z/VSE 6.1. More information is [here](#).

We also provide a "z/VSE Release & Hardware Upgrade" paper on the z/VSE documentation page - [here](#). We will update that paper on request. That is please let us know, if we should change anything - or add new information.

Have a good weekend. ... and for my US readers: enjoy your holiday on Monday (Independence Day).

Tags: eos, vse, support, end, end-of-service, service

z/VSE Network Appliance available (2016-06-30)

Now I am back in the office, just returned from the VM Workshop. It was again a good conference with lots of sessions. If you were there, thanks for attending the z/VSE sessions.

Today is again a major milestone for z/VSE. The new z/VSE Network Appliance is available for **z13 and z13s** and can be used with z/VSE 5.1, 5.2 and 6.1. z/VSE is the first exploiter of the new z13 / z13s infrastructure, called z Appliance Container Infrastructure (zACI).

The z/VSE Network Appliance (VNA) is available at no additional cost. It is provided on request. If you have a valid z/VSE 5.1, 5.2 or 6.1 license, you may request VNA on the VNA web page - [here](#).

VNA will be serviced through the VSE/AF component of z/VSE

Just a short description of the z/VSE Network Appliance. If you want to read more, please use my blog entry I posted in February - [here](#).

The z/VSE Network Appliance (VNA) builds on the z/VSE Linux Fast Path (LFP) function and provides TCP/IP network access without requiring a TCP/IP stack in z/VSE. The appliance utilizes the new z Appliance Container Infrastructure (zACI) introduced on z13 and z13s servers. zACI is a new LPAR (partition) type which, along with an appliance installer, enables the secure deployment of software and firmware appliances. The zACI LPAR requires CPU resources (e.g. (shared) Intergrated Faciliy for Linux (IFL)) and disk storage. Compared to a TCP/IP stack in z/VSE, the VNA can support higher TCP/IP traffic throughput while reducing the processing resource consumption in z/VSE. z/VSE systems connecting over HiperSockets to VNA need to run in an LPAR. It can not be accessed from a z/VM guest. For z/VM environments we provide the z/VM IP Assist (VIA), available on z114 and z196 or higher.

VIA provides network access for TCP/IP socket applications running on z/VSE as a z/VM guest.

Tags: appliance, network, vse, vse_network_appliance, vna

Final reminder: VM Workshop starts on June 23, 2016; next blog entry on June 30 (2016-06-21)

Today I want to remind you about the upcoming conference with z/VSE, z/VM and Linux on z Systems sessions - the VM Workshop at Rutgers University, NJ, USA on June 23-25, 2016.

More details and the agenda is [here](#).

My colleague, who planned to come to the conference, is sick. Therefore I will be there. That is my next blog entry is planned for June 30, 2016.

Tags: vse, vm_workshop, conference

z/VSE service news: LE, VSE/VSAM and TCP/IP for VSE/ESA 1.5F APARs (2016-06-21)

There are a few new APARs available - and just a reminder: **z/VSE 5.1** end of support will be next week - June 30, 2016.

Language Environment (LE)

PL/I CICS ABEND 'AEC8' - MSG DFHAP1200 RC '0013070'
z/VSE 6.1 APAR [PI61021](#) (PTF UI37541-61K)

PROBLEM DESCRIPTION: When initiating a CICS transaction that points to a PL/I "main" routine that also includes fetchable subroutines an abend AEC8 may occur along with message MSGDFHAP1200 reporting return code 0013070.

LE/COBOL REPORTS INCORRECT STMT NUMBERS WHEN USED WITH
CEETRACE
z/VSE 5.2 APAR [PI62359](#) (PTF UI37964-52W)

PROBLEM DESCRIPTION: CEETRACE reports may display an incorrect statement number. Any active source code lookup will also fail with a warning message. The statement execution offset will still be reported correctly.

VSE/VSAM

ABEND IN IKQEDX WHILE PROCESSING FILE WITH MULTIPLE KEY RANGES
z/VSE 6.1 APAR [DY47667](#) (PTF UD54186)
z/VSE 5.2 APAR [DY47666](#) (PTF UD54185)
z/VSE 5.1 APAR [DY47653](#) (PTF UD54174)

Error description: During TMON archive job using VSAM KSDS log files as input receive an abend in module IKQEDX at offset BD6. Further attempts to process that log-file (DITTO or IDCAMS VERIFY) led to the job cancellation.

JOB FAILS WITH 4228I FILE OPEN ERROR X'FF'(255) CAT=..INT.. (124,EG, 4)
(OPNHC-97)
z/VSE 6.1 APAR [DY47643](#) (PTF UD54184)
z/VSE 5.2 APAR [DY47642](#) (PTF UD54183)
z/VSE 5.1 APAR [DY47630](#) (PTF UD54185)

Error description: Job fails with 4228I FILE OPEN ERROR X'FF'(255)
CAT=..INT..(124,EG, 4) (OPNHC-97). Catalog is no longer usable. Catalog Check (IKQVCHK) and LISTCAT can not be performed.

IBM TCP/IP for VSE/ESA 1.5F

APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F. (TCPIP15F /
SERV150F)

APAR [PI49011](#) (PTF UI31663-BTP, UI31664-CTP)

TCP/IP for VSE/ESA 1.5F product refresh on the basis of the CSI pre-applied
service pack from Aug 05, 2015 plus additional zaps:

ZP15F206 ZP15F207 ZP15F208 ZP15F209 ZP15F210 ZP15F212 ZP15F215
ZP15F219 ZP15F224 ZP15F320 ZP15F457

Zap details are on CSI's web page for product fixes. The web page is [here](#).

You can find the latest APAR information on z/VSE's corrective web page - [here](#).

Tags: le, vse, service, apar, tcpip, support, vsam

Live Virtual Classes for Linux on z Systems and z/VSE; next blog entry on June 21, 2016 (2016-06-10)

Let's start with the **Linux Live Virtual Class (LVC)**: It is scheduled for Wednesday, **June 15, 2016**.

Topic: Open vSwitch on z Systems

Open vSwitch is widely used in virtual networking to create complex environments with a variety of possibilities. This presentation will give an overview of basic use cases for Open vSwitch on z Systems and provide a step by step manual how to configure it.

More information is [here](#).

Now to the **z/VSE Live Virtual Class (LVC)**: It is scheduled for Tuesday, **12 July, 2016**.

Topic: Live Demo: Tape-less z/VSE installation

In this session we show how to create an installation disk from an AWS tape and how to use it for z/VSE installation. We also show possible pitfalls and explore how VSEIDISK works.

More Information is [here](#).

Next week I will be in Munich, Germany at the [2016 IBM z Systems Technical University](#).

Therefore you can expect my next blog entry on Tuesday, June 21, 2016.

Have a good weekend.

Tags: conference, zuniversity, vse, live-virtual-class, lvc, linux

New product in Request for Enhancement tool: KVM for z Systems (2016-06-09)

In one of my blog entries from January I described how to raise a z/VSE or CICS TS for z/VSE requirement. See my blog entry [here](#).

You can search for existing requirements or submit a requirement via the Request for Enhancement (RFE) web pages.

Just lately a new product was added to RFE: **KVM for IBM z Systems**.

Please use the following selection for KVM requirements:

Brand: Servers and Systems Software
Product family: z Systems Software
Product: KVM for IBM z Systems

The Kernel-based Virtual Machine (KVM) provides open source virtualization for the z Systems platform. It runs Linux on z Systems workloads only and can coexist with z/VM virtualization environments.

More information about KVM for z Systems is [here](#).

Tags: requirements, rfe, vse, kvm

CICS TS for z/VSE 2.1: Why does message DFHPA1107 occur ? (2016-06-08)

As mentioned in earlier blog entries CICS TS for z/VSE 2.1 can only run on z/VSE 6.1. During the migration of your CICS environment to z/VSE 6.1, some of your CICS tables need to be recompiled.

The migration tasks are described in the CICS TS for z/VSE 2.1 Enhancements Guide. The book is [here](#).

If the DFHSPITSP phase or your own SIT DFHSITxx was restored from an old z/VSE system, you will see message

```
DFHPA117 DBDCCICS A 41 VERSION OF MODULE DFHSITSP WAS LOADED.  
CICS CAN ONLY INITIALIZE WITH THE CURRENT LEVEL SIT.
```

during CICS startup and the CICS startup fails.

In this case you have to recompile the SIT with CICS TS for z/VSE 2.1. A "basic start" can be used to bring up the system with a CICS TS.

You can initiate a "basic start" after IPL complete on your console. Just enter "MSG BG" and select basic after console message "IF YOU WANT TO INTERRUPT THEN ENTER MSG BG."

See also z/VSE Messages & Codes, Volume 3 and z/VSE 6.1 Hints & Tips available on our documentation page, [here](#).

Tags: tips, migration, hints, cics, vse

z/VSE 5.2 end of marketing announced (2016-06-07)

Today IBM announced the end of marketing (eom) for z/VSE 5.2 and related products. The eom is planned for **March 13, 2017**.

The affected products are:

- z/VSE 5.2
- z/VSE Central Functions 9.2
- CICS TS for VSE/ESA 1.1.1
- IBM IPv6/VSE 1.1
- IBM TCP/IP for VSE/ESA 1.5 Application Pak feature

After the eom date those products can no longer be ordered. That is if you plan to migrate to z/VSE 5.2, please order those products before the eom date.

The end of marketing announcement and more details are [here](#).

Tags: announcement, eom, end-of-marketing, vse

Reminder: Upcoming conferences (2016-06-06)

Today I have a reminder for conferences scheduled within the next 3 weeks.

The first one starts next week in Munich, Germany - the **2016 IBM z Systems Technical University**, planned for **June 13 - 17, 2016**.

z/VSE sessions (z/VSE Update, z/VSE Hardware Exploitation, z/VSE Security and CICS TS Update) will be on Tuesday and Wednesday next week. More information is [here](#).

June 23 - 25, 2016 the next major conference - the **VM Workshop 2016** - with full z/VSE, Linux on z Systems and z/VM tracks is scheduled in the US - at the Rutgers University, "The State University of New Jersey".

My z/VSE colleagues prepared lots of good sessions about the latest news, the Linux Fast Path and z/VSE Network Appliance, z/VSE security, Connectors and CICS TS. They even provide three workshops. This year I can't come to that conference. The registration page and agenda is [here](#).

Tags: zuniversity, vse, vm_workshop, conference

z/VSE service news: VSE/POWER and Debug Tool APARs (2016-06-03)

We just released new APARs for VSE/POWER and the Debug Tool for VSE/ESA.

VSE/POWER

WHEN PWRSPPL MACRO IS INSERTED INTO SOURCE CODE BY COPY, HLASM FAILS WITH ** ASMA141E BAD CHARACTER IN OPERATION CODE

[z/VSE 6.1 APAR DY47670](#)

[z/VSE 5.2 APAR DY47669](#)

Problem description: When PWRSPPL is inserted into program source by COPY statement, HLASM fails due to 4 error messages ** ASMA141E Bad character in operation code - (FREE reported for records 3872, 3874, 3876 and 3878 of PWRSPPL.

MISCELLANEOUS FIXES FOR PNET,SSL

[z/VSE 6.1 APAR DY47662](#)

[z/VSE 5.2 APAR DY47661](#)

[z/VSE 5.1 APAR DY47660](#)

Problem description:

Deblocking of SSL buffers requires larger READ buffer for connection to RSCS Cipher Suites for strong Encryption miss 002F, 0035

EINPROGRESS from BSI stack should be handled as for CSI stack PNODE must support SECTYPE=TLV1

Debug Tool for VSE/ESA

PHASE EQA00E42 IS NOT AVAILABLE

[APAR PI62218](#)

Problem description: Program EQA00E42 fails to load, since the maintenance in PTF UI28417 failed to link that program.

The DT/VSE PTFs are required to support CICS TS for z/VSE 2.1.

Have a good weekend.

Tags: service, vse-power, apar, support, vse

z/VSE PTF Application - HLASM considerations (2016-06-02)

Today I want to describe how to resolve a problem, that might occur during PTF (service) application.

Please always use the IUI dialog for PTF application. This dialog generates a job stream. If the PTFs to be applied contain High Level Assembler (HLASM) PTFs and i-books, the job step DTRPTF05 may fail with:

```
OS03I PROGRAM CHECK INTERRUPTION - HEX LOCATION 9C86674 -  
INTERRUPTION CODE 4 - PROTECTION EXCEPTION  
OS00I JOB DTRPTF5 CANCELED
```

In job step DTRPTF05 the HLASM is used to catalog i-book members into the ICCF library. If HLASM phases are loaded into the SVA and HLASM PTFs are applied, the usage of HLASM prior to reloading the phases into the SVA may suffer from inconsistencies.

To solve this problem perform the following steps.

1. Reply EXIT to DTRPTFAB to exit PTF application.
2. Resolve the inconsistency by
 1. Release VSE/POWER job PAUSEBG
Reload the HLASM phases into the SVA, enter on the console:
// LIBDEF PHASE,SEARCH=(PRD1.BASED,PRD1.BASE),TEMP
SET SDL
LIST=\$SVAASMA
/*
end PAUSEBG job (enter "0" to end)
 2. **Or** IPL the system
3. Release VSE/POWER job DTRPTFAB
4. Answer RESUME to re-start the job DTRPTF05.

You can find such information in the z/VSE Hints & Tips book. It can be downloaded [here](#).

Tags: ptf, vse, hlasm, service, support

Upgrade to z/VSE 5.2 (2016-06-01)

Because of the z/VSE 5.1 end of support some z/VSE user may choose to use Fast Service Upgrade (FSU) to z/VSE 5.2.

Note that you need an initial installation, if you want to upgrade to z/VSE 6.1.

Today I have a few tips for pitfalls that might happen during FSU:

- FSU preparation step not executed
For FSU the IUI dialog 1432 (FSU Preparation) must be selected and the created job must run. This step is important to get to a successful FSU. In case you forget this step, the error messages do not show this problem at first. Below are some messages that might indicate that situation:
STEP 24B REFRESH MESSAGE FILE FAILURE:
BG 0000 * STEP 24B: REFRESH MESSAGE FILE
BG 0000 4191I TAPE FILE PROCESSING FAILURE RC=084 IN
SYS004=181
ACTUAL BLOCK CONTAINS A RECORD WITH INCONSISTENT RECORD
LENGTH (RECFORM=SPN AND VAR)
STEP 27: UPDATE RESIDENCE failed.
Product CF951C and CF951D not found.
The listed products are on the old VSE level.
- Space problem during FSU to z/VSE 5.2
During FSU to z/VSE 5.2, IBM TCP/IP for VSE/ESA 1.5F is installed in library PRD2.TCPIPC. The library resides in the VSAM master catalog. If there is not enough space available, the FSU will abend in job DTRFSU4D with the following message:
1QC3I MEMBER IPNCSD.Z NOT FOUND IN PRD2.TCPIPC

See z/VSE 5.2 Planning section Release Upgrade: VSAM Space considerations for a Release Upgrade via FSU. There you get more information on the amount of free space required. So you can calculate the additional space for the master catalog.

More information is in the z/VSE 5.2 System Upgrade and Service book.

Links to z/VSE documentation are on our z/VSE Documentation page - [here](#).

You may also use the technical article - z/VSE Release and Hardware Upgrade - for additional information - [here](#).

Tags: upgrade, fsu, vse, fast_service_upgrade

News about the CICS Explorer, CICS Transaction Gateway, CICS service (2016-05-31)

The CICS team provided information about the latest product updates, e.g. via Technotes (FAQs). If you are following CICS on Twitter, you may get that information.

Just a quick summary of some CICS tech / product notes:

- [Latest version of CICS Explorer and CICS Tools plug-ins for CICS Explorer](#)
- [Supported Software for CICS Transaction Gateway \(CICS TG\) products](#)
- [Fix list for CICS/VSE \(all releases end of service\)](#)
- [Fix list for CICS TS for VSE/ESA 1.1.1](#)
- [Fix list for CICS TS for z/VSE 2.1](#)
- [Fixes by version for CICS products](#)

Tags: cics_transaction_gateway, support, service, explorer, vse, ctg, cics, cics-explorer

New IBM Redpaper about mainframe hardware components (2016-05-30)

This new IBM Redpaper describes the hardware components and three high-level scenarios of how the IBM z Systems platform is used within organizations. The components and the configurations are designed and built to conform to the z/Architecture.

The Redpaper title is "IBM Mainframe Bits: Understanding the Platform Hardware". You can download it [here](#).

The IBM Redbook "IBM z13 Technical Guide" was updated too. It's [here](#).

Tags: hardware, vse, redbook, z13, redpaper, mainframe

Do you know the IBM Systems Magazine ? Next blog entry on May 30, 2016 (2016-05-25)

I don't know, if I ever posted any information about the IBM Systems Magazine. It provides articles related to the mainframe.

In the most current issue (May / June 2016) you can find an article about the new IBM z13s processor, page 11. It's related to Linux on z Systems. The magazine is [here](#).

We have a public holiday tomorrow and I will take a day off on Friday. Therefore you will see my next blog entry next Monday - May 30, 2016.

Tags: `ibm_systems_magazine, vse, article, linux`

Have you heard about continuous delivery ? (2016-05-24)

Today I have an interesting topic, that I found when browsing through the IBM Redbook library.

Since some weeks there is a continuous delivery (CD) IBM Redpaper for z/OS available: **IBM z/OS Continuous Delivery**. You can download it [here](#).

Continuous delivery will be a new model, that allows to provide new functions more frequently. That is you don't need to wait until a new version or release is available. It reduces the risk of introducing a large change at release level (may avoid version / release migration effort).

The Redpaper is related to z/OS. However, I would like to get your feedback, if you see any value of such an approach for z/VSE. Just sent me an email or comment on this blog entry.

Tags: redpaper, support, continuous_delivery, service, vse

What to do in case the number of sharing CPUs are exceeded ? (2016-05-23)

This week is again a short one for me. We have a public holiday on Thursday and I will not be in the office on Friday.

Some of us will have a long weekend too (Memorial Day weekend).

This is my 701st blog entry

Today I have a technical topic about z/VSE shared environments (lock manager support).

During the IPL of a z/VSE with a DLF (Define The Lock file) command the following message may occur:

Message **0J28I LOCK FILE ON cuu: NUMBER OF SHARING CPUS EXCEEDED**

The above message occurs if the lock file, used to share DASDs between a group of two or more z/VSE systems, does not have a free system entry in its header to accommodate the subject z/VSE system. The lock file header has a fixed amount (2 to 31) of system entries, that is defined by the NCPU parameter of the IPL DLF command during the formatting of the lock file. Each z/VSE system that is part of the DASD sharing group occupies one system entry in the lock file header.

This might happen, e.g. if you

- add a new z/VSE system to the DASD sharing group
- migrate the z/VSE systems to a new processor (because of a new CPU id)

If message 0J28I occurs, you need to format the lock file (TYPE=F on DLF command) and optionally increase the number of CPUs (NCPU parameter of DLF command).

Before you format the lock file, you have to shutdown all z/VSE systems of the DASD sharing group (sharing the same lock file).

More detailed information is in the z/VSE 6.1 Hints & Tips book (page 9 / 10). This section is relevant for all z/VSE releases, not just z/VSE 6.1.

You can download that book from the z/VSE documentation page - [here](#).

Tags: dasd_sharing, lock_manager, hints, vse, lock, lock_file, tips

z/VSE, z/VM, Linux on z Systems conference: VM Workshop in June (2016-05-20)

Ten days ago I informed you about the **2016 IBM z Systems Technical University** in Munich in Germany, planned for June 13 - 17, 2016 - [here](#).

In June there is another conference with a full z/VSE track - the **VM Workshop 2016**. We see it as the WAVV replacement.

It is scheduled for June 23 - 25, 2016. You can meet members of the z/VM, Linux on IBM z Systems, and z/VSE communities.

It's at the Rutgers University, "The State University of New Jersey".

More details and the registration page is [here](#).

Have a good weekend.

Tags: workshop, linux, vm, zuniversity, vse, conference

How to find the end of support dates for z Systems operating system releases (2016-05-19)

You can use the IBM Support Portal to get information about General Availability (GA) and End of Support / Service (eos) dates for the operating systems z/OS, z/VM, z/TPF and z/VSE per release, product id and policy type.

The dates are on the "Support Lifecycle" page - [here](#).

For z/VSE the GA and end of support dates are on the "z/VSE Status" web page too - [here](#).

Tags: vm, ga, end-of-service, vse, general_availability

z/VSE SOD: Basic Security Manager (BSM) enhanced (2016-05-18)

The last few weeks I provided more details about the Statement of general directions (SODs) we announced in April. The announcement letter is [here](#).

Today I want to describe a SOD related to z/VSE security:

In a future delivery we will enhance the Basic Security Manager (BSM) administration dialogs to support batch and online security.

The z/VSE Basic Security Manager distinguishes between repositories for online and batch security definitions. The repository to protect batch resources is the phase DTSECTAB. To simplify the administration of batch resources, z/VSE intends to provide a common interface for both online and batch resources. An Interactive User Interface (IUI) dialog will be offered that builds a DTSECTAB with the resources specified.

Tags: batch, sod, security, vse, statement_of_direction

Live Virtual Class presentation / playback available: z/VSE latest news (2016-05-17)

The presentation and playback of our last z/VSE Live Virtual Class (LVC) is now available for download.

The title was: **z/VSE latest news** - from May 4, 2016.

You may download it [here](#).

Are there any topics you would like to see in future LVCs ?

Approaching end of service for z/VSE 5.1 - Next blog entry on May 17 (2016-05-13)

In several blog posts I informed you about the end of service (eom) for z/VSE 5.1. The eom date is **June 30, 2016**.

After that date we can no longer provide z/VSE 5.1 PTFs to fix any problems. You also can no longer open PMRs against z/VSE 5.1.

My recommendation is to migrate to a supported z/VSE release as soon as possible, that is to z/VSE 5.2 or better z/VSE 6.1.

If you encounter any problems with z/VSE 5.1 today, please act now and open a PMR to get the problem fixed before the eom.

The status of the z/VSE releases is summarized [here](#).

Please let me know, if there are any issues.

We have a public holiday on Monday (Whit Monday). Therefore I plan my next blog entry for Tuesday (May 17).

Have a good weekend.

Tags: eos, vse, end-of-service, service, support

z/VSE SOD: web services enhancements (2016-05-12)

Mid April we announced some new functions in the Statement of general direction (SOD) in the z/VSE announcement letter. The announcement letter is [here](#).

One of the SODs describes future enhancements for z/VSE's web services:

- **z/VSE SOAP Engine to exploit Channels and Containers**
The existing z/VSE Simple Object Access Protocol (SOAP) implementation integrates z/VSE CICS applications in a heterogeneous environment using web services. User programs utilizing the z/VSE SOAP Engine are currently restricted by the COMMAREA and its 32K limitation. To meet the needs of applications with growing data, z/VSE intends to exploit the CICS Channels and Containers API for the SOAP Engine. That is with a future update you can choose between the COMMAREA and channels & containers to transfer data to another client / server.
- **New z/VSE REST Engine with JSON support**
Representational State Transfer (REST) is a software architecture style consisting of guidelines and best practices for creating web services. RESTful systems typically communicate over the Hypertext Transfer Protocol (HTTP), using JavaScript Object Notation (JSON) or XML for the payload. z/VSE intends to provide a REST Engine that allows clients to provide RESTful web services running in a CICS environment. The REST Engine will support various payload types including JSON and XML.

IBM Redbooks: Virtualization Cookbooks are updated (2016-05-11)

Today I have news about our IBM Redbooks, that may be of interest for Linux / z/VM users.

The Virtualization Cookbooks are updated:

- [The Virtualization Cookbook for IBM z Systems Volume 3: SUSE Linux Enterprise Server 12](#)
- [The Virtualization Cookbook for IBM z Systems Volume 2: Red Hat Enterprise Linux 7.1 Servers](#)
- [The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3](#)

Tags: suse, linux, vse, redhat, redbook, vm

z/VM Live Virtual Class tomorrow: What is OpenStack and how can I use it on z/VM ? (2016-05-10)

The next z/VM Live Virtual Class (LVC) is scheduled for tomorrow - **Wednesday, May 11, 2016.**

Topic: What is OpenStack and how can I use it on z/VM ?

Abstract: You've probably heard of OpenStack, the open source cloud initiative backed by IBM and many other companies. But what does "cloud" really mean? Does it even apply to mainframes? In this session we'll look at what OpenStack is and how z/VM OpenStack enablement support works. We'll talk about our OpenStack Liberty enablement architecture and what it takes to install and configure it. Then we'll talk about special features for OpenStack on z/VM and what you can do to bring your existing workload into OpenStack.

More information is [here](#). (see bottom of web page)

Tags: live-virtual-class, lvc, vm, vse

Next IBM conference with z/VSE participation (2016-05-09)

Today I want to inform you about the next conference with z/VSE sessions:

2016 IBM z Systems Technical University in Munich in Germany, planned for **June 13 - 17, 2016**.

More information is [here](#).

The z/VSE sessions are scheduled for Tuesday and Wednesday (June 14 and 15).

In the section "Why attend ?" of that web page is a link to the "Agenda Munich".
The z/VSE sessions are at the end.

Tags: zuniversity, vse, conference

Next blog entry on May 9, 2016 (2016-05-06)

Yesterday we had a public holiday and I am not in the office today. Therefore I plan the next blog entry for Monday.

Have a good weekend.

Do you have questions related z/VSE and its products ? (2016-05-04)

If you have any questions related to z/VSE, CICS TS for z/VSE or any other IBM products, you may use "add a comment" on this blog, send me an email or use the z/VSE contacts web page - [here](#).

For CICS TS on z/VSE there is an additional possibility. You may use the Questions & Answers page on IBM developerWorks (use the "ask a question" tab on the upper right corner). This page is [here](#).

If you have a CICS question, add a CICS tag to get it answered more quickly. Additional information on tagging is in the corresponding answer [here](#).

Tags: cics, question, vse

IBM 3592 Tape Controller Model C07 end of marketing announcement (2016-05-03)

Last week IBM announced that the IBM 3592 Tape Controller Model C07 will be withdrawn from marketing (end of marketing), effective June 17, 2016.

That is if you still want to order a new IBM 3592 Tape Controller Model C07, you should order it now, latest until June.

Available options to replace Tape Controller Model C07 for connectivity in mainframe environments are TS7720 and ProtecTIER Mainframe Edition (ME). TS7720 offers the flexibility of tape-less and tape-attach configurations. For very small mainframe environments, ProtecTIER ME is a premiere solution, delivering the best performance to price ratio with a reduction in storage costs.

For more details see the announcement letter - [here](#).

Tags: end-of-marketing, vse, tape, withdrawal, eom, announcement, controller

Reminder: z/VSE Live Virtual Class - z/VSE latest news (2016-05-02)

I am back from my business trip, but - as you can imagine - have to work on my email. This week we also have a public holiday on Thursday. Therefore you will only see a few blog entries.

Today I want to remind you about the upcoming Live Virtual Class (LVC) on Wednesday - **May 4, 2016**.

This LVC session provides the latest z/VSE V6.1 update. You will get more information about new announcements such as the IBM z13s, the z/VSE Network Appliance and z/VSE Version 6 - what will be next ?.

I will also address device support since the z/VSE V6.1 announcement in October and news about the Migration Pricing Option (MPO).

More information and the registration link are on our LVC web page - [here](#).

Tags: vse, lvc, live-virtual-class

Updated IBM Redbooks available - next blog entry on May 2, 2016 (2016-04-25)

I am on a business trip in Asia. Therefore I will only post this week, if there is an urgent need. I plan the next blog entry on May 2.

For today I have 2 IBM Redbook updates that may be of interest for z/VSE users:

- [Server Time Protocol Planning Guide](#)
- [IBM z Systems Connectivity Handbook](#)

Enjoy the week.

Tags: vse, redbook

New distribution for IBM z Systems available: Ubuntu (2016-04-22)

Many z/VSE users run their z/VSE systems together with Linux on z Systems. You may use the z/VSE connectors to connect from Linux to z/VSE as a back end server - or z/VSE as a client connecting to a Linux server.

Since a long time you can use Redhat or SUSE distributions on z Systems as the platform for your Linux solutions.

Since yesterday you have an additional choice. The Ubuntu distribution is now available for z Systems.

More information is in the mainframe insights blog - [here](#) - or on the z Systems web pages - [here](#).

Enjoy your weekend.

Tags: distribution, ubuntu, vse, connector

z/VSE service news: VSE/AF and VSAM APARs; z/VSE 5.1 end of service (2016-04-21)

Today I have some news about the latest APARs we released.

VSE/AF

- Linux Fast Path runs out of buffers due to a buffer leak
z/VSE 6.1 APAR [DY47658](#) (PTF UD54173-61C)
z/VSE 5.2 APAR [DY47657](#) (PTF UD54172-52C)
z/VSE 5.1 APAR [DY47656](#) (PTF UD54171-51C)

Error description: When using Linux Fast Path (LFP) the LFP instance may run out of buffers quickly. Due to a buffer leak that happens under rare circumstances, LFP buffers may get lost, and thus are no longer available. When no more buffers are available LFP will try to allocate additional buffers up to the configured maximum size. When the maximum size is reached, or no more system GETVIS is available, then applications that are working with that LFP instance may encounter failing socket calls due to no more buffers available.

- REMOVE READ PARAMETER FROM ADD STATEMENT IN IPL
z/VSE 5.2 APAR [DY47655](#) (PTF UD54175)

Error description: Remove READ parameter in IPL statement ADD.

VSE/VSAM

- JOB FAILS WITH 4228I FILE OPEN ERROR X'FF'(255) CAT=..INT..
(124,EG, 4) (OPNHC-97)
z/VSE 5.1 APAR [DY47630](#) (PTF UD54146)

Error description: Job fails with message 4228I. The catalog is no longer usable. Catalog Check (IKQVCHK) and LISTCAT can not be performed.

You will / can see these APARs on [z/VSE's service & support](#) web page too, or use the [support portal](#).

z/VSE 5.1

Just a reminder: z/VSE 5.1 service will end soon - **June 30, 2016**. Please upgrade to a supported z/VSE release - z/VSE 5.2 or z/VSE 6.1, if you want to stay in a supported environment. If you can't make that date, you may contact us.

Tags: apar, vsam, af, support, lfp, end-of-service, service, vse

z/VSE SOD: CICS TS for z/VSE enhancements (2016-04-20)

Yesterday I provided more details about the High Performance FICON for z Systems (zHPF) Statement of general Direction (SOD) of last weeks [z/VSE Version 6 announcement](#).

Today I want to provide details about a SOD for a new CICS Transaction Server for z/VSE (CICS TS for z/VSE) Version 2 release. In a future CICS TS for z/VSE release we plan to provide enhancements for the CICS Explorer and the CICS TS for z/VSE server.

The following **CICS Explorer** enhancements are planned:

- Define new and change or delete existing CICS resources, such as programs, files, and transactions
- Monitor and control or update dynamic storage areas and global temporary storage queue statistics
- Use the "definitions views" for selected CICS resources

In the **CICS TS for z/VSE server** we plan to enhance channels and containers with:

- Support UTF-8 and UTF-16 in code page conversion using Channels and Containers
- Add the APPEND parameter for PUT CONTAINER to append the specified data to existing data in a container
- Add the BYTEOFFSET parameter for GET CONTAINER to retrieve data beginning at a specified offset in a container

A SOD gives you early notice about new functionality in future deliveries of z/VSE provided as PTF or release.

Tags: cics, vse, sod, server, statement_of_direction, explorer

z/VSE SOD: zHPF support (2016-04-19)

Last week we announced some new functions in the Statement of general direction (SOD) of the [z/VSE announcement letter](#). In the next blog entries I want to give some more details about one or the other function.

Let's start with a hardware exploitation item - the high performance FICON for z Systems (zHPF) protocol.

We plan to implement the zHPF support in the following way:

z/VSE will support ECKD devices only. zHPF support can be activated and deactivated any time after the z/VSE system is IPLed. We will provide new commands for zHPF. That is no re-IPL is required to use this function. The z/VSE implementation is transparent to applications, because channel commands are translated to "zHPF commands" at low level I/O interfaces. z/VSE translates a subset of the channel commands. If a "zHPF command" fails, z/VSE retries it as channel command. z/VSE supports zHPF in LPAR as well as in z/VM guests. zHPF may improve I/O performance, but that highly depends on your workload characteristics.

Now the bad news ;-) - you have to wait a bit until we will provide it. It's still in development.

Please let me know, if you want to be a beta tester for that support.

Tags: `statement_of_direction`, `vse`, `zhpf`, `sod`

More about the Migration Pricing Option for z/VSE 6.1 (2016-04-18)

Last week we announced that the Migration Pricing Option (MPO) is available for all z/VSE 6.1 products with a new version.

That is MPO is available for z/VSE 6.1, IBM TCP/IP for z/VSE 2.1 and CICS TS for z/VSE 2.1. As you may remember we announced MPO last October for z/VSE 6.1 only.

MPO for z/VSE V6 is already in effect. MPO for CICS TS for z/VSE V2 and IBM TCP/IP for z/VSE V2 can be requested now and will be in effect for SCRT Reports submitted beginning in May 2016 with SCRT Version 23.7.2 or later or Version 23.13.2 or later. SCRT Version 23.7.2 and Version 23.13.2 are now available. The May reports need to be submitted manually (for one month only). SCRT will report the combined concurrent peak MSUs for both versions on a row containing the name of the product with a suffix of "(ALL)", for example, "TCP/IP for z/VSE (ALL)".

MPO enables the combining of the new version and older version(s) MSUs to calculate the new version billable charges on the same machine. Customers pay for the combined MSUs at the new version price. All Customers are eligible for the MPO while migrating to the new version. The eligibility period is **18 months** from the date of licensing the new version. Eligibility ends at the completion of migration or 18 months, whichever occurs first.

More details are in the [announcement letter](#) or on z/VSE's "How to buy" web page - [here](#).

Tags: tcpip, vse, mpo, cics, price, migration

Next blog entry on Monday - April 18, 2016 (2016-04-15)

I am not in the office today. Therefore you will see my next blog entry on Monday.

Have a good weekend.

Tags: vse

Next z/VSE conferences (2016-04-14)

I am still traveling in the US. Therefore a short blog entry for today.

I want to keep you informed about the next conferences with z/VSE sessions and participation of z/VSE team members.

The next conference on our list is the German GSE meeting next week.

- April 18-20, 2016 [Fruehjahrstagung, Berlin](#), Germany (in German language)
- June 13-17, 2016 [IBM z Systems Technical University, Munich](#), Germany
- June 23-25, 2016 [VM Workshop 2016, Rutgers University](#), NJ, USA
- September 19-22, 2016 [IBM Edge 2016](#), Las Vegas, USA
- October 24-26, 2016 [10th European GSE / IBM Technical University](#), Leipzig, Germany

See also our z/VSE events web page for the latest news about conferences - [here](#).

Tags: vm_workshop, vse, zuniversity, edge, conference, gse

z/VSE Live Virtual Class: z/VSE latest news (2016-04-13)

The next z/VSE Live Virtual Class (LVC) is scheduled for May 4, 2016.

This LVC session provides the latest z/VSE V6.1 update. You will get more information about new announcements such as the IBM z13s, the z/VSE Network Appliance and z/VSE Version 6 - what will be next ?.

I will also address device support since the z/VSE V6.1 announcement in October and news about the Migration Pricing Option (MPO).

More information and the registration link are on our LVC web page - [here](#).

Tags: lvc, live-virtual-class, vse

New announcement for z/VSE Version 6: What will be next ? (2016-04-12)

Today we have a major new announcement for z/VSE Version 6. It gives you some information about what's new this year and which functionality you can expect in the future in terms of Statement of general direction (SoD).

Below I listed the key items. You will get more information in later blog entries.

The announcement briefly describes the z/VSE 6.1 content you got last November and then goes into the new hardware support for the midrange processor - IBM z13s:

- z/VSE Network Appliance using the z Appliance Container Infrastructure (zACI) for use with the z/VSE Linux Fast Path function (LFP). I had already a blog entry on that one. Available June 30, 2016.
- Configurable Crypto Express5S for data encryption and SSL acceleration
- FICON Express16S for link rates of up to 16 Gbps

Support for enhanced IBM System Storage options:

- IBM System Storage DS8800 (ECKD and FCP attached SCSI disks)

... And we have news about the **Migration Pricing Option (MPO)**. Last November we announced MPO for z/VSE 6.1. Now the new versions of CICS TS for z/VSE 2.1 and IBM TCP/IP for z/VSE 2.1 are also added. MPO can be used during the migration period of max. 18 month from an old version to the new one. We also changed the MPO text based on the feedback we got from our customers. See the new MPO text in the [announcement letter](#).

Now the items for the future, as **Statement of general direction**:

- Exploitation of IBM z Systems
 - increased performance using High Performance FICON for z Systems (zHPF)
 - Elliptic Curve Cryptography (ECC) support in z/VSE openssl
- Ease of use functionality for SCSI systems
 - initial installation using a SCSI installation disk
- The following enhancements are planned for a future release of the **CICS TS for z/VSE**:

- CICS Explorer enhancements
 - define new, change and delete CICS resources (programs, files, transactions)
 - monitor and control or update dynamic storage areas and global temporary storage queue statistics
 - use of definition views
- Channel and container enhancements
 - support of UTF-8 and UTF-16 in code page conversion
 - add the APPEND parameter for PUT CONTAINER to append data in to an existing container
 - add the BYTEOFFSET parameter for GET CONTAINER to retrieve data beginning at a specified offset
- Enhancements related to CICS TS for z/VSE - web services:
 - z/VSE SOAP engine to exploit channels and containers.
 - new z/VSE REST engine with JSON support
- Security enhancements:
 - Basic Security Manager (BSM) enhanced - new IUI (Interactive User Interface) dialogs to manage batch resources to be defined in the batch DTSECTAB security table, providing administration for online and batch resources from IUI
- Product delivery of z/VSE on DVD and electronically only planned for future upgrades of z/VSE.

Disclaimer: IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. See announcement letter for full disclaimer text.

You can find more detail in the **z/VSE announcement letter** - [here](#).

Please let me know what you think about the announcement.

Tags: vse, mpo, announcement

Next blog entry on Tuesday - April 12, 2016 (2016-04-07)

I am on the way to a conference in the USA. Therefore you don't see more blog entries this week and just a few next week.

I plan my next entry for Tuesday.

Have a good weekend.

Tags: vse

z/VSE technical article: z/VSE release and hardware upgrade (2016-04-06)

Last November I informed you about a z/VSE migration technical article. The blog entry is [here](#).

Just a few days ago we updated that article and changed the title from z/VSE migration to z/VSE release and hardware upgrade. I think, the new title describes the content better.

The technical article is [here](#).

The chapters are organized as follows:

- General migration consideration
- Backup data or system
- Processor (Hardware) upgradeUpgrade to new (disk, tape) hardware
- z/VSE Release or z/VSE Version Upgrade
 - Initial Installation / Fast Service Upgrade (FSU)
 - Migration of system configuration / data
 - VSE/VSAM data, ICCF Libraries (DTSFILE), .DL/I / DB2 Database, z/VSE Libraries, SAM Files, System History File
 - Security Definitions, Control Files containing Security Definitions, DTSECTAB, LDAP mapping file
 - VSE/POWER Migration
 - CICS TS for z/VSE Migration Considerations (CICS/VSE to CICS TS for VSE/ESA)
 - Migrate RPG II online application to CICS TS for z/VSE
 - LE z/VSE Migration

Please let us know, if you see anything that is missing or that we should change. Thanks in advance.

Tags: upgrade, vse, article, migration, hardware, technical, release

Some information about z/VSE's SCSI support (2016-04-05)

There is more and more interest in the use of SCSI disks with z/VSE. Just a week ago there was a discussion on VSE-L and we got some questions about z/VSE's SCSI support.

Therefore I want give some information about it today. Thanks to Monika for putting this together.

I addressed z/VSE's SCSI support in several blog entries. The following blog entry provides some links to those - [here](#).

Documentation:

The z/VSE SCSI support is described in the z/VSE Administration manual. You may download it from our documentation web page - [here](#).

We also provide a technical article with z/VSE's SCSI support and migration - [here](#) - on our [technical article web page](#).

... as well as a replay of a Live Virtual Class (LVC) SCSI session - [here](#).

A few general comments:

- You need to configure your FICON Express adapter (as CHPID FCP) in your z Systems server, preferred as NPIV.
- You need to configure the LUNs (SCSI disks) in your disk controller.
- When you configure your switch, it is essential that the WWPNs of your FCP adapter (physical or NPIV) and the WWPNs of your storage controller ports are a) defined in the switch and are b) in the same zone. Otherwise, the (SYS) DEF SCSI statement will fail, most likely with message 0S40I SCSI PROCESSING EVENT:
REASON=0023,FUNCTION=NAMESEVER, ..
- When you configure the LUNs, you need to define which ports (WWPNs) of the disk controller and which FCP devices (identified by its physical or virtual WWPN) are allowed to access the LUN. The disk controllers (SAN Volume Controller (SVC), IBM Storwize, ...) offer a user interface to perform the configuration.

z/VSE supports multipathing that is, you can define more than one path to the same SCSI disk (LUN). Multipathing is used for failover to protect the system against an outage of a disk controller port or an outage of the FCP adapter. It can not be used for workload balancing. That is, it is recommended to serve all LUNs with one FCP device. Any further FCP device is only needed for a failover path.

For performance reasons, we also recommend to run with NOPDS (without page dataset).

Tags: support, tips, vse, disk, device, migration, scsi

IBM Mainframe Bits: Understanding Architecture - a new IBM Redpaper (2016-04-04)

I am always checking our IBM Redbook pages for interesting new Redbooks or Redpapers, that may be of interest for you.

Today I found a new Redpaper - **IBM Mainframe Bits: Understanding Architecture**

It provides some information about the architecture's relationship with hardware and software.

The Redpaper is [here](#).

Tags: redpaper, mainframe, architecture, vse.

z/VSE 6.1: new license required for CICS TS for z/VSE and IBM TCP/IP for z/VSE (2016-04-01)

You did not see a blog entry yesterday. Sorry about that, but I didn't have access to my laptop.

Let's go to today's topic:

We see a good number of z/VSE 6.1 orders. In some cases there seem to be a problem with licensing IBM TCP/IP for z/VSE 2.1 and CICS TS for z/VSE 2.1. I assume, the reason is, that we did not have a version change for these two products for a long time. For version changes you need a new license.

To summarize:

- IBM TCP/IP for z/VSE V2.1: Customers using IBM TCP/IP for VSE/ESA 1.5F, require a new license (and license key) for IBM TCP/IP for z/VSE V2.1.
- CICS TS for z/VSE 2.1: Customers using CICS TS for VSE/ESA 1.1.1, require a new license for CICS TS for z/VSE 2.1.
That is even if CICS TS for z/VSE 2.1 is included into the z/VSE 6.1 package as a base product, you need a new license for this new CICS version.

IBM TCP/IP for z/VSE 2.1 and CICS TS for z/VSE 2.1 are only supported on z/VSE 6.1

Therefore if you want to use CICS TS for z/VSE 2.1 and/or IBM TCP/IP for z/VSE 2.1, you need to select the products on IBM Shopz during the order process of z/VSE 6.1.

Or place an additional order for either of the 2 products, if you already ordered z/VSE 6.1.

Have a good weekend.

Tags: tcpip, cics, vse, license

IBM Redbooks updated: Security, z/VM 6.3 (2016-03-30)

You might be interested in two IBM Redbooks, that were just updated.

The Redbooks are:

- [Reduce Risk and Improve Security on IBM Mainframes: Volume 1 Architecture and Platform Security](#)
- [The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3](#)

Tags: security, vse, zvm, redbook

News for the Language environment for z/VSE (2016-03-29)

The LE/VSE Control Center and LE/VSE CEETRACE feature are updated to support z/VSE 6.1.

- The LE/VSE Control Center (LECC)
LECC is a Java based tool to access z/VSE language resources. It offers various tools and usage options for language planning, customization, diagnostics, environmental verification and programming purposes. In an earlier [blog entry](#) I had some more details about the LE/VSE Control Center.
- The LE/VSE CEETRACE feature
CEETRACE complements the already available z/VSE LE dump information.

More information is [here](#).

You may be also interested in the latest entry of the Language Environment for z/VSE (LE) blog. It describes some new LE runtime functions.

The blog entry is [here](#).

Tags: vse, download, tools, le, language_environment

Happy Easter ! Next blog entry on Tuesday (March 29, 2016) (2016-03-25)

Today and Moday are public holidays in Germany. Therefore you can expect my next blog entry on Tuesday.

Happy Easter !

Tags: vse

Live Virtual Class (LVC): KVM for z Systems - CPU measurement (2016-03-24)

KVM (Kernel-based Virtual Machine) for z Systems is a new virtualization option for Linux on z Systems. There is a Live Virtual Class (LVC) scheduled for April 6, 2016.

Topic: Goal-oriented dynamical performance management of KVM for IBM z Systems virtual server CPU resources

In this session we will introduce the concepts and capabilities of IBM z Systems Hypervisor Performance Manager (zHPM) and present a CPU management demo.

More information and a registration link is [here](#).

z/VSE PRTY command tips (2016-03-23)

I just got some questions related to the PRTY command yesterday. Maybe the following tips are of interest for you too.

The PRTY command is used to query and set partition and dynamic class priorities. You may use PRTY as an Attention Routine command on the console, or as a Job Control command (JCC) in the ASI (Automated System Initialization) procedure of partition BG.

PRTY command tips:

- If VTAM is used, the partition in which it is running should not be specified for partition balancing.
- A VSE/POWER partition (normally F1) should have a higher priority than the POWER-controlled partitions. If you prefer to give VSE/POWER a lower priority, you can do this both for static and dynamic partitions. For static partitions the NPC (no priority check) operand of the PSTART command must be used in this case.
- You can specify only one group of partitions for partition balancing.
- Only dynamic classes that are contained in the active dynamic class table can be specified.
- Continuation lines are accepted. PRTY can be continued in next line (requires C in column 72), next line continues in column 16.
- To set the priority of dynamic classes during the startup (in the ASI procedure) PLOAD DYNC (to load the class table) must be moved before PSTART BG in POWER AUTOSTART procedure (skeleton SKPWSTRT in ICCF lib 59). You may configure certain dynamic classes as DISABLED to avoid that jobs start in dyn. partition instead of static partition.
- PRTY in the BG ASI procedure (e.g. \$0JCL - skeleton SKJCL0) must be moved behind start of the POWER partition and STOP statement.

The PRTY command is described in the z/VSE System Control Statements book. That book is on the z/VSE documentation page - [here](#).

Tags: tips, command, prty, vse

z/VSE recommendations: concurrent microcode upgrade (2016-03-22)

Just recently we had questions, if z/VSE supports concurrent microcode upgrade for devices. In general I recommend to shutdown the z/VSE system(s), do the upgrade and re-ipl the z/VSE system. I would not plan the upgrade, if dependent z/VSE systems are still active.

The following recommendations are on the z/VSE web page - [here](#):

Concurrent microcode upgrade for IBM System Storage

Please consult your device documentation.

Recommendation for IBM Disk Storage:

- (E)CKD disks: z/VSE recommends to shutdown the z/VSE system prior to the microcode upgrade.
- FCP-attached SCSI disks: z/VSE does not support concurrent microcode upgrade for FCP-attached SCSI disks.

Recommendation for IBM Tape Storage:

z/VSE with the latest service level supports concurrent microcode upgrade for IBM Tape Storage. z/VSE recommends to take the tape units offline (z/VSE OFFLINE command) prior to the microcode upgrade or use the next maintenance window. Once the upgrade completed, take the tape units online again (z/VSE ONLINE command). Please check with your software vendors (e.g. tape management systems), if they support concurrent microcode upgrade.

Tags: dasd, tape, microcode, vse, upgrade, disk

z/VSE 6.1 Supervisor Diagnosis Reference available (2016-03-21)

The z/VSE Supervisor Diagnosis Reference (DRM) book describes how the z/VSE Supervisor processes requests from applications and subsystems, and how Supervisor functions are implemented.

It describes dispatching and task termination, I/O and interrupt handlers, page management, partition communication, accounting, access register usage, DEBUG facility, control block relationship and much more.

The DRM is intended for z/VSE users, that want to understand the Supervisor internals.

With the DRM we provide a second book - the z/VSE Supervisor Calls and Internal Macros. Here you will find many internal interfaces, that are intended for system programs. For application programs I recommend to use interfaces described in the z/VSE System Macro Reference book.

We just uploaded the "z/VSE 6.1 Supervisor Diagnosis Reference" and the "z/VSE 6.1 Supervisor Calls and Internal Macros" book. You can download them [here](#).

VM Workshop with z/VSE, z/VM and Linux on z Systems sessions - registration (2016-03-18)

The registration for the VM Workshop (conference) is now open. It is scheduled for June 23-25, 2016 (2,5 days) at Rutgers University (New Jersey, southwest of New York).

The registration page is [here](#).

The agenda is not yet available. You can expect session with technical discussions and presentations with members of the z/VM, Linux on z Systems, and z/VSE communities.

I hope, that I will meet you there.

Have a good weekend.

Tags: vse, vm_workshop, conference

z/VSE 5.1: It's time to move - to z/VSE 5.2 or z/VSE 6.1 (2016-03-17)

Today I want to remind our z/VSE 5.1 users, that it is time to move to z/VSE 5.2 or z/VSE 6.1 to stay in a supported environment.

z/VSE 5.1 service will end June 30, 2016.

You have two options:

1. You may fast service upgrade (FSU) to z/VSE 5.2. You can still order z/VSE 5.2 via IBM Shopz.
2. You may upgrade to z/VSE 6.1. z/VSE 6.1 requires an initial installation.

Besides new functionality and new versions / releases of CICS TS for z/VSE, TCP/IP for z/VSE and IPv6/VSE, z/VSE 6.1 also provides a new pricing option - the Migration Pricing Option (MPO).

MPO is valid for max.18 month and combines the MSUs of the old and new version. You are not charged for both versions during that period. [Here](#) is more information.

If you want to use IBM TCP/IP for z/VSE 2.1 on z/VSE 6.1, you need a new licence. Therefore please request a new license key. See my related [blog entry](#).

More information about z/VSE 6.1 is [here](#).

We gathered some hints & tips for migration in the z/VSE Migration document - [here](#).

Tags: mpo, migration, tcpip, upgrade, vse, license, release

z/VSE 5.2 & z/VSE 6.1: Unique Group (GRP) and User Id (UID) names are ensured (2016-03-16)

Today there was new post on VSE-L related to message:

```
'U0000055' ALREADY EXISTS AS BSM GROUP NAME, PLEASE ENTER A UNIQUE  
USER ID.
```

This message occurs, if a user id is to be added, where a Basic Security Manager (BSM) group with the same name exists.

Therefore a short description:

User IDs and groups with identical names may lead to unwanted behavior on access list processing.

Therefore with z/VSE 5.2 and higher the Basic Security Manager (BSM) will not allow new groups with the same name as existing user Ids, and vice versa.

Tags: userid, bsm, security, vse

z/VSE 6.1: IBM IPv6/VSE 1.2 on base tape (2016-03-15)

This blog entry might be of interest for IBM IPv6/VSE customers.

Starting with z/VSE 6.1, IPv6/VSE V1.2 is located on the z/VSE base tape and is automatically installed into library PRD2.TCPIPB during initial installation.

Be aware that

- During initial installation the configuration dialog TCPCONF allows the configuration of IBM TCP/IP for z/VSE only.
- IBM IPv6/VSE must be configured using provided skeletons in ICCF library 59.

If you are migrating IPv6/VSE jobs from prior z/VSE versions to z/VSE 6.1, it might be necessary to adapt the LIBDEF statement for the IBM IPv6/VSE product.

IBM TCP/IP for z/VSE 2.1 is automatically installed too - into library PRD2.TCPIPC.

After you finished initial installation you may delete products, that you don't need. Delete jobs are provided in ICCF library 59.

More details are in the book "z/VSE Installation" - [here](#).

Tags: vse, ipv6_vse, tcpip, installation

New z/VSE 6.1 books available: System Control Statements, Hints & Tips (2016-03-14)

We just updated the z/VSE Control Statements book. You may download it from [here](#).

We also uploaded the new "Hints and Tips for z/VSE 6.1" book. It is prepared by the z/VSE development team based on their experience during our systems tests and their work with customers.

It holds many hints and tips for your z/VSE environment. We added some new paragraphs and adapted it for z/VSE 6.1. The book is [here](#).

Tags: book, documentation, vse, hints, tips

New mainframe available - IBM z13s (2016-03-11)

The new IBM z13s and z13 enhancements are now available.

I already had several blog entries for these new processors, such as

- [z/VSE is ready for z13 and z13s](#)
- [New IBM Redpaper on IBM DS8884 and z13s](#)
- [z/VSE Network Appliance on IBM z13 and z13s](#)
- [New IBM z Systems midrange system - z13s - and z13 enhancements - announced](#)

There is a good summary of links to z13 / z13s information on the Redbooks page - [here](#).

The z13s home page has some more information about the new midrange processor. See [here](#).

The z13 FAQ link on that page has answers to questions you might have related to the z/VSE support.

Have a good weekend.

z/VSE service news: VSE/AF APARs (2016-03-10)

There are a two new VSE/AF APARs available for z/VSE releases in service.

HARDWAIT FFF DUE TO ADDRESSING EXCEPTION IN SUPERVISOR

z/VSE 5.1 APAR [DY47650](#), PTF UD54162, UD54163

z/VSE 5.2 APAR [DY47651](#), PTF UD54164, UD54165

z/VSE 6.1 APAR [DY47644](#), PTF UD54158, UD54159

Error description: Program check in RELPAG service (SVC 85) with 64-bit addressing mode, since high-order half of base register is not cleared.

The program check can also occur for a DSPSERV RELEASE and FCEPGOUT (SVC 86).

New APARs to support z13 / z13s:

QVS ENHANCEMENT D/T2964 AND D/T2965

z/VSE 5.1 APAR [DY47645](#), PTF UD54166

z/VSE 5.2 APAR [DY47646](#), PTF UD54167

z/VSE 6.1 APAR [DY47647](#), PTF UD54168

Error description: This APAR delivers support for the IBM z Systems z13 (z13) processor family (D/T2964) and the IBM z Systems z13s (z13s) processor family (D/T2965) for the z/VSE Query Virtual Server (QVS) API.

Beginning with IBM z Systems zEC12 and zBC12, absolute capping support was provided for an individual LPAR. IBM z Systems z13 and z13s provide absolute capping for an LPAR group. The Absolute Capping allows you to change the absolute capping of logical partitions in a group that share processors.

The APAR provides support for the group physical capacity limit enforcement of logical partitions (LPARs) as an absolute (versus relative) limit in units of CPs, that is provided by Processor Resource/Systems Manager (PR/SM).

The capacity limits returned by QVS take the LPAR group capping into account.

The z/VSE corrective service page was updated accordingly - see [here](#).

Tags: service, af, ptf, vse, support, apar

Next blog entry tomorrow, March 10, 2016 (2016-03-09)

I am not in the office today, because I am visiting a customer.

You can expect my next blog entry tomorrow.

Tags: vse

Live Virtual Class: IBM Dynamic Partition Manager (DPM) including live demo (2016-03-08)

A new Live Virtual Class (LVC) is scheduled for tomorrow. If you are running or want to run Linux on System z this new IBM Dynamic Partition Manager might be of interest.

Topic: IBM Dynamic Partition Manager (DPM) including live demo

Abstract: IBM Dynamic Partition Manager (DPM) intends to provide a simplified, consumable, enhanced z Systems user experience reducing the barriers of adoption for new and existing clients. It delivers dynamic z Systems hardware and virtual infrastructure management including integrated dynamic I/O management to users with general virtualization knowledge and minimal mainframe knowledge. The focus of the initial release is on First In Enterprise (FIE) customers and Linux only.

Date: Wednesday, March 9, 2016

Time: 11:00 AM EST / New York, 4:00 PM UK, 5:00 PM CET / Germany

Duration: 75 minutes

The registration link is on z/VM's Live Virtual Class web page - [here](#).

Tags: lvc, linux, vse, live-virtual-class

Clock changes (Daylight Saving Time) soon (2016-03-07)

This month many countries change their clocks to summer time (Daylight Saving Time - DST). One of the first countries will be the USA (most of the US). They change to DST on March 13, 2016.

In Germany we change our clocks on March 27. The clock is turned forward one hour at 2 am.

A year ago I had a blog entry for the time change, that I want to re-post today:

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#).
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time". This book is on our documentation page - [here](#).

Tags: vse, daylight_saving_time, clock, dst

Question for z/VSE customers (2016-03-04)

One more blog entry for today: I have a question for our z/VSE customers.

I may stay in the New York area for a few days mid of April and could try to reserve time and discuss z/VSE related topics.

Just let me know via email to salm@de.ibm.com, if there is any interest for a face-to-face meeting.

Tags: customer, question, vse

IBM Redbook updated: Introduction to the New Mainframe: IBM z/VSE Basics (2016-03-04)

I have a good book for the weekend ;-)

We just updated the IBM Redbook "Introduction to the New Mainframe: IBM z/VSE Basics". We added the information for the latest hardware and z/VSE releases.

It provides a good overview of z/VSE's capabilities and provides an introduction for z/VSE starters.

More information and the link to the Redbook download is [here](#).

Have a good weekend.

Tags: introduction, redbook, vse

How is the cap. value in the z/VSE SIR command calculated ? (2016-03-03)

I completely missed the birthday of my blog. I started 3 years ago - on February 6, 2013. In between I posted more than 650 blog entries and got good feedback.

Today I have a technical topic:

In the past I had several blog entries related to the Attention Routine (AR) command SIR (System Information Report). Just use the tag "sir" and use "Find a tag" on your right to locate such blog entries.

With SIR HELP you can list all possible parameters. So far I discussed the CPU information, the I/O counts, the latest APAR information, ... of the SIR output.

Today I want to give some more details about the Logical-Partition Capability Adjustment Factor (Cap.).

The red arrow in below picture marks the SIR output line, that displays the configured CPU count which is further subdivided into the dedicated CPU (Ded.) and shared CPU (Shr.) counts and the Logical-Partition Capability Adjustment Factor (Cap.).

```

SYSTEM:  z/VSE                z/VSE 6.1          TURBO (01)        USER:  SYS
VM USER  ID:LNXSALM1                TIME:  11:53:01
sir sys
AR 0015 CPUID   VM = 003,          .20978000          VSE = FF3          .20978000
AR 0015 PROCESSOR = IBM 2097-726 51 (70. . .) LPAR = SPB          No. = 0059
AR 0015 CPU#s = 0003 (Ded.=0000 Shr.=0003) Cap. = 11% ←
AR 0015 VM-SYSTEM = z/VM 6.3.0 (1502) USERID = LNXSALM1 VMCF = ON
AR 0015 CPU#s = 0006                      Cap. = 100%
AR 0015 PROC-MODE = z/Arch(64-BIT) IPL(193) 11:52:22 03/03/2016
AR 0015 SYSTEM   = z/VSE 6.1.0 GA          10/19/2015
AR 0015 VSE/AF   = 9.3.0 GA-LEVEL         08/27/2015
AR 0015 VSE/POWER = 9.3.0 GA-LEVEL         08/27/2015
AR 0015 IPL-PROC = $IPLESA JCL-PROC = $$JCL
AR 0015 SUPVR    = $$A$SUPI TURBO-DISPATCHER (A0) ACTIVE
AR 0015 SEC. MGR. = BASIC      HARDWARE COMPRESSION ENABLED
AR 0015 1I40I    READY        SECURITY = ONLINE and BATCH

```

"Cap" specifies the amount of the underlying level-1-configuration CPU capability that is allowed to be used for this level-2 configuration (z/VM or z/VSE in LPAR) by the LPAR hypervisor.

It represents the maximum capacity available to the LPAR, compared to the capacity of the CEC, based on the CEC's total number of shared CPUs. The factor is displayed as a percentage value.

The factor calculates as the minimum of the following:

1. number of online shared CPUs in LPAR divided by number of shared CPUs in CEC.
2. LPAR Weight divided by Total Weight, if Initial Capping is enabled for the LPAR - defined in the LPAR configuration panel of the Hardware Management Console (HMC). The Total Weight is the sum of the weights of the active LPARs.
3. Absolute Capping value of the LPAR divided by number of shared CPUs in CEC, if an Absolute Capping value is specified for the LPAR.
4. Absolute Capping value of the LPAR group divided by number of shared CPUs in CEC, if an Absolute Capping value is specified for the LPAR group to which the LPAR belongs to.

Example: LPAR has 2 online shared CPUs and an LPAR Weight of 90, CEC has 10 shared CPUs, Total Weight of all active LPARs is 600.

1. Without any capping: Cap. = 20% (2 / 10)
2. With Initial Capping enabled: Cap. = 15% (90 / 600)
3. With Absolute Capping of the LPAR set to 1.00: Cap. = 10% (1.00 / 10)
4. With Absolute Capping of the LPAR Group set to 0.50: Cap. = 05% (0.50 / 10)

You will also find this description in the upcoming "Hints and Tips for z/VSE 6.1" book. It will be available soon on our [z/VSE documentation page](#). I will keep you posted, when it is there.

Tags: cap, sir, vse, capacity

z/VSE is ready for z13 and z13s (2016-03-02)

All z/VSE PTFs to support the enhanced z13 and the new z13s processors are now available. That is you can prepare your z/VSE system for the new processors.

The new processors are planned to be available next week, **March 10, 2016** - see my announcement blog entry - [here](#).

Our z/VSE status web page reflect the z13 / z13s too for releases in service - [here](#) - and older releases - [here](#).

z/VSE support for z13 / z13s:

- z/VSE 5.1, 5.2 and 6.1 support z13 / z13s.
- No PTFs are required to run z/VSE on z13 / z13s.
- PTFs for IOCP, EREP and HLASM are available - see Preventive Service Planning (PSP) buckets
- z13 / z13s support Crypto Express5S only. All z/VSE releases in service (5.1, 5.2 and 6.1) support that new crypto card. z/VSE provides more domain support. That is the crypto card can be shared among all LPARs. Dependent on your service level, PTFs may be required.
- You may configure up to 85 z13 LPARs and up to 40 z13s LPARs.
- z/VSE supports the new FICON Express16S for FICON- attached devices, CTC and FCP-attached SCSI disks.
- The new z/VSE Network Appliance (see [blog entry](#)), developed for z/VSE only, is planned to be available on June 30, 2016.
- z/VSE supports absolute group capping with the QVS system API.
- Please use the latest SCRT version, that contains the z13s support.

Please also consider that

- ESCON devices can not be attached to z13 / z13s. If you have such devices still, you need to attach them to a ESCON - FICON converter.
- z/VM 5.4 does not run on z13 / z13s. If you are dependent on z/VM, you need z/VM Version 6. Please also consider any z/VM requirements for z13 / z13s.

The required service level to support the z13 / z13s is summarized in the corresponding Preventive Service Planning (PSP) buckets for z/VSE.

To select the PSB you need to know the Machine Type (M/T):

- z13: M/T 2964

- z13s: M/T 2965

On web page "Preventive Service Planning buckets" you can search for those "devices" - [here](#).

z/VSE PSBs are:

- [Upgrade 2964DEVICE, Subset 2964/ZVSE](#)
- [Upgrade 2965DEVICE, Subset 2965/ZVSE](#)

z/VM PSBs are

- [Upgrade 2964DEVICE, Subset 2964/ZVM](#)
- [Upgrade 2965DEVICE, Subset 2965/ZVM](#)

Tags: z13, psb, vse, support, service, z13s, apar

Are you interested in KVM or Ubuntu on z Systems ? (2016-03-01)

As you know, important elements of z/VSE's PIE (Protect, Integrate, Extend) strategy are the connectors to provide access to z/VSE resources from Linux on z Systems applications.

Therefore IBM KVM for z Systems could be of interest for you as a hypervisor for Linux on z Systems workload. There was an announcement for Ubuntu on z Systems too, which brings an additional distribution to the mainframe. More information about the Linux operating system on z Systems is [here](#).

Now - what you can do for us: My colleagues prepared two surveys, one for KVM, the other for Ubuntu. We want to get your feedback on both topics to better understand your needs.

You may skip questions that are not relevant to you. "Information about your company and your job function" is optional.

Below are the links to the surveys:

- [KVM for z Systems survey](#)
- [Ubuntu on z Systems survey](#)

Tags: kvm, ubuntu, pie, vse, linux, survey

z/VSE service news: IUI APARs (2016-02-29)

Today I have two Interactive User Interface (IUI) APARs for you. Both are for z/VSE 5.2.

ENGLISH LOWER CASE CHARACTERS ON LOGON PANEL CAN NOT BE READ IN KATAKANA MODE.

[z/VSE 5.2 APAR PI55720 \(PTF UI35005-52E\)](#)

Error discription: The z/VSE logon panel contains English lower case characters. If running in Katakana mode, these characters can not be read. They are displayed as Katakana characters, which does not make sense. Instead of lower case characters now upper case English characters are used.

THE Z/VSE SOAP SUPPORT (WITH LITERAL STYLE SUPPORT) DOES NOT CORRECTLY HANDLE COMPLEX COPYBOOKS WITH REDEFINES AND OCCURS

[z/VSE 5.2 APAR PI49304 \(PTFUI31887-52C\)](#)

Error description: The new z/VSE SOAP support, that was introduced in z/VSE 5.2 and now supports literal encoding style, does not correctly handle complex copybooks with REDEFINES and OCCURS clauses. The result is that fields are mapped to a wrong location in the commarea. This affects z/VSE as SOAP server as well as z/VSE as SOAP client.

Tags: support, apar, iui, service, vse

New IBM Redpaper on IBM DS8884 and z13s (2016-02-26)

Today I want to recommend an IBM Redpaper about the latest hardware announcements related to midrange environments - processor and storage.

Ten days ago we announced a new mainframe - the IBM z13s server (see [my blog entry](#)). It is the successor of the zBC12. A few month ago a new DASD / disk was announced - the IBM DS8884, a storage entry model. z/VSE supports both - the z13s (when available) and the DS8884.

This new Redpaper publication summarizes the key features of the z13s and the DS8884. You can download the Redpaper - [here](#).

Have a good weekend.

Tags: disk, mainframe, redpaper, z13s, dasd, vse, processor

End of marketing for zBC12 / zEC12 announced (2016-02-25)

zEC12 and zBC12 will be withdrawn from marketing. That is zEC12 / zBC12 can no longer be ordered from IBM on or after the effective dates.

See the effective dates in the announcement letter - [here](#).

Tags: eom, zec12, end-of-marketing, announcement, zbc12, vse

Next blog entry on Thursday (Feb. 25) (2016-02-24)

I am not in the office today. Therefore you can expect my next one tomorrow.

Tags: vse

Live Virtual Class (webcast): Virtual Server Management with KVM for IBM z Systems, tomorrow (Feb. 24, 2016) (2016-02-23)

If you connect your z/VSE system to Linux on z Systems, you may be interested in the upcoming Live Virtual Class (LVC) too.

Tomorrow's LVC topic is on "**Virtual Server Management with KVM for IBM z Systems**".

Date: Wednesday, February 24, 2016

Abstract: This session highlights tools and methods useful to manage virtual servers with KVM for IBM z Systems. Topics covered are

- KVM components
- Managing virtual server and their resources
- Practical considerations setting up virtual servers

The covered topics will be accompanied by a live demo. After registering, you will receive a confirmation email containing information about joining the LVC.

For details and the registration link please see z/VM's LVC page - [here](#). Handouts of previous LVCs are there too.

Tags: vse, lvc, kvm, live-virtual-class, linux

z/VSE Network Appliance on IBM z13 and z13s (2016-02-22)

As mentioned in my blog entry on Tuesday related to the z13s and z13 enhancements announcement, the new processors provide an infrastructure for a new z/VSE Network Appliance. The z/VSE Network Appliance (VNA) can be exploited with z/VSE's Linux Fast Path (LFP) function.

Before I go into more VNA detail, I will give some background about the Linux Fast Path:

With LFP a TCP/IP application on z/VSE can communicate with a small program (LFP daemon) running on Linux on z Systems. The daemon communicates through the Linux TCP/IP stack with the network or application on the same Linux. LFP may communicate between LPARs or z/VM guests. A Linux instance (distribution) is required. LFP does not require a TCP/IP stack on z/VSE, however.

The z114, z196, zBC12, zEC12, z13 and z13s processors also provide a feature called z/VSE z/VM IP Assist (VIA), that can be exploited by LFP. With VIA the processor provides the functionality to communicate to the network without having a Linux distribution installed. My blog entry related to LFP with links to more information is [here](#).

The z/VSE Network Appliance (VNA) for z13 and z13s is planned to be available on June 30, 2016.

The z/VSE Network Appliance (VNA) builds on the z/VSE Linux Fast Path (LFP) function and provides TCP/IP network access without requiring a TCP/IP stack in z/VSE. The appliance utilizes the new z Appliance Container Infrastructure (zACI) introduced on z13 and z13s servers. zACI is a new LPAR (partition) type which, along with an appliance installer, enables the secure deployment of software and firmware appliances. The zACI LPAR requires CPU resources (e.g. (shared) Integrated Facility for Linux (IFL)) and disk storage. Compared to a TCP/IP stack in z/VSE, the VNA can support higher TCP/IP traffic throughput while reducing the processing resource consumption in z/VSE. z/VSE systems connecting over HiperSockets to VNA need to run in an LPAR. It can not be accessed from a z/VM guest. For z/VM environments we provide the z/VM IP Assist (VIA).

VIA provides network access for TCP/IP socket applications running on z/VSE as a z/VM guest.

When available (June 30), the z/VSE Network Appliance will be provided as a downloadable package (download from the web). It can then be deployed with the zACI appliance installer.

In summary, the VIA function is available for z/VSE systems running as z/VM guests. The z/VSE Network Appliance is available for z/VSE systems running without z/VM in LPARs. Both provide network access for TCP/IP socket applications that use the Linux Fast Path; however, no TCP/IP stack is required on the z/VSE system, and no Linux on z Systems need to be installed.

The main benefit of VNA is that you can communicate with applications, that aren't running on Linux on z Systems, e.g. with z/OS, z/VSE, applications on the network, ... In that case you get the performance benefits, save CPU cycles on z/VSE, avoid the installation of a Linux on z Systems distribution, etc. You just need to provide CPU resources (a (shared) IFL) and a small amount of disk space for VNA.

If your z/VSE system need to communicate with an application on Linux on z Systems over LFP within the same processor, I would directly connect to that Linux. Then you have similar performance benefits as with VNA.

VNA will be supported by z/VSE 5.1, 5.2 and 6.1. VNA will be available at no additional cost.

Please see also the z13 / z13s announcement - [here](#) - and the z/13s Q & As - [here](#).

Tags: linux_fast_path, lfp, z13, network, appliance, vse, z13s

Maintenance, next blog entry on Monday (Feb. 22, 2016) (2016-02-19)

Sorry, the server was on maintenance today. Therefore I could not access the blog.

You can expect my next blog entry on Monday.

Have a good weekend.

z/VM 6.4 preview announced (2016-02-18)

Sorry for the late post. The system was on maintenance.

Besides the z13s / z13 enhancements announcement on Tuesday (see [my blog entry](#)), there was another announcement that may be of interest for z/VSE or Linux users running on z/VM - the announcement of the z/VM 6.4 preview. Preview announcements give early notice, what is planned for the near future.

z/VM 6.4 is targeted for the forth quarter 2016.

Planned enhancements are:

- increased efficiency with HyperPAV
- easier migration from previous z/VM releases
- improved operations with ease of use enhancements
- improved SCSI support
- increased scalability for guests: support of large (1 MB) pages - z/VSE can then use 1 MB frames for data spaces in z/VM guest.
- integration of new CMS Pipelines functionality

More details are described in the z/VM 6.4 preview announcement letter - [here](#).

Tags: preview, vse, vm, announcement

z/VSE service news: RSLs are available (2016-02-17)

New Recommended Service Levels (RSLs) are available for z/VSE 5.1.2, z/VSE 5.2.0 and z/VSE 6.1. The RSL cutoff was January 15, 2016.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: rsl, service, vse, support

New IBM z Systems midrange system - z13s - and z13 enhancements - announced (2016-02-16)

Today IBM announced a new IBM z Systems midrange processor - the **IBM z13s**, which is especially of interest for z/VSE users. Besides the z13s the announcement letter also describes enhancements to the existing IBM z13.

The announcement letter for the **z13s** and **z13 enhancements** "Expanding the IBM Systems' portfolio with additions to IBM z Systems and IBM LinuxONE " is [here](#).

The planned availability date for z13s and z13 enhancements is March 10, 2016.

You may also use the [z13s web page](#) as a source of information, such as the data sheet, specifications, features & benefits, z13s FAQs, ...

I also recommend the z13s Redbook page - [here](#).

For z/VSE users the z13s provides

- The latest hardware technology
- Higher single engine (PU) performance for z/VSE workloads, batch and online
- Benefits for Linux on z Systems, if you run Linux together with z/VSE
- Support for the Crypto Express5S adapter with support of greater than 16 domains
- Support for the FICON Express16S adapter
- A new z/VSE Network Appliance

z/VSE includes a function called Linux Fast Pass (LFP). It allows selected TCP/IP applications to communicate via the TCP/IP stack on Linux on z System without requiring a TCP/IP stack on z/VSE. On z13 or z13s with the correct firmware level the z/VSE Network Appliance is an integrated solution providing TCP/IP stack functionality. TCP/IP applications running on z/VSE in LPAR may use LFP to communicate via the z/VSE Network Appliance. I will post more information about the z/VSE Network Appliance in a later blog entry.

If you can't wait, please see the z13s Q & As or announcement letter for more detail - [here](#). It is planned to be available on June 30, 2016.

- Customer may choose Advanced Entry Workload License Charges (AEWLC), subject to all applicable terms and conditions. More detail are [here](#)

See also the z13s Q & As - [here](#)

Please see also the following announcement related to z13s: Technology Transition Offerings for the IBM z13s offer price-performance advantages. It is [here](#).

Tags: announcement, z13, zvse_network_appliance, linux_fast_path, lfp, vse, z13s

New IBM Redbooks: Storage Area Network, Point of view: mobile security (2016-02-15)

There is a new **IBM Redbooks** available that might be of interest to you.

It provides a good overview about Storage Area Networks (SANs).

You may download the "Storage Area Network" from [here](#).

Table of contents

Chapter 1. Introduction

Chapter 2. Storage area networks

Chapter 3. Fibre Channel internals

Chapter 4. Ethernet and system networking concepts

Chapter 5. Topologies and other fabric services

Chapter 6. Storage area network as a service for cloud computing

Chapter 7. Fibre Channel products and technology

Chapter 8. Management

Chapter 9. Security

Chapter 10. Solutions

Chapter 11. Storage area networks and green data centers

Chapter 12. IBM Fibre Channel storage area network product portfolio

Chapter 13. Certification

There are also a new "**Point of view**" publication related to mobile security available - Securing Your Mobile Mainframe - [here](#).

Tags: point-of-view, san, vse, storage, mobile, redbook

How to pass Job Control parameter value to z/VSE programs (2016-02-12)

I just had a discussion, where a z/VSE user wanted to use parameters set with z/VSE Job Control statements in batch programs (called by EXEC <program name>).

In this blog I describe two ways of passing parameters from Job Control to programs - via 1) EXEC <program name>, PARM='value', 2) SETPARM pname='value'.

1. EXEC <program name>, PARM='value'

Specifies information which is to be passed to the program at execution. *value* can be up to 100 characters in length, enclosed in quotes. If the *value* is longer than 100 characters, you can code PARM='value' up to three times on one EXEC statement (that is max. 300 bytes). The information given by *value* is stored into the system GETVIS area. The *value* and the value length is passed to the program. For more information see the z/VSE Guide to System Function (section "Passing a Parameter").

2. SETPARM pname='value' (set symbolic parameter)

The SETPARM statement enables you to define a symbolic parameter and/or assign a *value* to it, where *pname* is the name of the symbolic parameter, which a *value* is to be assigned. *value* specifies a character string of up to 50 characters. In a program or Job Control exit you may retrieve the *value* with the GETSYMB macro. The macro is described in z/VSE Guide to System Function (section "Resolving Symbolic Parameters in JCL Command").

Both the z/VSE System Control Statements and z/VSE Guide to System Functions books can be downloaded from the z/VSE documentation page - [here](#).

Have a good weekend.

Tags: setparm, exec, tips, hints, vse, program

Using VMCF for communication with z/VSE guests (2016-02-11)

Today I have some more information about the VMCF (Virtual Machine Communication Facility) interface of z/VM, which can be used to send information between z/VM guests. z/VSE provides the VSECMD for that purpose.

On a CMS guest VSECMD allows you to send commands to the z/VSE virtual machine for execution. These can be attention routine commands such as MAP, PRTY, VSE/POWER commands, VTAM commands etc. If you send, for example, the MAP command to the z/VSE virtual machine VSE GUEST, all messages issued from the attention routine and resulting from the MAP command will be routed to your VM CMS user ID.

The z/VM guests have to be enabled for VMCF messages.

More information about VSECMD is in the books z/VSE Installation and z/VSE Operation. They are both on the z/VSE documentation web page - [here](#).

On z/VSE you may use the attention routine (AR) command SIR VMCF=ON (ON is default) to accept VMCF messages, or SIR VMCF=OFF to deactivate VMCF. SIR VMCF without a parameter gives the VMCF status (ON or OFF) on your z/VSE system.

If VMCF is ON and you issue the AR command SIR VMCF=OFF, you will get the message "VMCF12I CMS-Z/VSE CONSOLE INTERFACE DEACTIVATED" on your z/VSE console.

z/VSE guests IPLed with security - SYS SEC=YES

If z/VSE is running with (batch) security, the CMS user id must be defined in the security table DTSECTAB to accept commands from the CMS user. If the CMS user id is not in the DTSECTAB, any command from that user stops the VMCF interface on z/VSE indicated by message VMCF12I on the z/VSE console. VSECMD will end with return code 00064.

You may restart the VMCF interface with "SIR VMCF=ON" on your z/VSE system. Message VMCF12I is described in book z/VSE Messages & Codes Volume 2.

With an update of that book, we will improve the message explanation as follows (or similar):

VMCF12I CMS-z/VSE CONSOLE INTERFACE DEACTIVATED

Explanation: Either an unexpected error condition caused the interface to

become non-operational or an undefined CMS user tried to use the VMCF interface.

System action: Routing of messages to CMS is suspended and no further input from CMS is accepted.

Operator response: Inform the administrator / programmer about this message.

Restart the interface by command SIR VMCF=ON .

Programmer response: Follow the procedure for reporting and solving system errors. Review the defined user ids in DTSECTAB as described in z/VSE Planning manual, chapter "Console Support".

Tags: vmcf, communication, vse, vm

VSE/VSAM performance: increased I/Os dependent on number of volumes in DEFINE CLUSTER (2016-02-10)

VSE/VSAM performs increased I/Os (EXCPs) on the catalog volume dependent on the number of volumes specified in the DEFINE CLUSTER. The volumes do not need to be in use by the cluster, only specified as candidate volumes. Testing indicates that this begins to take place when the number of entries in the VOLUMES list for the cluster is above 27. This appears to apply to both the Data and Index component of a cluster.

Recommendation: The number of entries in the VOLUMES list for the cluster should stay below 28 to avoid performance degradation caused by increased I/O rates.

Tags: vse, hints, performance, vsam

z/VSE security: new bulletin affecting openssl (MD5 "SLOTH" vulnerability) (2016-02-09)

Yesterday we released a new security bulletin.

The MD5 "SLOTH" vulnerability on TLS 1.2 affects OpenSSL on IBM z/VSE (described in CVE-2015-7575).

Affected Products and Versions: OpenSSL on z/VSE is affected if using GSK_LOW_SECURITY in gsk_get_cipher_info(). Only in this case SSL cipher suite 01 (NULL-MD5) is available for backward compatibility with old applications.

Remediation/Fixes: GSK_LOW_SECURITY should not be used.

For more information see the security bulletin in the security section of the z/VSE service & support web page - [here](#).

Tags: bulletin, vse, security, vulnerability, openssl

z/VSE: What to do in case of a lock file error (message 0T01E) ? (2016-02-08)

Just last week we had 2 problems, where z/VSE users got message "0T01E ERROR ON LOCK FILE". As you may remember I discussed this issue in a blog entry in 2014.

Because it's a rare situation, I decided to re-post that problem again. If you search via tag "lock_file", you can find the old entry too.

In z/VSE the lock file is used to share resources across multiple z/VSE systems. You define the lock file with the DLF command during IPL. In July 2014 I posted a block entry with more details about DASD sharing and the lock file. The blog entry is [here](#).

What should you do, if you get the message "0T01E ERROR ON LOCK FILE" on your console ?

The z/VSE Messages & Codes, Volume 1 book describes possible reasons for such an error:

- An unrecoverable I/O error occurred on an external lock file (a hardware malfunction).
- A format error occurred on an external lock file (the lock file has been deleted or destroyed).
- A logical error occurred on a lock file (two sharing VM systems with the same processing unit identification, for example).
- A lock file was defined to begin on cylinder 0, as a result of which less space than a complete cylinder has been reserved by the system.
- The affected volume has read-only access.

The z/VSE Messages & Codes, Volume 1 book is on our documentation page (or the collection kit) - [here](#). It provides information what to do if message 0T01E occurs.

After this message you may analyze the cause of the error first. Then continue as follows.

You need the DLF command in a later step. If you do not know it, you may look it up in your IPL procedure or on the console - just enter IPL in command line and press the redisplay key (PF7). The IPL statements are listed. Now you can look for the DLF command using the PF7 or PF8.

As soon as your environment (all z/VSE systems the share the lock file) permits, quiesce your batch and online environment of **all** systems that share the lock file: do no longer schedule batch jobs for processing, shutdown the CICS partitions, allow jobs, that do not depend on DASD-sharing finish their work, shutdown the system (VSE/POWER, VTAM, TCP/IP, ...).

All systems that share the lock file need to be down before you IPL one of your systems to redefine or reformat the lock file.

You have to use the IPL LOADPARM ..P parameter to stop the IPL process. I described LOADPARM in an earlier blog - [here](#).

You will be prompted, then enter STOP=DLF. The IPL process will stop on the DLF command. Enter the DLF command with the parameter "TYPE=F". It indicates, that the system should format the lock file. Now bring up the system as normal and IPL all other systems, that share the lock file.

You may rerun the failing job. If the problem reoccurs, consider to contact IBM.

Tags: lock, lock_manager, vse, error, dasd_sharing, lock_file, documentation

z/VSE Connectors: CICS2WS Toolkit updated (2016-02-05)

The CICS2WS toolkit is a development tool that helps you to use Web Services with your existing CICS programs. The tool reads WSDL files and Copybooks and creates proxy code, that you use as a layer between your existing programs and the z/VSE SOAP Engine.

The toolkit was just updated for the SOAP APARs I mentioned on Wednesday - [APARs PI51277 and PI49037](#).

The CICS2WS toolkit can be downloaded from [here](#). More information about CICS2WS is in the z/VSE e-business Connectors User's Guide, available on the [z/VSE Documentation page](#).

Have a good weekend.

Tags: documentation, connector, tools, soap, web_service, vse, cics, download

How to search z/VSE books ? (2016-02-04)

In earlier releases, including z/VSE 5.1 we delivered book manager files for z/VSE books on the z/VSE collection DVD, which made it easier to search for books.

The z/VSE 5.2 and z/VSE 6.1 books are available as PDF files. Within those PDF shelves you may search for a specific topic in selected or all PDFs.

That just requires a bit more setup work. In this block entry I describe how to prepare for the book search.

See the steps below. Sorry, they are for Windows. I did the setup on my system.

1. Download and unzip the latest z/VSE Collection (December 2015), which includes the z/VSE 6.1 books, from the IBM Publication Center - [here](#). Select your country, e.g. United States. On the "Welcome to the IBM Publication Center" page select "Search for publications" and enter the publication number for the z/VSE Collection: SK3T-8348-14. It's about 1,5 GigaByte.
2. Install the IBM Softcopy Tools - run the sctools.exe (in the z/VSE collection folder). If they are installed yet, select IBM Softcopy Reader, Adobe Reader, IBM Linguistic Search Plugin.
You may also download the IBM Linguistic Search Plugin [here](#), and the IBM Softcopy Reader [here](#).
3. Reboot your Windows system.

Now to the configuration:

Select the book shelf you want to search

- Open the z/VSE collection folder
- Run scindex.htm. You now see the Collection Index in your web browser.
- Scroll down to e.g. z/VSE V6R1 PDFs
- Open that shelf (click on link)
- On top you see "Extended shelf", open it and open with IBM Softcopy Reader (SRXKShelf)
- Now you see the IBM Softcopy Reader: Shelf Organizer
- On top select Edit -> User Defined Directories
- Locate your z/VSE Collection folder on the right and add the following paths to:
 - pdf
 - shelves
 - tools

- Save that view.

Your system is setup and required tools are now available.

Let's try a search for "lock file". You need use "Search Indexed Shelves" (second search icon - or select from "Search on top").

- Enter search argument and hit "Search"
- You see a window with a few books that are not indexed. "OK" to continue.
- In the "Search Indexed Shelves" you now see the book hits.
- Click on the book you want to start with.
- The corresponding pdf is opened and you see the first occurrence of "lock file".
- Also another window is opened - the IBM Advanced Linguistic Search" window. All hits for "lock file" of the corresponding pdf are shown. You may position to the topic you are interested in.
- Now you may skip to the next book by selecting it on the "Search Indexed Shelves".

Was this information helpful ?

Tags: collection_kit, documentation, vse

z/VSE service news: SOAP and CICS TS for z/VSE 2.1 APARs (2016-02-03)

Today have some service news about z/VSE SOAP support and CICS TS for z/VSE 2.1.

z/VSE Web services - Simple Object Access Protocol (SOAP)

THE Z/VSE SOAP SUPPORT (WITH LITERAL STYLE SUPPORT) DOES NOT CORRECTLY HANDLE COMPLEX COPYBOOKS WITH REDEFINES AND OCCURS

z/VSE 5.2: APAR [PI49037](#), PTF UI31866

z/VSE 6.1: APAR [PI51277](#), PTF UI32442

Users affected: All z/VSE SOAP Engine Users that are using the new SOAP support with literal support.

Problem description: The new z/VSE SOAP support, that was introduced in z/VSE 5.2 and now supports literal encoding style, does not correctly handle complex copybooks with REDEFINES and OCCURS clauses. The result is that fields are mapped to a wrong location in the commarea. This affects z/VSE as SOAP server as well as z/VSE as SOAP client.

Problem conclusion: The code has been corrected to now handle complex copybooks correctly. For users of the 'new' z/VSE SOAP support (with literal style support):

After applying this PTF you MUST also update the CICS2WS tool to version 2.7.0 (or later). The latest CICS2WS tool version can be downloaded [here](#).

You MUST then re-generate any existing RULES with the new CICS2WS tool version of 2.7.0 (or later), assemble them on z/VSE and perform a NEWCOPY on them in CICS. The z/VSE SOAP Engine will only accept RULES generated with a CICS2WS tool version of 2.7.0 (or later).

Note: Users of the 'old' SOAP support using generated PROXY code are not affected and do not need to update the CICS2WS version. However, the new CICS2WS version will also work with the 'old' SOAP support.

You can find the latest APAR for z/VSE components and products on our [service and support web pages](#).

CICS TS for z/VSE 2.1

I assume you noticed the new Fix list for CICS TS for z/VSE 2.1 - see [here](#). The CICS TS for z/VSE service team posts the status of APARs and PTFs there. A new APAR is available:

APAR [PI53288](#) (PTF UI34551): LNKEDT RC=4 INVALID TRANSFER LABEL

Problem description: From z/VSE 6.1 the Linkage Editor will set Return Code 4 when the "INVALID TRANSFER LABEL ON END OR ENTRY STATEMENT IGNORED" message is produced. Before z/VSE 6.1, this would have resulted in Return Code 0. A small number of CICS phases cause this message to be produced when processed by the Linkage Editor.

A z/VSE 6.1 customer may be concerned by seeing Return Code 4 when a phase is replaced during PTF application even though there is no actual error.

Problem conclusion: The affected CICS programs and Linkage Editor control statements have been changed to avoid the message and the resultant Return Code 4.

Tags: ptf, vse, apar, cics, soap, support, service, web_service

z/VM 6.2 end of service date changed (2016-02-02)

Today I have service news for users, that are running their z/VSE systems on z/VM 6.2.

On January 15 I informed you about the z/VM 6.2 end of service date - see my blog entry [here](#).

In today's announcement the z/VM 6.2 end of service date changed. **z/VM 6.2** will continue to be supported **until June 30, 2017**.

More details are in the announcement letter [here](#).

Tags: vse, eos, service, end-of-service, support, vm

KVM Live Virtual Class (webinar) on Feb. 3: KVM for IBM z Systems - Host and Guest Installation (2016-02-01)

In my blog I mainly cover z/VSE topics. Because of our PIE (Protect, Integrate, Extend) strategy, news about Linux on z Systems and z/VM may be of interest for z/VSE users too.

There is a new **Live Virtual Class** (LVC - webinar) scheduled for February 3, 2016, that may be of interest for Linux on z Systems users. It is related to KVM for IBM z Systems.

KVM (Kernel-based Virtual Machine) for IBM z Systems is a new virtualization option for Linux on z Systems, besides z/VM.

In [my blog entry](#) in December I mentioned an **IBM Redbook**, where you get an introduction to KVM for z Systems.

Now to the LVC:

Topic: KVM for IBM z Systems - Host and Guest Installation

Abstract: When starting with KVM for IBM z Systems the first step you have to take is to install a KVM host and starting to play around with a KVM guest environment. This presentation is a overview session on how to install a KVM host in a LPAR and what needs to be considered when working with the KVM installer. Further KVM guest installation will be covered and it is explained how the manual setup for a KVM Guest will be done. Both scenarios will be demonstrated via a live demo.

You may register [here](#). System requirements are [here](#).

After registering, you will receive a confirmation email containing information about joining the webinar.

Speaker: Holger Wolf, KVM on System z - Test Lead, IBM Germany

Date: Wednesday, February 3, 2016

Time: 11:30 AM EST / New York, 4:30 PM UK, 5:30 PM CET / Germany

Duration: 75 minutes

Replay & Archive: All sessions are recorded. For the archive as well as a replay and handout of this session (available by Feb 8, 2016) and all previous webcasts please visit <http://www.vm.ibm.com/education/lvc/>

You will also find these LVC details on the z/VM LVC web page - [here](#).

Tags: linux, kvm, vse, redbook, webinar, live-virtual-class, lvc

z/VSE conferences: please provide input (2016-01-29)

Today I want to get your input for our z/VSE sessions.

As you can see in [my blog entry from January 14, 2016](#) we want to give sessions at several 2016 conferences as every year.

Do you have any topic that we should address ?

Here are some areas as an example: z/VSE basics, z/VSE update, installation, VSE/AF, VSAM, IUI, security, mobile with z/VSE as back end, performance, release migration, connectors, etc.

Questions to those, who don't come to conferences:

What is the reason ? Travel cost, time for travel and conference, ...

Do the z/VSE Live Virtual Classes (LVCs) serve your needs - see [here](#) ?

Please send your feedback to my email id: salm@de.ibm.com - or just "Add a Comment" to this blog.

Thanks in advance for your help.

It's already Friday: Have a good weekend !

Tags: conference, vse, lvc

WebSphere MQ Client for VSE - web page updated (2016-01-28)

In earlier blog entries I informed you that WebSphere MQ for z/VSE was withdrawn from service September 30, 2015. Service extensions are possible.

As an alternative you may use the **WebSphere MQ Client for VSE**. The most important function, that is required for the client - the **MQ Trigger Monitor**, is available for z/VSE 5.1, 5.2 and 6.1 since last year. See [my related blog entry](#).

The WebSphere MQ Client for VSE web page was just updated, see [here](#).

Tags: client, vse, mq

IBM 3592 Tape Controller Model C07 can be ordered again ! (2016-01-27)

Good news ! The tape controller is back.

You may remember my [blog entry](#) in August last year related to the withdrawal from marketing of the IBM 3592 Tape Controller Model C07.

Just yesterday there was a hardware announcement: Revised availability: IBM 3592 Tape Controller Model C07 and select features have been reinstated.

That is effective immediately, the IBM tape controller Model C07 and related features have been reinstated and are available for ordering.

Please see the announcement letter for details - [here](#).

Tags: tape, controller, announcement, vse

Technical topic: Did you notice a BEAR on z/VSE ? (2016-01-26)

You may have seen that in a formatted z/VSE system dump. Here is some background:

The breaking-event-address recording can be used as debugging assist to detect a wild branch. This facility is available on newer z Systems processors. It provides a 64 bit breaking-event-address register (BEAR) in the CPU. Normally, operation of a CPU is controlled by instructions in storage, executed sequentially. The Program Status Word (PSW) includes the instruction address, condition code and other information, used to control the sequence of instructions and the state of a CPU. The instruction address in the PSW is incremented by the length of the executed instruction. Some instruction, such as branch and Load PSW, cause the contents of the PSW instruction address to be replaced, rather than incremented. The action to replace the instruction address is called a break event. The address of such an instruction is placed in the breaking-event-address register.

Each time a program interruption occurs (program check, e.g. operation exception), the contents of the breaking-event-address register is placed in real storage location 272-279 (X'110'-X'117').

In case of a program interruption the program check handler of the z/VSE Supervisor gets control and saves the breaking-event address (X'110'-X'117') into an internal VSE task related z/VSE control block.

If a system dump is taken, the breaking-event-address (see field BEAR) will show up in the formatted dump. If you have a STXIT PC, or ESTAE(X) routine, the breaking-event-address is available in the corresponding interrupt information of the exit's SDWA (64 bit extension) / STXIT save area (AMODE=ANY64). You may also use the GETFLD macro (FIELD=BREAK) to retrieve the latest breaking-event-address in case of a program interruption for the (current active) VSE task.

More detailed information about Breaking-Event-Address Recording is described in the z/Architecture Principles of Operation. You may download that book from our documentation web page - [here](#).

Tags: dump, bear, interrupt, vse, program, technical

IBM licenses for TCP/IP products on z/VSE 6.1 (2016-01-25)

Today I have some additional information on IBM licenses for TCP/IP products running on z/VSE 6.1.

A new version of CSI's TCP/IP product is available on z/VSE 6.1, called **IBM TCP/IP for z/VSE 2.1**, with product id (PID) 5686-CS1.

IBM TCP/IP for z/VSE 2.1 is only supported on z/VSE 6.1. IBM TCP/IP for VSE/ESA 1.5F is supported on z/VSE Version 5, but not on z/VSE 6.1.

Because the product IBM TCP/IP for z/VSE 2.1 is a new version, you need to request a new license (and key), if you want to use CSI's product on z/VSE 6.1.

I described the content of IBM TCP/IP for z/VSE 2.1 in a blog entry last year, [here](#).

If you require the **IBM GPS** (General Print Server) feature (PID 5686-A04) on z/VSE 6.1, you do not need a new license. You can continue to use the license (and key) you got for IBM GPS on z/VSE Version 5.

If you are using BSI's TCP/IP product - **IBM IPv6/VSE 1.2** (a new release, PID 5686-BS1), which is only supported on z/VSE 6.1, you can continue to use the license (and key) you got for IBM IPv6/VSE 1.1.

IBM IPv6/VSE 1.1 is supported on z/VSE Version 5, but not on z/VSE 6.1.

I described the IPv6/VSE 1.2 content in a blog entry, [here](#).

Tags: tcpip, vse, license

CEETRACE for LE/VSE updated (2016-01-22)

The Language Environment (LE) CEETRACE feature was just updated on our tools download page.

Please see the README in the zip file for details. You can download it from [here](#).

CEETRACE complements the LE dump information and helps for application problem analysis.

Have a good weekend.

New version of the IBM Redbooks mobile app available (2016-01-21)

A new version of the IBM Redbooks mobile app is now available.

If you have a smart phone or tablet you may download the new IBM Redbooks mobile app for iOS or Android. In the app you can search for Redbooks, view table of contents of a Redbook, save Redbooks, build your own Redbook library and more. Just a tip: If you select a Redbook for reading, save it before you select read. You will not be able to save it, if you are already reading it.

A short summary about the new notification feature is [here](#).

More information on the IBM Redbook mobile app is [here](#).

Tags: mobile, vse, app, redbook

z/VSE service news: VSE/AF APARs (2016-01-20)

Today I have few new APARs, that I want to describe in this blog entry.

VSE/AF APARs

- Hardwait FEC during IPL
 - z/VSE 6.1 - APAR DY47640; PTFs UD54153-61C, UD54154-61J
 - z/VSE 5.2 - APAR DY47639, PTFs UD54151-52C, UD54152-52J
 - z/VSE 5.1 - APAR DY47636; PTFs UD54149-51C, UD54150-51J

 - Hardwait FEC in path verification during IPL.

- Hardwait FED after CDDELETE
 - z/VSE 6.1 - APAR DY47638; PTFs UD54153-61C, UD54154-61J
 - z/VSE 5.2 - APAR DY47629; PTFs UD54144-52C, UD54145-52J
 - z/VSE 5.1 - APAR DY47637; PTFs UD54149-51C, UD54150-51J

 - An invalid FREEVIS request freed part of a CDLOADED phase. The CDDELETE of this phase failed then, causing the hardwait.

- Message 0S23I DUMP ROUTINE CANCELLED, CANCEL CODE = '20'
 - z/VSE 6.1 - APAR DY47634, PTF UD54148-61C
 - z/VSE 5.2 - APAR DY47633; PTF UD54147-52C
 - z/VSE 5.1 - APAR DY47632; PTF UD54142-51C

 - If an SDUMP fails with message 0S10I GETVIS FAILURE IN DUMP ROUTINE. FUNC=nn, any subsequent SDUMP will fail with message 0S23I DUMP ROUTINE CANCELED. CANCEL CODE = X'20'.

Tags: apar, af, ptf, support, service, vse

CICS Q & A on CICS TS for z/VSE documentation (2016-01-19)

In November I informed you about the CICS developer center - see [my blog entry](#).

On top of the CICS developer center you can select the CICS Q&A, which is linked with the Questions in CICS space - [here](#).

You can see which questions are answered, the views or how many likes a question has - and you may ask a question.

Just lately there was a question related to CICS TS documentation. The answers provide related links to z/VSE and z/OS documentation. You can find that question & answers [here](#).

Do you have any requirements for our next z/VSE releases ? (2016-01-18)

In November 2015 we shipped our latest z/VSE release - z/VSE 6.1. Besides the hardware support many items were requested by our z/VSE users.

That is customer requirements are a key element of the z/VSE release content. We are already planning for future releases and e.g. use our requirements database as a resource.

Thanks for your requirements.

I would like to have your input, which requirements we should fulfill next. Are there any high priority ones ?

You may comment on this blog entry, send an email to my email id, use our [contact page](#) - or the Request for Enhancement (RFE) web tool.

I posted the information below in May 2015:

You may raise a new requirement for z/VSE and its products / components, search for or vote on existing requirements.

To do so you have to sign on with your IBM id. The RFE web page is [here](#).

Please use the following selection for **z/VSE requirements**:

Brand: Servers and Systems Software
Product family: z Systems Software
Product: z/VSE
Component: All components (or the component you wish)
Status: All statuses (or select a specific one)

... and the selection for **CICS TS requirements** (please be aware that the "brand" changed):

Brand: Servers and Systems Software
Product family: Transaction Processing
Product: CICS Transaction Server
Component: Runtime (or Explorer)
Status: All statuses (or select a specific one)
Keywords: vse

Tags: vse, requirements, rfe

Reminder: z/VSE 5.1 and z/VM 6.2 end of service in 2016 (2016-01-15)

Today we got some snow. The first this winter. ... and it will continue to snow.

At the beginning of this year. I want to remind you, that the service for zVSE 5.1 will end on June 30, 2016. You may check for the status of our zVSE releases [here](#).

If you are still on z/VSE 5.1, please migrate to a supported z/VSE release - z/VSE 5.2 or zVSE 6.1.

If you are running your z/VSE systems on a z9 processor, your only choice is z/VSE 5.2, because z/VSE 6.1 requires a z10 processor or higher. If you are on z10 or higher, I recommend to skip zVSE 5.2 and migrate to zVSE 6.1.

You may use Fast Service Upgrade (FSU) from z/VSE 5.1 to z/VSE 5.2. z/VSE 6.1 requires an initial installation.

We prepared a migration paper, that might help you. The paper is [here](#). Some more information about migration is in the z/VSE books and CICS Enhancements Guide. You can download these books from our documentation page - [here](#). A good start is the z/VSE Planning book.

Don't wait for the service refresh of a z/VSE release. History showed that zVSE systems are very stable. That is also the reason, why z/VSE 5.2 (GAed in April 2014) did not get a new refresh (SPE) so far. You may use the Recommended Service Level (RSL) to update to the latest service. The latest RSL is from August 2015 - see [here](#).

If you are running your z/VSE systems under zVM, please consider, that z/VM 6.2 service will also end this year - on December 31, 2016. Please migrate to z/VM 6.3 to stay in a serviced environment. z/VM Version 6 requires z10 or higher. If you are still running on z/VM 5.4, because e.g. you are dependent on z9, the end of service of z/VM 5.4 is planned for December 31, 2016, or until the z9 EC and z9 BC are withdrawn from support, whichever is later.

z/VM's status page is [here](#).

Have a good weekend.

Tags: service, vse, support, end-of-service, vm

Happy New Year ! ... and z/VSE Conferences in 2016 (2016-01-14)

I just returned to my office - and hope, you enjoyed your holidays.

I wish you a happy, healthy and successful New Year - and a good start into 2016 !

Let's start with the z/VSE related conferences this year:

- April 18-20, 2016 GSE Frühjahrstagung (German only) in Berlin, Germany
- June 23-25, 2016 VM Workshop 2016 (with z/VSE sessions) in Rutgers University, NJ, USA
- October 24-26, 2016 10th European GSE/IBM Technical University for z/VSE, z/VM and Linux on z Systems in Leipzig, Germany

Tags: gse, vm_workshop, conference, vse

Merry Christmas and a happy, healthy and successful New Year ! (2015-12-18)

Today is my last working day in 2015. I will be back in the week of January 11, 2016. That is you can expect my next blog entry that week.

I wish you and your family a Merry Christmas and a happy, healthy and successful New Year.

Thanks for reading my blog. In between I have 617 blog entries since I started. All entries are tagged, that is you can use the tag as a key word to look for older entries.

2015 was a successful year for z/VSE. We started with the support for the new z13, available since March. In May we announced the preview for z/VSE 6.1, where you got all the details about our latest version. In October we announced the availability date for z/VSE 6.1 and celebrated the 50 years of VSE in Boeblingen. On November 28 we made the new z/VSE 6.1 release available - together with a new CICS TS for z/VSE and TCP/IP for z/VSE version and a new IPv6/VSE release.

More information about z/VSE 6.1 is [here](#), in my related blog entries and in presentations.

We had 6 Live Virtual Classes (LVCs) with z/VSE topics:

February 24	Mobile access to the existing z/VSE application
March 10	Analyzing CICS TS SOS Problems in z/VSE
June 9	Preview announcement of z/VSE V6, and more
September 29	VSE/VSAM Fundamentals, Hints & Tips and Best Practices
November 10	Solution concepts to integrate z/VSE data and applications with your IT
December 1	z/VSE 6.1 - a quick overview

The presentation and replay of those classes are [here](#).

We had 4 conferences with z/VSE tracks:

April 27-29	GSE Fruehjahrstagung (German only) in Berlin, Germany
May 11-15	IBM Edge2015 in Las Vegas, NV, USA.
June 25-27	VM workshop in Binghamton, NY, USA

October 5-9 IBM Systems Technical University 2015 Conference in Orlando, FL, USA

October 19-21 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Boeblingen / Stuttgart, Germany

Conference presentations are [here](#).

... and finally a reminder: z/VSE 5.1 service will end June 30, 2016. The latest release status is [here](#).

Tags: greetings, conference, live-virtual-class, lvc, vse

z/VSE: QDIO input / output queue buffer configuration (2015-12-17)

Last week I had a blog entry on the z/VSE Collection documentation - see [here](#). The link worked just a few days. Therefore I updated the blog entry.

Now to the topic for today:

Some month ago I had a blog entry on configurable QDIO (queued Direct I/O) input / output queue buffers. That blog entry is [here](#). The configurable input queue buffers are available since z/VSE 5.1, the output queue buffers with z/VSE 6.1. Input / output queue buffers may improve TCP/IP performance. They are described in the TCP/IP Support book, available on z/VSE's [documentation page](#).

The input / output queue buffers can be configured in the **IJBOCONF** phase. That phase also holds the VLAN definitions. You may use the skeleton SKOSACFG in ICCF library 59 to configure the VLAN and input / output queue buffers. The skeleton also describes the syntax of the configuration statements.

Below are the definitions of the configuration statements, if you don't use IUI / ICCF.

The phase IJBOCONF should be cataloged into sublibrary PRD2.CONFIG with AMODE ANY, RMODE ANY.

Definition of input / output queue buffers:

You can specify the number of QDIO input and output queue buffers by adjusting the QDIO buffer count.

The number of queue buffers can be 8, 16, 32 or 64. the default is 8. Below is the definition:

```
QDIOBUFF DEVNO=<CUU>,IQBUF=<IQCOUNT>,OQBUF=<OQCOUNT>  
  <CUU>      = VSE device number in hex format  
  <IQCOUNT> = QDIO input buffer count (valid value: 8, 16, 32 or 64)  
  <OQCOUNT> = QDIO output buffer count (valid value: 8, 16, 32 or 64)
```

z/VSE needs 1 MB of 31 bit partition GETVIS space per link (8 input / output queue buffers). For each additional input or output queue buffer, you need 64KB (OSA-Express) or up to 64KB (HiperSockets - depending on your IOCDS definition) additional 31 bit partition GETVIS space. That is you may need to

increase the partition GETVIS space and the SETPFIX limit for your partition, because QDIO buffers are PFIxed.

... and for completeness the global VLAN definition:

```
DEFGVLAN DEVNO=<CUU>,VLAN_ID=<ID>,VLAN_PRIO=<PRIO>          *
<CUU>    = VSE device number in hex format
<ID>     = VLAN id in decimal format (1..4095)
<PRIO>   = VLAN priority (valid values 0..7)
```

Only one Global VLAN can be defined per subchannel. If the Global VLAN is defined, no usual VLAN(s) may be defined on the same subchannel.

Below is an example of a configuration phase job:

```
$$ JOB JNM=IJBOCONF,CLASS=A,DISP=D
// JOB IJBOCONF GENERATE IJBOSA MODULE CONFIGURATION
PHASE
// LIBDEF *,CATALOG=PRD2.CONFIG
// LIBDEF *,SEARCH=PRD1.BASE
// OPTION ERRS,SXREF,SYM,NODECK,CATAL,LISTX
  PHASE IJBOCONF,*
// EXEC ASMA90,SIZE=(ASMA90,64K)
IJBOCONF CSECT
IJBOCONF AMODE ANY
IJBOCONF RMODE ANY
*
  QDIOBUFF DEVNO=0D00,IQBUF=64,OQBUF=8
  QDIOBUFF DEVNO=0400,IQBUF=16,OQBUF=16
*
  DEFGVLAN DEVNO=0D00,VLAN_ID=10,VLAN_PRIO=5
  DEFGVLAN DEVNO=0400,VLAN_ID=200
*
  END
/*
/&
$$ EOJ
```

Tags: buffer, io, qdio, network, vse, configuration

CICS TS for z/VSE 2.1: Changes to CICS commands and EXEC CICS APIs (2015-12-16)

CICS TS for z/VSE 2.1 is the new CICS TS version on z/VSE 6.1. In between I had several blog entries related to this new CICS version, mainly related to the major enhancements - CICS Explorer update capability and Channels & Containers.

Today I want to describe a few other EXEC CICS application programming interface (API) changes and a new CICS command option:

- EXEC CICS ASKTIME ABSTIME
ASKTIME updates the date and CICS time-of-day clock fields.

The ABSTIME value that is returned by the EXEC CICS ASKTIME command is no longer rounded to the nearest 1/100 second. The absolute time returned is the system time-of-day clock, adjusted for the local timezone offset, truncated to the millisecond, and returned as a packed decimal of length 8 bytes. It, therefore, represents the number of milliseconds since 00:00 on 1 January 1900 in the local timezone and adjusted for daylight saving time.

- EXEC CICS FORMATTIME - new MILLISECONDS option
FORMATTIME transforms the absolute date and time into any of a variety of formats. Normally, the ABSTIME argument is the value returned by an ASKTIME ABSTIME command.

Before CICS TS for z/VSE 2.1, the EXEC CICS FORMATTIME command rounded up a returned time if the number of milliseconds was greater than 500, except in the case where the ABSTIME argument contained a value representing the half-second before midnight, when no rounding was performed, and the TIME option returned 23:59:59. This rounding is no longer carried out, and the returned time (for example, with the TIME option) is given with the number of completed seconds. You can use the new MILLISECONDS option to obtain the number of milliseconds, and you can perform your own rounding if you need to replicate the former behavior of the command.

- New OSLEVEL option for the INQUIRE SYSTEM command
The OSLEVEL option was added to the INQUIRE SYSTEM command. This option returns a 6-byte field that shows the version, release, and modification level of the z/VSE product on which CICS TS for z/VSE is

running. For example, z/VSE Version 6 Release 1 Modification Level 0 returns the value 060100.

Please also see the CICS TS for z/VSE 2.1 Enhancements Guide - [here](#).

Tags: `api`, `command`, `cics`, `vse`

Do you still use real or emulated 3380 devices ? (2015-12-15)

I would like to have your feedback on today's topic.

There is a specific DOSRES / SYSWK1 disk layout for 3380 devices. Some installation steps are also "tuned" to 3380.

To get more flexibility for the z/VSE installation process and reduce the test effort we may drop the installation support for 3380 devices in a future z/VSE release.

In that case the DOSRES and SYSWK1 could no longer be used as 3380 installation devices. Fast Service Upgrade (FSU) from 3380 would not be possible to such a release.

In any case 3380 can still be used as data device.

Would that cause any problems for your z/VSE environment ?

You may comment to this blog entry - or send an email to me.

I am looking forward to your feedback.

Tags: 3380, device, dasd, vse

New CICS Explorer Client available (2015-12-14)

A new CICS Explorer client is available for download - CICS Explorer 5.3.

It is available for z/VSE and z/OS (same client) and can be downloaded from the CICS Explorer download page - [here](#). ... More information is on the z/VSE product page - [here](#) - and the CICS Explorer web page - [here](#).

The CICS Explorer consist of the CICS Explorer client and the CICS Transaction Server (CICS TS) server extension, which is the system management component of CICS TS. The client can run on any supported workstation. The server extension was delivered as PTF for CICS TS for VSE/ESA 1.1.1 and is integrated into CICS TS for z/VSE 2.1. The client connects via TCP/IP to the server and communicates with HTTP requests.

See also my related blog entry - [here](#).

Tags: vse, cics, cics-explorer, explorer

z/VSE Collection available (z/VSE documentation) (2015-12-11)

The z/VSE collection is a zip file, that includes all z/VSE documentation for several releases. It is electronic only and can be downloaded from the IBM publication center. There is no physical DVD available.

The new z/VSE Collection (December 2015) does include the latest z/VSE 6.1 books.

You can download the z/VSE Collection from the IBM Publication Center - [here](#). Please select the country, e.g. United States.

On the "Welcome to the IBM Publication Center" page select "Search for publications" and enter the publication number for the z/VSE Collection: **SK3T-8348-14**

Have a good weekend.

Tags: documentation, vse, collection_kit

z/VSE service news: IUI and VSE/AF APARs (2015-12-10)

I have a few more APARs for this week. They will also be posted to the z/VSE corrective service web page [here](#).

VSE/AF APARs

z/VSE 5.1 APAR [DY47632](#) (PTF UD54142): OS23I DUMP ROUTINE CANCELED. CANCEL CODE = X'20'.

Error description: Message OS10I GETVIS FAILURE IN DUMP ROUTINE. FUNC=3 followed by OS23I DUMP ROUTINE CANCELED. CANCEL CODE = X'20'. The APARs for z/VSE 5.2 (APAR [DY47633](#), PTF UD54147) and 6.1 (APAR [DY47634](#), PTF UD54148) will be available soon.

Interactive User Interface (IUI) APARs:

z/VSE 6.1 APAR [PI51839](#) (PTF UI33295): CANNOT MIGRATE SELECTION OR APPLICATION PANEL RECORDS, VSE PROCS UPCNTLAP AND UPCNTLSP FAIL WITH RC=25

Error description: When trying to update / migrate Selection or Application Panel records of a VSE CONTROL FILE, Procs UPCNTLAP and UPCNTLSP fail with RC=25 while searching the VSE.CONTROL.FILE for a specific Application or Selection Panel record. RC=25 means STARTKEY is specified for function UPDATE of a KSDS-file.

TCP/IP for VSE/ESA 1.5F APAR

.. and just a reminder. a TCP/IP for VSE/ESA 1.5F APAR is now on our corrective web page - see my [related blog entry](#):

APAR [PI49011](#) WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F. (TCPIP15F / SERV150F)

Tags: service, vse, support, tcpip, af

z/VSE 6.1: items not supported / not orderable (2015-12-09)

Today I want to give you some information about items not supported or not orderable with z/VSE 6.1:

Products not supported with z/VSE 6.1

These are products which are not supported with z/VSE 6.1 onwards:

- CICS TS for VSE/ESA V1.1.1. (The replacement product is CICS TS for z/VSE V2.1.)
- CICS/DDM is not supported with CICS TS for z/VSE V2.1.
- CICS/VSE V2.3. (The replacement product is CICS TS for z/VSE V2.1.)
- DL/I DOS/VS V1.10, DL/I VSE V1.11. (The replacement product is DL/I VSE V1.12.)
- VisualAge Generator Server V1.2. (The replacement product is IBM Rational COBOL Runtime for z/VSE V7.5.)
- IBM WebSphere MQ for z/VSE V3.0. (The IBM WebSphere MQ Client for VSE will continue to be available. In addition the MQ Client Trigger Monitor is provided with z/VSE 6.1.)

Products not orderable with z/VSE 6.1

These are products which are not orderable with z/VSE 6.1 onwards:

- IBM Advanced Communication Function/System Support Program (ACF/SSP) for VSE/ESA V4.8.1.
- IBM Advanced Communication Function/Network Control Program (ACF/NCP) V7.8.1.
- IBM X.25 NCP Packet Switching Interface (NPSI) V3.9.0.
- IBM Overlay Generation Language (OGL/370) V1.1.0.
- NFS for IBM TCP/IP for VSE/ESA - Feature S001G2C.
- WebSphere MQ for z/VSE - V3.0.0 5655-U97.
- EP (Emulation Program) - V1.14 5735-XXB.

Dropped JCL Options

Starting with z/VSE V5.1 the following operands of the OPTION or STDOPT statement have been dropped.

ASI procedures with

```
// STDOPT OLDASSEM=NO  
// STDOPT OLDASSEM=YES  
// STDOPT EDECK=NO
```

```
// STDOPT EDECK=YES  
// STDOPT FASTTR=NO  
will stop with message 1U13D INVALID STATEMENT -
```

Jobs with

```
// OPTION OLDASSEM  
// OPTION NOOLDASSEM  
// OPTION EDECK  
// OPTION NOEDECK  
// OPTION NOFASTTR  
will stop with message 1L65D INVALID OR INCOMPLETE OPERAND(S)
```

Remove the old OPTION operands from your JCL before migrating to z/VSE V6.1.

This information is also available in the z/VSE 6.1 Program Directory or Release Guide. You may download them [here](#).

Tags: support, vse, migration, order

Next Live Virtual Class: Introduction to KVM for z Systems (2015-12-08)

From the past blog entries about KVM I noticed some interest in this topic. Maybe you are interested in the next Live Virtual Class (LVC) too.

The LVC topic is: **Introduction to KVM for z Systems**

The information below will show up on the [z/VM LVC web page](#) soon:

Date: Wednesday, December 9, 2015

Time: 11:30 AM EST / New York, 4:30 PM UK, 5:30 PM CET / Germany

Abstract: IBM now has three strategic virtualization platforms: IBM z/VM, IBM PR/SM, and KVM for IBM z Systems. KVM for IBM z delivers server virtualization based on open source KVM Linux technology. KVM for IBM z virtualization technology enables you to share real compute, memory, and I/O resources through server virtualization. KVM for IBM z will be installed on z Systems processors similar to an operating system and can coexist with z/VM virtualization environments, Linux on z Systems, z/OS, z/VSE, and z/TPF. This presentation will give an introduction to KVM for IBM z.

After registering, you will receive a confirmation email containing information about joining the webinar.

Speaker: Tony Gargya, KVM Systems Management Architect, IBM Germany

Duration: 75 minutes

Replay & Archive: All sessions are recorded. For the archive as well as a replay and handout of this session (available by Dec 14, 2015) and all previous webcasts please visit the [z/VM LVC web page](#).

You may register via this [link](#).

System requirements are described [here](#).

z/VSE service news: VSE/AF APARs (2015-12-07)

Today I want to inform you about new APARs for VSE/AF:

z/VSE 5.1 APAR [DY47625](#) (PTF UD54136), z/VSE 5.2 APAR [DY47623](#) (PTF UD54135): AFTER VSAM RESTORE TO FBA-SCSI AN IO ERROR OCCURS WHEN READING SEQUENTIAL AND END OF FILE IS REACHED.

Error description: Software End Of File (SEOF) is not written correctly on FBA-SCSI device which results in an IO error. This may occur after an IDCAMS BACKUP/RESTORE of SAM ESDS files. A Job may abend with IGZ0002S Permanent I/O error, CEE3322C EXECUTION ABNORMALLY TERMINATED WITH USER-ABEND CODE

z/VSE 5.1 APAR [DY47619](#) (PTF UD54128, UD54129), z/VSE 5.2 APAR [DY47627](#) (PTF UD54138, UD54139), z/VSE 6.1 APAR [DY47628](#) (PTF UD54140, UD54141): LIBSERV RELEASE COMMAND NOT COMPLETED - MSG 1YH2I RELEASE FINISHED NOT ISSUED - FOLLOWON MOUNT NOT ACCEPTED

Error description: LIBSERV RELEASE processing does not complete occasionally. LIBSERV RELEASE,UNIT=cuu process does physically unmount the cartridge but the status in VSE's TLS does not get updated, it stays at MOUNT PEND.

Tags: vse, service, support, af, apar

Live Virtual Class presentation / playback available: z/VSE 6.1 - a quick overview (2015-12-04)

The presentation and playback of our last z/VSE Live Virtual Class (LVC) is now available for download.

The title was: z/VSE 6.1 - a quick overview - from December 1, 2015.

You may download it [here](#).

Have a good weekend.

Tags: `lvc`, `live-virtual-class`, `vse`

New IBM Redbook available: Getting Started with KVM for IBM z Systems (2015-12-03)

In my blog I mainly cover z/VSE topics. Because of our PIE (Protect, Integrate, Extend) strategy, news about Linux on z Systems and z/VM may be of interest for z/VSE users too.

Today I want to recommend an IBM Redbook, that was just published. It provides information about the Kernel-based Virtual Machine (KVM) hypervisor - an open source virtualization technology, new on the mainframe - KVM for IBM z Systems. Besides z/VM it provides an additional virtualization option for Linux on z Systems workloads.

The new IBM Redbook - Getting Started with KVM for IBM z Systems - explains KVM for z Systems and how it uses the z/Architecture. It focuses on the planning and design of the environment and provides installation and configuration definitions. You can download the IBM Redbook from [here](#).

This IBM Redbook is no longer available.

Tags: redbook, kvm, vm, virtualization, vse

How to migrate to z/VSE 6.1 and the new CICS TS ? (2015-12-02)

z/VSE 6.1 requires an initial installation.

z/VSE 6.1 migration information is provided in the z/VSE Planning and the z/VSE Administration books. You can download them from z/VSE's documentation page - [here](#).

In addition we just uploaded a migration paper - see my related blog entry from last Thursday. The paper is [here](#).

Please let me know, if there is anything not addressed or just send me your questions.

Mike Poil started a CICS migration discussion on VSE-L too.

The migration to the new TCP/IP stacks - TCP/IP for z/VSE 2.1 and IPv6/VSE 1.2 - should be relatively easy.

There is a bit more to consider for the migration to the new CICS TS for z/VSE 2.1. We have comprehensive migration chapters added to the CICS TS for z/VSE 2.1 Enhancements Guide (in short CICS Enhancements Guide).

It's also on our documentation page. The CICS Enhancements Guide is [here](#).

There we describe the tasks to migrate to CICS TS for z/VSE 2.1. Below is a short overview:

1. Migrate your CICS tables
 - All IBM-supplied tables are built with the CICS TS for z/VSE 2.1 level. If you use your own CICS tables (SIT, MCT, DFHCNV, and others) you need to reassemble and re-link these tables using the macros of CICS TS for z/VSE 2.1.
2. Migrate your CSD data set
3. Migrate CICS application programs
 - If you use EXEC CICS API interfaces within your application programs, you can run your programs unchanged with CICS TS for z/VSE.
 - If you use internal CICS control blocks within programs it is recommended to reassemble these programs.
4. Migrate Global User Exit Programs
 - The changes because of channels are transparent for existing user exit programs.

- Various internal CICS control blocks were changed. The changes are not transparent. If you use these control blocks within your exit programs, you have to reassemble these programs.
- 5. Migrate DFHCNV and DFHUCNV user-replacable programs
If you are using the DFHCNV and DFHUCNV user-replaceable programs you need to reassemble the DFHCNV, and modify the DFHUCNV program.
- 6. Migrate Dynamic Transaction Routing programs
If you use user-written dynamic transaction routing programs, there is a whole chapter that helps to decide whether you need to update these programs.
- 7. If you have enabled monitoring
 - If you use your own monitoring control table (MCT) it has to be reassembled.
 - You have enabled performance class monitoring, you have to create a performance dictionary record with the DFHMNDUP utility program shipped with CICS TS for z/VSE.
 - Channel and container related values were added to the performance-class monitoring records. To INCLUDE or EXCLUDE these values you can modify the DFHMCT TYPE=RECORD macro.
- 8. If you use statistical reports
 - New fields were added to the statistics A14 record and the statistics report.
 - Always use the version of the DFHSTUP program from the same release of CICS as the data that it is to process.
 - Use correct version of CICS-supplied utility programs
- 9. Always use the version of the CICS-supplied utility programs shipped with your CICS TS version.
- 10. Migration from CICS/VSE 2.3 to CICS TS
 - Status of CICS/VSE 2.3:
 - End of service of CICS/VSE 2.3 is effective since October 31, 2012.
 - Starting with z/VSE 4.3, the CICS coexistence environment was dropped.
 - Starting with z/VSE Version 5, CICS/VSE 2.3 can no longer be used with z/VSE.
 - Migration:
 - It is recommended to first migrate from CICS/VSE 2.3 to CICS TS for VSE/ESA 1.1.1 on your current system (z/VSE 4.2 or older). This allows you run both CICS versions in a coexistence environment.

- The CICS Application Migration Aid is no longer shipped with CICS TS for z/VSE 2.1.
- Regarding migration from CICS/VSE 2.3 to CICS TS for VSE/ESA please refer additionally to:
CICS Transaction Server for VSE/ESA Migration Guide and
the CICS Enhancements Guide,
IBM Redbook Migration to VSE/ESA 2.4 and CICS Transaction
Server for VSE/ESA 1.1

11. Migration of RPG II online applications

If your current system is z/VSE 4.1 or 4.2, it is recommended to migrate your RPG II online applications on your current system. Refer to the CICS Enhancements Guide.

Tags: vse, cics, migration

Connector updates for z/VSE 6.1 (2015-12-01)

We updated some connectors to our latest release - z/VSE 6.1.

They can be downloaded from z/VSE's download page - [here](#).

Updated connectors are:

- VSE Connector Client
- VSAM Redirector Server
- z/VSE Database Connector
- VSE Script Server
- VSE Virtual Tape Server
- Linux Fast Path Daemon
- VSAM Maptool

Tags: vse, download, connector

CICS TS for z/VSE 2.1 web pages available / updated (2015-11-30)

CICS TS for z/VSE 2.1 is available since Friday last week. In between the CICS Transaction Server web pages are updated. This blog entry gives the links to the most important ones.

Those CICS TS for z/VSE 2.1 web pages are:

- [Product page](#) - it will get a few additional updates
- [Supported platform requirements](#)
- [Fix list](#) and [related products document](#) was updated
- [Knowledge Center](#)

Tags: documentation, vse, cics, web_pages

z/VSE 6.1, CICS TS for z/VSE 2.1, IPv6/VSE 1.2 and TCP/IP for z/VSE 2.1 available today ! (2015-11-27)

z/VSE 6.1 - our new release - is now available, together with CICS TS for z/VSE 2.1, TCP/IP for z/VSE 2.1 and IPv6/VSE 1.2. You can order them through Shopz.

This is also a new version for z/VSE with an Architectural Level Set (ALS) to z10 or higher. It can not run on z9 or older processors.

Below I summarized the resources, where you can get more information about z/VSE 6.1:

- [z/VSE home page](#)
- [z/VSE 6.1 announcement letter](#) (quick overview of new functions)
- [CICS TS for z/VSE 2.1 announcement letter](#)
- [How to buy](#) - z/VSE 6.1 (with a new tab for the Migration Price Option (MPO))
- [z/VSE 6.1 Release Guide](#) (more details on z/VSE 6.1 and CICS TS for z/VSE 2.1)
- [z/VSE 6.1 Program Directory](#) (includes CICS TS for z/VSE 2.1, installation requirements)
- [CICS TS for z/VSE Enhancements Guide](#)
- [Remaining z/VSE 6.1 documentation](#) - TCP/IP for z/VSE 2.1 documentation is now available too.

- [z/VSE 6.1 Knowledge Center](#)
- [z/VSE Service Management Connect](#) - z/VSE 6.1 details on Tab "Release Plan"

- [z/VSE 6.1 Presentation](#)
- [z/VSE 6.1 Live Virtual Class](#) (LVC) on December 1, 2015

- [z/VSE Migration](#) - see yesterday's blog entry

Have a good weekend.

Tags: ga, tcpip, vse, announcement, cics

z/VSE migration to new hardware or a new z/VSE release: A technical paper (2015-11-26)

We just uploaded a new technical paper to the z/VSE documentation web page. The paper discusses z/VSE Migration.

The chapters are organized as follows:

- General migration consideration
- Backup data or system
- Processor (Hardware) upgrade
- Upgrade to new (disk, tape) hardware
- z/VSE Release or z/VSE Version Upgrade
 - Initial Installation / Fast Service Upgrade (FSU)
 - Migration of system configuration / data
 - VSE/VSAM data, ICCF Libraries (DTSFILE), .DL/I / DB2 Database, z/VSE Libraries, SAM Files, System History File
 - Security Definitions, Control Files containing Security Definitions, DTSECTAB, LDAP mapping file
 - VSE/POWER Migration
 - CICS TS for z/VSE Migration Considerations (CICS/VSE to CICS TS for VSE/ESA)
 - Migrate RPG II online application to CICS TS for z/VSE
 - LE z/VSE Migration

You can download the z/VSE Migration paper from [here](#).

Such a paper may be updated from time to time dependent on additional input from z/VSE development and service as well as our z/VSE users.

That is please let us know, if you see anything that is missing or that we should change. Thanks in advance.

Tags: vse, migration

CICS TS for z/VSE 2.1 - supported platform summary (2015-11-25)

Today is my 600th blog entry since I started the z/VSE blog. A short one for today. I was busy all day with preparations for the z/VSE 6.1 GA.

In between we have several web pages updated for z/VSE 6.1 as I mentioned in some of my last blog entries. We also updated or added new CICS TS for z/VSE 2.1 web pages.

One of them, that just became live, is the "CICS Transaction Server for z/VSE 2.1 - Supported Platform Summary". That web page is [here](#).

To all who have a holiday tomorrow: Enjoy Thanksgiving and the long weekend.

Tags: support, platform, vse, cics

z/VSE 6.1 will be available on Friday - November 27, 2015 (2015-11-24)

Today I want to summarize how to find any news about z/VSE 6.1.

A good overview of all z/VSE 6.1 enhancements are described in the **z/VSE 6.1 Release Guide**. This guide will also cover the new CICS TS for z/VSE 2.1 enhancements. There is no separate CICS TS Release Guide. The same is true for the **z/VSE 6.1 Program Directory**. It contains information concerning the material and procedures associated with the installation of z/VSE V6.1 and CICS TS for z/VSE 2.1.

All CICS TS for z/VSE 2.1 enhancements are described in detail in the **CICS for z/VSE 2.1 Enhancements Guide**. All other CICS TS books are not updated.

Now the CICS Enhancements Guide includes new chapters with details about the CICS Explorer, Channels & Containers and CICS migration. Migration tasks are described in detail. Don't worry, it's mainly to update some tables / definition. CICS applications should run unchanged - no recompile or re-link necessary (as long as you don't access CICS internal interfaces).

Those books - the Release Guide, Program Directory and CICS Enhancements Guide are on our documentation web page - [here](#).

Just a reminder: You may also join my **Live Virtual Class (LVC) on z/VSE 6.1** next Tuesday - December 1 - to get a summary of our new version and for questions. More information about that LVC is [here](#).

Are you aware of the CICS developer center ? (2015-11-23)

If you follow CICS on Twitter, you might notice one or the other tweet related to the CICS developer center. It holds any kind of information related to CICS, such as blogs, videos and sample code.

Most information is on CICS TS for z/OS. However, some blog entries are also relevant for z/VSE users.

The CICS developer center is [here](#).

Tags: cics, vse, blog, developer

z/VSE 6.1 documentation available on z/VSE web pages (2015-11-20)

As you saw in my blog entry on Wednesday we are preparing for the z/VSE 6.1 GA on November 27, 2015.

We update our web pages for this new z/VSE version. In many areas like the status and service web pages that work is completed.

Besides the z/VSE Knowledge Center we also uploaded the z/VSE 6.1 books to our documentation web page.

You can find them [here](#).

The TCP/IP for z/VSE 2.1 books are not yet there. They will get uploaded next week.

Have a good weekend.

Tags: web, vse, web_pages, documentation

New z/VSE article: Mobile Integration of CICS TG and CICS TS for z/VSE (2015-11-19)

We just published a new article on our documentation web pages.

The article describes how to setup a mobile platform with access to the CICS Transaction Server for z/VSE.

The title of the article is "Mobile Integration of CICS TG and CICS TS for z/VSE".

You can find it [here](#).

Tags: `cics, mobile, article, white_paper, vse, cics_transaction_gateway, documentation`

z/VSE 6.1 in IBM Knowledge Center / z/VSE 6.1 documentation available (2015-11-18)

The z/VSE Knowledge Center (KC) is a good source, for any kind of information related to z/VSE. It is also an additional option to access z/VSE documentation.

We just updated the z/VSE Knowledge Center with the z/VSE 6.1 information. The z/VSE 6.1 books are available too and can be accessed through the "PDF Library" link.

You can reach the z/VSE Knowledge Center via [this link](#).

Tags: vse, knowledge_center, documentation, kc

z/VSE service news: TCP/IP for VSE APAR (2015-11-17)

Today I have again a new APAR for you. It's for IBM TCP/IP for VSE/ESA 1.5F.

[APAR PI49011](#): APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F. (TCPIP15F / SERV150F)

Error description:

TCP/IP for VSE/ESA 1.5F product refresh on the basis of the CSI pre-applied service pack from Aug 05, 2015 plus additional zaps:

ZP15F206 ZP15F207 ZP15F208 ZP15F209 ZP15F210 ZP15F212 ZP15F215
ZP15F219 ZP15F224 ZP15F320 ZP15F457

The APAR will show up on our service page - [here](#).

Zap details are on CSI's web page for product fixes. The web page is [here](#).

Tags: service, apar, support, vse, tcpip

Slides and playback of last LVC are available (2015-11-16)

In between the slides and playback of our last Live Virtual Class (LVC on Nov. 10) are available on our LVC web page.

You can find them [here](#).

The title was: Solution concepts to integrate z/VSE data and applications with your IT

Tags: connector, slides, lvc, live-virtual-class, vse

Next blog entry on Monday - Nov. 16, 2015 (2015-11-13)

I am at a conference today. Therefore you will see my next blog entry on Monday.

Have a good weekend.

z/VSE service news: LFP and Connector APARs (2015-11-12)

We just released new APARs for z/VSE 5.1 and z/VSE 5.2.

Linux Fast Path (LFP)

- z/VSE 5.1 APAR [DY47616](#) (PTF UD54125); z/VSE 5.2 APAR [DY47620](#) (PTF UD54133): LFP IN LPAR - KEEP-ALIVE TIMEOUT
Problem description: Linux gets keep-alive timeout. No further communication between z/VSE and Linux.
- z/VSE 5.1 APAR [DY47621](#) (PTF UD54131); z/VSE 5.2 APAR [DY47622](#) (PTF UD54132): HARDWAIT OR LOOP WHEN USING LINUX FAST PATH
Problem description: Under certain circumstances the system can go into a hardwait or into a loop when using Linux Fast Path.

z/VSE Connectors

- z/VSE 5.1 APAR [PI51688](#) (PTF UI32653); z/VSE 5.2 APAR [PI51689](#) (PTF UI32654): WHEN UPDATING, DELETING OR INSERTING A RECORD USING THE VSAM-VIA-CICS SERVCIE FAILS, THE FILE MAY BECOME UNUSABLE
Problem description: When updating, deleting or inserting a VSAM record using the VSAM-via-CICS service fails (e.g. due to a duplicate key error), then that VSAM file may become unusable for subsequent requests. This may affect other CICS programs accessing the VSAM file. It may also hinder the file from being closed in CICS via CEMT SET FILE CLOSED.
Local fix: The situation clears up when the VSAM file is closed from the VSE Connector Server (either explicitly or implicitly due to a non-usage timeout) which terminates the corresponding ICVM transaction in CICS and thus releases the lock.

We also prepared our z/VSE service and support pages for z/VSE 6.1 - see [here](#).

Tags: vse, connector, lfp, support, apar, service

Next Live Virtual Class: z/VSE 6.1 - a quick overview (2015-11-11)

z/VSE 6.1 can be ordered starting November 24, 2015 and will be available on November 27.

Therefore I think, it's a good idea to give you a brief overview about the z/VSE 6.1 content short after GA in a Live Virtual Class (LVC). There is also time for your questions.

The LVC is scheduled for **Tuesday, December 1, 2015**.

Title: z/VSE 6.1 - a quick overview

Abstract: This LVC session gives some information about the z/VSE 6.1 release content. z/VSE 6.1 comes with a new CICS TS version, the first new version since 16 years. The new CICS functions will be discussed. z/VSE 6.1 focuses also on security, networking, hardware exploitation and connectivity to Linux on z Systems and other platforms. Both TCP/IP stacks come with a new version or release. Their functionality is addressed, too.

More information is on our LVC web page - [here](#).

Tags: lvc, live-virtual-class, vse

z/VSE service news: Interactive User Interface APAR (2015-11-10)

Today I want to inform you about a new APAR available for the Interactive User Interface (IUI).

[APAR PI49445](#) (z/VSE 5.1 PTF UI31822-51C; z/VSE 5.2 PTF UI31823-52C):
CANNOT MIGRATE SELECTION OR APPLICATION PANEL RECORDS, VSE PROCS
UPCNTLAP AND UPCNTLSP FAIL WITH RC=25

Error description: When trying to update / migrate Selection or Application Panel records of a VSE CONTROL FILE, Procs UPCNTLAP and UPCNTLSP fail with RC=25 while searching the VSE.CONTROL.FILE for a specific Application or Selection Panel record. RC=25 means STARTKEY is specified for function UPDATE of a KSDS-file.

You can find the latest APAR information on our z/VSE service & support web pages (corrective service) - [here](#).

Tags: support, apar, iui, service, vse

Personal note to Bob (2015-11-09)

Today I have a personal blog entry. I just read the sad news on VSE-L, that Bob Botsis passed away.

I still remember, when Bob was sitting in the middle of the room, an aisle seat and asked a question during one of my first WAVV sessions many years ago. I hardly could understand his dialect. As often it was a critical questions. Since then we had many discussions at WAVV, by phone or email about VSE. He told me what functions didn't behave as expected, what's good or bad in VSE - or what we need to improve. We worked together on problems (PMRs) and resolved issues. Bob provided important feedback for our releases. I will miss him.

Thank you, Bob.

Tags: vse

New z/VSE requirements (raised during GSE) (2015-11-06)

We had good discussions with z/VSE users during the last conference - 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Boeblingen / Stuttgart.

We got also new and known z/VSE requirements. Requirements are important input for the z/VSE team - even if we can't implement one or the other, because they show us your needs, e.g. missing functionality in z/VSE.

The Request for Enhancements (RFE) web page is the place to go, if you want to raise a requirement - or you can just vote for an existing requirement. Votes may help to show, that some other z/VSE users have the same requirement.

Most requirements can not be resolved immediately, may be with a next release or even much later. However, the requirements are all considered, when we plan for a next release, some may be selected.

Therefore requirements are usually in the state "Uncommitted Candidate" after some internal investigation.

If you want to raise a requirement or just vote, please go to the RFE web page - [here](#) - or to the [z/VSE requirements web page](#), which gives more information about how to raise a requirement.

You need an IBM id email address to sign in the RFE web pages.

At the RFE welcome web page you may search for requirements, raise a requirement, go to groups, etc.

On the groups tab you may use the predefined z/VSE group to list some z/VSE requirements. If you did not join that group yet, select "all public groups" and join the z/VSE group (in future it will appear on "My groups").

At the GSE conference the following requirements were raised:

- [PLI for VSE compiler AMODE\(31\)](#)
- [CICS Channels & Containers exploitation in Web Services \(SOAP\) urgently](#)
- [CICS TS for VSE: Extent CICS TASK number to 7 digits as displayed in CE MT INQ TASK](#)
- [Automatic LFP reconnect between z/VSE and z/Linux nodes](#)
- [CICS TS multiple TCP/IP Stacks support](#)
- [JCL Return Code on zVSE Job cancel](#)

Enjoy your weekend !

z/VSE security: Do you still use the CICS transaction security table DTSECTXN ? (2015-11-05)

Before z/VSE 3.1.1, CICS TS transactions were protected using the access control table DTSECTXN.

With z/VSE 3.1.1, the BSM (Basic Security Manager) control file and resource class TCICSTRN were introduced to protect CICS transactions. For compatibility reasons, DTSECTXN can exist in parallel to the BSM control file.

If you still use the DTSECTXN, it is recommended to protect your CICS transactions with the BSM control file and resource class TCICSTRN.

You can migrate the DTSECTXN definitions to the BSM control file on either your source or on your target system. The migration is described in detail in Migrating CICS Transaction Security Definitions of the z/VSE 6.1 Administration book. You may download it at z/VSE 6.1 GA from the [z/VSE documentation web page](#).

Starting with z/VSE 6.1 the Define Transaction Security (DTSECTXN) dialog has been removed. You can use it only on the source system.

You can assume that the support for DTSECTXN will be removed in a later z/VSE release. Therefore I recommend to migrate your transaction security definitions to the BSM control file.

Tags: security, vse, cics, transaction, bsm

z/VSE / z/VM service: Are you aware of the z/VM service web page ? (2015-11-04)

I try to inform you about news on our z/VSE service web pages. You may monitor these pages yourself.

z/VSE's service pages are [here](#).

Many of our z/VSE users run their z/VSE systems as z/VM guests. Are you aware of the z/VM service web page ? It is [here](#).

I don't monitor the related web pages. However, just to let you know, where to go for the latest z/VM APAR information.

I recommend the [z/VM Red Alert - Critical Issues](#) and [Important VM Service News](#) pages.

Tags: vm, vse, service, web_pages, support

Reminder for next week - Live Virtual Class: Solution concepts to integrate z/VSE data and applications with your IT (2015-11-03)

As mentioned in an earlier blog entry the next Live Virtual Class (LVC) is scheduled for next week - November 10, 2015.

Topic: Solution concepts to integrate z/VSE data and applications with your IT

Content: Since more than a decade the z/VSE Connectors are integral part of the z/VSE Operating System. z/VSE Connectors enable the access of z/VSE data and applications from remote or even synchronization of z/VSE VSAM data with remote databases. This session will show the concepts how you can design flexible solutions to access and integrate the different z/VSE data and applications from remote platforms, from the Web or from a Mobile App.

For more information and how to register see our LVC web page [here](#).

Tags: `live-virtual-class`, `connector`, `lvc`, `vse`

z/VSE 6.1: CICS Channels & Containers (2015-11-02)

Besides the CICS Explorer update capability - see my related [blog entry](#) - there was a major enhancement in CICS - channels & containers.

Today I have some more background on channels & containers:

Instead of using a communication area (COMMAREA), a new method of transferring data between CICS programs is to use a channel (and its containers).

A **container** is a named block of data used to pass information between programs. Containers may have any size as long as they fit into the CICS TS partition 31 bit storage (EDSA). CICS TS for z/VSE 2.1 does not support Containers in 64 bit storage. Containers can be grouped in a **channel**. There is no limit on the number of containers within a channel. New parameters are added to the LINK, XCTL, RETURN and START EXEC CICS commands to transfer a channel to another program / transactions. New EXEC CICS commands are available, e.g.:

- EXEC CICS PUT CONTAINER - define the size / create a container / assigns the container to a channel
- EXEC CICS GET CONTAINER - Read data from a container
- EXEC CICS DELETE CONTAINER - to free the storage, if a container is no longer required

Channels & containers have several advantages over COMMAREAs. A COMMAREA is limited to 32KB. With channels & containers there is no limitation, except the storage that is available in the CICS partition. The channel and container approach provides an easy and flexible way for exchanging large amount of structured data between CICS programs. The channels and containers API was first introduced with the CICS Transaction Server for z/OS 3.1 and was extended several times since then. CICS TS for z/VSE 2.1 supports a subset of the functionality, which is compatible with CICS Transaction Server for z/OS. Language support is provided for C, COBOL, HLASM, PL/I.

Channels (and its containers) can be transferred to CICS programs within one CICS system, to CICS system within one z/VSE image, to CICS systems in other z/VSE images on the same or different processors or to CICS regions running on z/OS. z/VSE 6.1 does not support the use of channels (and containers) with the External Call Interfaces (ECI and EXCI - batch to CICS), the CICS Web Support (CWS) or the z/VSE Connectors.

More information about channels & containers is in the CICS TS for z/VSE 2.1 CICS Enhancements Guide. This book will be available on our [documentation page](#) at general availability (GA) - here. GA is planned for November 27, 2015 - just a few weeks away.

There are also several IBM Redbooks publications for channels & containers available, all are related to CICS TS for z/OS. However, they give a good overview and examples for z/VSE users, too.

Here is one Redbook example:

[Using IBM CICS Transaction Server Channels and Containers](#)

Tags: documentation, cics, channels, containers, redbook, commarea, vse

50 years of VSE: The Film (2015-10-30)

We prepared a film for the 50th anniversary of VSE (about 9 minutes), that we showed during the celebration last week.

In between the film is on YouTube. May be you have some time to watch it.

The film is [here](#).

Have a good weekend.

Tags: film, video, history, vse

Conference presentations available (2015-10-29)

We just uploaded some presentations from the last conference - 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Boeblingen / Stuttgart.

Most of the presentations are in English. Below are the presentation titles for download:

- Improving the Customer Experience - Redefining enterprise IT for digital business
- 50 Years of z/VSE - Getting stronger Year by Year!
- IBM LinuxONE - Linux without Limits - Open Technology driving Business Innovation
- Introduction to KVM for IBM z Systems
- z/VM Platform Update
- Mobile application transformation for z/VSE
- The new version z/VSE 6.1
- Operational Monitoring and Automation of z/VM, z/VSE and Linux on z Systems
- Aktuelles zu z/VSE V5.2 und den z/VSE-Konnektoren (mainly German, with some English slides)
(English title: Latest news for z/VSE 5.2 and the z/VSE connectors)
- z/VSE Hints & Tipps und Requirements (German only)

The presentation are on our documentation pages - [here](#).

More presentations of this GSE conference can be found on the GSE homepage (GSE members only).

Tags: conference, vse, linux, gse, vm

Do you already use the CICS Explorer ? (2015-10-28)

We introduced the CICS Explorer in 2012. It is a system management tool that is designed to provide a simple, easy to use way of capabilities against CICS systems. Based on an Eclipse platform, it gives a view of some of the CICS system management functions in CICS TS for VSE.

The CICS Explorer consist of the CICS Explorer client and the CICS Transaction Server (CICS TS) server extension, which is the system management component of CICS TS. The client can run on any supported workstation. The server extension was delivered as PTF for CICS TS. The client connects via TCP/IP to the server and communicates with HTTP requests.

The (same) CICS Explorer client is available for z/VSE and z/OS, It can be downloaded from the CICS Explorer web page - [here](#). ... Or you may use the CICS Explorer section on the z/VSE product page - [here](#) - for more information.

With z/VSE Version 5 we just provided monitoring capabilities for CICS resources, such as programs, files, transactions, etc. Now with the new CICS TS version - CICS TS for z/VSE 2.1 - the CICS Explorer got a major update. We integrated the CICS TS server extension into the CICS TS server and added update capabilities. That is with the new version available with z/VSE 6.1 on November 27, 2015 you can enable / disable CICS resources, change CICS definitions, etc. - in addition to the monitoring.

Please make sure that you always use the latest CICS Explorer client,

Tags: cics-explorer, vse, cics

Conferences in 2016 (2015-10-27)

The GSE/IBM Technical University for z/VSE, z/VM and Linux on z Systems just ended. Attendees enjoyed the celebration of 50 years of VSE.

The sessions were well received, too. May be you are interested in next years GSE / Technical University sessions.

Here are the dates and location for 2016:

- GSE Spring Conference (Fruehjahrstagung) is in German language only. It is scheduled for **April 18-20, 2016** in Berlin, Germany.
- 10th European GSE/IBM Technical University for z/VSE, z/VM and Linux on z Systems with general sessions and international tracks in English. It is scheduled for **October 24-26, 2016** in Leipzig, Germany.

There will be more conferences for z/VSE users next year. I will inform you, when I have more details about those.

Tags: gse, conference, vse

Do you know these IBM DevOps books ? (2015-10-26)

I just got noticed about an IBM web page, that may be of interest for you. Thanks, Rene.

It holds books about DevOps, which may be useful for z/VSE environments, too. One of the latest books is "Mobile to mainframe DevOps for Dummies".

The web page is [here](#).

New IBM Redbooks available for Linux on z Systems (2015-10-23)

Today's blog entry may be of interest for z/VSE users, that implement our PIE (Protect, Integrate, Extend) Strategy.

There are new Redbook publications available related to Linux on z Systems and the SUSE distribution.

First the IBM Redguide: Keep Your Systems and Services Available with IBM z Systems and SUSE Linux Enterprise Server for System z
The Redguide is [here](#).

Second a new Redbook: The Virtualization Cookbook for IBM z Systems Volume 3: SUSE Linux Enterprise Server 12
That Redbook is [here](#).

Have a good weekend.

Tags: availability, linux, distribution, redbook, vse

z/VSE service news: new APARs for VTAPE, LFP, SNMP and CICS TS (2015-10-22)

There are a few new APARs, that were released the last weeks. You can register to get related APAR information from the service portal or monitor our service web page for new updates.

The latest APARs are listed on the z/VSE's corrective service page - [here](#).

VSE/AF:

z/VSE 5.1 APAR [DY47616](#) / PTF UD54125; z/VSE 5.2 APAR [DY47620](#) / PTF UD54133: LFP IN LPAR - KEEP-ALIVE TIMEOUT

Problem: Linux gets keep-alive timeout. No further communication between z/VSE and Linux.

Problem conclusion: The APAR prevents the timeout.

z/VSE 5.1 APAR [DY47614](#) / PTF UD54126; z/VSE 5.2 APAR [DY47618](#) / PTF UD54130: HARDWAIT FFB DURING VTAPE STOP PROCESSING

Problem: The VTAPE STOP processing frees some control blocks before clearing the respective pointers. Under rare circumstances this may cause a hard wait FFB, when another task (e.g. the service system task) performs I/O against the virtual device that is being terminated.

Problem conclusion: The PTF fixes a code logic error that may cause a hardwait FFB.

z/VSE Connectors:

z/VSE 5.1 APAR [PI49381](#) / PTF UI31612; z/VSE 5.2 APAR [PI49382](#) / PTF UI31613: THE SNMP MONITORING AGENT RETURNS INCORRECT CPU-TIME VALUES WHEN CPU BALANCING IS ACTIVE

Problem: The z/VSE SNMP Monitoring Agent returns incorrect CPU-time values when the system is running with CPU balancing active.

Whenever the CPU balancing algorithm starts or stops CPUs the CPU-time value reported by the SNMP Monitoring Agent is incorrect.

Problem conclusion: The CPU plugin has been updated to correctly add up the CPU-time used for all CPUs, when CPU balancing is active.

CICS TS for VSE/ESA 1.1.1:

You always can find the latest APAR information on the fix list for CICS Transaction Server for VSE/ESA 1.1.1. The CICS TS service team also posts information about problems, where PTFs are not yet available.

There is a new APAR / PTF available:

APAR [PI40483](#) / PTF UI30403: MSGDFHWB0001 WITH ABEND OC4/AKEA AT OFFSET X'130C' IN MODULE DFHWBAP.

The fix list is [here](#).

Tags: cics, vse, connector, ptf, support, lfp, af, service, apar

What about z/VSE 6.1 documentation ? - next blog entry on October 22 (2015-10-19)

I just received a question about the z/VSE 6.1 documentation. When will it be available and where ?

The z/VSE documentation will be available at our documentation page latest on November 27, 2015 - the GA of z/VSE 6.1.

z/VSE's documentation page is [here](#).

The documentation will also show up in the z/VSE Knowledge Center. You will see a new z/VSE 6.1 entry at GA [there](#).

If read my blog, you can also wait until I post a related entry ;-)

By the way I am at the GSE conference in Stuttgart, Germany, the next 2 days. That is you can expect my next blog entry on Thursday - October 22.

Tags: documentation, vse

Today: 50 years of VSE (2015-10-19)

Today we celebrate **50 years of VSE** in the IBM Lab in Boeblingen, Germany - the home of VSE.

We celebrate it together with our customers, partners, vendors, VSE users, the z/VSE team and retired VSE developers.

You may want to read a bit of **VSE's history** - [here](#).

As you see with our latest announcement just 2 weeks ago for z/VSE 6.1 it supports the latest mainframe architecture (z13) and provides key enhancements such as for online processing (CICS TS), networking and security for future workloads. More information about that announcement is [here](#).

Thanks to all VSE users.

Next Live Virtual Cass: Solution concepts with z/VSE - next blog entry on October 22 (2015-10-09)

I will be on vacation next week and at the GSE Conference in Boeblingen / Stuttgart, Germany. Therefore you can expect my next blog entry on Thursday (Oct 22).

Now to the next Live Virtual Class (LVC):

It is scheduled for **November 10, 2015**.

Title: Solution concepts to integrate z/VSE data and applications with your IT

Since more than a decade the z/VSE Connectors are integral part of the z/VSE Operating System. z/VSE Connectors enable the access of z/VSE data and applications from remote or even synchronization of z/VSE VSAM data with remote databases. This session will show the concepts how you can design flexible solutions to access and integrate the different z/VSE data and applications from remote platforms, from the Web or from a Mobile App.

More information is on our LVC web page [here](#).

Have a good weekend.

Live Virtual Class presentation / playback available: VSE/VSAM Fundamentals (2015-10-08)

The presentation and playback of our last z/VSE Live Virtual Class (LVC) is now available for download.

The title was: **VSE/VSAM Fundamentals**, Hints & Tips and Best Practices

You may download it [here](#).

Tags: vse, lvc, live-virtual-class, vsam

z/VSE service news: RSLs are available (2015-10-07)

New Recommended Service Levels (RSLs) are available for z/VSE 5.1.2 and z/VSE 5.2.0. The RSL cutoff was August 31, 2015.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: support, vse, rsl, service

z/VSE 6.1 GA announcement: Migration Price Option (MPO) (2015-10-05)

z/VSE 6.1 does not support Fast Service Upgrade (FSU), because we are going to a new CICS TS version. That is z/VSE 6.1 requires an initial installation. We did the same, when we introduced CICS TS for VSE/ESA 1.1 with VSE/ESA 2.4. That also allows to clean up your system. In the past our service team got some problems reported caused by old and obsolete settings. That is for some z/VSE users it may take more time to migrate to the new z/VSE 6.1. We will therefore provide a migration white paper at GA as well as migration tips in the updated CICS Enhancements Guide, also available at GA.

To give some more time for the migration - compared to Single Version Charging (SVC) - we will introduce a new Migration Price Option (MPO) for z/VSE 6.1.

Below is the MPO text of the z/VSE 6.1 announcement letter:

The Migration Price Option (MPO) enables the combining of z/VSE V5 (and/or z/VSE prior versions) and z/VSE V6 MSUs to calculate z/VSE V6 billable charges on the same machine. Customers pay for the combined MSUs at the z/VSE V6 price. All Customers are eligible for the MPO while migrating to z/VSE V6. The eligibility period is 18 months from the date of licensing z/VSE V6. Eligibility ends at the completion of migration or 18 months, whichever occurs first.

The Migration Price Option should be requested when ordering z/VSE V6 when that will be replacing z/VSE V5 (and/or z/VSE prior versions) on the same Machine.

The Migration Price Option is available:

- While z/VSE V5 (and/or z/VSE prior versions) and z/VSE V6 are running on the same machine and Licensed under the same IBM customer number.
- During migration to z/VSE V6 and not to exceed 18 months from the date of licensing z/VSE V6.

When z/VSE V5 (and/or z/VSE prior versions) and z/VSE V6 are eligible for Sub-Capacity pricing, z/VSE V6 is charged at the combined concurrent peak MSUs for both versions, reported as z/VSE (ALL) on the customer's Sub-Capacity Report. The calculated MSUs apply for a period not to exceed 18 months from the date of licensing of z/VSE V6.

When full capacity charges apply, charges for z/VSE V5 (and/or z/VSE prior versions) and z/VSE V6 are based on the MSU value at Full-Machine Capacity and billed at the z/VSE V6 price for a period not to exceed 18 months from the date of licensing z/VSE V6.

The usage of a set of Programs, subject to the waiver, would be limited by terms of an IBM agreement such that the qualifying customers will be allowed to run only one SW application (either "from" or "to" Program) in a single production LPAR.

You can find the full text in the announcement letter under Terms and Conditions [here](#).

Tags: mpo, vse, pricing, announcement

z/VSE 6.1 news: GA Announcement - It can be ordered starting November 24, 2015 ! (2015-10-05)

I am still travelling - yesterday from South Korea to the IBM Systems Technical University (zUniversity) in Orlando.

In May 2015 we announced the preview for z/VSE 6.1. So you know the content of this new release already.

Today at the first day of the zUniversity conference we have exiting news: The GA (general availability) announcement of z/VSE 6.1.

Orders for new z/VSE licenses will be accepted from November 24, 2015.

z/VSE 6.1 is planned to be available on **November 27, 2015**. It can run on z10, z114, z196, zBC12, zEC12 and z13.

Below is a quick overview what you can expect in z/VSE 6.1:

- The latest hardware support
 - IBM z13 support
 - Configurable Crypto Express5S
 - FICON Express16S for ECKD, channel to channel and SCSI devices
 - IBM System Storage options
 - IBM System Storage TS7700 Virtualization Engine Release 3.3
 - IBM System Storage DS8870 Release 7.5 (ECKD and FCP-attached SCSI disks)
 - IBM FlashSystem V900 for use with FCP-attached SCSI disks.
- New CICS version: CICS TS for z/VSE 2.1 - fullfills Statement of Direction (SOD)
 - CICS TS for z/VSE 2.1 will only run on z/VSE 6.1 and higher; CICS TS for VSE/ESA 1.1.1 will not run on z/VSE 6.1
 - CICS Explorer update capability
 - Channel & Container support - Lifts the 32K Commarea limitation
 - CICS requirements
 - More current cypher suites (AES128/256) to CICS Web Support
 - Support for EXEC CICS INQUIRE SYSTEM OSLEVEL
 - Millisecond option added to some EXEC CICS commands
- Networking enhancements - These will only be available for z/VSE 6.1 and higher.

- IPv6/VSE 1.2 - a new release of BSI's TCP/IP stack
 - Automated OSA Express fail-over using hot swap devices for high availability
 - Improved stack CPU optimization
 - Improved SSL support including TLS 1.2 and DH/ECC sockets
 - Virtual IP address support using virtual network devices
 - Basic firewall support
- TCP/IP for z/VSE 2.1 - new version - a new version of CSI's TCP/IP stack
 - Internal processing improvements
 - Cross memory services for external partition socket requests
 - New utilities for automation and TN3270 services
 - Enhanced TLS/SSL cryptography
 - New white-list firewall feature
- Configurable output buffers for HiperSockets and OSA Express devices
- Connectors
 - MQ Client Trigger Monitor
 - If a message arrives on a WebSphere MQ server queue, the trigger monitor may start a CICS program. Together with the MQ Client for z/VSE this might help some customers without a MQ server on z/VSE.

z/VSE 6.1 requires an initial installation. Fast Service Upgrade (FSU) from z/VSE V5 is not supported.

However, we introduce a new Migration Price Option (MPO) for z/VSE 6.1, which gives better pricing during the migration compared to Single Version Charging (SVC) of up to 18 month.

I have more details in a blog entry I plan for tomorrow. ... and we will provide a migration white paper at GA.

I described all new technical functions in earlier blog entries after the preview announcement in May. Just browse back in my blog or use the tags to search for a specific topic.

.. and there is a new **Statement of Direction (SOD)**:

IBM plans to deliver future upgrades of z/VSE on DVD or electronically only.

The **announcement letter** with the **z/VSE 6.1** availability announcement is [here](#).

CICS TS for z/VSE 2.1 is only available with z/VSE 6.1. There is a CICS TS for z/VSE 2.1 announcement letter too - [here](#).

Tags: general_availability, cics, announcement, vse, ga

Urgent reminder for today: Live Virtual Class on VSE/VSAM; GSE conference; no daily posts the next 3 weeks (2015-09-29)

Sorry, that you didn't see any blog entries in between. I am still on a business trip. So far I visited Jakarta, Singapore, Manila and South Australia.

As said don't expect daily blog entries the next 3 weeks. I will for sure write a blog entry from the **zUniversity conference** (see [here](#)) in Orlando next week.

The next **Live Virtual Class (LVC)** is scheduled for today - **September 29, 2015**: VSE/VSAM Fundamentals, Hints & Tips and Best Practices.

More information is [here](#).

You may still register for the **9th European GSE / IBM Technical University for z/VSE, z/VM and Linux on z Systems** starting on **October 19, 2015** in Boeblingen / Stuttgart, Germany. We will celebrate VSE's 50th anniversary at the first day of the conference in the IBM lab in Boeblingen, the home of VSE.

More information including the full agenda is [here](#).

Tags: lvc, gse, live-virtual-class, vse

A few things.... no daily posts the next 4 weeks (2015-09-18)

I am not in the office the next four weeks. Therefore you don't see daily posts. However, I will keep you posted, if I have any news.

I will be on a business trip in Asia, Australia and the US.

A few things:

- Today is an important day: We release a new virtualization product for Linux on z Systems workloads: KVM for IBM z Systems. See my blog entry the other day - [here](#).
- The next Live Virtual Class (LVC) is scheduled for September 29, 2015: VSE/VSAM Fundamentals, Hints & Tips and Best Practices. See my blog entry [here](#).
- May be we can meet at the Systems Tech University in Orlando - starting on October 5. The corresponding blog entry is [here](#).

Have a good weekend.

Tags: lvc, vse, conference, kvm, live-virtual-class, zuniversity

New / Updated IBM Redbooks (2015-09-17)

I have to prepare for a longer business trip. Therefore a short blog entry today.

I am not sure, if you monitor the IBM Redbook page and new posts about new / updated Redbooks.

There are some updates that may be of interest for z/VSE users:

- [IBM DS8870 Architecture and Implementation \(Release 7.5\)](#)
- [IBM z13 Technical Guide](#)
- [The Virtualization Cookbook for IBM z Systems Volume 2: Red Hat Enterprise Linux 7.1 Servers](#)
- [IBM TS7700 Virtualization Engine with R3.2](#)

Tags: virtualization, documentation, redbook, disk, redhat, tape, vse, device

Keyman/VSE updated (2015-09-16)

Keyman/VSE is a tool to manage the z/VSE specific public key infrastructure. It can create RSA key pairs, create and sign certificates, and upload them to a z/VSE system. It can also read and write PKCS#12 keyring files (PFX). Recent updates include support for Java key stores (JKS) and OpenPGP.

The tool was just updated. It is based on the VSE Connector Client and its current version requires a JRE/JDK 1.5 or higher. You can download Keyman/VSE from our download page - [here](#).

Tags: crypto, download, keyman, vse

New virtualization option for Linux on z Systems (2015-09-15)

During my vacation there was an important announcement for a new server virtualization option.

Besides the virtualization platforms IBM z/VM and IBM PR/SM we will get a new one - KVM for IBM z Systems.

The Kernel-based Virtual Machine (KVM) provides open source virtualization for the z Systems platform. It runs Linux on z Systems workloads only and can coexist with z/VM virtualization environments, Linux on z Systems, z/OS, z/VSE and z/TPF in different LPARs. The announcement letter was just updated (minor corrections). After Friday this week you can get it.

More details are in the announcement letter [here](#).

Tags: virtualization, linux, vse, kvm

z/VSE requirement: RFE 74255: VSE/VSAM IDCAMS Print lower case (2015-09-14)

Today I have a requirement, that I want to discuss.

As you may know from previous blog entries you may use the new requirements tool "Request for Enhancement" (RFE) to raise a requirement. See also my blog entry - [here](#).

A few weeks ago we received a VSE/VSAM requirement - RFE 74255: IDCAMS Print lower case - see [here](#).

Requirement description: IDCAMS PRINT should not translate lowercase to period. All 3270 terminals and most printers can now display lowercase characters. Currently "Alpha" prints as "A..." which is useless. Please change CHAR and DUMP to display lowercase a-z as lowercase a-z. The HEX parameter is not affected. If desired, add a new parameter such as CASE MIXED.

Solution: We will not provide the function as proposed. However, we have already a description in our z/VSE Hints & Tips book, Chapter 8 VSE/VSAM, how to translate to lower case.

Heading in z/VSE Hints & Tips: Missing or Unreadable Print Information
Since VSE/VSAM printing of files is done in upper case characters without respect to, for example, lower case or foreign language special characters, some information may not be readable. This problem may be solved by a user-provided translate table for IDCAMS PRINT. The IDCAMS PRINT command is a basic method of listing records from a VSAM file. Through the use of the PARM parameter processing options for printed output can be specified.

The GRAPHICS TABLE(mname) parameter of the PARM command specifies the name of a module (accessible through VSE/VSAM CDLOAD) in the sublibrary that contains a 256-byte user-provided translate table. This table defines the graphic characters for each of the possible 256 bit patterns. Any character to be printed is translated to the bit pattern found in such a table at the position corresponding to its numeric value (0-255).

z/VSE Hints & Tips has more information and gives an example. The book is [here](#).

Tags: tips, vsam, vse, rfe, requirements, hints

Technical topic: z/VM and Simultaneous Multithreading (SMT) (2015-09-11)

Today I have a technical topic for you.

During my vacation we had a z/VM Live Virtual Class (LVC), that covered the z/VM exploitation of a new technology introduced with z13 (latest IBM mainframe), called Simultaneous Multithreading (SMT).

The session explored, what SMT is from a hardware perspective and how it's implemented in z/VM.

It discovered the new and changed commands and configuration statements, so you know how to implement it in your shop.

The presentation is on the z/VM LVC web page - [here](#).

This page also provides presentations of other LVCs for z/VM, z/VSE, Linux on z Systems and KVM on z Systems platforms..

Are there any topics that you would like to see in my blog ?

Have a good weekend.

Tags: z13, live-virtual-class, technical, lvc, vse, vm

Next z/VSE Conferences: Systems Tech University, GSE conference (2015-09-10)

There are just a few weeks until the next conferences with z/VSE sessions.

The first one will be in Orlando, Florida starting on October 5, 2015 - the Systems Tech University.

More information about that conference is [here](#). You can start with the overview, where you find a list of sessions.

The second conference is the 9th European GSE / IBM Technical University for z/VSE, z/VM and Linux on z Systems starting on October 19, 2015 in Boeblingen / Stuttgart, Germany. We will celebrate VSE's 50th anniversary at the first day of the conference in the IBM lab in Boeblingen, the home of VSE.

More information including the full agenda is [here](#).

Tags: gse, vse, conference, zuniversity

z/VSE service news: VSAM & CICS PTFs (2015-09-09)

I have to catch up with my email. Therefore it's a bit late today.

There were just a few new APARs released during my vacation, which shows the good quality of our z/VSE releases in service.

VSE/VSAM

z/VSE 5.1 APAR [DY47615](#) (PTF UD54124), z/VSE 5.2 APAR [DY47617](#) PTF (UD54127): SDUMP INVALIDLY ISSUED
PROBLEM DESCRIPTION: SDUMP issued from ikqbfcc or ikqbfce. SDUMPs are removed.

CICS TS for VSE/ESA 1.1.1

You can find the latest CICS TS for VSE/ESA APAR information on the corresponding fix list - [here](#).

There are two new PTFs available:

UI30403 - MSGDFHWP0001 WITH ABEND OC4/AKEA AT OFFSET X'130C' IN MODULE DFHWPAP.

UI29611 - ABEND OC1/AKEA IN DFHSSOE OCCURS DURING CICS INITIALISATION

Next z/VSE LVC: VSE/VSAM Fundamentals, Hints & Tips and Best Practices (2015-09-08)

I just returned from vacation. They are always too short. I had a good time at the Atlantic beaches in France close to La Rochelle.

I hope my readers from the US had a good holiday yesterday too.

Let's start with an easy blog entry.

We scheduled our next Live Virtual Class (LVC) for **September 29, 2015**.

Title: VSE/VSAM Fundamentals, Hints & Tips and Best Practices

In association with the z/VSE 50 anniversary we have prepared a VSAM session to review basic VSAM concepts, provide hints & tips and some best practices of data organization and management.

The session is therefore applicable for users of various VSAM expertise levels.

The speaker is my colleague Mikhail Zaslonko

As always more details are on our LVC web page - [here](#).

Tags: `live-virtual-class, vsam, lvc, vse`

Next blog entry on September 8, 2015 (2015-08-13)

It's time to for summer vacation.

You will see my next blog entry, when I am back in my office - on September 8, 2015.

Have a good time.

Tags: vse

Did you already visit the z/VSE Knowledge Center ? (2015-08-12)

In May I informed you about the new z/VSE Knowledge Center - [here](#).

The z/VSE Knowledge Center is a good source, for any kind of information related to z/VSE. It is an additional option to access z/VSE documentation.

Now we updated it with additional information, such as "what's new in this version" for z/VSE 5.2 and some additional link information.

After GA of z/VSE 6.1 you can find a z/VSE 6.1 entry with the corresponding information too.

The z/VSE Knowledge Center is [here](#).

Since some time we also have a CICS TS for VSE Knowledge Center. After GA of CICS TS for z/VSE 2.1 you can find an entry for this release too.

The CICS TS for VSE Knowledge Center is [here](#).

Just for completeness, some more products in the Knowledge Center:

- [High Level Assembler](#)
- [Linux on z Systems](#)
- [z/VM](#)
- [z/OS](#)

... and you may search for more in the IBM Knowledge Center - [here](#).

Tags: knowledge_center, vse

End of marketing announcement: tape controller (2015-08-11)

There is a new end of marketing announcement (eom) that may be of interest for you.

Today it was announced that the IBM 3592 Tape Controller Model C07 and select features will be withdrawn from marketing effective on November 13, 2015. That is on or after the effective date of withdrawal, you can no longer order these products directly from IBM.

Available options to replace Tape Controller Model C07 for connectivity in mainframe environments are described in the corresponding RFA. The link to the RFA is [here](#).

Tags: tape, announcement, vse, end-of-marketing, eom

New IBM Redbook available: z/VM virtualization cook book (2015-08-10)

I have a short blog entry for today, because I am preparing for my vacation starting end of this week.

There is a new IBM Redbook available. I mentioned the earlier draft in a former blog entry.

That Redbook is "The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3".

It consists of the following chapters:

- Chapter 1, "Introduction to Linux on the IBM mainframe under z/VM"
- Chapter 2, "Planning"
- Chapter 3, "Configuring a workstation for mainframe access"
- Chapter 4, "Installing and configuring z/VM"
- Chapter 5, "Servicing z/VM"
- Chapter 6, "Planning and preparing for Linux workloads"

On the following [link](#), you can find a more detailed abstract and link to download the Redbook.

Tags: redbook, vse, zvm

Do you use DL/I on z/VSE ? (2015-08-07)

Today it's again hot in southern Germany - 37 C, about 99 F. ... and we don't have air conditioning.

If you use DL/I on z/VSE, this blog entry might be of interest for you.

Just if you are not that familiar with DL/I VSE, it's the short form of "Data Language One". DL/I VSE is the hierarchical database management system for z/VSE.

More information about DL/I is [here](#).

Just about 2 weeks ago I mentioned a Debug Tool APAR, that is required to use it on z/VSE 6.1 - see [here](#).

Now we adapted DL/I for z/VSE 6.1 and released an APAR. That is we are coming closer and closer to a z/VSE 6.1 GA, which is planned for the 4th quarter of 2015. I hope, you are looking forward to the z/VSE 6.1 GA.

If you want to review the new upcoming z/VSE 6.1 functionality, more information is on our z/VSE web page - [here](#).

... but now to the DL/I 1.12 APAR. There is no hurry to apply it, but you can prepare your current system for z/VSE 6.1.

DL/I 1.12 is the only DL/I release, that can execute on z/VSE 4.3, 5.1, 5.2 and 6.1.

DL/I VSE 1.12 [APAR PI44918](#) (PTF UI29438): CHANGES FOR DL/I 1.12 MPS TO RUN ON Z/VSE 6.1

Description: The DL/I 1.12 MPS function needs to be adapted for running on z/VSE 6.1 with new CICS Transaction Server (CICS TS) for z/VSE V2.1.

Enjoy your weekend.

Tags: support, apar, service, vse, dli

End of service announcements that may affect z/VSE users (2015-08-06)

On Tuesday there was an end of service announcement, which included a few VSE products. I assume, that isn't a problem for our z/VSE users.

Versions to be withdrawn from service on November 30, 2016:

- IBM Advanced Communication Function/System Support Program (ACF/SSP) for VSE/ESA 4.x.x 5686-064

Features to be withdrawn from service on September 30, 2016:

- IBM TCP/IP for VSE/ESA 1.5.0 5686-A04 Feature S001G2C - NFS for IBM TCP/IP for VSE/ESA

Both don't have replacements.

The end of service announcement letter is [here](#).

Just a reminder: Websphere MQ for z/VSE V3 will have end of service on September 30, 2015. See my related [blog entry](#).

And there was an end of marketing announcements of z/VSE related products too. I did not yet mention that.

Versions to be withdrawn from marketing (that is it's no longer orderable) September 15, 2014:

- IBM Advanced Communication Function/Network Control Program (ACF/NCP) 7.8.1 5648-063

... the corresponding announcement letter is [here](#).

Tags: ncp, mq, eom, end-of-marketing, end-of-service, vse, ssp, eos

z/VSE's release status, processor and device support (2015-08-05)

It's warming up today, therefore just a short blog entry. It has currently 31 C (87 F).

As you may remember I had a blog entry on processor and device support of z/VSE in January.

Therefore this reminder, because we are regularly getting questions about that. Most of that information is on our status web pages.

We even keep the processor and device support actual for very old VSE releases too and what you need to run your system on a new processor.

You can also find the GA announcement, end of marketing and end of service dates there, with links to corresponding announcements.

We have a status page for supported releases, that page is [here](#). ... and unsupported releases, that page is [here](#).

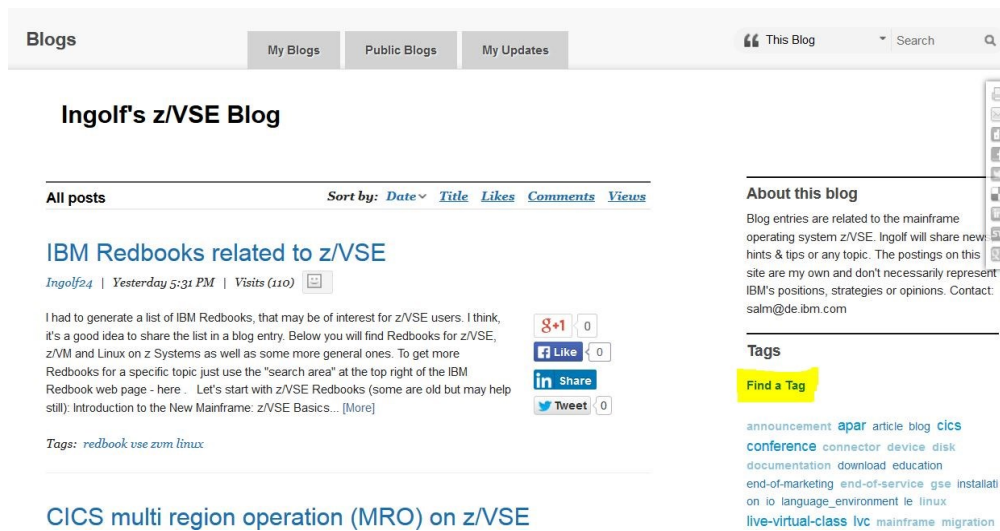
The January blog entry is [here](#) - or just search for it with the tag "status".

Tags: support, device, status, vse, release, processor

Are you using tags to search for z/VSE topic ? (2015-08-04)

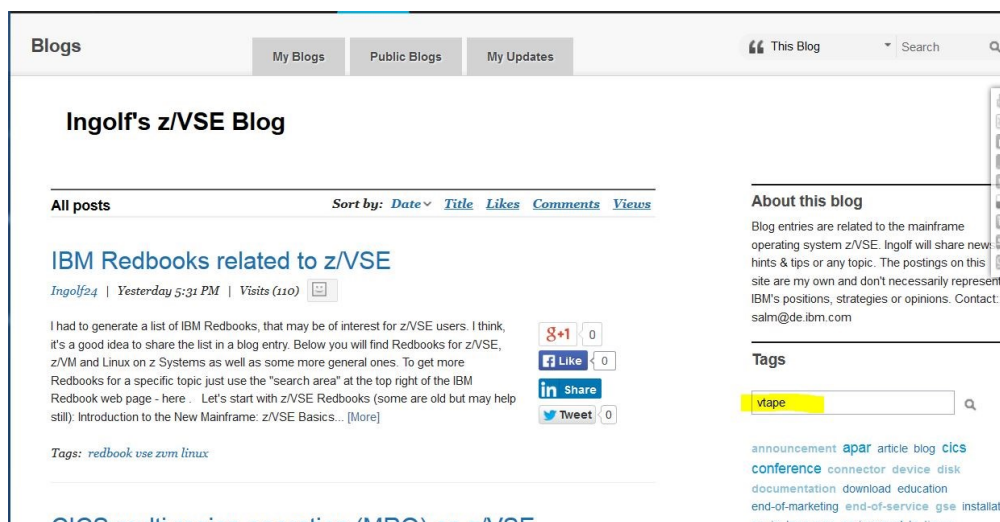
Often I get questions about z/VSE topics, that I already addressed in [my blog](#). In many cases I can just send the link to the corresponding block entry as an answer. It is easy to locate a specific block entry. Just use tags to search for it. By the way this is my 551st blog entry since I started this blog.

Tags are on the right of the blog. Click on "Find a tag" or directly click on the topic, if you see it in the tag cloud.



In the "Find a tag" field you can enter the topic you are looking for, e.g. VTAPE. Why VTAPE, because today there was a question about more information on VTAPE.

When you type, you already see tags that fit.



Now you see all blog entries related to VTAPE. If you don't like the selection, you may erase the vtape tag above the first blog entry or you can "Type another tag" to get closer to the entry you are looking for.

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Ingolf's z/VSE Blog

with Tags

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Did you know that you can send your z/VSE SDAID trace to a VTAPE ?

Ingolf24 | Nov 12 2013 | Visits (1013)

In case of a problem with your z/VSE system it may be necessary to trace your application or workload. SDAID may be used to analyze such problems. Please see the z/VSE Diagnosis Tools book for details. The trace output may be directed (OUTDEV) to a printer, real tape or the SDAID buffer (BUFFER). If you want to get the trace output to a virtual tape (VTAPE), you need to define the virtual tape first. See the z/VSE Administration book for details. Now you can initialize your SDAID trace with a wraparound buffer as output... [\[More\]](#)

Tags: [sdaid](#) [vtape](#) [vse](#) [diagnosis](#)

8+1

Are you using the z/VSE virtual tape support (VTAPE) ?

About this blog

Blog entries are related to the mainframe operating system z/VSE. Ingolf will share news, hints & tips or any topic. The postings on this site are my own and don't necessarily represent IBM's positions, strategies or opinions. Contact: salm@de.ibm.com

Tags

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vtape

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- + [virtual_tape](#)
- + [vse](#)

Tags: vse, blog, tag

IBM Redbooks related to z/VSE (2015-08-03)

I had to generate a list of IBM Redbooks, that may be of interest for z/VSE users. I think, it's a good idea to share the list in a blog entry. Below you will find Redbooks for z/VSE, z/VM and Linux on z Systems as well as some more general ones.

To get more Redbooks for a specific topic just use the "search area" at the top right of the IBM Redbook web page - [here](#).

Let's start with z/VSE Redbooks (some are old but may help still):

[Introduction to the New Mainframe: z/VSE Basics](#)

[Security on IBM z/VSE](#)

[Enhanced Networking on IBM z/VSE](#)

[z/VSE Using DB2 on Linux for System z](#)

[CICS Transaction Server for VSE/ESA: CICS Web Support](#)

[VTAM 4.2 Implementation and Usage for VM/ESA and VSE/ESA](#)

I know, WebSphere MQ for z/VSE will have end of service by September 30, 2015, but just in case you still need more technical documentation:

[Using MQSeries for VSE](#)

The following 2 Redbooks are really old, but may be of interest for z/VSE users that want to migrate from CICS/VSE to CICS TS:

[Migration to VSE/ESA 2.4 and CICS Transaction Server for VSE/ESA 1.1](#)

[Implementation of VSE/ESA 2.4 and CICS Transaction Server for VSE/ESA 1.1](#)

... and here is one just for historical reasons:

[VSE/ESA Version 2 Release 1 The Turbo Dispatcher](#)

Many z/VSE users run their systems in z/VM guests or run them together with Linux on z Systems. Therefore I have a list of z/VM related Redbooks here:

[Introduction to the New Mainframe: z/VM Basics](#)

[Security on z/VM](#)

[Using z/VM for Test and Development Environments: A Roundup](#)

[The Virtualization Cookbook for IBM z/VM 6.3, RHEL 6.4, and SLES 11 SP3](#)

[IBM Wave for z/VM: An Introduction](#)

[IBM Wave for z/VM Installation, Implementation, and Exploitation](#)

Some z/VSE users connect their z/VSE systems to Linux on z Systems. Here are some related Redbooks / Solution Guide:

[Security for Linux on System z](#)

[Security for Linux on System z: Securing Your Network](#)

[Linux on System z: An Ideal Platform to Migrate Your IT Workload](#)

[End-to-End High Availability Solution for System z from a Linux Perspective](#)

[Set up Linux on IBM System z for Production](#)

[Understanding IBM Spectrum Scale for Linux on z Systems \(Express Edition\)](#)

... and some more general Redbooks / Redpapers:

[TCP/IP Tutorial and Technical Overview](#) (old but good for beginners)

[End to End Security with z Systems](#)

[Securing the IBM Mainframe](#)

[Security on the IBM Mainframe: Volume 1 A Holistic Approach to Reduce Risk and Improve Security](#)

[IBM System z in a Mobile World: Providing Secure and Timely Mobile Access to the Mainframe](#)

[IBM System z in a Mobile World](#)

[Hadoop and System z](#)

Tags: zvm, linux, vse, redbook

CICS multi region operation (MRO) on z/VSE (2015-07-31)

Many of our z/VSE users split their online environment into multiple CICS regions (partitions) and connect them via CICS MRO (CICS multi region operation). It's a function of CICS TS for VSE. In z/VSE CICS MRO is based on the cross-partition communication (XPCC) function provided by the z/VSE operating system.

With MRO you may use

- **Function shipping**
lets an CICS application program access resources owned by another CICS region.
- **Asynchronous processing**
allows a CICS transaction to initiate a transaction in another (remote) CICS region.
- **Distributed program link (DPL)**
A CICS application can call another CICS program in an other (remote) CICS region.
- **The external CICS interface (EXCI)**
is an API that z/VSE programs (e.g. running in a batch partition) can use to call a CICS application.
- **Transaction routing**
Transactions and an associated terminal can be owned by different CICS systems.

With the above capabilities and MRO you may implement terminal (TOR), application (AOR) or file owning (FOR) regions.

There are multiple reason for implementing a TOR, AOR or FOR, e.g.

- the online workload does no longer fit into a single CICS partition
- you may want take advantage of multiprocessing
- you want to separate applications or resources.
- you want to avoid resource sharing (e.g. VSAM files)

However, be careful when splitting up CICS partitions. You need to consider the performance characteristics of MRO. E.g. performance may be degraded caused by the communication between the two CICS regions.

... and you can not compare the performance on z/VSE with a similar implementation on z/OS, because z/OS has better system management capabilities.

More details are in the corresponding CICS TS for VSE documentation, e.g. in the Intercommunication or Performance Guide. You can find those books [here](#).

... and there is an old CICS TS performance document, which still provide some useful performance information - [here](#).

Tags: vse, mro, cics, communication, xpcc

z/VM web pages (2015-07-30)

Many of our z/VSE users run their systems in z/VM guests. Therefore I have a z/VM related blog entry today.

I don't know how often you visit the z/VM web pages.

Usually I use `ibm.com/vm` in my browser to get to the z/VM pages, which lead to the URL: <http://www.vm.ibm.com/>

There is another link with z/VM information - [here](#).

This link provides additional information for the z/VM hypervisor with links to Linux on z System and z Systems.

By the way, if you are looking for z/VM end of service dates, you can find them [here](#).

Tags: `web_pages`, `zvm`, `vse`

New IBM Redbook: IBM DS8870 Copy Services for IBM z Systems (2015-07-29)

If you are interested in the IBM Storage DS8870 device, the following IBM Redbook may be of interest:

IBM DS8870 Copy Services for IBM z Systems

This Redbooks publication helps you plan, install, tailor, configure, and manage Copy Services on the IBM DS8870 in an IBM z Systems environment. It addresses e.g. Flashcopy.

More information is [here](#).

... and there is a DS8870 Redpaper: IBM DS8870 and IBM z Systems Synergy - [here](#).

Tags: vse, redpaper, storage, flashcopy, redbook

Upcoming conferences with z/VSE sessions (2015-07-28)

Just a quick blog entry about the upcoming conferences with z/VSE session:

I mentioned the 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on z Systems conference already on Friday in my "[50 years of VSE](#)" blog entry.

This conference has general sessions in English, international (English) and German tracks. It is scheduled from October 19 to 21 in Boeblingen / Stuttgart, Germany. We will celebrate 50 years of VSE on October 19.

You can save some money, if you register until July 31 (early bird offer) - more information and the agenda is [here](#).

If Germany is too far, there is another conference with a z/VSE track - the 2015 IBM Systems Technical University.

It is scheduled from October 5 to 9 in Orlando, Florida. IBM z Systems sessions focus on the new IBM z13 processor, along with z/OS, z/VM, Linux on z Systems, and z/VSE.

There are also early bird rates. More information is [here](#).

Tags: conference, gse, zuniversity, vse

z/VSE Service news: Language Environment APAR (2015-07-27)

We just released a new z/VSE 5.2 APAR. It fixes a problem in the Language Environment (LE/VSE) component. LE/VSE provides the run-time environment and services for C, COBOL and PL/I.

[APAR PI41430](#) (z/VSE 5.2 PTF: UI28683): REFRESH LE/VSE AR-INTERFACE MAY ABEND WITH USER-ABEND CODE 4087 AND RSN 10

Users affected: All LE z/VSE Attention routine users.

Problem description:

1. When initializing the attention routine (AR) interface using supplied job CEEWARC an ABENDU4087 RSN10 can occur.
2. System hard-wait X'0FFF' from D CEE,CEETRACE command if issued after message "CEL4058E" reported during CEEWARC execution.
3. When producing an ABENDU4083 abend traceback report incorrect information in the condition information block (CIB) interrupt address (CIB_INT) field may be displayed.

Tags: ptf, language_environment, support, le, service, apar, vse

50 years of VSE (2015-07-24)

This year VSE has its 50th anniversary. We will celebrate that on Monday October 19, 2015 in Boeblingen, Germany - the home of z/VSE - the z/VSE team together with participants of the 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on z Systems. More information about that conference is [here](#).

Just a few dates of VSE's history:

1965 - 1971 - DOS/360 - one partition, fits into 16K memory; later: 3 partitions, BTAM,
1972 - 1978 - DOS/VS (Release 28 - 34)- 5 -7 partitions, up to 16 MB virtual storage, VSE/POWER, VSE/VSAM, CICS & DL/I
1979 - DOS/VSE - up to 12 partitions, ICCF, ACF/VTAM, MSHP, CKD / FBA disks
1983 - SSX/VSE - pre-configured VSE system (includes VSE/POWER, CICS/VS, ACF/VTAM, VSE/VSAM, ...), ease of installation / operation
1985 - 1989 - VSE/SP Version 1 - 3 - pre-packaged system, easy installation, Interactive User Interface (dialogs), fast service upgrade, 12 partitions, up to 12 address spaces. unattended node support
1990 - 1993 - VSE/ESA Version 1 - dynamic partitions, 31 bit addressing, data spaces, virtual disk, up to 1024 devices, CICS/VSE
1994 - VSEESA 2.1 - multiprocessor support (Turbo Dispatcher)
1996 - VSE/ESA 2.2 - year 2000 ready
1997 - VSE/ESA 2.3 . VSAM KSDS > 4 GB, TCP/IP for VSE/ESA, Language Environment, new compilers (COBOL, PL/I, C)
1999 - VSE/ESA 2.4 - CICS Transaction Server 1.1
2000 - 2003 - VSE/ESA 2.5 - 2.7 - connectors, PIE (Protect, Integrate, Extent) strategy introduced
2005 - z/VSE 3.1 - SCSI support
2007 - 2010 - z/VSE Version 4 - 64 bit real addressing, Linux Fast Path (LFP), new pricing (MWLC)
2011 - 2014 - z/VSE Version 5 - 64 bit virtual addressing, CICS Explorer
2015 - z/VSE 6.1 - CICS Transaction Server Version 2, TCP/IP for z/VSE Version 2, 50 years of z/VSE

More details are on our history web pages - [here](#).

We are currently gathering material from the old days. Is there anything you want to share (e.g. articles) ?

Have a good weekend.

Tags: vse, history

Are you using the Debug Tool - DT/VSE ? (2015-07-23)

The Debug Tool for VSE/ESA (DT/VSE) provides advanced facilities for debugging and testing applications compiled with the following IBM high-level compilers:

- COBOL for VSE/ESA
- C for VSE/ESA
- PL/I for VSE/ESA

It helps examine, monitor, and control the execution of application programs by enabling:

- Interactive debugging of and application as it runs.
- Seamless debugging of mixed high-level language applications.
- Making adjustments to your application while debugging.
- The display, monitoring, and altering of program variables.

DT/VSE just releases an APAR, that is required for CICS TS for z/VSE 2.1. It's the first product that adapted to our new CICS version to be released in 4Q2015 together with z/VSE 6.1.

[APAR PI28537](#) (PTF UI28417): USE DT/VSE WITH CICS TS FOR Z/VSE

Description: The PTF for this APAR is required to run DT/VSE ON CICS/TS for z/VSE 2.1.0.

Tags: debug_tool, ptf, service, apar, support, vse, dt, cics

z/VSE service news: RSLs are available (2015-07-22)

New Recommended Service Levels (RSLs) are available for z/VSE 5.1.2 and z/VSE 5.2.0. The RSL cutoff was April 30, 2015.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: service, rsl, vse, ptf, apar, support

Do you secure your z/VSE PNET connections ? (2015-07-21)

VSE/POWER provides the spooling capabilities for job processing (input / output - list, punch). It's a component of the z/VSE base system. The VSE/POWER networking function (PNET) is an optional part of VSE/POWER running with z/VSE. PNET allows a z/VSE system to exchange files with or run jobs on another remote processor. It can communicate with other z/VSE systems (nodes), z/VM (RSCS), z/OS (JES2 / JES3) and AS/400. The nodes may be connected via BSC lines, virtual CTCAs, VTAM-controlled SNA links, or TCP/IP connections. PNET uses the Network Job Entry (NJE) transmission protocol to communicate with other nodes.

PNET comes with some security functionality to protect the communication between the different systems. VSE/POWER allows to define passwords for Nodes and Lines.

You may use the SSL (Secure Socket Layer) support of your TCP/IP stack for TCP/IP connections. In that case data send through TCP/IP is encrypted. It's recommended to protect the PNET traffic.

Do you protect your PNET traffic via passwords and/or SSL ?

More information about PNET and its security functions is described in the VSE/POWER Networking book. The book is on our documentation web page - [here](#).

Tags: network, vse, ssl, security, userid, vse-power, pnet

z/VSE Linux Fast Path and the z/VSE z/VM IP Assist (VIA) (2015-07-20)

Last April I posted some information about the z/VSE Linux Fast Path (LFP) function. I also pointed you to a related article. The blog entry is [here](#).

With LFP a TCP/IP application on z/VSE can communicate with a small program (LFP daemon) running on Linux on z Systems. The daemon communicates through the Linux TCP/IP stack with the network. LFP may communicate between LPARs or z/VM guests. A Linux instance (distribution) is required. LFP does not require a TCP/IP stack on z/VSE, however.

The z114, z196, zBC12, zEC12 and z13 processors also provide a feature called z/VSE z/VM IP Assist (VIA), that can be exploited by LFP. With VIA the processor provides the functionality to communicate to the network without having a Linux distribution installed.

If you are interested in VIA or want to use VIA. This function is described in the z/VSE TCP/IP Support book. You can find that book [here](#).

There is a technical article about VIA too. It is [here](#).

Tags: linux, network, linux_fast_path, via, lfp, tcpip, vse

z/VSE service news: openssl PTF available (2015-07-17)

We just releases a new openssl PTF for z/VSE Version 5, that fixes a vulnerability described in CVE-2015-1793.

My recommendation is to apply openssl PTFs as soon as possible, if you are running on z/VSE 5.1 and use IPv6/VSE - and on z/VSE 5.2 in general, because more z/VSE components exploit openssl.

openssl on z/VSE is available since z/VSE 5.1 (+ PTF). IPv6/VSE was the first exploiter of openssl. With openssl z/VSE provides the latest encryption capabilities, hardware exploitation and fixes.

Here the new APAR:

[APAR DY47613](#) (z/VSE 5.1 PTF UD54122, z/VSE 5.2 PTF UD54123): SECURITY FIX FOR OPENSSL.

It's also on our service page - [here](#).

Have a good weekend. In our area it's hot - in southwest Germany - about 34 C (94 F).

Tags: vse, openssl, apar, service, ptf, support

Next blog entry on Friday (17.7.) (2015-07-15)

I am not in my office today and tomorrow.

Therefore you will see my next blog entry on Friday.

Tags: vse

What options do I have to generate an IOCDS for z/VSE ? (2015-07-14)

Just lately we got some questions related to the I/O Configuration Data Set (IOCDS). Therefore I want to say a few words about the I/O configuration in this blog entry.

You need to define/adapt your I/O configuration with the Input/Output Configuration Program (IOCP).

IOCP generates the I/O Configuration Data Set (IOCDS), which describes the I/O configuration of your z Systems server. You may use the stand-alone version of IOCP or the online versions for z/OS, z/VM or z/VSE. The stand-alone version is shipped with z Systems.

Before you perform an initial installation the I/O configuration need to be defined in the IOCDS. If you want to run your z/VSE system together with z/OS or z/VM you may use the online version of IOCP on those systems to generate a new IOCDS, or use the stand-alone version. As input, you can also use an already customized IOCDS, that was generated on another server. During the initial installation of z/VSE the online version of IOCP is automatically installed.

You can use this online version of IOCP to:

- Create a new IOCDS, when you change your hardware configuration.
- Define and validate the IOCP macro instructions, when preparing to install a new server.

For detailed information about IOCP, consult the IOCP publication of your server. More information is in the z/VSE Planning book too.

The z/VSE documentation is [here](#).

Tags: configuration, iocp, vse, iocds, installation

VSE Navigator updated for z/VSE 5.2 (2015-07-13)

Some of our z/VSE users run the z/VSE Navigator on their workstations. It provides a graphical user interface (GUI) for the z/VSE operating system. That GUI behaves like file managers on other platforms, such as Windows (Explorer). However, it accesses host based "z/VSE file systems" (VSE Librarian, VSE/POWER queues, VSE/ICCF, VSE/VSAM) and provides host specific functions, such as generation and submission of z/VSE jobs, access to the Operator Console, list the VTOC, retrace products and PTFs, display phases located in the SVA, display host CPU activity, and much more.

The z/VSE Navigator was just updated for z/VSE 5.2. More information is [here](#).

Tags: vse, service, update, navigator

New IBM Redbooks (& drafts) available (2015-07-10)

There are some new IBM Redbooks or Redbook drafts available. They are related to z/VM 6.3, Linux and IBM Storage.

Let's start with z/VM:

[The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3](#)

Just briefly the table of contents:

Part 1. Using IBM z/VM 6.3

Chapter 1. Introduction to Linux on the IBM mainframe under z/VM

Chapter 2. Planning

Chapter 3. Configuring a workstation for mainframe access

Chapter 4. Install and configure z/VM

Chapter 5. Service z/VM

Chapter 6. Planning and preparation for Linux workloads

Part 2. Other topics

Chapter 7. z/VM live guest relocation

Chapter 8. z/VM Systems Management API (SMAPI) and Resource Access

Control Facility (RACF/VM)

Chapter 9. Monitor z/VM and Linux

Chapter 10. Working with disks

Chapter 11. Working with networks

Chapter 12. Miscellaneous recipes

Appendix A. References, cheat sheets and blank worksheets

Appendix B. Additional material

... and another draft:

[The Virtualization Cookbook for IBM z Systems Volume 2: Red Hat Enterprise Linux 7.1](#)

... and here are the IBM Redbooks for the IBM Storage devices:

[IBM DS8870 and IBM z Systems Synergy](#) - a Redpaper draft

[IBM DS8870 with Firmware Release 7.5 Product Guide](#)

[IBM DS8870 Architecture and Implementation \(Release 7.5\)](#)

More IBM Redbooks are [here](#) - or you use the IBM Redbook mobile apps for iOS and Android devices - more information is [here](#).

Have a good weekend.

Tags: vse, zvm, redbook, storage

MQ Trigger Monitor for z/VSE Version 5 (and later this year for z/VSE 6.1) available (2015-07-09)

As mentioned in [earlier blog entries](#) WebSphere MQ for z/VSE 3.0 will be withdrawn from service (end of service) on September 30, 2015. You may use the MQ Client for VSE instead. Therefore we asked customers, what most important functionality they would need, when using the MQ Client instead of the WebSphere MQ Server. It turned out, that it is the trigger function. That is to get informed, when a new message arrives on the queue.

That function will provide the MQ trigger monitor. If a message arrives on a WebSphere MQ server queue on any MQ supported platform, the trigger monitor may start a CICS program.

This new function will be available with z/VSE 6.1 in 4Q2015 - see the [z/VSE 6.1 preview announcement](#).

To provide the function more timely - closer to the end of service of the WebSphere MQ Server for z/VSE - we now provide it through APARs for z/VSE 5.1 and 5.2:

[z/VSE 5.1: APAR PI42612 / PTF UI28408](#)

[z/VSE 5.2: APAR PI42615 / PTF UI28409](#)

The MQ Trigger Monitor function is described in "Migrating from MQ Server on z/VSE to MQ Client using the z/VSE MQ Client Trigger Monitor".

You can find that article on our z/VSE documentation web page [here](#) (technical articles).

After applying this PTF you have to define program IESMQCTM and transaction MQTM to CICS and add the MQTM transaction to the security manager (i.e. BSM). You may define / add the program / transaction with [this job](#).

After applying this PTF you may want to update the Online Message Explanation (OME) file with new messages issued by the MQ Client Trigger Monitor (prefix IESC6) too. To add the new messages to the OME file, you may use [this job](#).

You can also find this information on our z/VSE service and support web page - [here](#) (see entry for date July 06, 2015), including latest updates.

Tags: end-of-service, vse, service, ptf, mq, apar, support

z/VSE service news: VSE/AF APARs, next blog entry on Thursday (07/09) (2015-07-07)

There are a few new APARs since my last z/VSE service posts.

VSE/AF APARs

z/VSE 5.1 APAR [DY47611](#) (PTF UD54120), z/VSE 5.1 APAR [DY47612](#) (PTF UD54121): MANDATORY FIXES FOR **SCSI**

These APARs are flagged as Hiper. If you are using SCSI disks attached to z/VSE, please apply these APARs.

z/VSE 5.2 APAR [DY47608](#) (PTF UD54119): OSA-EXPRESS, HIPERSOCKETS, FCP (QDIO MODE) ADAPTERS ARE NOT RECOGNIZED BY IPL WITH TYPE=INSTALL OR TYPE=SENSE

When TYPE=INSTALL or TYPE=SENSE is specified in the IPL procedure, IPL does not fill PUBX for OSA (CHPID OSD) devices.

Message 0S39I Reason=011 is issued during TCP/IP Startup for OSA Express5S card and card doesn't work.

I won't be in the office tomorrow, therefore I plan the next blog entry for Thursday (07/09/2015).

Tags: support, vse, service, ptf, apar

VM Workshop / Live Virtual Class presentations available on hybrid cloud and Java performance on z13 (2015-07-06)

I just returned to my office after some travel last week and the VM Workshop. We had a good workshop participation and good discussions after the sessions. I feel that our z/VSE users got a new home after WAVV discontinued since last year. Therefore I hope, that we will have z/VSE sessions again during the VM Workshop 2016.

May be we get even more participants then.

Today I want to point you to two presentations related to Linux on z Systems and z/VM.

Both were given at Live Virtual Classes (LVCs) within the last 2 weeks.

- Hybrid Cloud with z Systems and SoftLayer with Live Demo
This presentation provides a brief introduction of Hybrid Cloud, its concepts, and the demo architecture and infrastructure.
- Java on IBM z13 - A Performance Update
This presentation explains and quantifies the benefits of the new z13 technologies for Java and highlight the conditions when your own applications can best exploit the new features.

You can find both presentations on the z/VM LVC page - [here](#).

Leaving to VM Workshop - next blog entry on July 6, 2015 (2015-06-23)

I will travel to the VM Workshop tomorrow and will be on a business trip afterwards.

Therefore you will see my next blog entry on July 6.

This time the VM Workshop in Binghamton, NY provides z/VSE sessions, too. It is scheduled for June 25 to June 27.

You can still register. The registration page is [here](#), and the agenda [here](#).

Have a good time.

Tags: conference, vse, vm_workshop

Does z/VSE recognize leap seconds ? (2015-06-23)

On June 30. 2015 at midnight (UTC) a leap second will be added to adjust to the earth rotation The last adjustment was in 2012.

z/VSE does not have STP (Server Time Protocol) support, and therefore it does not recognize leap seconds.

My blog entry on STP holds a link to the IBM Redbook "STP planning guide". The blog entry is [here](#).

The relevant Redbook section to leap seconds is "Operating systems with no STP support".

There is also a related older technical flash to this topic - [here](#).

Tags: leap_second, time, vse, stp

Next Live Virtual Class: Hybrid Cloud with z Systems and SoftLayer with Live Demo (2015-06-22)

If you are running z/VM, you may be interested in the upcoming Live Virtual Class (LVC).

Date: Wednesday, June 24, 2015

Topic: Hybrid Cloud with z Systems and SoftLayer with Live Demo

Abstract: After a brief introduction of Hybrid Cloud, its concepts, and the demo architecture and infrastructure, a Hybrid Cloud landscape is demonstrated on a life environment, based on a simple 2-tier workload running on top of the Cloud infrastructure. A typical environment is used with on-premise z Systems compute resources located in Boeblingen, Germany and off-premise compute resources hosted on SoftLayer in Frankfurt, Germany. Hypervisors z/VM with xCAT and KVM (mainly on x86) are used. Based on this simple hybrid scenario the solution is explained in more detail, the network and heat templates are discussed, as well as the z Systems Hybrid Cloud Connect Test Drive (aka GWaaS).

More information is [here](#).

Tags: lvc, cloud, vse, live-virtual-class

Apps from IBM technical support (2015-06-19)

I just found an iOS app that may be of interest for you - the "IBM technical support" app. It's available for iPad and iPhone. The app lets you quickly and easily access key technical support content and functions for all your IBM software and hardware products. The app is also available for Android devices.

The link to those apps is e.g. on the "Fix list for CICS Transaction Server for VSE/ESA" web page, in the middle on your right, see "IBM Technical Support mobile app is now available!"

E.g. if you select "Support content" within the app you may search for APARs and get the APAR description formatted for your device, you can bookmark those;

you can search for product related information, etc. (as you can on the [IBM support web page](#))

The "Fix list for CICS Transaction Server for VSE/ESA" is [here](#).

Have a good weekend.

Tags: vse, service, app, support

z/VSE conference in fall (2015-06-18)

Next week we will have a full z/VSE track at the VM Workshop 2015 in Binghamton. I hope, that I will see you there.

If you can't come, however. There will be another conference in fall that may be of interest - especially for European z/VSE users.

It's the 9th European IBM / GSE TU for z/VSE, z/VM and Linux on z Systems conference from October 19 to 21, 2015 in the Böblingen IBM Lab and in Stuttgart, Germany.

More information is [here](#).

This year z/VSE will be 50 years old. We will celebrate that anniversary on the first day of this conference (Oct. 19) - together with the conference participants and the z/VSE team.

Tags: conference, vse, gse

New z/VSE article: From virtual tape to tapeless installation (2015-06-17)

The latest Enterprise Tech Journal (ETJ - May 2015 issue) includes an article written by my colleagues.

The title of this article is "z/VSE: From virtual tape to tapeless installation".

The article gives some details about one of the key functions delivered with z/VSE 5.2 - tapeless installation.

You can read the ETJ May 2015 issue [here](#).

You may start with the contents page, then just click on the z/VSE article (page 56).

Tags: tape-less, enterprise_tech_journal, vse, etj, article, installation

z/VSE service news: IUI APAR available; openssl update (2015-06-16)

Today I have a new **z/VSE 5.2** APAR for our **Interactive User Interface (IUI)**. IUI provides some skeletons for configuration of system resources or startup jobs. The OSA (Open Systems Adapter) configuration skeleton for networking is adapted by this new APAR.

[APAR PI38253](#) (PTF UI27953-52C): SKOSACFG DOES NOT EXPLAIN WHICH CUU SHOULD BE SPECIFIED FOR QDIOBUFF STATEMENT

PROBLEM DESCRIPTION: After filling out skeletons @DTRSEXIT should run. The macro @DTRSEXIT however cuts off lines which contain a < sign and are longer than 59 characters. Those lines have been splitted to avoid this problem. The descriptive text in SKOSACFG has been improved.

Temporary fix: DO NOT USE @DTRSEXIT TO DELETE THE LINES MARKED WITH C, BUT DELETE THE LINES WITH THE DELETE COMMAND.

... and finally an **openssl** update to the [z/VSE service news](#) I posted last week:

With [APAR DY47610](#) the minimum Diffie-Hellman (DH) parameter length changed to 1024 bits.

APARs are also listed on our z/VSE Service & Support web page - [here](#).

Tags: apar, security, vse, iui, ptf, service, openssl, support

z/VSE Live Virtual Class: Presentation now available (2015-06-15)

In between the presentation and playback of last week's Live Virtual Class (LVC) is available.

The topic was "Preview announcement of z/VSE V6, and more".

The PDF and playback is [here](#).

Please let us know, if there is any topic you want to see on our Live Virtual Classes.

Just use the comment to this blog entry, send me an email or use this [link](#) ("contact z/VSE").

Tags: lvc, live-virtual-class, presentations, vse

Next blog entry on Monday, June 15, 2015 (2015-06-10)

I will be on a business trip tomorrow and may take a day off on Friday.

Therefore you will see my next blog entry on Monday.

Have a good weekend.

Tags: vse

Do you need sometimes more capacity for your z/VSE workload ? (2015-06-10)

If you are running your z/VSE system in a z/VM guest and want to use e.g. an Capacity on Demand upgrade (CoD; e.g. from one real CPU to 2 CPUs) for a specific time period (workload), this blog entry may be of interest for you.

For a CoD upgrade / downgrade best is to shutdown the z/VSE system, do the upgrade / downgrade and re-IPL z/VSE afterwards.

However, you may also prepare the z/VSE guest once. Then you don't need to shutdown z/VSE in case you want to benefit from the second real CPU in the z/VSE guest.

Please be aware that an CoD upgrade may have an impact on your vendor licenses and SCRT reporting. Consider the recommendations in the SCRT guide. The link to the SCRT guide is [here](#).

Now some information on how to prepare the z/VSE guest to avoid a shutdown for an upgrade / downgrade:

Assumption the z/VSE system is running on a virtual CPU (vCPU); the z/VM LPAR has just one real CPU active.

- 1) add a second vCPU to the z/VSE guest (e.g. in the z/VM directory). You just need the second one for the upgrade. It's not used as long as your LPAR has just one real CPU.
- 2) IPL your z/VSE guest

The second vCPU should be started once and stopped afterwards, otherwise you would get just 50% of the defined z/VM share for this guest (will not hurt in most cases).

- 3) after IPL complete start the 2nd vCPU (e.g. SYSDEF TD,START=ALL, may be added to the BG ASI procedure)
- 4) stop the 2nd vCPU (e.g. SYSDEF TD,STOP=ALL,may be added to the BG ASI procedure) to avoid performance degradation.

Now the IPLed vCPU is active, 2nd vCPU is in stopped state

As long as just one real CPU is active for this LPAR, leave the 2nd vCPU in stopped state. The QUERY TD command shows the current status.

After you upgrade and the 2nd real CPU is active, you may start the 2nd vCPU in your z/VSE guest - or use CPU balancing with the STOP parameter.
(e.g. SYSDEF TD,START=ALL or SYSDEF TD,INT=9,STOP).

Now your workload may exploit 2 vCPUs.

Before you downgrade to one real CPU, you should stop the 2nd vCPU of the z/VSE guest.

(e.g. SYSDEF TD,STOP=ALL or in case of CPU balancing SYSDEF TD,INT=0, SYSDEF TD,STOP=ALL may be necessary too).

z/VSE service news: openssl and CICS PTFs available (2015-06-09)

We released new PTFs for openssl and CICS TS for VSE/ESA 1.1.1.

openssl

I recommend to apply that on z/VSE 5.1, if you are running IPv6/VSE - and z/VSE 5.2 in general, because more z/VSE components exploit openssl.

APAR [DY47610](#) (z/VSE 5.1 PTF UD54117, z/VSE 5.2 UD54118): SECURITY FIX FOR OPENSSSL.

CICS TS for VSE/ESA 1.1.1

APAR [PI41089](#) (PTF UI27869): IF A % SIGN IS THE LAST CHARACTER IN A DATASTREAM RIGHT BEFORE THE CRLF STORAGE VIOLATIONS OCCUR DURING URLENCODE PROCESSING.

As always the latest CICS TS for VSE/ESA APAR news is on the [CICS TS for VSE/ESA fix list](#) and z/VSE related APARs are on the [z/VSE corrective service and support page](#).

Tags: vse, cics, support, service, apar, openssl, ptf

Reminder - z/VSE Live Virtual Class tomorrow (June 9): Preview announcement of z/VSE V6, and more (2015-06-08)

Today I want to remind you on our next Live Virtual Class (LVC), which is scheduled for tomorrow - June 9, 2015.

Tomorrow's LVC topic is: Preview announcement of z/VSE V6, and more

Abstract: 2015 is the year for z/VSE to celebrate its 50th anniversary. Did you hear about the newest announcements made by IBM for z/VSE and related middleware as part of the anniversary? This Live Virtual Class will provide an update on the news in and around z/VSE V6. A special focus is on the exploitation of IBM z13 and on the latest Statements of Direction that might become relevant to z/VSE users.

More information is on our LVC page - [here](#).

Tags: live-virtual-class, vse, preview, announcement, lvc

Next blog entry on Monday, June 8, 2015 (2015-06-05)

Sorry, I did not have Internet access yesterday.

... and I am not in the office today, taking a long weekend. Therefore you will see my next blog entry on Monday.

Enjoy your weekend.

We are expecting 33 C (92 F) today.

Tags: vse

End of marketing announcements affecting z/VSE related products / features (2015-06-03)

Yesterday there were some z Systems end of marketing (software withdrawal) announcements. Two of them also affect z/VSE products / features.

After the end of marketing date products / features can no longer be ordered.

The first one is

5686-A04 IBM TCP/IP for VSE/ESA 1.5.0 **NFS** billing feature code S001G2C

... the second one is

5686-064 IBM Advanced Communication Function/System Support Program (**ACF/SSP**) for VSE/ESA 4.8.1

Both have no replacement and end of marketing (are withdrawn from marketing) September 7, 2015.

I just found another product with end of marketing on September 2, 2015:

5688-191 IBM Overlay Generation Language/370 (**OGL/370**) 1.0.0

Products with end of marketing will be removed from the z/VSE 6.1 optional product tape.

The announcement letter is [here](#).

Tags: announcement, eom, vse, end-of-marketing

z/VSE 6.1 preview: enhanced TCP/IP stacks - part 2 - IPv6/VSE 1.2 (2015-06-02)

Yesterday I described some details about the new IBM TCP/IP for z/VSE 2.1 version. With z/VSE 6.1 we will also provide a new release for IBM IPv6/VSE. Today you will get some details about this new release.

You may have noticed, that I always add "IBM" to the product name. The reason is, that the TCP/IP product you directly license from BSI or CSI may have different content and/or support more z/VSE releases than we do.

IBM IPv6/VSE 1.2 will be supported on z/VSE 6.1 only. It is not supported on z/VSE Version 5 or before.

IBM IPv6/VSE 1.1 will not be supported on z/VSE 6.1. It continue to be supported on z/VSE Version 5.

Migration to the new release should be easy. External interfaces did not change and the new release has the same code base as before.

In my [z/VSE 6.1 preview blog entry](#) I already summarized the new enhancements of IBM IPv6/VSE 1.2 briefly.

Yes, we are getting **firewall support** for IBM IPv6/VSE 1.2 too. It allows to secure the TCP/IP stack and thus z/VSE 6.1.

The firewall examines IPv4 and IPv6 IP packets. The source IP address, packet protocol, TCP or UDP port numbers and ICMP message type and code can be verified and processing accepted or denied. A VSE library member holds the firewall rules. The firewall will be enabled by default. The default rules allow all packets to be processed.

When an IP packet is denied processing by the stack, it is dropped. As of now only inbound rules are processed.

Further new functions are:

- **Automatic OSA-Express device failover** using HOTSWAP devices for high availability:
 - IBM IPv6/VSE 1.2 will allow users to automatically recover from OSA Express device failures by utilizing a backup HOTSWAP device. This can dramatically reduce the duration of network interruptions.
- **Improved stack CPU optimization:**
 - This can result in reduced CPU utilization by the stack partitions and thus may improve network throughput.

- **Improved SSL support** including TLS1.2 and Diffie-Hellman (DH) / Elliptic curve cryptography (ECC) sockets
 - IBM IPv6/VSE V1.2 will support the latest updates in the z/VSE openssl, including support for TLSV1.2 and DH/ECC SSL socket, and all the latest security fixes.
 - The SSL Proxy and Automatic TLS facilities will be improved to support establishing up to 16 SSL sockets concurrently. This can dramatically improve performance for applications that establish multiple connections to z/VSE including TN3270(E), CICS, and web services applications.
- **Virtual IP address support** using virtual network interfaces:
 - IBM IPv6/VSE V1.2 will support having multiple IP addresses defined for a single network interface through the use of virtual network interfaces. The virtual network interfaces share a single OSA Express device.

Tags: ipv6_vse, preview, vse, tcpip, networking, announcement

z/VSE 6.1 preview: enhanced TCP/IP stacks - part 1 - TCP/IP for z/VSE 2.1 (2015-06-01)

In some blog entries of the past 3 weeks I posted details about new functions and product versions / releases, such as CICS TS for z/VSE 2.1 and configurable (QDIO) output buffers.

A new version of TCP/IP for z/VSE is also planned for z/VSE 6.1 as well as a new release of IPv6/VSE.

Today I will provide some more details about **IBM TCP/IP for z/VSE 2.1**, licensed from CSI International.

IBM IPv6/VSE 1.2, licensed from Barnard Software, Inc. (BSI) will follow in one of my next blog entries.

In the [z/VSE 6.1 preview blog entry](#) you got already the key enhancements of TCP/IP for z/VSE 2.1:

- New white-list firewall feature
- Cross memory services for external partition socket requests
- New utilities for automation and TN3270 services
- Enhanced TLS/SSL cryptography
- Internal processing improvements

I am only talking about the CSI product distributed by IBM.

IBM TCP/IP for z/VSE 2.1 will only be available for z/VSE 6.1. It replaces IBM TCP/IP for VSE/ESA 1.5F. 1.5F will not be supported on z/VSE.6.1.

The migration should be easy, because externals did not change. The new version is based on TCP/IP for VSE.

IBM TCP/IP for z/VSE 1.5F continues to be supported for z/VSE Version 5 (5.1, 5.2). IBM TCP/IP for z/VSE 2.1 does not run (and is not supported) on z/VSE Version 5.

The most important new function in my opinion is the **firewall feature**, which will allow to protect (secure) z/VSE 6.1 much better than before.

CSI implemented a white list firewall, that means access is denied unless an IP address is specifically allowed to communicate with the VSE system. The firewall can be activated

at TCP/IP startup. Each range of IP addresses given in a configuration phase can also specify the allowed VSE ports (TCP or UDP) and if the ICMP (Ping) is allowed

from the remote IP address range.

The firewall can be operated in two modes

- **FAIL mode:** This means that any datagrams received from any remote IP address that is not defined in the firewall configuration phase will be discarded and a violation message will be issued.
- **WARN mode:** This means that the same violation messages will occur but the associated datagrams will not be discarded. This mode can be useful for the initial setup to get information about IP addresses and ports.

Appropriate firewall commands will be provided.

Another new function is the **cross memory services** for external partition socket requests, which help to reduce the system GETVIS space requirements and may improve performance. In prior releases TCP/IP socket requests were allocated in system GETVIS storage and chained on a single queue for each TCP/IP stack. Now TCP/IP socket requests from external partitions are allocated in 31 bit partition GETVIS storage anchored on a dedicated partition queue. Cross memory services are used to communicate with the TCP/IP partition.

New utilities will be provided to externalize applications for automation and **TN3270 services**. TN3270 requests may now be processed outside the TCP/IP stack in an external TN3270 server. Multiple external TN3270 servers may run at the same time. You can still use the internal TN3270 servers (in the TCP/IP partition).

The **TLS/SSL cryptography** will be enhanced to support RFC5746. This will allow the usage of TLS extensions to prevent the handshake renegotiation security exposure.

Tags: vse, tcpip

New z/VSE Live Virtual Class: Preview announcement of z/VSE V6, and more (2015-05-29)

We plan our next Live Virtual Class (LVC) for June 9, 2015.

Title: Preview announcement of z/VSE V6, and more

Abstract: 2015 is the year for z/VSE to celebrate its 50th anniversary. Did you hear about the newest announcements made by IBM for z/VSE and related middleware as part of the anniversary? This Live Virtual Class will provide an update on the news in and around z/VSE V6. A special focus is on the exploitation of IBM z13 and on the latest Statements of Direction that might become relevant to z/VSE users.

Speaker: Klaus Goebel

More information is on our LVC web page - [here](#).

Have a good weekend.

z/VSE 6.1 migration, z/VSE 5.2 ordering, z/VSE 5.1 end of service (2015-05-28)

Today I want to comment on some discussions on VSE-L related to latest z/VSE announcements. Again there are good answers from the VSE-L community. The VSE-L posts are under the z/VSE 5.2 [here](#) and [here](#).

Let's start with **z/VSE 6.1**.

z/VSE 6.1 was previewed on May 11, 2015 with a GA date planned in 4th quarter 2015.

z/VSE 6.1 requires an initial installation. Fast Service Upgrade from z/VSE Version 5 (5.1 or 5.2) to z/VSE 6.1 is not possible.

z/VSE 6.1 requires a z10 processor or higher.

z/VSE V6.1 can run in LPAR mode, or as a guest in any supported z/VM release - as prior releases of VSE.

The z/VSE 6.1 preview announcement letter is [here](#).

With the z/VSE 6.1 preview we made a statement related to **z/VSE 5.2** too:

To ease the migration to z/VSE V6.1, z/VSE V5.2 will still be orderable after general availability of z/VSE V6.1 for a transition period.

That is the end of marketing (eom) announcement (z/VSE 5.2 is no longer orderable after the eom date) for z/VSE 5.2 will be some time later.

We don't have decided yet, when this will be. My assumption is that the end of marketing (eom) will be after the z/VSE 5.1 end of service (June 30, 2016 - see below).

... but that's my personal opinion.

Also - there is no announcement yet for a z/VSE 5.2 end of service (eos) date. To look at the history for a lifetime (GA to end of service) might help, but that's not a commitment.

z/VSE release	GA	eom	eos	years of service
4.1	03/2007	10/2008	04/2011	about 4
4.2	10/2008	11/2010	10/2012	about 4
4.3	11/2010	06/2012	10/2014	about 4
5.1	11/2011	05/2014	06/2016	about 4,5
5.2	04/2014	????	????	????

You can find those dates on our status web page - [here](#) (for releases in service) and [here](#) (for out of service releases).

The **z/VSE 5.1** end of service date was announced last August. It is June 30, 2016. See the related announcement letter - [here](#).

There is no need to upgrade to z/VSE 5.2 first and then go to z/VSE 6.1. That is you can directly go from z/VSE 5.1 to z/VSE 6.1.

However, if you want to stay in a supported environment and can't upgrade until June 30, 2016, I would recommend to upgrade to z/VSE 5.2 first and then go to z/VSE 6.1 later - or you may ask for a service extension.

The same is true, if you are running your z/VSE 5.1 on a z9 processor and can't upgrade the processor before the z/VSE 5.1 end of service date.

Last August there was another end of service announcement that may affect z/VSE customers:

IBM **z/VM, V5.4** will continue to be supported until December 31, 2016, or until the z9 EC and z9 BC are withdrawn from support, whichever is later.

IBM will provide notification to any change of the planned withdrawal date for IBM z/VM, V5.4.

The IBM zEnterprise EC12 and IBM zEnterprise BC12 are planned to be the last System z servers supported by IBM z/VM V5.4 and the last System z servers that will support IBM z/VM V5.4 running as a guest (second level).

That is z/VM 5.4 can not run on z13 processors. ... and z/VM Version 6 requires a z10 or higher.

z/VSE 5.2 is our last release that supports z9. We don't have statement like for z/VM 5.4 (yet).

Remark: zEC12, zBC12 and z13 do not support ESCON channels.

I hope, I answered all questions. If there are more, just let me know.

Ah, before I forget it: We plan to prepare a migration white paper with hints & tips for a z/VSE 6.1 migration, to be available at GA. Let's see how that goes.

Tags: end-of-service, announcement, eos, end-of-marketing, upgrade, migration, eom, sod, vse, vm

What does "CPU INACTIVE NOT PREFIXED" mean in the z/VSE SIR command output ? (2015-05-27)

The Attention Routine SIR command provides information about the processor, the z/VM release (if z/VSE is running in a z/VM guest), the VSE/AF and VSE/POWER release and APAR level, status and resource information, such as available CPUs and their status.

Just a few days ago there was a posting on VSE-L, where a z/VSE user asked what "CPU INACTIVE NOT PREFIXED" means - see the VSE-L post - [here](#).

The z/VSE community had already good feedback - as always. Thanks !

I have a bit more information below:

The SIR command output on the console lists all defined CPUs with their state (e.g. ACTIVE, INACTIVE NOT PREFIXED or STOPPED) and their used CPU time, if ACTIVE.

After IPL is complete and before the first SYSDEF TD command the IPLed CPU has the status "ACTIVE", all other CPUs have the status "INACTIVE NOT PREFIXED".

```
AR 0015 CPU-ADDR. = 0000(IPL) ACTIVE
AR 0015 ACTIVE = 0000:00:01.113 WAIT = 0000:00:29.871
AR 0015 PARALLEL= 0000:00:00.181 SPIN = 0000:00:00.000
AR 0015 CPU-ADDR. = 0001 CPU INACTIVE NOT PREFIXED
AR 0015 CPU-ADDR. = 0002 CPU INACTIVE NOT PREFIXED
AR 0015 CPU-ADDR. = 0003 CPU INACTIVE NOT PREFIXED
```

"NOT PREFIXED" means that the other CPUs are not yet initialized, e.g. the prefix register is not loaded and the prefix area is not initialized for the specific CPU.

In multiprocessor environments each CPU needs its own "low core" (for z/Architecture first 8K of storage, ESA/390 first 4K of storage = prefix area) to store the interrupt information specific to the CPU.

If you start additional CPUs (or all CPUs) via SYSDEF TD, the prefix area of the CPU(s) to be started will be initialized and the prefix register will be loaded with the real address of CPU's prefix area. The prefix areas are allocated anywhere in fixed 31 bit real storage. The hardware uses the prefix register to identify CPU's prefix area.

All started CPUs will get the status "ACTIVE", not started CPUs remain in status

"INACTIVE NOT PREFIXED", e.g. after the start of an additional CPU with address "1" - SYSDEF TD,START=1 - SIR shows:

```
AR 0015 ACTIVE = 0000:00:00.001 WAIT = 0000:00:06.724
AR 0015 PARALLEL= 0000:00:00.000 SPIN = 0000:00:00.000
AR 0015 CPU-ADDR. = 0001 ACTIVE
AR 0015 ACTIVE = 0000:00:00.000 WAIT = 0000:00:06.487
AR 0015 PARALLEL= 0000:00:00.000 SPIN = 0000:00:00.000
AR 0015 CPU-ADDR. = 0002 CPU INACTIVE NOT PREFIXED
AR 0015 CPU-ADDR. = 0003 CPU INACTIVE NOT PREFIXED
```

If you stop any additional CPUs, the CPU will get the status "STOPPED". You will not get back to status "CPU INACTIVE NOT PREFIXED". E.g. stop CPU with address 1 - SYSDEF TD,STOP=1:

```
AR 0015 CPU-ADDR. = 0000(IPL) ACTIVE
AR 0015 ACTIVE = 0000:00:00.001 WAIT = 0000:00:03.494
AR 0015 PARALLEL= 0000:00:00.000 SPIN = 0000:00:00.000
AR 0015 CPU-ADDR. = 0001 STOPPED
AR 0015 CPU-ADDR. = 0002 CPU INACTIVE NOT PREFIXED
AR 0015 CPU-ADDR. = 0003 CPU INACTIVE NOT PREFIXED
```

If you quiesce a CPU (SYSDEF TD,STOPQ=), SIR shows that CPU(s) as "ACTIVE".

You may use CPU balancing to let z/VSE decide, if additional CPUs need to be started for the given workload.

See my blog entry on CPU balancing - [here](#). This blog entry holds more information on z/VSE multiprocessing too.

Please let me know, if you have more questions.

Tags: vse, cpu-balancing, multiprocessing, sir

New z/VM white paper available: z/VM 6.3 HiperDispatch (2015-05-26)

This white paper provides information about IBM z/VM 6.3 HiperDispatch polarization modes and their affect on middleware performance. Additionally, the performance impact of the APAR VM65586 (SMT support for IBM z Systems z13) on a z Systems 196 is analyzed in the test environment.

The white paper addresses Linux guest performance and therefore may be of interest for Linux on z Systems users.

However, the z/VM 6.3 HiperDispatch polarization modes may have a positive performance affect for z/VSE workloads too.

The white paper is available in the IBM Knowledge Center, [here](#).

Tags: performance, vse, zvm, white_paper

Reminder: Next z/VSE conference - VM Workshop - June 25, 2015; next blog entry on Tuesday (May 26) (2015-05-22)

In April I provided some more details about the z/VSE sessions at the VM Workshop starting on June 25, 2015 in Binghamton, NY.

That blog entry is [here](#). Today I just want to post a reminder. It would be great, if you could come.

In between you can find more details about the sessions and registration information on the VM Workshop 2015 web page - [here](#).

For sessions see "2015 agenda".

Enjoy your long Memorial Day or Pentecost weekend.

I plan my next blog entry for Tuesday.

Tags: vm_workshop, vse, conference

z/VSE 6.1:preview: configurable (QDIO) output buffers (2015-05-21)

With z/VSE 5.1 we introduced "Configurable **input buffers** for HiperSockets and OSA-Express devices" to improve TCP/IP throughput. Since HiperSockets transfers the data synchronously, successful delivery of data depends on if there are any free QDIO (queued Direct I/O) input buffers on the target system, e.g. Linux on z Systems. Since z/VSE 5.1 it is possible to configure the number of QDIO input buffers for CHPID type IQD (HiperSockets devices), OSD and OSX (OSA-Express devices). You may increase the number of input buffers from 8 up to 64. They are allocated in 31 bit partition GETVIS space (PFIxed) and can be defined in the configuration file (phase IJBOCONF).

With z/VSE 6.1 we will provide "Configurable **output buffers** for HiperSockets and OSA-Express devices". We will increase the QDIO output buffers from 8 up to 64 for CHPID type IQD (HiperSockets devices), OSD and OSX (OSA-Express devices). They are allocated in the 31 bit partition GETVIS space like the input buffers. You may configure the number of buffers in the configuration file.

Providing additional buffers for TCP/IP communication may improve throughput and performance of the sending and/or receiving system, especially if one system is slower than the other.

Tags: `buffer`, `qdio`, `osa_express`, `tcPIP`, `osa`, `vse`, `network`

z/VSE 6.1 preview: CICS TS for z/VSE 2.1 (2015-05-20)

Last week I informed you about our z/VSE 6.1 preview announcement - see [here](#).

With z/VSE 6.1 we also previewed a new CICS version and it's new functionality:

CICS TS for z/VSE 2.1 - new content:

- CICS Explorer update capability
- Channel & Container support
- CICS customer requirements
 - More current cypher suites (AES128/256) to CICS Web Support
 - Support for EXEC CICS INQUIRE SYSTEM OSLEVEL
 - Millisecond option added to some EXEC CICS commands
 - CICS TS for z/VSE 2.1 will not support for CICS Distributed Data Management (DDM).

Today I have some additional information.

Migration to CICS TS for z/VSE 2.1

CICS TS for z/VSE 2.1 will only run on z/VSE 6.1 and higher. CICS TS for VSE/ESA 1.1.1 will not run on z/VSE 6.1. It is available for z/VSE Version 5 and before.

CICS TS for z/VSE 2.1 includes the code base of CICS TS for VSE/ESA 1.1.1. That is there no need to recompile or relink your applications as long as you do not use CICS internal control blocks. Therefore a migration to z/VSE 6.1 and CICS TS for z/VSE 2.1 should be relatively easy. We will provide migration hints & tips and detailed documentation.

Channel & container support

The Channels and Containers lift the 32K COMMAREA limitation. A Container is a named block of data for passing information between programs - allocated in 31 bit virtual storage (EDSA). A Channel is a sort of programming interface and may hold one to multiple Containers. New CICS EXEC APIs are provided. The Channel and Container APIs were ported from CICS TS for z/OS 3.1. That is if you want to get more information now, you may consult the CICS TS for z/OS 3.1 Administration Guide. The book is [here](#) - or you may use the IBM Redbooks I mentioned in prior blog entries, such as:

- [Using IBM CICS Transaction Server Channels and Containers](#)

Please let me know, if you have any questions.

I forgot to mention: z/VSE V6.1 is delivered as an English version only.

Tags: channels, vse, migration, cics, containers, preview

New z/VSE technical paper available: Big Data and Hadoop with z/VSE (2015-05-19)

In between I returned from the Edge2015 conference and have a new blog entry for you.

Last October I asked you, if you have a requirement for a z/VSE connector to a Hadoop database - see [here](#).

Hadoop is an open source software framework that has become a leading method of processing various data types, particularly semi-structured and unstructured data.

Just yesterday we made a technical paper available, which describes the z/VSE capabilities to access Hadoop via our connectors.

The paper - Big Data and Hadoop with z/VSE - can be downloaded from our documentation web page - [here](#).

I would be interested in your feedback. Would you need additional information or functionality to access Hadoop or "big data" ?

Tags: `hadoop, document, big_data, database, white_paper, documentation, vse, connector`

Next blog entry on Tuesday May 19, 2015 (2015-05-12)

I am still attending the Edge2015 conference and will travel back to Germany at the end of the week.

Therefore my next blog entry will be on Tuesday May 19.

Tags: vse

z/VSE 6.1 preview announced (2015-05-11)

Today I have some exciting news. We preview a new version of z/VSE - z/VSE 6.1.

z/VSE 6.1 is planned to be available in the 4th quarter of 2015. It can run on z10, z114, z196, zBC12, zEC12 and z13.

Below is a quick overview what you can expect in z/VSE 6.1:

The latest hardware support

- IBM z13 support
 - Configurable Crypto Express5S
 - FICON Express16S
- IBM System Storage options
 - IBM System Storage TS7700 Virtualization Engine Release 3.2
 - IBM System Storage DS8870 Release 7.4 (ECKD and FCP-attached SCSI disks)
 - IBM FlashSystem V840 for use with FCP-attached SCSI disks.

New CICS version: CICS TS for z/VSE 2.1 - fullfills Statement of Direction (SOD)

- CICS TS for z/VSE 2.1 will only run on z/VSE 6.1 and higher
CICS TS for VSE/ESA 1.1.1 will not run on z/VSE 6.1
- CICS Explorer update capability
- Channel & Container support - Lifts the 32K Commarea limitation
- CICS requirements
 - More current cypher suites (AES128/256) to CICS Web Support
 - Support for EXEC CICS INQUIRE SYSTEM OSLEVEL
 - Millisecond option added to some EXEC CICS commands

Networking enhancements - These will only be available for z/VSE 6.1 and higher.

- IPv6/VSE 1.2 - a new release of BSI's TCP/IP stack
 - Automated OSA Express fail-over using hot swap devices for high availability
 - Improved stack CPU optimization
 - Improved SSL support including TLS 1.2 and DH/ECC sockets
 - Virtual IP address support using virtual network devices

- Basic firewall support
- TCP/IP for z/VSE 2.1 - new version - a new version of CSI's TCP/IP stack
 - Internal processing improvements
 - Cross memory services for external partition socket requests
 - New utilities for automation and TN3270 services
 - Enhanced TLS/SSL cryptography
 - New white-list firewall feature
- Configurable output buffers for HiperSockets and OSA Express devices

Connectors

- MQ Client Trigger Monitor
If a message arrives on a WebSphere MQ server queue, the trigger monitor may start a CICS program.
Together with the MQ Client for z/VSE this might help some customers without a MQ server on z/VSE.

z/VSE 6.1 requires an initial installation. Fast Service Upgrade (FSU) from z/VSE V5 is not supported.

The announcement letter with the z/VSE 6.1 preview is [here](#).

In follow-on blog entries I will provide more details latest next week, because I am at the Edge2015 conference this week.

Tags: preview, vse, announcement

z/VSE service news: CICS APARs (2015-05-08)

A new APAR for CICS TS for VSE/ESA 1.1.1 is now available.

If you are using the CICS Explorer, the PTF I mentioned in my blog a month ago is now available.

[APAR PI35376](#) (PTF UI26401): DFHWB0723 WITH RESPONSE: 4. REASON: 2. AND IZE0106E CONNECT FAILED WITH ERROR "BAD REQUEST" USING CICS EXPLORER VSE

The CICS Explorer Client returns message IZE0106E for a "Bad Request". The CICS SYSLST contains message DFHWB0723 for Program name: DFHWBADY with RESPONSE: 4 REASON: 2.

There is another CICS Explorer related APAR in preparation:

[APAR PI36509](#): MSG CNX0595E WHEN TRYING TO GET ACTIVE CICS TASKS VIA CICS EXPLORER AND PERFORMANCE CLASS MONITORING IS SWITCHED ON IN SIT.

The PTF is not yet available.

As always the latest CICS TS for VSE/ESA APAR news is [here](#) (CICS TS for VSE/ESA fix list) and z/VSE related APARs are on the [z/VSE corrective service and support](#) page.

I will attend the [Edge2015 conference](#) in Las Vegas next week. Therefore I only have limited time for blog entries.

An important one will be on Monday, however. I hope, you find time to read it.

Have a good weekend.

Tags: apar, support, cics, service, cics-explorer, vse, ptf

New z/VSE Knowledge Center available ! (2015-05-07)

Finally we got it ! An **IBM Knowledge Center for z/VSE**.

You may remember one of my blog entries related to the Knowledge Center (KC) last year, where I informed you about the KC for Linux on z Systems and CICS Transaction Server for VSE. Now we have it for z/VSE too. It's a good source, for any kind of information related to z/VSE.

Now you have an additional option to access z/VSE documentation:

- z/VSE Knowledge Center
- The online book server
- The virtual z/VSE documentation DVD downloadable from the IBM Publication Center
- Each single manual downloadable from the IBM Publication Center
- The z/VSE documentation web page

You may start with the z/VSE documentation web page for related links - [here](#).

Please check the new z/VSE Knowledge Center out and let me / us know how you like it. We will for sure add more information over time.
Is there anything you would like to see there ?

The direct link to the **z/VSE Knowledge Center** is [here](#).

There is a general welcome page followed by a page per z/VSE release. We start with z/VSE 5.2.

.. and here are earlier blog entries related to the Knowledge Center:

- [Do you use the IBM Knowledge Center ?](#)
- [Knowledge Center for Linux on IBM Systems](#)
- [New: Knowledge Center for CICS TS for VSE](#)

... and now how it looks like:

z/VSE welcome page

This page provides an entry point to product information about z/VSE. Use the links in the Table of Contents to find documentation for specific versions and editions of this product family. Generated links to developerWorks, Redbooks, and white papers are also provided when articles about the product are available. On this page, you can find entry points to sites that help you learn more about this product and other IBM products. There are also links to web sites that help you find support and stay current.

Learn more

- z/VSE Home Page: General information about z/VSE
- z/VSE products and components: General information about z/VSE products and components
- Explore IBM Systems: General information about Systems products
- Redbooks: Technical publications by experts about hundreds of subjects
- developerWorks: A community site with a vast amount of information for IT professionals

Find support

- IBM Support Portal
- Shopz: For ordering and delivery of System z software
- Status Page: Detailed information on supported z/VSE releases and hardware

Stay current

- IBM z/VSE Blog
- IBM z/VSE Messaging on Twitter
- IBM z/VSE Security and system integrity related news
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Tags: vse, knowledge_center, documentation, kc

Do you know the CPU utilization of your z/VSE workload ? (2015-05-06)

In between I posted more than 500 blog entries.

... but now to my topic for today:

When I am looking into z/VSE performance issues, in most cases I am asking customers to install the z/VSE CPU Monitoring Tool (CPUMON).

If you run CPUMON, it will provide the CPU utilization, MSUs, non-parallel share, multiprocessor exploitation and much more for the monitored time period.

It can not replace a performance monitor, however. Performance monitors are available from z/VSE vendors.

Back to CPUMON - just let the tool run for a day or more and use e.g. minute intervals.

If you load the monitored data into a spreadsheet, you can get a line chart with e.g. the CPU utilization, where you see the CPU peaks of your workload.

The additional overhead of the tool is very low. You may not even notice it.

You may use CPUMON also from time to time to get a better understanding of your workload behavior or growth. If you plan to migrate to a new processor, CPUMON may also help to size the new system. But I also recommend to monitor your workload before you migrate to a new processor or z/VSE release and save the data for later comparison with the new environment.

Best would be to monitor days that have comparable workloads. So you can see how the workload behaves on the new system or release.

I also worked with customers - and CPUMON - to improve the batch window.

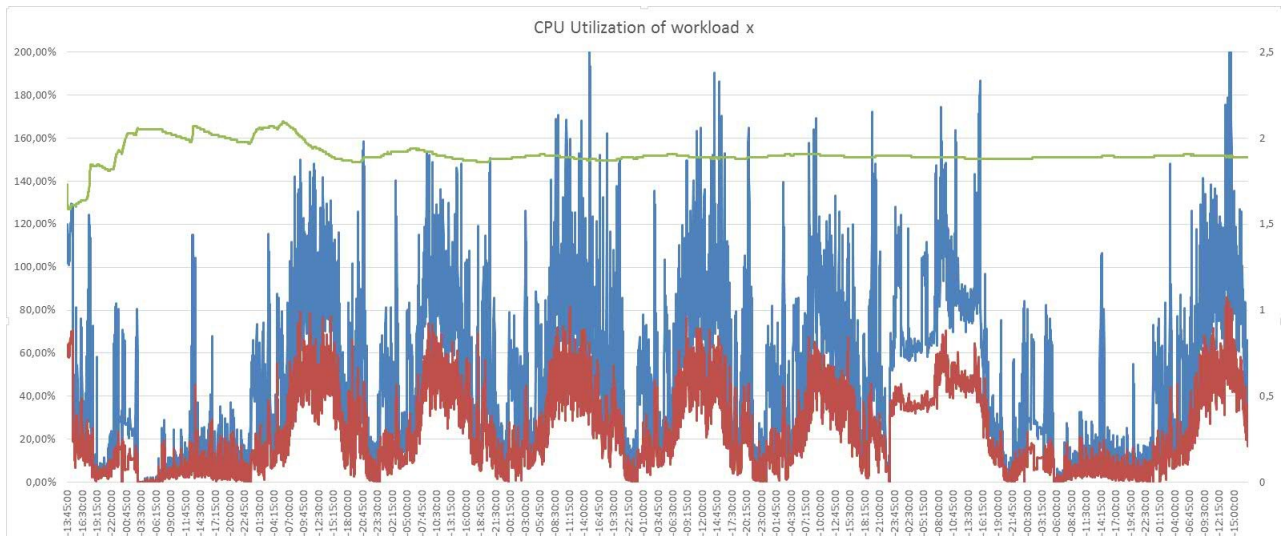
That is if you analyze workload peaks and understand the jobs, that run during that time (additional tools or job accounting data are required to see job start and end times) you may start jobs at less utilized times and so avoid CPU bottlenecks.

Are you interested in the tool ? If so, you may download it from our web page - [here](#).

The zip file also contains a good description how to use the tool.

... and finally an example of a workload.

blue = % CPU utilization, red = % non-parallel utilization, green = max. CPUs, that can be exploited



Tags: workload, utilization, vse, cpumon, cpu, migration, performance

Do you have any requirements for z/VSE ? (2015-05-05)

Since some time now you can raise requirements via the Request for Enhancement (RFE) web tool.

You may raise a new requirement for z/VSE and its products / components, search for or vote on existing requirements.

To do so you have to sign on with your IBM id. The RFE web page is [here](#).

Please use the following selection for z/VSE requirements:

Brand: Servers and Systems Software
Product family: zSeries Software
Product: z/VSE
Component: All components (or the component you wish)
Status: All statuses (or select a specific one)

... and the selection for CICS TS requirements:

Brand: WebSphere
Product family: Transaction Processing
Product: CICS Transaction Server
Component: Runtime (or Explorer)
Status: All statuses (or select a specific one)
Keywords: vse

... or if you want to see the older CICS TS requirements for z/VSE

Submitter display names: Ingolf24 (= my id)

Keywords: need to be empty.

If you want to get more details on a requirement, just click on it. On the bottom of the requirement you may vote for it.

Some requirements can not be viewed, because they were transferred from an internal database and the format does not match the required fields.

To raise a new requirement you may also go to the z/VSE main web page - **ibm.com/vse** - and select "Contact z/VSE" on your right. Under "Submit a requirement" you will have the required selection and RFE links - or use the [direct link](#).

Tags: rfe, cics, vse, requirements

New IBM Redbooks blog entry; Edge2015 is coming (2015-05-04)

Today I have just a short blog entry, because I was in meetings all day. ... and after a long weekend some emails are waiting to be answered.

In just a week starts the Edge2015 conference in Las Vegas, NV. I hope, that I have some exciting news for you at the conference.

More information about Edge2015 is [here](#).

I also recommend the latest entry of our IBM Redbooks blog - "5 Things to Know why IBM z13 should be your next move".

The blog entry is [here](#).

Tags: vse, z13, edge, redbook, blog

Next blog entry on Monday (2015-05-01)

Today is a public holiday in Germany - May 1. Therefore you will see my next blog entry on Monday - May 4.

Have a good weekend.

New or updated IBM Redbooks available (2015-04-30)

There are some new IBM Redbooks, that may be of interest for you.

Two new or updated Redbooks related to z13:

- [IBM z13 Configuration Setup](#)
- [IBM z13 Technical Guide](#)

Here is a Redbook for ECKD and FCP-attached SCSI storage:

- [IBM DS8870 Architecture and Implementation](#)

If you are looking into FCP-attached SCSI storage for z/VSE, the following Redbooks might help to get an overview and understand their configuration:

- [Implementing the IBM Storwize V3700](#)
- [Implementing the IBM Storwize V5000](#)
- [Implementing the IBM Storwize V7000](#)
- [Implementing the IBM System Storage SAN Volume Controller](#)
- [IBM XIV Storage System Architecture and Implementation](#)

... and finally a Redbook for connectivity of z Systems servers:

- [IBM z Systems Connectivity Handbook](#)

Tags: vse, disk, document, processor, eckd, scsi, server, redbook

Next blog entry on Thursday - April 30 (2015-04-28)

I am attending a conference in Germany the next two days. Therefore I plan my next blog entry for Thursday.

Tags: vse

z/VSE download updates (2015-04-27)

There are a few updates on our z/VSE download page. Both address connectors and were updated last month.

I am not sure, if you have seen them.

- [CICS2WS Toolkit](#) - is a development tool that helps you to use Web Services with your existing CICS programs. It was updated to version 2.6.1.
- [Linux Fast Path \(LFP\) Daemon](#) - my [LFP blog entry](#) last week and the z/VSE TCP/IP Support book has more details. You may download the book from our documentation web page - [here](#). It was updated because of APARs [PI35643](#) / [PI35642](#)

Tags: lfp, linux_fast_path, support, download, service, vse, connector, cics

z/VSE conference reminder (2015-04-24)

This week on Tuesday and Wednesday I informed you about the VM Workshop in June.

Now I want to end the week with a reminder for two upcoming conferences:

- The **GSE Spring conference** starts on Monday. It's a three day German conference in Berlin. The registration and agenda web page is [here](#).
- The **Edge2015 conference** with a z/VSE track starts on May 11 in Las Vegas, Nevada. The registration and agenda/abstract web page is [here](#).

Have a good weekend.

z/VSE Linux Fast Path function (2015-04-23)

I just had a discussion on our Linux Fast Path (LFP) function and looked for additional material to our z/VSE documentation.

Maybe the article (see link below) is also of interest for you.

Besides the two TCP/IP stacks we also provide a function that bypasses the TCP/IP stack on z/VSE - or doesn't require one.

This function is called Linux Fast Path - or short LFP. A TCP/IP application on z/VSE can communicate with a LFP daemon (small program) running on Linux on z Systems. The daemon communicates through the Linux TCP/IP stack with the network.

LFP may communicate between LPARs or z/VM guests. A Linux instance (distribution) is required.

The z114, z196, zBC12, zEC12 and z13 processors also provide a feature called z/VSE z/VM IP Assist (VIA),

that can be exploited by LFP. With VIA the processor provides the functionality to communicate to the network without having a Linux distribution installed.

I just found a good z/Journal article from 2011 describing the LFP function.

The article is [here](#).

Tags: tcpip, via, network, lfp, vse, linux_fast_path

VM Workshop - details on z/VSE sessions (2015-04-22)

Today I have more detailed information on the VM Workshop. Please see planned z/VSE sessions below.

Announcement to our friends in the z/VSE community

The VM Workshop planning committee is pleased to announce the inclusion of an exciting line-up of z/VSE sessions at the 2015 VM Workshop being held at Binghamton University from June 25th - June 27th.

There will be a hands-on lab, user experience sessions given by your peers, and lots of presentations given by z/VSE experts.

In addition, to the z/VSE lab, there will be a Linux on z System installation lab, a z/VM installation lab, a REXX programming lab, and a CMS lab - for a total of five (5) hands-on labs.

Please visit our registration website now (www.vmworkshop.org/2015) to sign up or the bottom of this communiqué for additional information about the upcoming conference.

The following is a sampling of proposed z/VSE sessions for the workshop (sessions are subject to change without notice):

If you have a topic that you'd like to see presented at the VM Workshop - send an email to: Eric_Schuler-Dalverny@ibi.com using the subject line - VM Workshop presentation request.

Title: Workshop - Setup of Linux environment to access z/VSE data and resources

Abstract: This workshop covers the setup in Linux on z Systems to enable it to access z/VSE resources. The step by step installation and setup of z/VSE Connector technologies shows the access and graphical possibilities to access the z/VSE resources.

Speaker: Wilhelm Mild, Ingo Franzki

Title: Workshop - Unlock your z/VSE data and applications for the mobile world

Abstract: This workshop will cover the various options to enable existing z/VSE resources for Mobile. The possibilities using the z/VSE Connectors enable the access to applications from a distributed environment and the mobile world.

Speaker: Wilhelm Mild, Ingo Franzki

Title: How to decide for the best network for different workloads between z/VSE, z/VM, and Linux on z Systems

Abstract: In this session, the different workloads in Linux and z/VSE running in a full or mixed virtual environment are analyzed and positioned for the best suited network. Between HiperSockets, VSwitch, and shared OSA ports are commonalities but the decision is crucial for the performance of the inter application communication. Customer samples of challenges and how they were approached can illustrate the difference and the decision points.

Speaker: Wilhelm Mild

Title: The technology of an IBM MobileFirst virtualized environment in Linux accessing z/OS and z/VSE services

Abstract: While z/VM enables for Global Virtualization and automation, workloads like Mobile have increased requirements to the Virtualization layer but also to the Adapters which enable back-end integration.

The session will give an overview of IBM MobileFirst technical possibilities, will analyze and highlight the challenges in z/VM and Linux and how to define a scalable environment on z systems, especially if designed to access System of Record services in z/VSE or z/OS.

Speaker: Wilhelm Mild

Title: Customer solutions with z/VSE Connectors

Abstract: This session provides an introduction into the newest features of the z/VSE Connectors in z/VSE V5.

It will focus on why and how customers take advantage of these Connectors in a virtualized z/VM environment integrated with Linux or a remote platform.

Speaker: Wilhelm Mild

Title: z/VSE Today and Future - a technical update

Abstract: This session will provide technical details about the latest announcements and release content for the z/VSE operating system and its components with the focus on ease of use, security, networking, hardware exploitation and connectivity to Linux on System z or other non-z/VSE platforms.

Speaker: Ingolf Salm

Title: What you can expect in a new CICS TS release for z/VSE

Abstract: This session gives an update on the latest CICS TS for z/VSE announcements, the CICS Explorer as well as more details about the latest development.

Speaker: Ingolf Salm

Title: z/VSE Release Migration and Installation Hints & Tips

Abstract: This session will give you an overview about the z/VSE release migration and installation process, including Fast Service Upgrade (FSU)

overview, what is covered by FSU and how it works. We also discuss the differences of FSU versus initial installation and migration of current data.

It will give an overview on migration tools. Specific migration items like security definition, VSAM data, language environment, common pitfalls, DOs and DON'Ts are discussed as well. This session will also describe the new tapeless initial installation of z/VSE 5.2.

Speaker: Ingo Franzki

Title: How to secure your z/VSE system and data in today's interconnected world

Abstract: This session provides an introduction and best practices to the basic security concepts of z/VSE.

It includes CICS and batch security, plus connector and network security. It will also cover z/VSE security concepts in an open and heterogeneous world where z/VSE may connect to anyone and everyone.

This session will also show you how to exploit z/VSE security features like Encryption Facility for z/VSE and the new OpenSSL support.

In addition, it will describe IBM mainframe cryptographic technology, including Crypto Express and CP Assist for Cryptographic Function (CPACF).

Speaker: Ingo Franzki

Title: How to get the most out of z/VSE VTAPE

Abstract: This session will enable you to choose and benefit from the broad variety of z/VSE VTAPE options and possibilities for your customer environment.

We will start with VTAPE fundamentals then look at the latest feature enhancements with additional hints & tips.

All of this information is combined with various use cases based on customer experiences.

This session will also discuss the new stacking tape support of z/VSE 5.2.

Speaker: Ingo Franzki

Title: Implementing the z/VSE Fast Path to Linux on System z

Abstract: The Fast Path to Linux on System z is a brand new function included since z/VSE V4.3. This session will give an overview about the Linux Fast Path function and its new features in z/VSE V5.1, such as the new LPAR support, IPv6 support and z/VSE's z/VM IP Assist function.

We will discuss what features it provides and what benefits you can expect by using it. This session is of special interest for everybody that runs z/VSE applications communicating with applications running on Linux on System z.

Good examples are applications using the DB2 Client, Connectors, VSAM Redirector, etc.

Speaker: Ingo Franzki

Title: z/VSE Announcements, Trends & Directions

Abstract: This session provides an overview of the most recent announcements for z/VSE.

We will review where z/VSE will be going in the future. We also will discuss relevant changes and additions introduced with IBM z13 and exploited by z/VSE V5. We will cover z/VSE status, contents, strategy, modernization, and the benefits of a hybrid environment incorporating the best of z/VSE, z/VM and Linux on z Systems.

Speaker: Klaus Goebel

Title: 50 Years of z/VSE - getting stronger year by year!

Abstract: 2015 is the year for z/VSE to celebrate its 50th anniversary. Please join us in chatting about the good old days and the innovations leading from DOS/360 to today's z/VSE.

Bring your own stories, and share your thoughts on what to do to make this unbreakable operating system go even stronger for the next 50 years.

Speaker: Klaus Goebel

Title: Linux on z Systems - Update

Abstract: Linux on System z is successfully used by many customers for various applications. What is the difference to a distributed environment, what are the advantages and practical experience? What are the advantages of Linux on System z? Why do clients use Linux on z Systems?

The latest enhancements including Elastic Storage, DB2 BLU, and more, as well as future direction will be covered.

Speaker: Siegfried Langer

Title: IT Optimization with Linux on z Systems

Abstract: Linux on System z is successfully used by many customers for various applications, including consolidation of WebSphere and Oracle.

What is the difference to a distributed environment, what are the advantages and practical experience? What are our customers doing with Linux on z Systems and why did they chose to run it on z Systems?

The presentation will address these questions and provide client examples and insight into the motivation and benefits.

Speaker: Siegfried Langer

General Information about the VM Workshop

DATE: 2015 VM (including VSE and Linux on z Systems) Workshop June 25-27 2015 at Binghamton University in Binghamton, NY.

WHERE: Binghamton University, 4400 Vestal Parkway East, Binghamton, NY 13902

WHO ATTENDS: Technical users of z/VSE, z/VM and Linux on z Systems

WHY ATTEND: People come for the wonderful "up close and personal" workshop that has great content and terrific camaraderie while learning the latest technical information regarding z/VSE, z/VM, Linux on z Systems.

It is the best bargain available for your education dollar.

WHAT TO EXPECT: Labs, user presentations and technical presentations by well-known z/VSE, z/VM and Linux on z Systems experts.

PRICE: *** ONLY \$100 per attendee**.*

The \$100 registration fee includes:

- * Technical sessions and materials provided by industry experts in z/VM, Linux on z Systems, and z/VSE systems
- * A Binghamton University logoed polo shirt with an embroidered "2015 VM Workshop" patch on the arm
- * An evening Gala Reception and Banquet Dinner
- * Pretty much all meals

HOUSING: Dorm rooms will be available for lodging at \$45/day (double occupancy) and \$55/day (single occupancy).

HOW: Registration and dorm web pages are open. Register at:

<http://www.vmworkshop.org/2015>

HISTORY: The VM Workshop began as a way for VM systems programmers to share what they do at their sites, what tools they had written, and what they had learned. If you have a topic you would like to present, please submit it on the website. Don't have enough to fill an hour? No problem... submit the idea (or multiple ones!) and the committee will merge multiple shorter presentations in

to full hour sessions. Don't be shy. The VM Workshop is a very friendly environment to express your ideas and learn.

We hope to see you at Binghamton University in June 2015. Don't miss this enjoyable and educational event!

Tags: vm_workshop, conference, vse

Workshop for z/VM, Linux on System z and z/VSE (VM Workshop 2015) in June - registration open (2015-04-21)

You may now register to the VM Workshop 2015.

It will be conducted at Binghamton University in Binghamton, NY for 2.5 days from about 9AM on Thursday June 25, until approximately 2PM on Saturday, June 27.

The workshop is for technical users of z/VM, Linux on z Systems, and z/VSE systems. The VM Workshop web page now has more details - see [here](#).

I see the VM workshop as a replacement for WAVV. It would be great, if we could meet there.

Tags: conference, vm_workshop, vse

Hottest Emerging Trends in IT (2015-04-20)

Sorry, that you did not see a blog entry during the last days. I just returned from a business trip.

Today I want to recommend a posting on our IBM Redbook blog. The blog provides "5 things to know" about a specific topic or Redbook publication. This time it's "5 Things to Know About the Hottest Emerging Trends in IT". That is 5 things to know about emerging technology trends, as uncovered in the IBM Academy of Technology survey.

The blog entry is [here](#), which also includes a link to the corresponding IBM Redbooks Point-of-View publication.

Tags: trends, vse, redbook

z/VSE service news: New openssl APAR, next blog entry on April 20 (2015-04-10)

We just released a new openssl. I recommend to apply that on z/VSE 5.1, if you are running IPv6/VSE

- and z/VSE 5.2 in general, because more z/VSE components exploit openssl.

openssl

APAR DY47602 (z/VSE 5.1 PTF UD54105, z/VSE 5.2 UD54106): SECURITY FIXES FOR OPENSSSL.

The APAR fixes a vulnerability described by CVE-2015-0286.

If you are interested in the CVEs (Common Vulnerabilities and Exposures), just search for the CVE ids in the internet.

The APAR information is [here](#).

The APAR will show up on our [security service portal](#).

Next blog entry on April 20:

I will be on a business trip in the US all next week. Therefore I will post my next blog entry on Monday - April 20.

Have a good weekend. It's spring !

Tags: support, apar, ptf, vse, openssl, service

z/VSE Quick Reference mobile application for Android (2015-04-09)

We just released an Android App for z/VSE. If you have an Android smart phone or tablet you may use this application to get information on z/VSE, such as news, events, education, documentation, etc. Basically it provides the content as available on our web pages and more.

You can download the App from our web page - [here](#).

Please let us know, what you think about that App.

Just if the given link does not work, it's on the bottom of our web page

-
- z/VSE information** —
- 📄 [z/VSE Quick Reference mobile application for Android \(APK, 1.8MB\)](#)
 - 📄 [Getting started with mobile development for z/VSE \(PDF, 1.8MB\)](#)
 - [New Redbook: IBM HiperSockets Implementation Guide](#)
 - [New Redbook: Enhanced Networking on IBM z/VSE](#)
 - [Updated Redbook: Security on IBM z/VSE](#)
 - 📄 [Updated: IBM Continues Extension of z/VSE - More Function for Midrange Mainframe Users](#)
by The Clipper Group, Inc (PDF, 620KB)
 - 📄 [Evolving IBM z/VSE systems in a web-oriented world \(PDF, 1.4MB\)](#)
 - [Encryption Facility for z/VSE V1.2 Announcement letter](#)
 - 📄 [z/VSE: A Roadmap For Cost savings and Exploiting Technology](#)
by Sine Nomine Associates (PDF, 120KB)
 - [z/VSE Basics, SG24-7436](#)

ibm.com/vse

Tags: app, web_pages, reference, vse

z/VSE Service news: new APARs available (IUI, CICS) (2015-04-08)

There are new APARs / PTFs available for the Interactive User Interface (IUI) and CICS TS for VSE/ESA.

Interactive User Interface

APAR [PI35785](#) (z/VSE 5.2 PTF: UI26254-52C): MSGOP31ADVC NOT OP SYSCTL=6C0 WHEN TRYING TO READ A .AWS OR A .PTF TAPE FROM MY PC. RUNNING INSPRE,AS GENERATED BY THE IUI

INSPRE job created by the installation dialog fails with message 0P31A DVC NOT OP SYSCTL=6C0, when trying to read a .AWS or a .PTF tape from my PC. VSE VTAPE (remote) used for installation.

If a customer used remote virtual tape on the VSE system and upgraded to z/VSE 5.2, the hostname or IP address given in the dialog is ignored, but an old IPv4 address is taken.

CICS TS for VSE/ESA 1.1.1

You may want to monitor the following CICS TS APAR, if you are using the CICS Explorer. The corresponding PTF is pending.

APAR [PI35376](#): DFHWB0723 WITH RESPONSE: 4. REASON: 2. AND IZE0106E CONNECT FAILED WITH ERROR "BAD REQUEST" USING CICS EXPLORER VSE

The CICS Explorer Client returns message IZE0106E for a "Bad Request". The CICS SYSLST contains message DFHWB0723 for Program name: DFHWB0723 with RESPONSE: 4 REASON: 2.

As always the latest CICS TS for VSE/ESA APAR news is [here](#) and z/VSE related APARs are on the [z/VSE corrective service and support page](#).

Tags: ptf, service, vse, apar, iui, support, cics

Conference reminder: Edge2015 - Happy Easter ! - next blog entry on April 8 (2015-04-02)

We have just a few weeks to our next conference with z/VSE sessions - IBM Edge2015 on May 11-15, 2014 in Las Vegas, NV, USA.

It covers the Executive Summit and three Technical Universities: Storage Systems, z Systems and Power Systems.

If you are interested, more information is [here](#).

On Friday is a public holiday in Germany (Good Friday) and on Monday is another public holiday (Easter Monday).

Have a nice weekend. Happy Easter !

Tags: vse, conference, edge, zuniversity

z/VSE service news: new APAR / PTFs (TCP/IP) (2015-04-01)

There is a new TCP/IP APAR available to get the product to the latest service level.

IBM TCP/IP for VSE/ESA 1.5F

APAR [PI34507](#) (PTF UI25359 and UI25360): APAR WITH FIXES (ZAPS) FOR TCP/IP 1.5 SERVICE PACK F. (TCPIP15F / SERV150F)

The following ZAPs are shipped within one PTF:

ZP15F017 An upgrade to a DNS server results in "entry not found" by client.
ZP15F049 Connect_Sequence fails to be enforced.
ZP15F050 Unnecessary diagnostics dumps during cleanup.
ZP15F058 Multiple subtasks reset job step time.
ZP15F061 CICS Web Services fails with latest browser.
ZP15F101 In some situations, XMOVE error will occur on fast SOCKET CLOSE.
ZP15F102 IBM VSAM Redirector subtask abends in CICS partition.
ZP15F104 Power may incorrectly insert a large series of null lines as "blank" pages.
ZP15F107 Detection of CICS with subtask not under CICS control.
ZP15F108 CICS Web Services shuts down with DFHSO0102.
ZP15F110 Added SSL204 warning level message.
ZP15F114 CICS Web Services fails with DFHSO0102 message.
ZP15F117 CICS Web Services fails with PORTQueing.
ZP15F119 IPN411I >Undefined< Delayed commands now being issued.
ZP15F120 Message TCP905D was truncating the "Action" field.
ZP15F121 Detection of CICS with subtask not under CICS control.
ZP15F126 Add asynch diagnostic IPN898I message.
ZP15F127 Correct storing of BSD socket number.
ZP15F128 Allow givesocket of closed socket.
ZP15F129 TELNET01 application only uses line mode.
ZP15F130 "IPN411I >Undefined<" message incorrectly displays.
ZP15F153 If "USER TABLE" missing, table doesn't load and no error displayed.
ZP15F370 FTP303E PROGRAM CHECK FTPBATCH.
ZP15F378 IPN123I C SOCKET FREEVIS and IPN695C Abend in TKAB1000.
ZP15F410 TLS server rejects SSL30 client_hello.
ZP15F444 Poor performance during ascii file transfer.
ZP15F487 FTP303E ABEND FTPX1000 PSW=07DD3000 80000002 CODE=20 INT=0001.

ZP15F596 IPN166E Application Program Abend at xxxxxxxx. Phase: IPNCICMP, Offset: 31E.

ZP15F599 Added new message TEL958I when user abnormally disconnects.

Tags: support, apar, vse, tcpip, ptf, service

New IBM Redbook / Solution Guide available (z13 / security) (2015-03-31)

The new IBM Redbook introduces the new IBM z13 mainframe. It gives a hardware overview, describes key functions and capabilities. provides some information about the operating system support including z/VSE, and more.

The "IBM z13 Technical Introduction" Redbook is [here](#).

There is also a new IBM Redbooks Solution Guide available: Securing the IBM Mainframe.

This Solution Guide focuses on the following hardware and operating system platforms: IBM z Systems, IBM z/OS, IBM z/VM and Linux on z Systems

The IBM Redbook Solution Guide is [here](#).

Tags: solution, mainframe, z13, redbook, vse

Addressing / Residency Mode of the z/VSE LOAD macro (2015-03-30)

Just recently I got a question about the use of the z/VSE LOAD macro below and above the (16 MB) line.

The LOAD macro was enhanced with z/VSE 4.3 to allow execution in 31 bit addressing mode. It loads the specified phase into storage, if this phase is not in the SVA (shared virtual storage). The enhancement is transparent to existing programs.

Before I describe what changed, I will summarize addressing and residency modes.

A program (phase) can have one of the following addressing modes:

- 24-bit addressing mode (a 24-bit program). Specified using the addressing mode (AMODE 24) and residency mode (RMODE) 24 program attributes.
- 31-bit addressing mode (a 31-bit program). Specified using the AMODE 31 and RMODE ANY program attributes.

AMODE describes the mode in which the program receives control. With the AMODE 24 attribute a program can reside below the 16 MB line and can access data below the line. However, within the program it can use instructions (like SAM 31) to change to AMODE 31 or 64. With the AMODE 31 attribute a program may reside below or above the 16 MB line dependent on its RMODE. z/VSE does not allow the AMODE 64 attribute for a program, because program execution above the bar (above 2 GB) is not possible. However, an AMODE 24 or 31 program may switch into 64 bit addressing mode (e.g. via SAM 61).

RMODE states the virtual storage location where the program is expected to reside. z/VSE allows two residency modes for a program, RMODE 24 or RMODE ANY. With RMODE 24, the program has to reside below 16 MB in virtual storage. With RMODE ANY it can reside either below or above 16 MB, but always below the bar (below 2 GB).

AMODE / RMODE is described in detail in the z/VSE Extended Addressability book.

If you start a program with the "// EXEC program" Job Control statement, the program will always be loaded into the program area below the 16 MB line independent on its AMODE or RMODE. From there you may load additional programs into the GETVIS area below or above the 16 MB line dependent on

RMODE of the program to be loaded.

If your partition ends below the 16 MB line, (application) programs are always loaded below the 16 MB line. If you increase the partition beyond the 16 MB line and if your program does not have the appropriate AMODE/RMODE usage, a execution mode violation could happen. Therefore I recommend that you use a partition with some space above the 16 MB line during the development of 31 bit programs to verify a correct use of AMODE/RMODE.

In the z/VSE System Macros Reference each z/VSE macro has an AMODE and RMODE. The **LOAD macro** requires AMODE 24 or 31, RMODE 24 or ANY. If you use register notation only, you can now execute LOAD below or above the 16 MB line. That is any program attribute combination is possible: AMODE 24 / RMODE 24, AMODE 31 / RMODE 24, AMODE 31 / RMODE ANY.

However, if you specify at least one parameter, such as RET=YES, the LOAD macro generates a parameter list. The parameter list has to reside below the 16 MB line. Therefore the correct program attributes would be AMODE 24 / RMODE 24 or AMODE 31 / RMODE 24.

You can download the z/VSE documentation [here](#).

Tags: macro, rmode, program, vse, amode, load

Looking for z/VM education material ? (2015-03-27)

We - the z/VSE development team - use z/VM in the early test stages to verify new z/VSE functions and use the z/VM tracing capabilities to analyze problems. New developers joined our team and I looked into z/VM material they could use as a start.

Many of our z/VSE users are running their z/VSE systems in z/VM guests too. May be you are also looking for basic z/VM education material.

There are presentations on the z/VM web page - [here](#).

I would recommend the IBM Redbook "Introduction to the New Mainframe: z/VM Basics". The Redbook is [here](#).

Have a good weekend.

Tags: redbook, vse, education, vm

New Live Virtual Class: Linux on z Systems - What's New? (2015-03-26)

More and more z/VSE users implement our **PIE (Protect, Integrate, Extend) strategy** and use our connectors to Linux on z Systems.

Therefore I assume that there is some interest in the following Live Virtual Class (LVC).

Date: Wednesday, April 15, 2015

Topic: Linux on z Systems - What's New?

Abstract: This presentation will give an overview of the Linux on z Systems project. It will show Linux as a very active open source project and will give you an insight of what makes Linux so special. During this session you will learn about the newest and the upcoming features of the Linux kernel. You'll get a broad view of the next features of the kernel for Linux on z Systems and what these features can do for you.

More information is [here](#).

By the way I described the **PIE strategy** [here](#).

Tags: live-virtual-class, pie, lvc, vse, linux

z/VSE service news: new PTFs available (LE) (2015-03-25)

Today I have another z/VSE service post for you. The verification went faster than I expected.

The new z/VSE 5.2 PTFs are for the Language Environment (LE) component.

[APAR PI35189](#) (PTF UI26069): C PROGRAMS (LIKE EDCICONV OR REXX-VSAMIO) WRITING DATA WITH RECORD LENGTH > 115 BYTES MIGHT ABEND.

Error description

C programs (like EDCICONV or REXX-VSAMIO) writing data with record length > 115 bytes might ABEND.

The ABEND could be indicated by messages like:

```
CEE0374C CONDITION = CEE3200S (Segment Translation Exception)
CEE3322C EXECUTION ABNORMALLY TERMINATED WITH USER-ABEND
CODE 4082 AND REASON CODE 0004.
```

```
CEE3322C EXECUTION ABNORMALLY TERMINATED WITH USER-ABEND
CODE 4083 AND REASON CODE 0002.
```

Problem conclusion

1. Internal debugging tracing information has been limited to the largest available area (115 bytes) per entry.
2. EDCOTCPM linkbook now correctly includes EDCTCPMA.
3. Supplied sample EDCCMI.C corrected to execute as expected.

[APAR PI35269](#) (PTF UI25794): VS/COBOL II PROGRAM MIGHT ABEND UNDER Z/VSE 5.2 WITH MESSAGE CEE3204S THE SYSTEM DETECTED A PROTECTION EXCEPTION.

Error description

VS/COBOL II program might abend under z/VSE 5.2 with message CEE3204S THE SYSTEM DETECTED A PROTECTION EXCEPTION.

Problem conclusion

Identification of VS/COBOLII routines in the compiler-to-runtime interface stubs has been improved to use internally available information when attempting to identify the current execution environment.

You will find them on our corrective service page too - [here](#).

Tags: ptf, apar, le, service, vse, language_environment,
support

z/VSE service news: New PTFs available (LFP, Supervisor) (2015-03-24)

There are new PTFs available for z/VSE 5.1 and 5.2.

Let me start with the most critical one, which is also flagged as HIPER ("High Impact or Pervasive APAR"). It is related to Linux Fast Path (LFP).

VSE/AF - Connector - Linux Fast Path (LFP)

z/VSE 5.1 APAR [PI35642](#) (UI25398), z/VSE 5.2 APAR [PI35643](#) (PTF UI25399):
DATA SEQUENCE ERROR WHEN USING Z/VSE FAST PATH TO LINUX ON
SYSTEM Z

Error description

When using z/VSE Fast Path to Linux on System z (LFP) to send huge amounts of data from remote to z/VSE, parts of the data may arrive on z/VSE in a wrong sequence. This can happen under rare circumstances, for example when the IUCV message limit is reached due to heavy workload.

Problem conclusion

The Linux Fast Path Daemon (LFPD) has been corrected to ensure the correct data sequence.

VSE/AF - VSE Supervisor

z/VSE 5.1 APAR [DY47596](#) (PTF UD54103), z/VSE 5.2 APAR [DY47595](#) (PTF UD54097):
HARDWAIT FFF DUE TO AN OPERATION EXCEPTION IN SGLOCK

Error description

HARDWAIT FFF due to an OPERATION EXCEPTION in the SGLOCK VSE Supervisor routine. SGLOCK is a macro that will be included into the VSE Supervisor during Supervisor generation. It provides the LOCK / UNLOCK Supervisor Service Call (SVC) VSE services.

Problem conclusion

SGLOCK and \$IJBEQDQ have been changed to preserve Register 6.

Don't forget to apply the corresponding generation feature PTFs, if you generate your own Supervisor.

You will find both problems on our corrective service page too. It is [here](#).

Tags: ptf, lfp, support, apar, vse, hiper, service,
linux_fast_path, supervisor

SOD: Channels and Containers for CICS TS for z/VSE, new IBM Redbook (2015-03-23)

On April 7, 2014 we announced z/VSE 5.2. In the [announcement letter](#) a Statement of Direction (SOD) for CICS was included:

IBM intends to provide new capability in a future release of IBM CICS Transaction Server for z/VSE, to provide:

- (i) Updates to CICS resources for CICS Explorer, and
- (ii) Channels and Containers to enable the transfer of large amounts of data between CICS applications.

For Channels and Containers IBM Redbooks were published in the past. Just a few days ago a new one was released with the title "Using IBM CICS Transaction Server Channels and Containers".

That Redbook is related to CICS TS for z/OS. However, it also describes general Channels and Containers concepts and provides a good overview, what you can do with them. Please consider that CICS TS for VSE does not support Java or business transaction services (BTS).

If you are interested in Channel and Containers, the IBM Redbook is [here](#).

Tags: redbook, announcement, vse, cics, sod

Do you have any feedback for tape-less installation of z/VSE ? (2015-03-20)

Nearly a year ago I posted a blog entry on tape-less initial installation, which is possible with z/VSE 5.2. The blog entry is [here](#).

In between we also had a Live Virtual Class (LVC) on that topic. You can download the presentation and playback from [here](#).

Tape-less initial installation is only possible on ECKD devices

I am currently looking into a requirement for tape-less installation on FBA-SCSI devices. The requirement is [here](#).

You need to log-in with your IBM id to view this requirement. You may vote on it.

Just a few days ago I wanted your feedback, if you still require to order z/VSE on tape.

If you just order z/VSE on tape or electronically, that may require a tape-less installation too. That blog entry is [here](#).

What else would you need to do an initial installation of your z/VSE environment from DVD or an installation image ?

Can we assume, that you have a TCP/IP stack licensed for z/VSE (TCP/IP for VSE or IPv6/VSE) ?

Or do you still just connect your z/VSE via SNA ?

Many Shopz orders are electronically. How do you install your z/VSE system ? Do you create tapes for installation ?

What are your experiences with tape-less installation ?

Please comment on this blog entry or send your feedback to me (salm@de.ibm.com).

I am looking forward to your feedback.

Have a good weekend.

Tags: vse, electronically, install, tape-less, installation, dvd

Are you looking for the device number of your device (processor, disk, tape) ? (2015-03-19)

In many cases I know the device name (processor, DASD, disk, tape), but not the device number.

The device number can be used to search e.g. for the corresponding Preventive Service Planning (PSP) document to get required APAR information for a specific device.

My list below shows the device number and corresponding device name. Just for completeness I also included the very old processors.

Device Number	Device Name
Processor	
2003	Multiprise 2000
7060	Multiprise 3000
2064	zSeries 900
2066	zSeries 800
2084	zSeries 990
2086	zSeries 890
2094	z9 EC
2096	z9 BC
2097	z10 EC
2098	z10 BC
2817	zEnterprise 196 (z196)
2818	zEnterprise 114 (z114)
2827	zEnterprise EC12 (zEC12)
2828	zEnterprise BC12 (zBC12)
2964	z13
2965	z13s
Disk	
2107	DS8000
Tape	
3592	3592 J1A, TS1120, TS1130, TS1140
3494	Virtual Tape Server (VTS)
3957	TS7700 Virtualization Engine

On the [IBM Support Portal](#) you may search for a zBC12 PSP with the key word "2828device".

If there is PSP for z/VSE, you will get an entry with "Subset 2828/ZVSE" or similar.

Tags: vse, psp, tape, disk, device, processor

Next blog entry tomorrow (March 19) (2015-03-18)

I am not in the office today. Therefore you can expect my next blog entry tomorrow.

It's nice today. We expect 18 C with blue sky. It's spring. Flowers are growing.

Tags: vse

z/VSE service: Material that may help for problem analysis (2015-03-17)

I hope, your z/VSE system runs fine all the time. Just in case you need to contact the z/VSE service team (Level 2) in case of a problem, our service team may ask for the following material or ask the following questions:

- Issue the SIR command on the console and make a screen shot from the output or prepare the console log output (EXEC PRINTLOG)
The SIR output shows the processor, the z/VM and z/VSE release, VSE Supervisor and VSE/POWER PTF level, number of CPUs, ...
- Prepare the console log output. We scan that for messages and errors.
- Did you change anything before the problem occurred ?
Did you install new (vendor) products, or PTFs ? Does your workload increase ? Did you migrate to a new processor ?
- Does the problem occur once or multiple times ? Is it reproducible ?
- Does the problem occur on the test or production system ?

May be you can prepare that information in advance.

Tags: service, support, vse

IBM Redbooks updated: zBC12 / zEC12 Technical Guide (2015-03-16)

If you are running your z/VSE systems on zBC12 or zEC12 mainframes, you may be interested in the corresponding IBM Redbook Technical Guides.

The following two guides were just updated:

- [IBM zEnterprise BC12 Technical Guide](#)
- [IBM zEnterprise EC12 Technical Guide](#)

Tags: vse, mainframe, redbook

Do you still order z/VSE on tape ? (2015-03-13)

Today you can order z/VSE on tape, DVD or electronically from Shopz. Do you still need z/VSE on tape ?

As you know since z/VSE 5.2 you can run an initial installation from a DVD or tape image.

I described tape-less installation in one of my blog entries - [here](#).

With the tape image you may also create a real tape. we describe that in the z/VSE Installation book.

That is you can still install or Fast Service Upgrade (FSU) from a real tape.

Therefore my question - would it be acceptable to deliver z/VSE just on DVD or electronically, no longer on tape ?

I am looking forward to your feedback.

Have a good weekend.

Tags: fsu, tape, installation, tape-less, order, vse

z/VSE LVC presentation available: Analyzing CICS TS SOS Problems & CICS Trace (2015-03-12)

The presentation and playback of the last z/VSE Live Virtual Class (LVC) is now available on our education web page (held on March 10, 2015).

The topic was "Analyzing CICS TS SOS Problems in z/VSE".

Besides the presentation and playback you may also download the document "How to Determine CICS Wait Time from CICS Trace".

You may download them [here](#).

Tags: `live-virtual-class, cics, lvc, vse, trace`

Concurrent microcode upgrade with z/VSE (2015-03-11)

From time to time it is necessary to upgrade the microcode of your IBM Storage (ECKD/SCSI disk or tape).

For **ECKD storage** I recommend to shutdown the z/VSE system before you upgrade the microcode.

For **Fibre-Channel-attached SCSI disks** concurrent microcode upgrade is not supported.

z/VSE with the latest service level supports concurrent microcode upgrade for **IBM tape storage**. Please consult your device documentation for details. We recommend to take the tape units offline (z/VSE OFFLINE command) prior to the microcode upgrade or use the next maintenance window. Once the upgrade completed, take the tape units online again (z/VSE ONLINE command). Please check with your software vendors (e.g. tape management systems), if they support concurrent microcode upgrade.

Tags: disk, tape, dasd, vse, upgrade, microcode

z/VSE on IBM z13 (2015-03-10)

The new mainframe - IBM z13 - is available since yesterday. A good start for general information about the new mainframe is the product page - [here](#).

I briefly summarized below, where you can find information about z/VSE on z13.

The z/VSE status pages provide information about z Systems processors and z/VSE releases.

For supported z/VSE releases (z/VSE Version 5) the processor table is [here](#), for unsupported VSE releases it is [here](#).

The requirements for z/VSE Version 5 on z13 are summarized in the Preventive Service Planning (PSP) bucket (Upgrade 2964DEVICE, Subset 2964/ZVSE) [here](#).

Please let me know, if you need more information.

Tags: vse, mainframe, status, z13, requirements

Are you interested in a z/VSE / CICS beta ? (2015-03-09)

We are starting a beta test for new z/VSE and CICS TS functions this month. Would you be interested ?

What do we expect ? During the beta test period it would be great, if you could run some tests with your workload and share your experience with us. The system would require an initial installation. It can be used as a test system only (not in production). You need at least a z10 or higher.

What is your benefit ? You can get early experience on the latest z/VSE development and verify the benefits for your workloads.

What is required ? You need to have a valid z/VSE license and sign a beta test license agreement. Thereafter you will get the beta driver with appropriate documentation.

Whom to contact ? Just send me an email, if you are interested (email to salm@de.ibm.com).

See also my related beta blog entry from last year - [here](#).

Tags: vse, test, beta, cics

z/VSE service news: new PTFs are available (AR, z13) (2015-03-06)

There are new APARs / PTFs available for z/VSE 5.1 and z/VSE 5.2.

Attention Routine (IJBAR31)

APAR [DY47601](#) (z/VSE 5.1 PTF: UD54099, z/VSE 5.2 PTF: UD54100): TIME ZONE=VM RESULTS IN OS04I ILLEGAL SVC - HEX LOCATION 0DF647BE - SVC CODE HEX 6B IN IJBAR31

After installation of UD54048 / DY47556 on z/VSE 5.1 or respectively UD54057 / DY47562 on z/VSE 5.2 the command TIME ZONE=... may program check on systems with NPARTS less than 23 or number of active partitions higher than NPARTS - 12. APAR DY47601 resolves this problem. Therefore the APAR is flagged as YesPE.

Crypto device driver

[DY47586](#) (z/VSE 5.1 PTF: UD54081, z/VSE 5.2 PTF: UD54082): UPDATE FOR CRYPTO DEVICE DRIVER

Support for the latest crypto card: Crypto Express5S available with the new mainframe z13.

The APAR is also mentioned in the

[Preventive Service Planning \(PSP\) bucket for z13](#).

Enjoy your weekend.

Tags: vse, apar, service, z13, support, ptf

z/VSE security: Are you still using the old CICS transaction security table (DTSECTXN) ? (2015-03-05)

Since z/VSE 3.1.1 (available 2006) you can protect CICS transactions using the Basic Security Manager (BSM) Control File, which makes the old concept based on DTSECTXN table obsolete. However, you can still use the old security concept based on DTSECTXN.

If you are still using the DTSECTXN, **it is time to migrate** your CICS transaction security definitions to the BSM Control File and get rid of the DTSECTXN table. A dialog is available to migrate the DTSECTXN security entries into the BSM Control File. I recommend to migrate the DTSECTXN definitions on your current z/VSE release (if you are on z/VSE 3.1.1 or higher), before you go to a new release.

Details about the security definitions and DTSECTXN migration are described in the z/VSE Administration book. It is on our documentation page, [here](#).

Tags: bsm, vse, transaction, dtsectxn, security, cics

New parameter for HiperSockets IOCP definitions on z13 (2015-03-04)

In just a few days the new mainframe - z13 - will be available. See my related blog entry [here](#).

If you have your new z13, you may want to migrate your IOCP definitions. In that case you need to update the HiperSockets definitions (CHPID type IQD).

There is a new parameter in the CHPID statement - the VCHID parameter.

Starting with z13, the IOCP generation of HiperSockets devices requires the keyword VCHID. VCHID specifies the virtual channel identification number associated with the channel path (similar to PCHID). A valid range is 7E0 - 7FF. VCHID is not valid on processors prior to z13.

The new parameter is described in the "z Systems Input/Output Configuration Program User's Guide for ICP IOCP, SB10-7136-00".

The z/VSE IOCP support for z13 is available via APAR DY47590. The APAR information is [here](#).

See also the z13 PSP (Preventive Service Planning) bucket for z/VSE - [here](#) - or my blog entry for the z13 PSP bucket - [here](#).

Tags: psp, hipersockets, vse, mainframe, z13, iocp

Are you using drive-based data encryption with your tape devices ? (2015-03-03)

The IBM System Storage TS1120, TS1130 and TS1140 tape drives support drive-based data encryption to protect your data.

This blog entry is related to the encryption key manger, that is required dependent on the tape device, if you want use drive-based data encryption.

For the TS1120 and TS1130 you may use the IBM Encryption Key Manager (EKM) component, a Java program, to manage encryption keys. The EKM and the tape drive communicate via the TCP/IP protocol.

For the TS1140 you have to use the IBM Security Key Lifecycle Manager (SKLM) to manage encryption keys. SKLM can also manage the keys for TS1120 and TS1130.

Both EKM and SKLM provide the Key Encryption Key Labels (KEKs) required for the z/VSE Job Control KEKL statement.

A job running on z/VSE can issue a request to encrypt the data to be stored on tape. This request is initiated using the appropriate mode setting in the Job Control ASSGN statement and the Job Control KEKL statement.

More information of the IBM Security Key Lifecycle Manager (SKLM) is [here](#).

Tags: vse, tape, key, security, encryption

2015 VM Workshop with z/VSE sessions (2015-03-02)

I just saw some information about the 2015 VM Workshop on VSE-L. It's a bit hidden under the topic "COBOL/VSE Issues On z/VSE 5.2.0 ". Mike posted that end of last week - [here](#) - see at the end.

The 2015 VM Workshop will be conducted at Binghamton University in Binghamton, NY for 2.5 days from about 9AM on Thursday June 25, until approximately 2PM on Saturday, June 27. For more workshop details visit the VM Workshop web page - [here](#). The workshop is for technical users of z/VM, Linux on z Systems, and z/VSE systems.

Below I summarized the 2015 conferences with z/VSE sessions (see also my blog entry on January 13):

April 27-29, 2015	GSE Fruehjahrstagung (German only) in Berlin, Germany
May 11-15, 2015	Edge2015 in Las Vegas, NV, USA
June 25-27, 2015	VM workshop in Binghamton, NY, USA
September ?	z/Evolution in the US (Sept 12 - 16). I only saw the web page. It's not announced yet. I will keep you posted on that one.
October 19-21, 2015	9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Boeblingen, Germany

Have a good week.

Tags: edge, zuniv, conference, vse, workshop

Technical article and (LVC) presentation available: Getting started with mobile development for z/VSE (2015-02-27)

Today I have some reading for the weekend. We just made a technical article available on our documentation page.

It provides some insight on how to connect from mobile devices to z/VSE resources. The title of the article is "Getting started with mobile development for z/VSE".

The article is [here](#).

There was a Live Virtual Class (LVC) last Tuesday, that also addressed the mobile environment: Mobile access to the existing z/VSE application.

The presentation is now available too. It can be downloaded [here](#).

Have a good weekend.

Tags: article, mobile, lvc, vse, presentations, live-virtual-class

How to get the date and time from a Time-of-Day (TOD) value (2015-02-26)

There was a discussion on VSE-L this week on how to get the date and time from a Time-of-Day (TOD) clock value. It is 8 byte long and may be used e.g. in system traces, like DEBUG. If you are interested the discussion is [here](#).

There are multiple ways to get the TOD clock value translated. You may use/write a REXX program or small program. The program could use the GETIME macro to translate the value, see the z/VSE System Macros Reference for details. It's on our documentation page, [here](#).

There is a Attention Routine command too - the TIME command. With TIME TOD=<first 4 byte of TOD clock value>, you will get the corresponding date and time.

There is just a small disadvantage. The TIME command does not show the milliseconds. Using just the first 4 bytes of the TOD clock value will truncate the time to seconds.

Examples:

```
time tod=CE8B684c
AR 0015 TIME IS: 05:05:29 (GMT)    DATE 02/22/2015 SUNDAY
```

```
time tod=CE8B684d
AR 0015 TIME IS: 05:05:30 (GMT)    DATE 02/22/2015 SUNDAY
```

```
time tod=CE911B8A
AR 0015 TIME IS: 17:54:01 (GMT)    DATE 02/26/2015 THURSDAY
```

Tags: tod, command, vse, time, time_of_day

New z/VSE Live Virtual Class: Analyzing CICS TS SOS Problems in z/VSE (2015-02-25)

We just completed a z/VSE Live Virtual Class (LVC) yesterday and already scheduled a new one for March 10, 2015.

The next topic is "Analyzing CICS TS SOS Problems in z/VSE".

This session begins with a short introduction to the design of CICS storage management. It explains what triggers an SOS condition, how it affects CICS processing and introduces a potential workaround. It identifies possible reasons for SOS occurring and actions to resolve them. It explains what is required to be in place to capture the correct diagnostic data for problem determination, and shows how to use DFHPD410 formatted dump output in conjunction with the appropriate CICS manuals to find the root cause and hence pursue the appropriate resolution.

More information is [here](#).

Tags: `live-virtual-class, vse, lvc, cics`

Next blog entry tomorrow (02/25/2015) (2015-02-24)

I am not in the office today. Therefore you can expect my next blog entry tomorrow.

Have a good Tuesday.

Tags: vse

Lego version of a mainframe (2015-02-23)

Most of us know Martin Truebner from conferences such as GSE and WAVV. On those conferences he showed us the Lego version of a zEnterprise 114. Martin transformed the z114 model into a working mini "mainframe".

Now an article about Martin's "mainframe" was published in the IBM Systems Magazine.

The article is [here](#).

Please see the table of contents too for other interesting articles, such as the z13 article.

Tags: article, vse, mainframe

Live Virtual Classes scheduled for next week - z/VSE, z/VM (2015-02-20)

There are two Live Virtual Classes (LVC) scheduled for next week.

The **first LVC** is for z/VSE users, scheduled for February 24, 2015. I already informed you about that one.

Topic: Mobile access to the existing z/VSE application

The first z/VSE webcast in 2015 will demonstrate how to create a mobile application with access to existing applications running under z/VSE. We will start with a short overview of the IBM MobileFirst practice. Followed by the necessary tools and knowledge to start mobile development for z/VSE and the step-by-step process of creating mobile applications.

More information is [here](#).

The **second LVC** is related to z/VM and was scheduled for this week (February 18). However, we had problems during the last webcast session. Therefore we reschedule it for next Wednesday, February 25.

Topic: How z/VM Live Guest Relocation is used by GDPS - Introduction and Demo

With z/VM 6.2, z/VM supports Single System Image (SSI) and Live Guest Relocation (LGR). With GDPS 3.10, GDPS can handle and control such setups. The presentation covers:

- a short introduction to LGR, GDPS and xDR
- GDPS maintenance scenarios which make use of LGR
- introduction to LGR concepts and how GDPS can control LGR
- a short demo
- best practices

The presentation is already available.

The z/VM LVC web page is [here](#). The registration link will be updated soon.

Have a good weekend.

Tags: vse, lvc, vm

New white paper available - IBM 3270 emulation: security considerations (2015-02-19)

The 3270 emulation security considerations white paper was just published. The white paper covers all mainframe operating systems - including z/VSE and z/VM.

Abstract: 3270 data streams have been around since the early days of what has become IBM's z Systems family of mainframes. 3270 data streams were originally exchanged between z Systems software and hard wired devices such as display terminals and printers over private connections or closed SNA networks. With the advent of personal computers and workstations, the "dumb terminal" was replaced by software emulators that ran as applications on these "smart" devices. Over time, the traffic between the emulators and the 3270 applications moved from private connections or closed SNA networks to TCP/IP networks, including the Internet. The switch from hardware devices to software emulators introduced the risk of 3270 malware, while the migration to TCP/IP networks greatly increased the risk of unauthorized users attempting to access 3270 applications.

The purpose of this paper is to describe techniques, mechanisms and strategies for minimizing z Systems exposure to the above risks.

You can download the white paper [here](#).

Please let me know, what you think about it and what is missing.

Tags: network, 3270_emulation, security, white_paper, vse

z/VSE service news: New openssl APAR available (2015-02-18)

Today I want to inform you about a new openssl APAR - DY47591. openssl is available for z/VSE 5.1 and z/VSE 5.2.

openssl implements the Secure Socket Layer (SSL) protocol as well as the Transport Layer Security (TLS) to encrypt data streams.

In z/VSE 5.1 openssl is mainly used by IPv6/VSE. With z/VSE 5.2 also z/VSE components exploit openssl

I recommend to apply the corresponding PTFs as soon as possible.

APAR DY47591 fixes problems as described in CVE-2014-3572, CVE-2014-8275 and CVE-2015-0204.

The corresponding PTFs are UD54090 (z/VSE 5.1) and UD54091 (z/VSE 5.2).

If you are interested in the CVEs (Common Vulnerabilities and Exposures), just search for the CVE ids in the internet.

The APAR information is [here](#).

The APAR will show up on our [security service portal](#).

Tags: openssl, support, service, vse, cve, ssl

Next blog entry tomorrow (02/18/2015) (2015-02-17)

I am not in the office today. Therefore I will post my next blog entry tomorrow.

Enjoy the carnival.

Tags: vse

z/VM Live Virtual Class: How z/VM Live Guest Relocation is used by GDPS (2015-02-16)

A new z/VM Live Virtual Class (LVC) is scheduled for Wednesday, February 18, 2015.

The topic is "How z/VM Live Guest Relocation is used by GDPS - Introduction and Demo".

With z/VM 6.2, z/VM supports Single System Image (SSI) and Live Guest Relocation (LGR). With GDPS 3.10, GDPS can handle and control such setups.

The presentation covers:

- a short introduction to LGR, GDPS and xDR
- GDPS maintenance scenarios which make use of LGR
- introduction to LGR concepts and how GDPS can control LGR
- a short demo
- best practices

You can find the registration link - [here](#), if you are interested.

Tags: vse, lvc, gdps, vm, live-virtual-class

Do you have requirements for the z/VSE security ? (2015-02-13)

Security is one of the most important elements of an operating environment. As you have seen in all our releases security was addressed in many new functions, be it in the z/VSE Basic Security Manager (BSM), our products or components. We support the latest crypto cards and z/VSE relevant crypto instructions. With openssl z/VSE got an up-to-date crypto stack, which also means regular updates.

Just a few examples of security enhancements, including crypto enhancements, in our latest releases:

- z/VSE 4.1: We introduced the Encryption Facility for z/VSE. supported tape encryption and improved BSM logging and reporting.
- z/VSE 4.2: Lightweight Directory Access Protocol (LDAP) sign-on support using a new z/VSE LDAP client, improved auditing (logging of BSM commands), SOA security enhancements (TLS)
- z/VSE 4.3: BSM enhancements (SMF logging of batch resources, MQ resource classes, cross reference reports), LDAP enhancements (IUI dialog for long userids)
- z/VSE 5.1: enhanced dialogs for BSM administration, enhanced LDAP dialogs, introduction of openssl (exploited by IPv6/VSE)
- z/VSE 5.2: openssl updated, openssl exploitation by z/VSE components, BSM auditor id, batch tools for LDAP

To better understand the z/VSE security concept and configuration we provided IBM Redbooks besides our product documentation:

- [Security on IBM z/VSE](#)
- [Enhanced Networking on IBM z/VSE](#)

Now I need your input: Which security items are missing in z/VSE ? What should we address next ?

Just send me an email - or raise a requirement - [here](#).

Have a good weekend.

Tags: vse, requirements, crypto, security

Did you see that latest IBM Redbook blog entry about z13 I/O ? (2015-02-12)

The IBM Redbook blog "[5 things to know](#)" shares five interesting things about one of the IBM's products or services. One of the last blog entries may be of interest for you:

5 Things to Know about IBM z13's I/O Enhancements. The blog entry is [here](#).

It gives some information about the I/O infrastructure of the new mainframe - IBM z13.

Tags: io, blog, mainframe, vse, redbook

Are you looking for an introduction to the mainframe ? (2015-02-11)

There is more and more interest in publications that can be used by students or professionals starting on the mainframe. A good introduction to the mainframe and its operating systems provide our IBM Redbooks.

I would start with the "Introduction to the new mainframe" books. This series of books is available for z/OS, z/VM, z/VSE, Networking, and Security.

In between those books are some years old, but still relevant, if you are new to the mainframe.

If you are reading my blog, I would assume you are mainly interested in

- [Introduction to the New Mainframe: z/VSE Basics](#)
- [Introduction to the New Mainframe: z/VM Basics](#)

For the other publications just search the IBM Redbooks pages - [here](#).

Tags: mainframe, vse, redbook, education, vm

z/VSE service news: new VSE/POWER APARs available, REXX (2015-02-10)

There are new APARs / PTFs available for **VSE/POWER**. You can find the latest APAR / PTF information on our z/VSE service and support page - corrective service. That page is [here](#).

... or you may search for an APAR in the technical help database - [here](#).

z/VSE 5.1: VSE/POWER PTF UD54086 ([APAR DY47589](#)):

z/VSE 5.2: VSE/POWER PTF UD54085 ([APAR DY47588](#)): POWER RETURNS RC/FDBK 04/16 INSTEAD OF JCM; VSE/POWER may drop Job Completion Messages and overwrite storage.

Affected users: All users of VSE/POWER spool access support.

APAR DY47588 is are flagged as Hiper (High Impact or Pervasive APAR).

Please install the VSE/POWER PTFs to resolve the **REXX** problem:

REXX PUTQE to RDR queue with WAIT option may fail with +++ (RC=-1) +++ The Failure may occur for JGM and OGM too.

Tags: apar, service, support, vse-power, vse, ptf

Clock changes (Daylight Saving Time) soon (2015-02-09)

It's just 4 weeks until the USA changes clocks. Daylight Saving Time (DST) starts on March 8, 2015. The clock is turned forward one hour at 2 am. In Germany we change 3 weeks later, on March 29.

That is it is time to plan for that change. A year ago I had a blog entry for the time change, that I want to re-post today:

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details. That book is [here](#).

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

There is also

- a Technote on "Daylight Saving Time changes effect on CICS". The Technote is [here](#).
- some information about DST in the z/VSE Hints & Tips, see section "System Date and Time".

This book is on our documentation page - [here](#).

Tags: daylight_saving_time, dst, cics, vse, time, tips

2nd anniversary of my z/VSE blog (2015-02-06)

Today is the 2nd anniversary of my blog.

I started February 6, 2013. In between I have 448 blog entries. Most of them are still relevant.

If you want to get information about a specific topic, you can use tags (like an index) and search for the topic.

Just use "Find a Tag" in the column on your right - or click on the topic on the Tag cloud below (see image).

Enjoy your weekend !

Ingolf's z/VSE Blog

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New edition of the mainframe weekly is out

Ingolf24 | Yesterday 12:09 PM | Visits (107) Like

My last post about the the "IBM Mainframe Weekly" was already 6 month ago. I think it's time to remind you about that newsletter again. It has links to white papers, social media, articles, videos, and information all around the mainframe. The latest edition just came out. You can find it here .

Tags: [article](#) [vse](#) [mainframe](#) [weekly](#)

0

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z/VM PSP bucket - some information for z/VM 5.4 users

Ingolf24 | Wednesday 1:05 PM | Visits (144) 1 Like

Some z/VSE customers are still dependent on z/VM 5.4, because they are running their z/VM and/or z/VSE systems on z9 processors. z/VM 5.4 was the last z/VM releases that supports z9 or higher. All z/VM Version 6 releases only support z10 or higher. For those customers that are still using z/VM 5.4 on z10 or higher processors, it is time to migrate to a supported z/VM

0

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About this blog

Blog entries are related to the mainfr operating system z/VSE. Ingolf will st hints & tips or any topic that might be Please let me know, what you would You may send feedback to salm@de

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Tags: [blog](#), [tag](#), [vse](#)

New edition of the mainframe weekly is out (2015-02-05)

My last post about the the "IBM Mainframe Weekly" was already 6 month ago. I think it's time to remind you about that newsletter again. It has links to white papers, social media, articles, videos, and information all around the mainframe. The latest edition just came out. You can find it [here](#).

Tags: vse, article, mainframe_weekly

z/VM PSP bucket - some information for z/VM 5.4 users (2015-02-04)

Some z/VSE customers are still dependent on z/VM 5.4, because they are running their z/VM and/or z/VSE systems on z9 processors. z/VM 5.4 was the last z/VM releases that supports z9 or higher.

All z/VM Version 6 releases only support z10 or higher. For those customers that are still using z/VM 5.4 on z10 or higher processors, it is time to migrate to a supported z/VM Version 6 release. The z/VM end of service dates are [here](#).

As you can see there, z/VM 5.4 has an end of service date of 12/31/2016, or until the z9 EC and z9 BC are withdrawn from support, whichever is later. z/VM 5.4 can no longer be ordered (withdrawn from marketing). That information is [here](#) (overview) and [here](#).

If you are interested to run your z/VM systems on z13. The requirements are listed [here](#) - or in the PSP bucket: [Upgrade 2964DEVICE, Subset 2964/ZVM](#)
Please note, that z/VM 5.4 is not supported on the z13.

Tags: psp, end-of-marketing, end-of-service, support, service, vse, vm, order

z/VSE PSP bucket for z13 available (2015-02-03)

In between the z/VSE Preventive Service Planning (PSP) bucket for the new IBM z13 mainframe is available. The z13 has machine type of 2964. Therefore the PSP bucket is called "Upgrade 2964DEVICE, Subset 2964/ZVSE". The PSP bucket is described [here](#).

Some PTFs will be available at z13 GA. For z13 GA dates see the z13 announcement letter - [here](#).

PSP buckets for z/VSE contain all recommended service (and Hiper PTFs) for a specific set of products ore components on a given z/VSE refresh level. More information about PSPs is [here](#).

Tags: support, psp, vse, service

z/VSE end of service dates (2015-02-02)

There was a discussion on the end of service date of z/VSE 5.2 last Friday on VSE-L. The discussion list is [here](#).

As I see it the questions were answered. That is it is a good idea to post z/VSE related questions on VSE-L. In most cases the z/VSE community has the answer.

So far there is no end of service date for z/VSE 5.2 announced yet. z/VSE 5.1 end of service will be June 30, 2016.

I also want to point you to the z/VSE status web page, if you have questions about end of service dates for specific releases. That web page is [here](#).

Tags: service, end-of-service, vse, support, vse-l

z/VSE service news: New RSLs are available (2015-01-30)

New Recommended Service Levels (RSLs) are available for z/VSE 4.3.1, z/VSE 5.1.2 and z/VSE 5.2.0. The RSL cutoff was December 31, 2014.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Have a good weekend.

Tags: support, service, ptf, apar, rsl, vse

z13: The New Possible Movie (2015-01-29)

Today I want to recommend a movie available on Youtube about the new mainframe z13: The New Possible.

There is no password or registration required.

The movie is [here](#).

Just in case you want to read more about the z13, the announcement letter is [here](#).

Tags: announcement, vse, system_z, mainframe

Charts for Linux on System z Live Virtual Class available (2015-01-28)

I had meetings all day and therefore did not have time to look into specific topics for my blog.

Please let me know, what topic I should address - anything related to z/VSE, z/VM or Linux on System z.

Today was the Linux on System z Live Virtual Class (LVC) on "Problem Determination for Linux on IBM z Systems ". See also my blog entry on Monday. Just in case you did not see it yet. In between the charts are available on z/VM's LVC page - [here](#).

Tags: linux, live-virtual-class, lvc, vse, charts

New IBM Redbooks Point-of-View publications (2015-01-27)

IBM Redbooks Point-of-View publications are brief, strategy oriented documents, that represent an author's perspective on a technical topic. More about those publications is [here](#).

I recommend the following publications for reading:

- [Enhancing Value to Existing and Future Workloads with IBM z13](#)
A Point-of-View publication about the new z13 mainframe. See [my related blog entry](#).
- [z Systems Simultaneous Multithreading Revolution](#)
Provides more information about a new function of z13.
- [Securing your Mobile Mainframe](#)
focused on mobile solutions hosted on the mainframe.
See also [my related blog entry](#) on our next z/VSE Live Virtual Class (LVC)

Tags: mobile, point-of-view, mainframe, redbook, vse, lvc, live-virtual-class

Linux on System z Live Virtual Class: Problem Determination (Jan. 28, 2015) (2015-01-26)

The next Live Virtual Class (LVC) for Linux on System z is scheduled for January 28, 2015.

My colleague Sa Liu will talk about "Problem Determination for Linux on IBM z Systems".

The registration link and schedule is [here](#).

Short abstract: Problem determination is the processes of finding what the problem is and why it happened. When a problem occurs, we need to gather certain information from the system, in order to analyze the problem, fix it and prevent it from happening again. In this session, we talk about processes of solving problems for Linux on IBM z Systems. Different tools for monitoring the system and data collecting are introduced. A few customer cases are analyzed to give you some concrete hits and tips.

Are you interested to participate in a z/VSE (CICS) beta ? (2015-01-23)

You may still remember the statement of direction (SOD), we made for CICS in our [z/VSE 5.2 announcement](#) in April 2014.

The statement of direction was:

IBM intends to provide new capability in a future release of IBM CICS Transaction Server for z/VSE, to provide:

- (i) Updates to CICS resources for CICS Explorer, and
- (ii) Channels and Containers to enable the transfer of large amounts of data between CICS applications.

I am still looking for z/VSE customers, that want to participate in a **beta test** of that new CICS release.

For the beta test you would need a IBM System z10 or higher.

Just send me an email, if you are interested. My email address:
salm@de.ibm.com

I am looking forward to your email.

Enjoy your weekend.

Tags: vse, cics, beta

CICS for VSE support pages (2015-01-22)

Today I looked into the CICS for VSE information on our support web pages. I found some page that might also be of interest for you:

- [End of service dates for all CICS products](#)
- [Hiper APARs for CICS products](#)
- [CICS product fix list](#) - I mentioned that one in earlier posts.
- [Mapping CICS releases from APARs and PTFs to CICS external versions](#)
- [Steps to get support for CICS](#)

Tags: vse, cics, service, support, ptf, end-of-service, apar

z/VSE's processor and device support (2015-01-21)

I often get questions about VSE releases and how they support processors or devices. Most of that information is on our status web pages.

We even keep the processor and device support actual for very old VSE releases too and what you need to run your system on a new processor.

We have a status page for supported releases. That page is [here](#).

... and unsupported releases, where the page is [here](#).

The status page for supported releases starts with the releases in service with key dates (announcement, end of marketing/ordering, end of service, min. z/VM level).

The remainder of the status page is the same for supported as well as unsupported releases.

They show the IBM z Systems servers / devices and what is required to run on them. They are structured as follows

- IBM z Systems servers
- adapters and crypto
- ECKD and SCSI IBM storage
- IBM tape storage
- IBM tape library systems

As you can see the new z13 server is already on the processor table listed.

Tags: disk, tape, eckd, processor, vse, device, scsi, status

z/VSE service news: Language Environment APAR (2015-01-20)

There is a new Language Environment APAR / PTF available for z/VSE 5.2.

The APAR PI30307 (PTF UI23902): AN ERRNO RC OF 57 IS RETURNED WHEN THE SPACE PARAMETER IS PASSED IN THE FOPEN STRING FOR A FILE OPENED BY FILENAME.

The PTF fixes the following problems:

1. Invalid parsing of "SPACE=" option on a fopen() request for a VSAM managed SAM file.
2. Incorrect DISP options set when opening an implicitly created VSAM managed SAM file using fopen() with mode "w" (write-only).
3. Default IJSYSCT label used when opening for read, removing or renaming and VSAM managed SAM file by dataset name.
4. The tmpfile() function left files behind when closed.
5. Incorrect component information displayed for DSECT utility output reports.

You will also find that APAR on our corrective service page - [here](#).

Tags: vse, service, language_environment, le, ptf, apar, support

What are your experiences with SCSI disks attached to z/VSE ? (2015-01-19)

Today I want to have your feedback.

In between z/VSE's SCSI support is available for nearly 10 years. I would like to know, if you are using SCSI devices as data devices together with z/VSE or if you are running z/VSE with SCSI devices only. What are your experiences with SCSI devices attached to z/VSE ?

I already had several blog entries related to SCSI. If you are interested, you may use the tag "scsi" in the "Find a Tag" field (right of the blog page) to find them.

... or - here are the most important blog entries:

- [Live Virtual Class presentation on SCSI support](#)
- [Do you have your data on SCSI disks ?](#)
- [News on z/VSE's SCSI support](#)
- [New z/VSE SCSI white paper](#)
- [Do you want to install your z/VSE system on SCSI devices ?](#)
- [z/VSE's storage options](#)

Please send your feedback to my email address: salm@de.ibm.com - or use the "Add a comment" at the bottom of this blog entry.

Tags: vse, device, hardware, scsi

Next z/VSE Live Virtual Class: Mobile access to the existing z/VSE application (2015-01-16)

We plan our next Live Virtual Class (LVC) for February 24, 2015. The topic is "Mobile access to the existing z/VSE application".

The LVC will discuss how to create a mobile application with access to existing applications running under z/VSE. We will start with a short overview of the IBM MobileFirst practice. Followed by the necessary tools and knowledge to start mobile development for z/VSE and the step-by-step process of creating mobile applications.

Our LVC web page is already updated. More details about this session are [here](#).

Have a good weekend.

Tags: lvc, vse, mobile, live-virtual-class

IBM Redbook updated: Enhanced Networking on IBM z/VSE (2015-01-15)

We just released an update of the IBM Redbook: Enhanced Networking on IBM z/VSE.

The Redbook is [here](#). It extends the information, that is provided in Security on IBM z/VSE, [SG24-7691](#).

Below I added the table of contents:

Chapter 1. Networking options overview

Chapter 2. TCP/IP for VSE/ESA

Chapter 3. IPv6/VSE

Chapter 4. Fast Path to Linux on System z

Chapter 5. OpenSSL

Chapter 6. Comparison of stacks and protocols

Appendix A. API reference

Tags: redbook, networking, security, tcpip, openssl, documentation, vse, network

New mainframe announced: IBM z13 (2015-01-14)

IBM just announced a new high end mainframe - the IBM z13. It delivers the latest mainframe technology.

Please read the z13 news release for more details. That web page is [here](#).

You may also watch the live stream on the new generation of IBM z Systems. It is **today** at 2:00 pm Eastern Standard Time (US).

More details are [here](#)

... and some more information about the z13:

- [Mainframe insights blog](#)
- The [z13 home page](#) with the data sheet and more z13 links.
- The [IBM Redbook page for z13](#) contains many links to documentation.

The z13 announcement letter is [here](#). The announcement letter also has the availability dates.

z/VSE Version 5 (5.1 and 5.2) will support the z13 at day one. Please check the z13 PSP (Preventive Service Planning) buckets, if PTFs are required for your configuration. z/VSE Version 5 supports the new Crypto Express5S (requires PTFs) as well as FICON Express16S cards.

Please also see the Statements of General Direction (SOD) section of the announcement letter. There are some interesting announcements.

Two of them I want to mention in this blog:

The IBM z13 will be the last z Systems server to support running an operating system in ESA/390 architecture mode; all future systems will only support operating systems running in z/Architecture mode. This applies to operating systems running native on PR/SM as well as operating systems running as second level guests. IBM operating systems that run in ESA/390 mode are either no longer in service or only currently available with extended service contracts, and they will not be usable on systems beyond IBM z13. However, all 24-bit and 31-bit problem-state application programs originally written to run on the ESA/390 architecture will be unaffected by this change. That is VSE operating systems prior to z/VSE Version 5 can not run on future z Systems servers.

The IBM z13 will be the last generation of z Systems hardware servers to support configuring OSN CHPID types. OSN CHPIDs are used to communicate between an operating system instance running in one logical partition and the IBM Communication Controller for Linux on z Systems (CCL) product in another logical partition on the same CPC. See Withdrawal Announcement [914-227](#), dated December 02, 2014, for details regarding withdrawal from marketing for the CCL product.

There are another interesting SOD I recommend to read: **KVM offering for IBM z Systems.**

Tags: vse, hardware, announcement, mainframe

VSE's anniversary and planned conferences. (2015-01-13)

Happy and successful New Year.

After some holidays I am back in my office.

2015 is an exciting year for VSE. It's the 50th anniversary of VSE (50 years VSE). We plan to celebrate that at the "9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z" on October 19, 2015 in Boeblingen, Germany - the home of z/VSE.

Some information about VSE's history is [here](#). It's not yet updated to the latest development. I will do that the next days.

... and now some conferences with z/VSE tracks planned for 2015:

- April 27-29, 2015 [GSE Fruehjahrstagung](#) (German only) in Berlin, Germany
- May 11-15, 2015 [Edge2015](#) in Las Vegas, NV, USA
- June 25-27,2015 VM workshop in Binghamton, NY, USA
- October 19-21, 2015 9th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Boeblingen, Germany

There is no WAVV conference anymore.

Have good start into 2015.

Tags: vse, conference, history

Happy New Year ! (2015-01-01)

Merry Christmas and a happy, healthy and successful New Year ! (2014-12-19)

Today is my last working day in 2014. I will be back in the week of January 12, 2015. That is you can expect my next blog entry that week.

I wish you and your family a Merry Christmas and a happy, healthy and successful New Year.

Thanks for reading my blog. In between I have 428 blog entries since I started (223 entries in 2014). All entries are tagged, that is you can use the tag as a key word to look for older entries.

Before I go I want to look back to some activities related to z/VSE in 2014:

We had 8 Live Virtual Classes (LVCs) with z/VSE topics:

January 22: Update on Encryption and SSL
March 4: TCP/IP for VSE Update
May 6: z/VSE V5 Update
June 24: Tapeless Initial Installation
July 22: An introduction to tuning VSAM file performance under CICS TS in z/VSE
September 30: z/VSE Connectors Update
October 14: z/VSE VSAM Enhancements
December 9: z/VSE SCSI Support and Migration Options

The presentation and replay of those classes are [here](#).

We had 4 conferences with z/VSE tracks:

April 7 - 9: Guide Share Europe (GSE) Meeting in Frankfurt, Germany
April 13 - 16, 2014: WAVV 2014 in Covington, KY, USA; the last WAVV conference
October 5 - 10, 2014: IBM Enterprise 2014 in Las Vegas, Nevada
October 20 - 22, 2014: 8th European GSE / IBM TU for z/VSE, z/VM and Linux on System z in Dresden, Germany.
Conference presentations are [here](#).

April 7 was the 50th anniversary of the first mainframe announcement.

We delivered a major new release: z/VSE 5.2 - with support of the latest

hardware, 64 bit exploitation, tapeless installation, stacking tape support, IPv6 exploitation, security enhancements and some items that address customer requirements, and more.

More information is [here](#).

... and z/VSE 4.3 End of service was on October 31, 2014.

The latest release status is [here](#).

Tags: vse, look_back, history

z/VSE service news: new VSE/POWER APARs (2014-12-18)

Today I have another service news blog entry for you. We just fixed a problem in VSE/POWER and released the corresponding APARs.

APAR title: OS03I PROGRAM CHECK INTERRUPTION IN POWER START IF SETPFIX LIMIT IS LARGER THAN SIZE OF PARTITION.

Fixed in APAR [DY47584](#) for z/VSE 5.2 - PTF UD54080 and APAR [DY47585](#) for z/VSE 5.1 - PTF UD54079

Problem description: OS03I PROGRAM CHECK INTERRUPTION - HEX LOCATION xxxxxxxx is issued when SETPFIX limit exceeds SIZE definition for POWER partition. Expected message 1Q05I should be issued instead:
1Q05I PAGEABLE AREA TOO SMALL, INCREASE VALUE OF 'SIZE'
COMMAND/OPERAND

Both APARs will show up on our corrective service web page - [here](#).

Tags: vse-power, service, support, vse, apar

z/VSE service news: New SIT option for CICS TS for VSE/ESA (SSLV3) (2014-12-17)

This topic is related to my [blog entry](#) from December 12, 2014 (z/VSE security news - SSL version 3).

There is a new APAR for CICS TS for VSE/ESA 1.1.1:

APAR PI28366 / PTF UI23574 causes CICS to use the TLS 1.0 protocol for SSL connections, but it also introduces a new option for the DFHSIT macro to allow the SSLV3 protocol to be used.

SSL version 3.0 should only be used for a migration period while clients that still require this protocol are upgraded.

DFHSIT macro parameter: ENCRYPTION={WEAK|NORMAL|STRONG|SSLV3}
SSLV3 allows the use of TLS version 1.0 and SSL version 3.0. If any of the clients that connect do not support TLS 1.0, you can select SSLV3.
CICS TS will then accept less secure SSL V3 client connections. SSLV3 implies the use of the STRONG encryption cipher suites.

Please consult the CICS TS for VSE/ESA Enhancements Guide for more details on the DFHSIT macro parameters.

The book is on the [z/VSE documentation page](#).

My recommendation: This APAR may need some planning, if you are dependent on the SSL version 3 protocol. You may need to choose the SSLV3 option. Therefore please verify, if you have that dependency before you apply that PTF.

By the way the latest fix list for CICS TS for VSE/ESA 1.1.1 is [here](#).

Tags: security, support, service, cics, ssl, vse

Do you use the IBM Knowledge Center ? (2014-12-16)

Did you already browse through the IBM Knowledge Center (KC) ? It's a good source, for any kind of information about z/VM and Linux on System z, Linux on IBM systems or many other products. Some topics are related to z/VSE too. You may just use the search function to look for a specific topic. You may start [here](#).

- or directly go to a specific product, such as

- [z/VM](#)
- [Linux on System z](#)
- We started a [CICS TS for VSE/ESA entry](#) (I mentioned that in one of my posts).
- ... and there are some IBM Storage entries related to z/VSE
 - [Configuring IBM Storwize V3500 for z/VSE](#)
 - [Configuring the IBM SAN Volume Controller for z/VSE](#)
 - [Configuring the IBM FlashSystem V840 for z/VSE](#)
 - etc.

Those are just a few examples.

Tags: knowledge_center, vse, zvm, kc, linux

LVC presentation and playback available: z/VSE SCSI support - and answers (2014-12-15)

In between the presentation and reply of last week's Live Virtual Class (LVC) is available on our "z/VSE Education" webpage.

The LVC was about "z/VSE SCSI Support and Migration Options". The presentation and playback is [here](#).

Below I have answers to questions raised during the LVC:

Question 1: Does z/VSE support SCSI volumes on the new [IBM FlashSystem V840](#) (flash storage system) ?

Answer: Yes. The V840 (host attachment) is a bundled product of SVC (IBM System Storage SAN Volume Controller) nodes directly attached to the IBM FlashSystem V840 controller. That is, for z/VSE it is an SVC and therefore supported.

See the IBM System Storage Interoperation Center (SSIC) for configuration options and supported releases. The SSIC is [here](#).

Question 2: Do you have any way of estimating the CPU overhead of the SCSI command translation based on I/O currently done against the ECKD volumes housing the data?

Answer: The overhead depends on the workload. Our measurements showed about 10 percent more CPU utilization for heavy I/O workload.

Tags: storage, disk, scsi, vse, presentations, live-virtual-class, lvc

z/VSE security news: Impact of POODLE (CVE-2014-3566) on z/VSE (2014-12-12)

This blog entry describes the impact of the recently published POODLE attack (CVE-2014-3566) on z/VSE components and applications.

POODLE stands for Padding Oracle On Downgraded Legacy Encryption. This vulnerability allows a man-in-the-middle attacker to decrypt cipher text using a padding oracle side-channel attack. More details are available in the upstream OpenSSL advisory. POODLE affects older standards of encryption, specifically Secure Socket Layer (SSL) version 3. It does not affect the newer encryption mechanism known as Transport Layer Security (TLS).

As POODLE discovered a vulnerability in the SSL 3.0 protocol version, this is not a bug in any given SSL implementation, but an issue of the specification itself. As a consequence, there is no bug fix for any SSL implementation. Instead it is recommended that z/VSE applications should no longer use SSL 3.0. You may consult the z/VSE documentation for configuration options of z/VSE components and applications to avoid SSL 3.0.

You can find more information on these web sites:

- [National Vulnerability Database \(NVD\)](#)
- [Vulnerability Summary for CVE-2014-3566](#)
- [Paper: This POODLE Bites: Exploiting the SSL 3.0 Fallback \(pdf document\)](#)
- [Redhat information: POODLE: SSLv3 vulnerability \(CVE-2014-3566\)](#)
- [Configuring SSL for CICS Web Support and MQ \(IBM Redbook: Security on IBM z/VSE\)](#)
- [Security Bulletin: Vulnerability in SSLv3 affects IBM WebSphere MQ, IBM WebSphere MQ Internet Pass-Thru and IBM Mobile Messaging and M2M Client Pack \(CVE-2014-3566\)](#)
- [Security Bulletin: POODLE vulnerability in SSLv3 affects IBM Explorer for z/OS and IBM CICS Explorer \(CVE-2014-3566\)](#)
- [Security Bulletin: POODLE vulnerability in SSLv3 affects IBM CICS Transaction Gateway \(CVE-2014-3566\)](#)
- [z/VSE documentation \(z/VSE Administration, z/VSE e-business Connectors, User's Guide, z/VSE TCP/IP Support, TCP/IP for VSE Installation / User's Guide, IPv6/VSE SSL Installation, Programming and User's Guide\)](#)

Have a good weekend.

Tags: alert, news, security, vse, cve

Do you access or want to access your z/VSE data from a mobile device ? (2014-12-11)

There is lots of interest around mobile devices and how to access mainframe data from a mobile device. I informed you already about a related IBM Redbook and Live Virtual Class (LVC). Just use the tag "mobile" to search for the corresponding blog entries.

Some customers have mobile solutions to access data on z/VSE today. Just a few questions for you:

Are you using the CICS interfaces to connect and/or the z/VSE connectors ? Do you access z/VSE directly - or via a middle-tier solution ? What devices / software are you using ? I would be interested how you implemented that and what kind of data or applications you are accessing - or want to access.

It also would be great to get your requirements for z/VSE in a mobile world. May be the connectors already fulfill them - or we get a better understanding of your needs. What are your plans to connect mobile devices to z/VSE ? You may send any feedback to my email address - salm@de.ibm.com

I just discovered that there is an IBM sponsored blog on mobile business. You may be interested too. The blog is [here](#).

Tags: blog, connector, vse, mobile

CICS Transaction Gateway V8.1 end of marketing (2014-12-10)

Today's blog entry is for CICS TS for VSE/ESA users, that connect from a CICS Transaction Gateway for Multiplatforms (CTG) to the CICS TS server.

Yesterday it was announced that CTG V8.1 will be withdrawn from marketing effective March 9, 2015. That is it will no longer be orderable after that date. The replacement product is CTG V9.1. The announcement is [here](#).

More information about the CTG is in one of my earlier blog entries - [here](#).
... and the blog entry on the CTG IBM Redbook is [here](#).

Tags: vse, ctg, cics_transaction_gateway, end-of-marketing, announcement

New IBM Redbook: Security on the IBM mainframe (2014-12-09)

Today I want to recommend a new IBM Redbook. The Title is "Security on the IBM Mainframe: Volume 1 A Holistic Approach to Reduce Risk and Improve Security".

It has chapters for Linux on System z, z/VM and z/OS security. Besides those operating systems it also addresses more general topics of System z hardware and it's integrity, process isolation and cryptographic capabilities. Therefore I recommend the IBM Redbook for z/VSE users too.

Below is the table of contents:

Part 1. Direction and architecture

Chapter 1. Introduction: Why these books are being written

Chapter 2. Foundation of a holistic security architecture

Chapter 3. Mainframe security architecture in the enterprise

Chapter 4. Hardware components

Chapter 5. Software components

Chapter 6. Security solutions for IBM System z

Part 2. Guiding principles for IBM System z security

Chapter 7. Organizing for security

Chapter 8. IBM System z hardware

Chapter 9. IBM z/OS security

Chapter 10. z/VM security

Chapter 11. Linux on System z security

You can download that IBM Redbook [here](#).

Some time ago we releases an IBM Redbook: Security on IBM z/VSE. You may download it from [here](#).

Tags: security, vm, linux, zos, redbook, vse

z/VSE on Youtube - and z/VSE LVC tomorrow (2014-12-08)

Today I have three interviews on Youtube for you. They are in German, however.

The 1st one is for Linux on System z, z/VM and z/VSE, the 2nd for mobile mainframe solutions and the 3rd for Linux on System z.

Below are the links:

- [Linux on System z, z/VM and z/VSE interview](#)
- [Mobile interview](#)
- [Linux on System z interview](#)

... and a final reminder for our next **Live Virtual Class (LVC)** on z/VSE's SCSI support tomorrow. More information is [here](#).

Tags: interview, linux, vse, lvc, vm

z/VSE documentation news: VSE/POWER Administration and Operation book available (2014-12-05)

Beginning of this week we uploaded an updated book to our [z/VSE documentation web page](#): the VSE/POWER Administration and Operation.

The book contains updates to the new VSE/POWER functions in z/VSE 5.2, such as * \$\$ SLI to Delete AF Member, XEM support, auditing changes and documentation changes for APARs.

You can download the book [here](#).

Have a good weekend.

Tags: book, documentation, vse, vse-power

Next blog entry tomorrow - Dec. 5 (2014-12-04)

Today is our 33rd wedding anniversary. My wife asked me to stay at home. Therefore no VSE blog entry today.

z/VSE's Parallel Access Volume support: Article on the web (2014-12-03)

In February I already had a blog post related to z/VSE's Parallel Access Volume (PAV) support. At that time we just released new PTFs with PAV improvements for z/VSE 4.3 and 5.1. Those PTFs are integrated into z/VSE 5.2. The blog entry is [here](#).

Mid of November I recommended to read the PAV article in the Enterprise Tech Journal (ETJ). The related blog entry is [here](#).

Just yesterday I was informed that the ETJ article on z/VSE's PAV support is now available on the web, which makes access easier. The article is [here](#).

Tags: io, enterprise_tech_journal, etj, vse, pav, article

z/VSE Language Environment: CRUT transaction (2014-12-02)

Today I wanted to write about the CRUT transaction - a new function, that comes with the z/VSE Language Environment (LE) in z/VSE 5.2. Then I remembered the LE blog of my colleague Garry Hasler. He posted more information on CRUT already. CRUT can be used to activate, query and deactivate the run-unit work-area (RUWA) tracing function.

The LE blog entry is [here](#).

Maybe you are already following Garry's blog. Just in case you don't, here is the [link](#).

Tags: le, language_environment, le_blog, transaction, vse

New IBM Redbook: IBM System z in a Mobile World (2014-12-01)

A new IBM Redbook, that may also be of interest for z/VSE users, was just published last week.

The title is "IBM System z in a Mobile World: Providing Secure and Timely Mobile Access to the Mainframe". It can be downloaded [here](#).

Besides some basic information and components for mobile computing, the Redbook also describes the infrastructure via an end-to-end example. With z/VSE connectors you may also be able to implement access to a back-end z/VSE system. Maybe the Redbook gives you some ideas, how to connect to mainframe data from a mobile device.

Tags: connector, vse, redbook, mobile

New VSE/POWER function available: operand ENDDAYS / ENDAGE - end of spooling time stamp (2014-11-28)

Last week we provided a new VSE/POWER function as APAR [DY47564](#) (z/VSE 5.2) and [DY47520](#) (z/VSE 5.1) . See also my [z/VSE service news](#) from last week.

It would be a pity, if we only point to an APAR. It's worth to provide a short description of that new function in my blog. Documentation changes and syntax of the new operands are part of the APAR description. It will be added to the VSE/POWER documentation later.

The new VSE/POWER function resolves the following problem:

For long running jobs, VTAM, CICS, TCPIP, etc., the spooled output is collected over several days. When the output is completed, it's creation date is the start of the job. That is newly created output is noted as many days old and may thereby be deleted by automatic processes when using PDELETE with CRDAYS or CRAGE.

The new function resolves that problem:

To make the operations with the spooling entries more accurate a new "end of spooling" time stamp is added to the queue entry when VSE/POWER adds the spooling entry to the appropriate queue. The time stamp contains date and time of the spooling completion. Two new operands are introduced by this APAR: ENDDAYS and ENDAGE. These operands are working with the new "end of spooling" time stamp and can be used in the following VSE/POWER commands: PALTER, PDISPLAY, PDELETE, PHOLD, PRELEASE and with restriction in POFFLOAD. PCOPY. Segmentation and duplication processes also support the new "end of spooling" time stamp.

The ENDDAYS specification has similar rules like CRDAYS. The ENDAGE specification has similar rules like CRAGE. CRDAYS, CRAGE, CRDATE, ENDDAYS and ENDAGE are mutually exclusive and can not be used together in the same command. If you specify these operands together, the 1R52I message is issued and the command's execution is terminated. For example:

```
POFFLOAD BACKUP,LST,481,CRDAYS<2,ENDDAYS>=0
AR 0015 1C39I COMMAND PASSED TO VSE/POWER
F1 0001 1R52I POFFLOAD OPERANDS CRDATE, CRDAYS, CRAGE,
ENDDAYS AND ENDAGE MUTUALLY EXCLUSIVE
```

POFFLOAD BACKUP/PICKUP can recognize the ENDDAYS specification.

POFFLOAD SELECT works with both ENDDAYS and ENDAGE operands. PDISPLAY command output shows the "end of spooling" time stamp, when FULL=YES is specified and the queue entries selected for the display have this time stamp set. "End of spooling" date is shown as "DE=...". "End of spooling" time is shown as "TE=...". For example:

```
D LST,ALL,ENDDAYS=1,FULL=YES
AR 0015 1C39I COMMAND PASSED TO VSE/POWER
F1 0001 1R46I LIST QUEUE P D C S PAGES CC FORM BU
F1 0001 1R46I $OFJ0650 00650 9 H A 1 1
F1 0001 D=05/29/2014 DBGP=000001 L=0000000030
F1 0001 QNUM=00050 T=12:33:40
F1 0001 DE=05/29/2014 TE=12:33:40
F1 0001 FCB=' '
F1 0001 1R46I PAUSEF4 00645 3 H A 4 1 +TO=(SYSA)
F1 0001 FROM=(SYSA)
F1 0001 D=05/29/2014 DBGP=000001 L=0000000011
F1 0001 QNUM=00070 T=12:31:34
F1 0001 MDUCT=001 TKN=00000020 DE=05/29/2014 TE=12:32:06
```

Please let me know, if this was valuable.

Have a good weekend.

Tags: vse, spooling, vse-power, apar

Reminder: Next z/VSE LVC is Tuesday December 9, 2014 on z/VSE's SCSI support (2014-11-27)

Today I have a reminder for our next Live Virtual Class (LVC). The LVC is scheduled for Tuesday, December 9, 2014. The topic is "z/VSE SCSI Support and Migration Options". This LVC provides an overview of z/VSE's SCSI implementation, available since 2005. It will also discuss supported devices and the migration from ECKD to SCSI.

More details are [here](#).

We also have a technical paper on "z/VSE SCSI Support and Migration Options", where you can read more details about our SCSI support and how to migrate. It's [here](#).

Have a good Thanksgiving day.

Tags: lvc, vse, scsi, live-virtual-class

Are you already using sub-capacity pricing with z/VSE ? (2014-11-26)

The Sub-capacity pricing option is available with the monthly license charge price metric Midrange Workload License Charge (MWLC) for zEC12, z196, z10 or z9 processors or Advanced Entry Workload License Charges (AEWLC) for z114 or zBC12 processors.

For sub-capacity pricing you need to run the Sub-Capacity Reporting Tool (SCRT) and submit a resulting SCRT report to IBM monthly. The input for SCRT is a VSAM dataset that contains SCRT89 records. Since z/VSE Version 4 and Version 5 you can produce SCRT89 records. For that purpose you have to activate the Capacity Measurement Tool (CMT) during z/VSE startup. SCRT89 records report sub-capacity MSUs (Million Service Units). Sub-capacity pricing is based on the four hour rolling average utilization of a z/VSE LPAR or z/VM guest. Sub-capacity products (such as VSE Central Function, CICS TS, VTAM, ...) are charged based on the four-hour rolling average utilization.

Since October a new release of SCRT is available for download. More information about sub-capacity pricing is [here](#).

... or on our corresponding z/VSE web page - [here](#).

Tags: cmt, sub-capacity, mwlc, vse, aewlc, pricing, scrt

New z/VM paper available (2014-11-25)

Today I have a recommendation for our Linux users under z/VM. There is a new performance paper available: z/VM 6.3 Resource Overcommitment.

Below is a short abstract:

This paper provides information about the performance of virtualized environments when operated with constrained resources. A z/VM based system installation runs a set of virtual systems of different types of workloads under Linux for System z. Another aspect analyzed was the efficiency of the z/VM paging subsystem when using EDEV-SCSI based paging devices, as opposed to ECKD based paging devices. It highlights the behavior of the new memory and CPU management introduced with z/VM 6.3.

The document is [here](#).

Tags: paper, linux, white_paper, document, performance, vse,
vm

z/VSE service news: TCP/IP APAR available (2014-11-24)

Today I have a new APAR for you. We released an APAR for the product IBM TCP/IP for VSE/ESA 1.5F.

The APAR number is PI27143, you can find the description [here](#).

The PTFs are UI22557 (z/VSE 5.1) and UI22558 (z/VSE 5.2). The PTFs provide the latest zaps for 1.5F from CSI.

Before we include zaps into a PTF our test team does some verification in our test environments.

The PTF contains the following zaps:

```
*      ZP15F020 ZP15F037 ZP15F048 ZP15F053  *
*      ZP15F057 ZP15F059 ZP15F065 ZP15F095  *
*      ZP15F379 ZP15F405 ZP15F490 ZP15F493  *
*      ZP15F494 ZP15F514 ZP15F516 ZP15F518  *
*      ZP15F533 ZP15F538 ZP15F539 ZP15F586  *
*      ZP15F587 ZP15F592 ZP15F593 ZP15F597  *
*      ZP15F598
```

Zap details are on CSI's web page for product fixes. The web page is [here](#).

Just a reminder: **IBM does not support the firewall feature or service pack 1.5G.**

Tags: tcpip, ptf, support, vse, apar, service

Some reading material for the weekend (2014-11-21)

Beginning of this month I informed you about presentations from the GSE conference. They are [here](#).

In between we also uploaded z/VSE related presentations from the 2014Enterprise conference in Las Vegas. The presentations are [here](#).

If you are interested in Linux on System z and z/VM topics, the latest Live Virtual Class presentations are [here](#).

Do you still remember, some month ago I informed you about the Mainframe Weekly newsletter. If you do not have the link anymore, the newsletter is [here](#).

Enjoy your weekend.

Tags: lvc, zuniversity, vse, vm, linux, conference, presentations, gse

What are the requirements for an auditor of the z/VSE system ? (2014-11-20)

Today I have a z/VSE security item, where I would like to get your feedback.

In z/VSE 5.2 we introduced a new security item, that allows to separate the auditor from the administration functions.

For that purpose you can now use the new user type AUDITOR. See also my z/VSE 5.2 blog entry related to the security enhancements. That blog entry is [here](#).

The administrator is responsible for the resource-profile definitions, the audit options, system-wide and at each profile, and the collection of the logging information. Initially, an administrator has the auditor authority. To separate the auditor function from the administrator, you have to remove the auditor authority. If the auditor authority is removed from the administrator, the administrator can not change the system-wide audit options and does not see the audit settings for command audit and administrator audit.

The new auditor function is described in the z/VSE Administration book. Our documentation web page is [here](#).

Now my question for you: Is there a need for the auditor to generate Basic Security Manager (BSM) reports ?

Tags: vse, auditing, security

Documentation updates for CICS TS for VSE (2014-11-19)

If you are interested in the latest CICS TS for VSE/ESA 1.1.1 documentation updates, there is a web page that contains related APARs and Reader's Comment Forms (RCFs) for CICS TS since December 2005.

The web page is [here](#).

z/VSE service news (2014-11-18)

I hope, that I don't have too many service news posts for you. You may be interested in the following VSE/POWER APARs (PTFs) we just released. I just describe the APAR title. More information is in the APAR description at the given link.

VSE/AF

z/VSE 5.1: APAR [DY47582](#) (PTF UD54075), z/VSE 5.2 APAR [DY47577](#) (PTF UD54074): Missing records at end of extent. The APARs are related to FBA / SCSI.

z/VSE Language Environment (LE)

z/VSE 5.1: APAR [PI22545](#) (PTF UI21719): LE/C TIME() function always returns the same time value.

VSE/POWER

z/VSE 5.1: APAR [DY47564](#) (UD54076 UD54077): PDELETE LST,CRDAYS>10 may delete output created recently
This is not just a fix. Instead I would say it's a new function.

... and as mentioned in my earlier service news posts:

Maybe I miss one or the other APAR / PTF. Therefore I recommend to register for the z/VSE components or visit our service web pages for the latest service news.

Tags: service, vse, power, le, af, support

New Enterprise Tech Journal available with z/VSE and Linux on System z articles (2014-11-17)

The October / November 2014 issue of the Enterprise Tech Journal (ETJ) is available. ETJ articles are targeted to mainframe users and their IT environments. In this issue you can read a z/VSE article. It's title is "Parallel Access Volumes: Tune Your z/VSE I/O Performance".

... and there is also a Linux on System z article: "Linux on System z: Taking off or Stuck at the Airport?".

The ETJ is [here](#).

The digital edition is [here](#).

Tags: vse, pav, enterprise_tech_journal, article, linux, etj

Knowledge Center for Linux on IBM Systems (2014-11-14)

I just found out, that there is a Knowledge Center (KC) for Linux on IBM systems. You may find it useful too. The KC also covers Linux on System z with information on distributions, configuration, performance, high availability, security and more. The Knowledge Center is [here](#).

Just a few days ago a new white paper about performance and the z/VM resource manger was added. The white paper in the KC is [here](#).

Have a good weekend.

Tags: vse, knowledge_center, linux

Short story from a z/VSE developer (2014-11-13)

On Tuesday I posted a [link](#) to a German blog entry, that was written by a z/VSE developer. Natalie described her experience with z/VSE. In between I got some feedback and was asked to provide it in English.

Thanks for the translation, Natalie.

Next year z/VSE turns 50. Generations of developers wrote millions of lines of code. With the following blog post I would like to share my experiences with z/VSE.

When I was a child I always wanted to know how a computer works. After my master's degree in computer science, I knew I want to be a system programmer. After I applied for a job at IBM, I joined the z/VSE team in the Böblingen Lab in 2008. Even if z/VSE is almost 20 years older than me, it never frightened me of working for it.



One of my first experiences was the installation of a z/VSE system. This was when I got to know tapes, card punchers and readers. I was deeply impressed by experienced developers, that were able to read hex dumps like newspapers. Back then it seemed to be impossible for me to catch up their knowledge. Due to the assistance of the whole team, I rapidly took over the responsibility for major projects like the implementation of the 64-bit virtual support into the z/VSE supervisor. The corresponding routines were written in Assembler.

I often get questions about my job. There are two questions that have been asked regularly. My friends ask "What? There are still mainframes on this earth?" and my colleagues ask "Are you related to Ingolf?". To answer the first one, I try to explain the IT infrastructure of financial or insurance institutions. My answer to the second question is "Yes, I'm his daughter, we work for the same project."

The challenge in my job is to integrate code into a system that has been grown for decades. This requires a good knowledge about the underlying hardware

architecture and a deep insight into the operating system itself. When I start a new line item, I take the full responsibility - from design to implementation. Beside development I do customer service, which provides direct feedback on our products. In the meantime, dump analysis has become one of my favorite activities.

Tags: developer, experience, vse, development

Linux on System z Live Virtual Class: Elastic Storage - Today ! (2014-11-12)

The next Live Virtual Class (LVC) may be of interest for z/VSE users, that implemented our [PIE strategy](#) (Protect, Integrate, Extent) connecting from z/VSE to Linux on System z or vice versa - or just run Linux on System side by side with z/VSE.

The LVC is scheduled for Linux on System z today and tomorrow - November 12 / 13, 2014. Sorry for the short notice.

The topic is: Introduction to Elastic Storage for Linux on System z

The presentation introduces Elastic Storage, which is based on General Parallel File System technology.

More information is [here](#).

Tags: linux, live-virtual-class, lvc, vse

A z/VSE developer on a German blog (2014-11-11)

Today I have a nice blog entry from a z/VSE developer. Natalie describes her experience with z/VSE, her first development experience and what is special with z/VSE. Sorry, the article is in German.

Maybe you can read German, the article is [here](#).

Please let me know, if you want to get it translated into English.

Tags: blog, development, experience, vse

A little history about CICS TS for VSE (2014-11-10)

Today I will provide some information about the history of the CICS Transaction Server for VSE and its future.

CICS TS for VSE/ESA 1.1 was introduced in June 1999. It was a completely new port from OS/390 at that time. That port required also major changes in the VSE base system. We ported about 100 OS/390 interfaces - control blocks and services, such as GETMAIN, FREEMAIN, ATTACHX, STORAGE, ESTAEX, cross memory services and more. A major gain was the extensive storage constraint relieve (Extended Dynamic Storage Area). A new security concept was necessary too. We introduced the Basic Security Manager (BSM). CICS TS supports command level APIs only. Therefore we introduced a coexistence environment, where VSE installations could run CICS TS and the former CICS/VSE 2.3 together within on VSE system. The coexistence environment made it easier to migrate from the old CICS/VSE to CICS TS.

Just a year later - in September 2000 we updated CICS TS to CICS TS for VSE/ESA 1.1.1 with new functions such as the CICS Web Support, REXX for CICS, subsystem storage protection for integrity and availability, external CICS interface (EXCI) and front end programming interface (FEPI), shared data tables and more.

Since then we added small enhancements in PTFs, such as networking and security enhancements (secure socket layer - SSL).

The next major enhancement was in June 2012 - the support for the CICS Explorer client, which required the port of the z/OS system management interfaces to CICS TS. The CICS Explorer provides a system management framework to manage CICS TS resources. Since then you can monitor CICS resources via the CICS Explorer. By the way it's the same CICS Explorer client, that CICS TS for z/OS uses - downloadable from the CICS Explorer web page. Thanks to customer requirements and complaints we got a statement of direction (SOD) announced in April 2014 - included into the z/VSE 5.2 announcement. The announcement letter is [here](#).

The SOD talks about a new CICS TS release with new functionality. Here the SOD:

IBM intends to provide new capability in a future release of IBM CICS Transaction Server for z/VSE, to provide:

- (i) Updates to CICS resources for CICS Explorer, and
- (ii) Channels and Containers to enable the transfer of large amounts of data between CICS applications.

As always consider that all statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.

The CICS Explorer update capability was an immediate requirement after we released the CICS Explorer. It wasn't possible at that time. When the update function is available you may enable / disable CICS resources, change selected CICS definitions, and more.

Channels and containers will fulfill customer requirements and resolve the 32 KB commarea limitation. That is you then may transfer large blocks of data between programs as long as they fit into the 31 bit address space. You may transfer such containers between local CICS partitions (regions), CICS regions in different z/VSE images or between CICS regions on z/VSE and z/OS.

If you can't wait and want to read more about channels and containers, you may consult the CICS TS for z/OS documentation or [channel and container IBM Redbook](#).

It takes some time to develop such major new functions and verify the quality. Therefore it's not yet available.

However, if you want to verify the new functions early as a beta customer, please let me know.

Tags: cics-explorer, cics_vse, cics, vse, history

z/VSE: What to do in case of a lock file error ? (2014-11-07)

In z/VSE the lock file is used to share resources across multiple z/VSE systems. You define the lock file with the DLF command during IPL.

In July I posted a block entry with more details about DASD sharing and the lock file. The block entry is [here](#).

Just a few days ago, we got a customer question about a lock file error. What should you do, if you get the message "0T01E ERROR ON LOCK FILE" on your console. The z/VSE Messages & Codes, Volume 1 book describes possible reasons for such an error:

- An unrecoverable I/O error occurred on an external lock file (a hardware malfunction).
- A format error occurred on an external lock file (the lock file has been deleted or destroyed).
- A logical error occurred on a lock file (two sharing VM systems with the same processing unit identification, for example).
- A lock file was defined to begin on cylinder 0, as a result of which less space than a complete cylinder has been reserved by the system.
- The affected volume has read-only access.

The book is on our documentation page (or the collection kit) - [here](#). It provides information what to do if message 0T01E occurs.

After this message you may analyze the cause of the error first. Then continue as follows.

We need the DLF command in a later step. If you do not know it you may look it up in your IPL procedure or on the console - just enter IPL in command line and press the redisplay key (PF7). Now you can look for the DLF command using the PF7 or PF8.

As soon as your environment (all z/VSE systems the share the lock file) permits, quiesce your batch and online environment of all systems that share the lock file: do no longer schedule batch jobs for processing, shutdown the CICS partitions, allow jobs, that do not depend on DASD-sharing finish their work, shutdown the system (VSE/POWER, VTAM, TCP/IP, ...).

All systems that share the lock file need to be down before you IPL one of your systems to redefine or reformat the lock file.

You have to use the IPL LOADPARM ..P parameter to stop the IPL process. I described LOADPARM in an earlier blog - [here](#).

You will be prompted, then enter STOP=DLF. The IPL process will stop on the DLF command. Enter the DLF command with the parameter "TYPE=F". It indicates, that the system should format the lock file. Now bring up the system as normal and IPL all other systems, that share the lock file..

You may rerun the failing job. If the problem reoccurs, consider to contact IBM.

I hope, that this blog entry is useful. Any feedback is welcome.

Have a good weekend.

Tags: loadparm, lock_file, lock_manager, ipl, vse, lock, message, error

GSE Presentations available for download (2014-11-06)

In between we uploaded presentations held during the 8th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z.

They are about z/VSE, z/VM, Linux on System z, middleware and hardware. Most of the presentations are in English.

If you are interested, you can find them [here](#).

Tags: download, vse, presentations, gse

z/VSE service news: CICS TS APARs & documentation, security portal updates (2014-11-05)

I am not sure, if you monitor the CICS TS for VSE/ESA 1.1.1 fix list. It's [here](#). Just a few days ago a new APAR was releases - PI26013 (PTF UI22421).

The APAR description is [here](#). It ensures, that all VSAM ACBs for a base cluster are correctly closed.

You may find the APAR and RCF documentation updates for CICS TS for VSE/ESA 1.1.1 useful too. That web page is [here](#).

... and finally we updated our [security and system integrity service portal](#) too. It now contains the openssl APAR / PTF information I mentioned in [my blog entry](#) from last Friday.

Tags: cics, support, vse, apar, ptf, security, documentation, service

New Linux on System z Redbook available: end-to-end availability (2014-11-04)

There was a new IBM Redbook just published, that may be of interest for all Linux on System z users. The Redbook has the title: End-to-End High Availability Solution for System z from a Linux Perspective. It provides high availability concepts, explains single points of failure and why to consider high availability.

The Redbook includes planning for an end-to-end scenario for Linux on System z, z/VM and z/OS, but may also be useful for z/VSE users running Linux on System z.

The IBM Redbook is [here](#).

If you like the short version, there is also a related blog post "5 Things to Know about high-availability for Linux on System z". The blog entry is [here](#).

Tags: vse, redbook, linux, system_z, system-management, high_availability

Next z/VSE Live Virtual Class: z/VSE SCSI Support and Migration Options (2014-11-03)

We just updated our z/VSE Live Virtual Class (LVC) web page for the next z/VSE LVC with the topic: z/VSE SCSI Support and Migration Options.

The LVC is scheduled for December 9, 2014.

More information on that new LVC is [here](#).

As you may know, z/VSE supports ECKD devices as well as SCSI devices in LPAR or in a z/VM guest.

The LVC gives an overview of z/VSE's SCSI support and supported devices. It will also provide some information on the migration from ECKD to SCSI.

I also had several SCSI posts on my blog. Just use the tag "scsi" on "Find a Tag".

A SCSI white paper is [here](#).

Tags: live-virtual-class, vse, eckd, migration, lvc, scsi

z/VSE service news: openssl APAR available (2014-10-31)

New openssl PTFs are available. They fix a problem as described in vulnerability CVE-2014-3567. The PTFs affect z/VSE Version 5 only, because openssl was first delivered with z/VSE 5.1. The APAR is DY47581. It is described [here](#). The corresponding PTFs are UD54071 (z/VSE 5.1) and UD54072 (z/VSE 5.2).

In z/VSE 5.1 openssl is exploited by the product IPv6/VSE. In zVSE 5.2 there are more exploiters. Therefore I recommend that all IPv6/VSE and z/VSE 5.2 users apply these new PTFs.

The APAR will show up on our [security service portal](#).

Have a good weekend.

Tags: support, openssl, vse, apar, ptf, service, security

z/VSE 4.3 support ends today (2014-10-31)

Today z/VSE 4.3 has end of service as mentioned in announcements, on the z/VSE web pages and earlier blog entries. Please consider to migrate to z/VSE Version 5 to stay in a supported environment.

I recommend to migrate to z/VSE 5.2. z/VSE 5.1 can no longer be ordered. However, if you still want to get z/VSE 5.1, let us know.

Are you looking for VSE/VSAM tools ? (2014-10-30)

Just today I was asked, if there are any VSE/VSAM tools, that can be used to manage, analyze, monitor or detect VSAM catalog issues. May be that summary is also useful for you.

Let's start with IBM provided tools. The first 2 tools are included into the z/VSE product. The latter two tools can be downloaded from the z/VSE download web page.

- VSAM IDCAMS LISTCAT described in the VSE/VSAM Commands book. The book is on our documentation page, [here](#).
- Catalog Check Service Aid (IKQVCHK) described in VSE/VSAM User's Guide and Application Programming book. The book is on our documentation page, [here](#).
- Multi instant logic analyzer (MILA) - The tool can be downloaded from [here](#).
- VSE Health Checker - The tool provides more than just VSAM information. It can be downloaded from [here](#).

VSE/VSAM tools are available from z/VSE vendors too; e.g. CA, CSI, MacKinney have several VSAM tools. Below are just the monitoring / analysis tools:

- CA VSAMAid VSAM Tools, more information is [here](#).
- CSI's VSUM VSAM Analysis Tool, more information is [here](#).
- MacKinney's VSAM AdminAid, more information is [here](#).
- ... and there may be more vendors, that provide VSE/VSAM tools.

I did not use the vendor tools so far. It would be great, if you could share your experience. Do you use other VSE/VSAM tools than listed above ? What are your recommendations ?

Tags: download, tools, book, vsam, vse, vendor

Next blog entry tomorrow (Oct. 30) (2014-10-29)

I am not in the office today. Therefore you can expect my next blog entry tomorrow.

Enjoy the day.

Tags: vse

Next z/VM Live Virtual Class tomorrow (2014-10-28)

z/VSE users may also be interested in topics related to z/VM. Therefore I recommend the next z/VM Live Virtual Class (LVC).

It's scheduled for tomorrow (Oct. 29, 2014). The topic is "z/VM CPU Pooling and ILMT". More information is [here](#).

The z/VM team did a nice job to provide information on past LVCs about z/VM, Linux on System z and z/VSE. Just use the tabs on the [LVC web page](#).

Tags: lvc, vm, live-virtual-class, vse

z/VSE documentation news: new DVD collection kit available (2014-10-27)

A new z/VSE DVD Collection Kit is available since September 2014. It contains the latest z/VSE book updates and can be downloaded from the IBM Publication Center.

The IBM Publication Center is [here](#).

- Select your country, e.g. United States
- Select "Search for publications"
- Enter the Publication number "**SK3T-8348**" and select "GO"
- Now you will see the latest Collection Kits, the first one is the newest "IBM Online Library: z/VSE Collection, September 2014"

Tags: vse, documentation, collection_kit

z/VSE service news (2014-10-24)

Since the last service news in September (see [here](#)) there are new APARs / PTFs available. May be I miss one or the other APAR / PTF. Therefore I recommend to register for the z/VSE components or visit our [service web pages](#) for the latest service news.

New APARs / PTFs are available for the following components:

VSE/VSAM

APAR [DY47567](#) (z/VSE 5.2 PTF UD54061): Missing SEOF for RRDS with speed. A sysrouted APAR from z/VSE 5.1 APAR DY47565.

APAR [DY47572](#) (z/VSE 5.2 PTF UD54064): Alter for IDCAMS ALTER FOR(N) sets invalid expiration date on command execution.

VSE/AF

z/VSE 5.1 APAR [DY47575](#) - z/VSE 5.2 APAR [DY47576](#): Hardwait FFF due to segment translation exception during VIO CLOSE.

z/VSE Connectors

z/VSE 5.2 APAR [PI26078](#) (PTF UI21730), z/VSE 5.1 APAR [PI26077](#) (PTF UI21729), z/VSE 4.3 APAR [PI26076](#) (PTF UI21728): The z/VSE HTTP Client (IESHTTPB/IESHTTPC) does not ASCII/EBCDIC-translate sent or received data with a content-type of "application/xml", although this content-type is textual.

IBM TCP/IP for VSE/ESA 1.5F

APAR [PI23778](#) (z/VSE 4.3 PTF UI20505, z/VSE 5.1 PTF UI20506, z/VSE 5.2 PTF UI20507): This APAR wasn't on my list last time. It provided the latest zaps for TCP/IP for VSE/ESA 1.5F as IBM PTF.

Tags: ptf, support, vse, apar, service

z/VSE conferences: What are your expectations for next year ? (2014-10-23)

Yesterday evening I returned from the GSE conference in Dresden, Germany. Again it was a great conference. Sessions were well received. z/VSE related presentations will be on our web pages soon. I will keep you posted. The conference was a good opportunity to meet customers, business partners and vendors and get their view of our mainframe environment.

What about next year ? There will be two GSE conferences in Germany - one in German on April 27-29, 2015 in Berlin and the international GSE conference in October 2015 in Boeblingen. Both cover z/VSE, z/VM and Linux on System z. There will be the IBM Enterprise2015 / zUniversity conference on May 11-15, 2015 in Las Vegas too. However, there won't be a WAVV conference.

I have a few questions:

- Do you think we need another conference in 2015 ?
That is a conference in the US that cover z/VSE, z/VM and Linux on System z in addition to those conferences (GSE, zUniversity) ?
- What are the requirements to justify your conference participation ?
- How should such a conference be structured ?
- How many days should it be ?
- What are the topics you would be interested in ?
- Or - would it be sufficient to use online tools to inform you about news, functions, tips, user experience, ... - e.g. via Live Virtual Classes, online courses, etc.

I would like to have your feedback to my questions above. Just send an email with your feedback to salm@de.ibm.com

Next Blog entry on Thursday, Oct. 23, 2014 (2014-10-21)

I am at the GSE conference in Dresden, Germany.

Therefore you will see my next blog entry on Thursday, when I am back in the office.

Tags: vse

LVC presentation and playback available: z/VSE VSAM Enhancements (2014-10-20)

We had the last Live Virtual Class (LVC) session last Tuesday. In between the presentation and playback for "z/VSE VSAM Enhancements" is available. You can download them from [here](#).

I am currently at the GSE conference in Dresden, Germany. Therefore you will see the next blog entry on Thursday.

We will upload my presentations a bit later.

Tags: presentations, vsam, lvc, vse, live-virtual-class

Hadoop and z/VSE ? (2014-10-17)

Today I would like to have your feedback on Hadoop and z/VSE.

Hadoop is an open source software framework that has become a leading method of processing various data types, particularly semi-structured and unstructured data.

Do you see a requirement for a VSAM, DL/I or DB2 connector from z/VSE to Hadoop running on Linux on System z ?

More information on Hadoop is [here](#) and in the "Hadoop and System z" IBM Redbooks Point-of-View publication, [here](#).

Have a good weekend.

Tags: vse, db2, vsam, database, dli, hadoop, connector

Where to find information about e-delivery of z/VSE (incl. installation and PTF application) (2014-10-16)

A good source to start is our e-delivery web page. It provides brief information about

- what you can order from Shopz
- installation instructions for initial installation and Fast Service Upgrade (FSU)
- how to apply PTFs from the internet using TCP/IP FTP, z/VSE Virtual Tape support, file transfer, or PTF file on tape

For each topic we provide links to more extensive information. You can find our e-delivery web page [here](#).

Tags: service, support, ptf, delivery, vse, fsu, installation

IBM Redbooks Solution Guide: Elastic Storage for IBM System z (2014-10-15)

Today I have a topic for my readers that have Linux on System z in their shop too.

Just a week ago an IBM Redbooks Solution Guide was published. It describes the benefits of Elastic Storage for Linux on System z. It's an extremely powerful file system based on the IBM General Parallel File System (GPFS) technology.

The solution guide is [here](#). It has just a few pages and provides a good overview.

Tags: redbook, storage, linux, gpfs, vse

Conferences: IBM Enterprise2014 replays; next conferences (GSE, IBM Enterprise - zUniversity) (2014-10-14)

In between there are replays of **IBM Enterprise2014** general and executive summit sessions on the conference web page available.

You can find them [here](#).

The next conference with z/VSE, z/VM and Linux on System z tracks will start next Monday in Dresden, Germany - October 20 - 22, 2014.

It's an **European GSE / IBM Technical University** conference. More details are [here](#).

The IBM Enterprise2014 is just over. However, you may want to save the date for the **IBM Enterprise2015**. This time it will be in spring.

It will be on May 11-15, 2015 again at The Venetian, Las Vegas.

Tags: zuniversity, gse, vse, conference

New z/VSE development team member wanted (2014-10-14)

Today I have a blog entry for my German readers.

We are looking for a new member to join the z/VSE development team in Boeblingen, Germany.

The job description is in German.

More details are [here](#).

Tags: team, vse

LVC presentation available: z/VSE Connector update; next LVC tomorrow (2014-10-13)

I just returned from IBM Enterprise2014 the weekend. There were lots of good presentations and talks.

Now to today's topic:

In between the presentation and and playback of the last Live Virtual Class (LVC) is available: z/VSE Connector update.

You can download it from [here](#).

... und just a reminder: Tomorrow is the next LVC: z/VSE VSAM Enhancements. Details are [here](#).

Tags: vsam, lvc, vse, connector

Next Blog Entry on October 13, 2014 (2014-10-02)

I am at a conference today, tomorrow is a public holiday in Germany, and next week I will be at the Enterprise2014 conference in Las Vegas.

Therefore I assume, that I won't have time to write blog entries. You can expect my next blog entry on October 13, 2014.

Tags: vse

Next z/VSE Live Virtual Class: z/VSE VSAM Enhancements (2014-10-01)

We just scheduled the next Live Virtual Class (LVC). The topic is z/VSE VSAM Enhancements.

The LVC is scheduled for October 14, 2014.

This session provides information about VSAM updates introduced with z/VSE Version 5.

It covers IDCAMS Command Security , new SHOWCB features, new parameter for DLBL for VSAM files and more.

More details are on our education web page later today or tomorrow..

You can find upcoming LVCs [here](#).

Tags: vsam, vse, lvc, live-virtual-class

Are you still running RPG II applications on the old CICS/VSE ? (2014-09-30)

RPG II (Report Program Generator) is an old, highly productive programming language. It basically manipulates data, e.g. creates new files, updates or edits data files and formats data files for printed output. On IBM System z RPG II is supported on z/VSE and z/OS. This RPG II blog entry is related to z/VSE only. Long time RPG II applications could only run on CICS/VSE 2.3 - the old CICS, where service ended October 2012. Some time before that end of service date we implemented patches to run RPG II applications on the most current CICS - the CICS TS for VSE/ESA 1.1.1.

Some customers already migrated to CICS TS, but there are still customer that use their old CICS/VSE with RPG II applications and plan to migrate to CICS TS. The recommendation is to migrate RPG II applications on the z/VSE release, where you are currently using CICS/VSE (and CICS TS) - or where both - CICS/VSE and CICS TS - can run together, e.g. z/VSE 4.1 or z/VSE 4.2. Just a reminder: CICS/VSE can not run on z/VSE 5.1 or 5.2.

More details are described in the Info-APARs: [II14447](#) (z/VSE 4.1 and 4.2), [II14452](#) (z/VSE 4.3 and above)

... or in the z/VSE Administration book. Our documentation is [here](#) (z/VSE 4.3 or above).

Before you migrate your RPG II applications to CICS TS, please ensure that all required RPG APARs/PTFs are applied.

The following RPG II PTFs should be on your system: [PM16528](#), [PM22788](#), [PM26856](#), [PM75512](#), [PM94531](#)

Tags: cics, vse, rpg, cics_vse

z/VSE Live Virtual Class: z/VSE Connectors Update - Reminder (2014-09-29)

Tomorrow (Sept. 30) will be the next Live Virtual Class (LVC). This LVC will provide the latest news about z/VSE's Connectors with the focus on enhancements in z/VSE 5.2.

More information is on our LVC web page - [here](#).

z/VSE Connectors are a key element of the z/VSE PIE (Protect, Integrate, Extend) strategy, they provide access to z/VSE resources from applications (integrate) running on non-z/VSE platforms like Linux on System z. Or - z/VSE Connectors may also be used to access resources on non-z/VSE platforms from z/VSE applications.

More information on z/VSE's PIE strategy is in one of my earlier blog entries - [here](#).

Tags: strategy, education, vse, pie, lvc, connector, live-virtual-class

What are symbolic parameters ? (2014-09-26)

Today I have VSE Job Control topic:

Symbolic (job) parameters are variables that can be used in z/VSE jobs to get more flexibility, e.g. to run a job with different device settings (cuus).

You can specify symbolic parameters in any job or cataloged procedure. A symbolic parameter is a character string of 1 to 7 alphameric characters preceded by an ampersand (&). The first character after & must be alphabetic.

There are different parameter pools with different lifetimes:

1. VSE/AF (DOS) job parameters, which last until VSE/AF end of job (/&), or until end of procedure, if defined in a procedure - // SETPARM JOB,pname=value or // SETPARM pname=value, pname is the symbolic parameter.
2. VSE/POWER job parameters, which last until * \$\$ EOJ (POWER EOJ) - // SETPARM PWRJOB,pname=value.
3. System parameters, which last until the system is shut down or re-IPLed - // SETPARM,SYSTEM,pname=value

VSE/POWER job and system symbolic parameters can only be defined with the SETPARM Job Control statement. VSE/AF symbolic parameters can be defined with the EXEC PROC, PROC or SETPARM Job Control statements.

A symbolic parameter value is retrieved according to the following search sequence:

VSE/AF job parameters => VSE/POWER job parameters => system parameters.

Symbolic parameters are described in more detail with examples in the new z/VSE 5.2 Hints & Tips book. We added a new section. You can find additional information in the z/VSE Guide to System Function or the z/VSE System Control Statement.

You may download the books [here](#).

Have a good weekend.

New IBM Redbook Draft: IBM System z in a Mobile World (2014-09-25)

There is a new IBM Redbook draft available, that may be of interest for Linux on System z, z/VM and z/VSE customers.

The title is "IBM System z in a Mobile World". Even if it's currently a draft version, it provides a good overview of an end-to-end example of creating a scalable, secure mobile application infrastructure that uses data located on an IBM mainframe.

Just a short extract of the table of contents:

Part 1. Understanding the business context in a mobile world

Chapter 1. Business drivers for a mobile enterprise

Chapter 2. Introducing IBM MobileFirst for enterprise mobile solutions

Chapter 3. Bridging the gap from mobile to transactional systems

Chapter 4. IBM Worklight: the foundation for mobile solutions

Part 2. Architecting and planning a mobile solution

Chapter 5. Deployment model for a mobile solution on IBM System z

Chapter 6. The mobile enterprise architecture IBM System z

Chapter 7. Designing for resilience

Chapter 8. Designing for security

Part 3. Customer scenario

You can download the book [here](#).

Let the authors know, if you have any feedback or questions.

Tags: vse, mobile, documentation, redbook, system_z

Looking for OSA information ? (2014-09-24)

I am reading the VSE-L newsgroup regularly. Most questions will be answered immediately by the z/VSE community, which is great.

VSE-L gives me good feedback, what we can do better or where we need to provide more information.

It also may give me topics for my blog.

Just lately there were questions about OSA (Open Systems Adapter - network card) and where to find information.

Below are books that provide some details:

- A good source is the *Open Systems Adapter-Express Customer's Guide and Reference*. It provides documentation for the OSA Express cards, about configuration, messages, and more. The book is [here](#).
- The z/VSE Planning and z/VSE TCP/IP Support books provides some information too. You can download them [here](#).
- ... and there is a new IBM Redbook: OSA Express Implementation Guide. That book is [here](#).

Tags: vse, osa, osa_express, network, documentation

Price change(s) for selected IBM software products - announcement (2014-09-23)

I just found out, that there was an announcement in August about price changes. The monthly license charges (MLC) on select middleware software programs and their features will increase on January 1, 2015. The price increase for a given program will be approximately 4% depending on the features selected.

The following z/VSE products are affected: DB2 Server for VSE&VM V7, IBM C FOR VSE/ESA VERSION 1, IBM C/370 Compiler Version 2, IBM COBOL VSE/ESA, IBM PL/I VSE/ESA, Rational COBOL RT for zVSE, IBM HIGH LVL ASSEMBLER MVS,VM,VSE V1, MQ SERIES FOR VSE/ESA V2R1, WEBSHERE MQ FOR Z/VSE V3, IBM Compiler for REXX/370, IBM Library for REXX/370.

CICS TS for VSE/ESA is affected too: Select CICS for VSE products will receive an approximate 7% price increase on all software billing metrics.

Please see announcement letter for details - [here](#).

Tags: cics, announcement, mlc, pricing, price, vse, sod

z/VSE Article on security in Enterprise Tech Journal (2014-09-22)

A few weeks ago the August/September 2014 issue was published. There are lots of articles around the mainframe. One article is about security with z/VSE, written by a z/VSE colleague. The title is "Transport Layer Security Version 1.2: Gaining Ultimate Security for Your IT Network With z/VSE".

The Transaction Layer Security (TLS) came with an openssl update end of last year. The article provides some details about TLS and how it can be used.

The Enterprise Tech Journal article is [here](#).

Tags: article, vse, security, openssl, etj, tls,
enterprise_tech_journal

z/VSE service news (2014-09-19)

There are new APARs / PTFs since my last service news blog entry. As you may know, it could be that I miss one or the other APAR. Therefore I recommend to register for z/VSE components - or visit our [service web pages](#) to catch the latest service news.

New APARs / PTFs are available for the following components:

VSE/VSAM

APAR [DY47551](#) (z/VSE 5.1 PTF UD54045) / [DY47557](#) (z/VSE 5.2 PTF UD54052) : Action error on BLDINDEX. The error occurs in small z/VSE partitions. The error may happen, when BLDINDEX is issued with the INTERNALSORT option.
Symptom: VSAM I/O return code 105.

APAR [DY47565](#) (z/VSE 5.1 PTF UD54058): Missing SEOF for RRDS with speed. Missing SEOF mark in the beginning of the CA following the last preformatted CA of SPEED RRDS cluster. Instead, that CA is partly preformatted leaving number of non-formatted CIs at the end.

VSE/POWER

APAR [DY47520](#) (z/VSE 5.1 PTF UD54040 / UD54041): PDELETE LST,CRDAYS>10 may delete output created recently. For the long running jobs the VSE/POWER commands which are using the creation date/time only can lead to incorrect spooling entry deletion or selection.

APAR [DY47554](#) (z/VSE 5.1 PTF UD54055): Job may be canceled with message 1Q5QI, if received by PNET and originated from RSCS, JES2 or JES3. When a job is created on z/VM or z/OS and sent to VSE/POWER via PNET, the control record structure is different and not handled correctly by RBF & OGM. Sysrouted to z/VSE 4.3 APAR DY47569, z/VSE 5.2 APAR DY47564.

VSE/AF

APAR [DY47556](#) (z/VSE 5.1 PTF UD54048): The TIME ZONE command does not change the zone definition for active dynamic partitions. The AR TIME ZONE command changes the ZONE Definitions in the system zone and for all static partitions, but not for active dynamic partitions. Only when a dynamic partition is (re-)started, its ZONE definition is changed.

Linux Fast Path APAR [DY47558](#) (z/VSE 4.3 PTF UD54049): Hardwait during startup of Linux Fast Path. When a Linux Fast Path (LFP) instance is started using // EXEC IJBLFPOP,PARM='START ...' a hardwait may occur due to a program check in LFP's IUCV appendage (IUCVEX). Sysrouted to z/VSE 5.1 DY47559 (PTF UD54050), z/VSE 5.2 DY47560 (UD54051).

SDAID APAR [DY47531](#) (z/VSE 5.1 PTF UD54039): Message 4C01A An internal program check occurred in SDAID when analyzing PER event with space switch. SDAID may terminate abnormally, if the space-switching Program Call (PC) or Program Return (PR) instructions are traced and the address space is switched. Sysrouted to z/VSE 5.2 DY47553 (UD54056)

z/VSE Tape Library support APAR [DY47548](#) (z/VSE 5.1 PTF UD54047): LBSERV IQUERY fails with RC=0008 REASON=0076 for large inventory, e.g. more than 466000 volumes. A calculated buffer size exceeds 16 MB causing the LBSERV request to be terminated with RC=8, Reason Code=0076. Sysrouted to z/VSE 5.2 APAR DY47555.

z/VSE Tape Library support APAR [DY47566](#) (z/VSE 5.1 PTF UD54059 / UD54060): LBSERV IQUERY does not release allocated GETVIS from subpool \$AOMGV in a timely manner and may fail with RC=0008, Reason Code=0076. When invoking the LBSERV IQUERY macro (e.g. via the JCC/JCL LIBSERV), the allocated system GETVIS in the subpool \$AOMGV is not directly released after the completion of the request. Sysrouted to z/VSE 5.2 APAR DY47562 (UD54057).

There is also APAR / PTF news for **CICS TS for VSE/ESA**, see the latest information [here](#).

Have a good weekend.

Tags: pnet, vsam, lfp, sdaid, support, tape, linux_fast_path, vse, power, service

z/VSE at the IBM Enterprise 2014 conference (2014-09-18)

At the beginning of August I reminded you about the upcoming next major conference with z/VSE sessions - the **IBM System z Technical University** (zUniversity) as part of the IBM Enterprise 2014. It's just two and a half weeks until the conference starts - **October 6 - 10, 2014 in Las Vegas, Nevada.**

You can get more information on the IBM Enterprise 2014 web page, where you can find the technical abstract guide, agenda and registration tab. The web page is [here](#).

The technical abstract guide is under Resources, the abstract under Technical University Agendas - on the right of the web page.

In the agenda z/VSE sessions are marked orange, but there are more session that may address z/VSE topics. Just go into the technical abstract guide and search for z/VSE. z/VM and Linux on System z sessions may be of interest for z/VSE users too.

There is also a related blog entry on the IBM Mainframe Insight blog. That entry is [here](#).

I hope to see you at the conference.

Live Virtual Class: FCP with Linux on System z: Best Practices (2014-09-17)

Today I recommend another Live Virtual Class (LVC) for our users, that have Linux on System z in their shops.

The LVC is scheduled for Wednesday (Thursday) **September 24 (September 25), 2014**.

It provides best practices for FCP (Fibre Channel Protocol) I/O configurations of zEnterprise processors with FCP attached devices.

More information is on z/VM's Live Virtual Class web page. The link is [here](#).

Tags: `live-virtual-class, lvc, linux, vse, fcp`

z/VSE 4.3 end of service coming soon (2014-09-16)

Today's blog entry is a reminder for customers running on z/VSE 4.3.

Time is going fast. We have just a bit more than 6 week until z/VSE 4.3 is no longer in service.

Please consider to upgrade your system to z/VSE Version 5 (z/VSE 5.1 or preferred 5.2) to stay in a serviced environment.

As some customers are still using CICS/VSE 2.3 on z/VSE Version 4 - one remark: CICS/VSE 2.3 can not run on z/VSE Version 5.

CICS/VSE is out of service since October 2012. Only the CICS Transaction Server for VSE/ESA 1.1.1 is supported / can run on z/VSE Version 5.

You may get the latest z/VSE release status from our [z/VSE status page](#) or the [Service Management Connect portal](#).

z/VSE Live Virtual Class: z/VSE Connectors Update (2014-09-15)

The next z/VSE Live Virtual Class (LVC) is scheduled for September 30, 2014. This LVC provides the latest news about z/VSE's connectors. It covers exploitation of IPv6, SNMP, web services, LDAP and database connector enhancements.

Two sessions are planned for Tuesday, Sept. 30.

More details are on our [LVC web page](#).

Tags: vse, education, lvc, live-virtual-class

z/VSE 5.2 Hints & Tips available (2014-09-12)

Back from vacation. I hope, you all had a wonderful summer time.
It's raining today (12 C / 54 F). So it's easy to start work.

Now to my blog topic for today:

We updated our Hints & Tips book to the z/VSE 5.2 level. You can download the book from our [documentation web page](#).

The book contains hints and tips from our development and service team based on their daily work with customers and our test teams.
It may help to better understand new and existing functions and may make it easier to analyze or solve problems.

Have a good weekend.

Tags: hints, documentation, tips, vse

z/VSE service news: openssl APAR available (2014-09-01)

New openssl PTFs are available. They fix a problem as described in vulnerability CVE-2014-3509 and CVE-2014-3511. The PTFs affect z/VSE Version 5 only, because openssl was first delivered with z/VSE 5.1.

The APAR is DY47561. It is described [here](#). The corresponding PTFs are UD54053 (z/VSE 5.1) and UD54054 (z/VSE 5.2).

In z/VSE 5.1 openssl is exploited by the product IPv6/VSE. In zVSE 5.2 there are more exploiters. Therefore I recommend that all IPv6/VSE and z/VSE 5.2 users apply these new PTFs.

The APAR will show up on our [security service portal](#).

Greetings from France. We have a nice weather, blue sky and 23 C (74 F). Next blog entry Sept. 12

Tags: vse, support, openssl, service, ipv6_vse

Next blog entry on September 12, 2014 (2014-08-15)

I am on vacation. Therefore I plan the next blog entry for September 12.

Greetings from France and the Atlantic Ocean.

Have a good time.

New: Knowledge Center for CICS TS for VSE (2014-08-14)

The Knowledge Center for the CICS Transaction Server for VSE is now live. It's a good start. It will be enhanced in the future.

Let me know, what you think about it.

The Knowledge Center is [here](#).

Tags: vse, cics, knowledge_center, kc

Are you still using those very old Job Control standard options / options in your z/VSE job streams ? (2014-08-14)

I just noticed that we did not describe a change we made with z/VSE 5.1, because we weren't aware, that anyone is still using those very old Job Control options. We just got a customer PMR, where they had Job Control errors after they migrated to z/VSE 5.1. In between many of our customers are on z/VSE Version 5. This was the first issue, we noticed.

Since z/VSE 5.1 the following Job Control standard options (STDOPT) and OPTIONs are rejected as invalid operands:

```
// STDOPT OLDASSEM=NO
// STDOPT OLDASSEM=YES
// OPTION OLDASSEM
// OPTION NOOLDASSEM
// STDOPT EDECK=NO
// STDOPT EDECK=YES
// OPTION EDECK
// OPTION NOEDECK
// STDOPT FASTTR=NO
// OPTION NOFASTTR
```

I recommend that you verify, if your jobs contain such parameters, before you migrate to z/VSE 5.1 and 5.2.

Tags: migration, standard_option, vse, jcl, option, job

Live Virtual Classes - presentations (z/VSE, z/VM, Linux on System z) (2014-08-13)

The blogs were on maintenance again today.

I added another tip to yesterday's IPL blog - see comment.

... but now to today's topic:

IBM offers education on a variety of z/VM, Linux on System z and z/VSE topics in the form of "Live Virtual Classes" (LVC).

My z/VM colleagues do a nice job on gathering all past Live Virtual Classes (LVC) - be it LVCs on z/VSE, z/VM or Linux on System z.

In the tables on their LVC page you can find presentations of all those LVCs. The LVC page is [here](#).

Tags: vm, lvc, vse, linux

How to interrupt the z/VSE IPL process (2014-08-12)

It might be necessary to add a new device or modify IPL statements before you can change the IPL procedure via an editor or our IUI Hardware Configuration and IPL dialogs - or just to add an IPL command temporarily. You may also change the IPL or JCL procedure name or the Supervisor statement, if you have multiple procedures / Supervisors in your system library.

The IPL load parameter provides that functionality. You may enter the parameter values on the HMC load panel. If you are IPLing z/VSE in a z/VM guest, just add the load parameter value to the IPL command, e.g. IPL 200 LOADP ..P.

The load parameter allows to add up to 8 values:

-- 1st value: I = console type, 2nd S = IPL message suppression, 3rd P = IPL parameter prompting,
4th P = startup mode prompting, 5th D = debug mode for installation disk.
Values 6 to 8 are reserved.

E.g. to request parameter prompting you use the load parameter "..P", to prompt for the startup mode (mini, basic, cold) the load parameter "...P". Add periods for the positions, if you want to use the defaults. Combinations are possible.

To add or change IPL commands use the parameter "..P"

At IPL you will be prompted after message 0I03D ENTER SUPERVISOR PARAMETERS OR ASI PARAMETERS

Now you may enter Supervisor parameters such as the Supervisor name (Supervisor to be loaded), VIO, NOPDS or VSIZE, VPOOL, ...

- or you may enter the IPL procedure (IPL=) and JCL procedure (JCL=), e.g. IPL=\$IPLESA,JCL=\$\$JCL. If you want to add or change a specific IPL command you may use the STOP= parameter, e.g. STOP=SYS or STOP=ADD. You will then be prompted before the first SYS or ADD command (in the example) and may add your command.

Please verify those changes in your test environment first.

More information is in the z/VSE System Control Statements book, available on our [documentation web page](#).

Tags: loadparm, ipl, vse, tips, parameter

Are you using the CICS Transaction Gateway ? ... and a new IBM Redbook (2014-08-11)

I would like to have some information on how you connect to the CICS Transaction Server on z/VSE (CICS TS).

Do you use the CICS Transaction Gateway (CTG) ? Do you connect via SNA or TCP/IP ?

See also my [CTG blog entry](#) for more information on the CTG. It would be great to get your feedback.

Just last week a new **IBM Redbook** related to the CTG was published.

Its title is "The Complete Guide to CICS Transaction Gateway Volume 1 Configuration and Administration".

The book describes the basic concepts, the CTG for z/OS and multiplatforms, how to connect to CICS TS, high availability concepts, security and their configuration.

You may download that IBM Redbook [here](#).

Tags: ctg, vse, cics, redbook, cics_transaction_gateway

Conference Reminder: IBM Enterprise2014, abstract guide available (2014-08-08)

This is a reminder for the next major conference, that covers z/VSE topics - the Enterprise2014.

It's scheduled for October 6 - 10, 2014 in Las Vegas, Nevada.

The conference brings the IBM System z Technical University (zUniversity), the IBM POWER System Technical University and the Enterprise Executive Summit together.

In between the Enterprise Technical Abstract Guide is available on the Enterprise2014 web page (link on the right).

The web page is [here](#).

Enjoy your weekend.

Tags: zuniversity, vse, conference

Sorry, the blog was on maintenance today. Next blog entry tomorrow. eom (2014-08-07)

Tags: vse

z/VSE service news (2014-08-06)

I can not catch all APARs related to z/VSE. However, I try at least to inform you about APARs, where I am aware of.

You may register for z/VSE components to get the latest service news - or you may visit our [service web pages](#).

New PTFs are available for VSE/AF and z/VSE Connectors:

VSE/AF - APAR [DY47556](#) (z/VSE 5.1 PTF UD54048): The Attention Routine TIME ZONE command does not change the zone definition for active dynamic partitions. Only when a dynamic partition is started, it's zone definition changes. The APAR now changes the zone definition for active static partitions as well as dynamic partitions. APARs for z/VSE 4.3 and z/VSE 5.2 will follow soon.

z/VSE Connectors - APAR [PI22317](#) (z/VSE 4.3 PTF UI19746), APAR [PI22318](#) (z/VSE 5.1 PTF UI19747), APAR [PI22319](#) (z/VSE 5.2 PTF UI19748): The z/VSE **SNMP** Monitoring Agent truncates SNMP requests that are larger than 256 bytes. This results in an parsing error and causes the request to be ignored. The receiving buffer is increased to 64K bytes.

It's always good to check the latest **CICS TS** APAR information too - [here](#).

Tags: snmp, ptf, service, vse, apar, support, news, time

End of service announcements related to z/VSE (2014-08-05)

Today is my 353rd blog entry since I started.

There are a few end of service (withdrawal from service) announcements related to z/VSE:

- **z/VSE 5.1** withdrawn from service June 30, 2016. Replacement product: z/VSE 5.2.
- **WebSphere MQ for z/VSE 3.0** withdrawn from service September 30, 2015. Replacement product: none. Individual service extension contracts can be requested for service beyond September 30, 2015 for a period of at least 3 years. The WebSphere MQ Client for VSE will still be available.
- **Emulation Program (EP) 1.14** withdrawn from service December 31, 2015.
- **z/VM 5.4** withdrawn from service December 31, 2016 or until z9 processors are withdrawn from support, whichever is later. Replacement product: z/VM V6. The zEC12 and zBC12 are planned to be the last System z servers supported by z/VM V5.4 and the last System z servers that will support z/VM V5.4 running as a guest (second level).

More information is in the corresponding [announcement letter](#).

Tags: vse, support, end-of-service, server, withdrawal

z/VSE 4-digit device addresses - QUERY IO tip (2014-08-04)

Since z/VSE 4.3 we support 4 digit device addresses. During the IPL process 4 digit device addresses, called physical (device) addresses, are mapped to 3 digit addresses, called VSE (device) addresses. The mapping can be defined via the IPL ADD statement. After IPL complete z/VSE uses VSE device addresses. You may display the mapping of the device address with our IUI dialogs or the Attention Routine command QUERY IO. QUERY IO accepts as input a physical device addresses or VSE device addresses - or you may display the mapping of all added devices. You may display groups of devices too, if you just query for the first digits of the device address, e.g. QUERY IO, CUU=FF displays all devices that start with FF.

You may have noticed, that we added a new PF key to the z/VSE console - 11=PCUU. If you just press PF11 and your cursor is in the command line, you will get "%EXCUU 28". Therefore you need to position the cursor to a device address on your console, hit the PF11 key and the QUERY IO command with the device address appears in your command line. Just hit enter and you will get the mapping of the device. You can also use the PF11 key, if you can't remember the syntax of the QUERY IO command. Just position the cursor to a reply id (number after the partition id) of any message on your console and hit the PF11 key. The command appears in your command line and you may overwrite the device address (CUU=) or use QUERY IO, CUU=ALL to display the mapping of all devices.

The QUERY IO command is described in the z/VSE System Control Statements book, It's available on our [documentation web page](#).

Tags: query, address, vse, device, io, tips

Next blog entry on Monday (August 4, 2014) (2014-08-01)

Today is a warm and sunny day, about 26 C (78 F) - after some days of rain.

I take a day off to enjoy the nice weather.

Have a good weekend.

Tags: vse

Service withdrawal announcement for some hardware models (2014-07-31)

Two weeks ago there was a service withdrawal announcement for some hardware. Especially the service withdrawal of a few tape units may be of interest for you. You can find the affected models in the announcement letter - [here](#).

Tags: support, announcement, hardware, service, vse, withdrawal, tape

z/VSE LVC: "Tuning VSAM file performance under CICS TS" - presentation and playback available (2014-07-30)

The presentation and playback of the last Live Virtual Class (LVC) is now available on our education web page.

The session "An introduction to tuning VSAM file performance under CICS TS in z/VSE" was recorded on July 22, 2014.

You can find the presentation and playback [here](#).

Tags: vsam, presentations, vse, tuning, lvc, cics, playback

z/VSE 5.2: New Books just uploaded (2014-07-29)

Finally they are ready. We just uploaded three more z/VSE 5.2 books to our web page. Sorry for the delay.

The books are:

- z/VSE 5.2 TCP/IP Support
- z/VSE 5.2 Diagnosis Tools
- z/VSE 5.2 Guide for Solving Problems

You can download the books from our [documentation web page](#).

Do you need automation tools on your z/VM system ? (2014-07-28)

Just recently I had a discussion with a z/VSE customer, who is running multiple z/VSE systems in z/VM guests. The customer was looking for automation tools.

There may be tools available from vendors. In the discussion we found a z/VM product: Operations Manager for z/VM. From the description and from what I heard so far, it seems to be a powerful tool for z/VM automation.

Customers, who are running z/VSE in z/VM guests, are not just using z/VM as a hypervisor, in many cases they are also running service machines, such as VTAM, TCP/IP, DIRMAINT, OPERATOR or DB2, as well as CMS applications or Linux guests.

The Operations Manager for z/VM provides automated actions in response to console messages on z/VM service machines and Linux guests, supports monitoring and management of spool files, may schedules tasks at specific times, allows to define rules, where you can specify what problems to look for, and more. It's mainly targeted for service machines and Linux guest, however, I don't see a reason, why it can not catch line mode or CP messages (disable wait, CP read, etc.) of e.g. z/VSE guests.

If you are currently using Operations Manager for z/VM, I would be interested, if and how you monitor z/VSE guests.

More information on Operations Manager for z/VM is [here](#).

Tags: automation, vm, operation, monitoring, tools, vse

Are you looking for z/VSE education material ? (2014-07-25)

We are seeing more and more new face at our conferences. In many cases they are/were educated by their coworkers.

Sometimes it would be good to have some base information about the operating system and its components to understand the context of a specific action or term. The IBM Redbook "z/VSE Basics" is some years old in between, but still a good start to get questions answered like

- How is virtual storage used ?
- What storage management options does z/VSE have ?
- How does I/O and data management work ?
- What are dynamic partitions ?
- What can I do with batch versus online ?
- What languages does z/VSE support ?
- What are z/VSE connectors ?
- ... and many more ?

The IBM Redbook is [here](#).

Links to other z/VSE Redbooks are listed at the bottom of our [home page](#).

... and more details are in the various z/VSE books too, such as z/VSE Guide to System functions, z/VSE Administration, z/VSE TCP/IP Support, e-business Connectors User's Guide, ... The z/VSE books can be downloaded from [here](#).

You may also be interested in our [presentations](#) or [articles](#).

... or in our [education page](#) with Live Virtual Class (LVC) announcements or training links.

Please let me know what is missing ? On which topic we should provide more material ?

Have a good weekend.

VSE/VSAM analysis tool updated (2014-07-24)

The Multi Instant Logic Analyser4VSAM tool was just updated on our Download web page.

That tool combines several VSAM analysis tools. The new release 1.4 added VSAM data space analysis and overall statistics, better overview of space map and an optimized work flow.

The tool can be downloaded from [here](#).

Tags: vsam, vse, download, tools

New Supervisor Diagnosis Reference Manual available (2014-07-23)

The Supervisor Diagnosis Reference Manual (DRM) for z/VSE 5.2 is now available for download from our documentation page.

The DRM consists of two parts the the Diagnosis Reference itself and the information about Supervisor Calls and Internal Macros.

The Diagnosis Reference describes the z/VSE architecture, Supervisor components such as the turbo dispatcher, page manager, I/O Supervisor, and most important system functions. It also includes details about the Supervisor debug facility.

You can find both books [here](#).

Tags: vse, drm, diagnosis, reference, supervisor

New Live Virtual Class for Linux on System z (2014-07-22)

Besides z/VSE Live Virtual Classes (LVCs) Linux on System z LVCs may also be of interest for z/VSE users, because many of our users run Linux on System z too.

There is a new one scheduled for July 30 (July 31), 2014.

It addresses the topic: Live Demo - IBM Elastic Storage for Linux on IBM System z

... and introduces the cluster file system - IBM General Parallel File System.

More details are [here](#).

Tags: vse, lvc, linux, education, file_system

Service Management Connect for z/VSE is now live ! (2014-07-21)

You may remember my [blog entry](#) on June 5 (tagged with smc), where I announced that we will have a **Service Management Connect** (SMC) portal for z/VSE soon.

Now it's live. I hope you will like it. The SMC for z/VSE provides general information about z/VSE, an overview, release plan, links to our downloads and resources.

All information is linked to our [z/VSE home page](#), which is the main entrance for z/VSE users.

You may reach it starting on the [SMC home page](#), then go to the "select a community" area. On the "System z" tab, select "products" and "IBM z/VSE".

... or you directly go to SMC for z/VSE via this [link](#).

Please let me know, how you like it - or what we can do better.

Tags: service, vse, smc, blog, support

Next blog entry on Monday (July 21, 2014) (2014-07-17)

I have an external meeting today. Tomorrow I will take a day off to attend my daughter's wedding.

Therefore you will see the next blog entry on Monday.

Tags: vse

Reminder: z/VSE Live Virtual Class - next Tuesday (2014-07-16)

This z/VSE Live Virtual Class (LVC) post is a reminder.

My colleague Mike Poil speaks to the topic "An introduction to tuning VSAM file performance under CICS TS in z/VSE".

He will describe how VSAM works under CICS TS and how the local VSAM file performance can be tuned.

It is scheduled for July 22, 2014.

More information is on our [education web page for Live Virtual Classes](#).

I announced that one in June already - see my [blog entry](#).

By the way I am tagging each blog entry. On the right hand side you see the tags. If you want to see blog entries related to the LVCs, just click on "Find a tag" and enter "lvc".

Tags: cics, performance, vsam, vse, tuning, lvc

Why do we still have Assembler code in z/VSE ? (2014-07-15)

Just yesterday I wrote some Assembler code to improve a system function. It's always fun to get some Assembler statements to work.

I know, high level languages, such as Java, C, PL/I and COBOL, are much more productive. But sometimes, if your code is very close to the hardware and if you want to use new instructions, Assembler is the best language to get things done. We do not have the z/VSE compilers, that support the usage for some system interfaces and you can't use high level languages for Supervisor implementations, except an internal PL/I like language. That is if you want to use system services, e.g. to allocate and access 64 bit virtual storage (IARV64 services), you need small Assembler pieces to use 64 bit virtual storage. z/VSE's high level languages do not support 64 bit programming. There are many more services, where it's easier to write a little Assembler program.

Nowadays it's not easy to find Assembler skills. Most junior developers don't want to go into this basic coding. However, I made the experience in our team, even after some reservation at the beginning new z/VSE team members started with Assembler - and after some development items they now love Assembler.

In z/VSE we use the High Level Assembler (HLASM) books and the z/Architecture Principles of Operation (POP). These books are the base for Assembler programming.

The HLASM books are [here](#).

The latest POP is [here](#), or you may download it from our [documentation page](#). The z/Architecture Reference Summary is [here](#).

If you want to see a large chunk of Assembler code, you may want to install the z/VSE generation feature and generate a Supervisor listing.

There are also high level system and Assembler compilers from vendors.

Do you still have old VSE systems and want to run them on the latest mainframe ? (2014-07-14)

This was a short night because of the final of the world championship and the celebration afterwards. Germany made it !

There are still many VSE systems on unsupported releases. Some are even on VSE/ESA 2.3, which had an end of service of 2001.

Customers may decide to migrate to the latest System z processors and upgrade to a supported z/VSE release afterwards.

Or they are on processors prior to z9. In that case you need to migrate to a new processor, before the upgrade to z/VSE Version 5.

z/VSE Version 5 only supports z9 or higher. ... and after October 2014 (z/VSE 4.3 end of service) z/VSE Version 5 is the only supported environment.

You need to prepare the VSE system on your current system, before you migrate to a new processor. Please consider, that the z114 and z196 processors are the last ones that support ESCON attachments. zEC12 and zBC12 do not support ESCON. If you still want to use ESCON attachments with zBC12 / zEC12 you need a FICON/ESCON converter.

For VSE/ESA 2.2, 2.3 and 2.4 you need to apply patches before the migration, otherwise those systems will not IPL on the latest processors.

Please contact me or use our [contact web page](#) to get the patches. The VSE/ESA system as well as the patches remain unsupported.

VSE/ESA 2.5 and later should have the latest service level applied. VSE/ESA 2.5 and 2.6 need at least APARs DY45944 and DY45958.

Please also consider the following:

- The capacity of the new system is capable of covering your workload.
- You may need to contact your vendors (e.g. for new license keys).
- Be also aware that new devices are not tested with out-of-service releases.
- It might be necessary to install a supported z/VSE release (+ required PTFs for OSA/SF) to configure the OSA-Express cards. If your target processor is a zBC12 / zEC12, you can configure the OSA-Express4S and OSA-Express5S cards via the HMC (Hardware Management Console).

You may also consult our processor web page for unsupported releases - [here](#).
The web page for supported releases is [here](#).

Tags: upgrade, migration, processor, vse, end-of-service,
support

How to get the latest information on z/VSE and related products / platforms ? (2014-07-11)

Besides my blog there are several other ways to stay informed on latest news about z/VSE, CICS, z/VM, Linux on System z and IBM Redbooks.

Below are some resources:

- [z/VSE home page](#)
- [z/VSE on Twitter](#)
- [CICS Family home page](#)
- [CICS news](#)
- [CICS on Twitter](#)
- [VSE-L discussion list](#)
- [z/VM home page](#)
- [z/VM discussion lists](#)
- [Linux on System z home page](#)
- [Linux on System z on developerWorks](#)
- [Linux on System z resources \(white papers, documentation, ...\)](#)
- [IBM Redbooks home page](#)
- [IBM Redbooks on Twitter](#)

Have a good weekend.

... and just made available: the [VM Workshop 2014 presentations](#)

Tags: linux, resources, web_pages, redbook, media, vse, information, vm

z/VSE service news - new RSLs are out (2014-07-10)

New Recommended Service Levels (RSLs) are available for z/VSE 4.3.1, z/VSE 5.1.2 and z/VSE 5.2.0. The RSL cutoff was June 2014. The text says May 2014, but this will be corrected with the next web update.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

Tags: vse, service, rsl, apar, support, ptf

Do you know, that z/VSE can communicate through web services ? (2014-07-09)

z/VSE supports the communication through web services since VSE/ESA 2.6. A web service is a software interface, that describes operations that can be accessed over the network through XML (Extensible Markup Language) messaging. The XML language is used to describe an operation or data to be exchanged with another web service. With the XML based protocol - SOAP (Simple Object Access Protocol) - z/VSE can exchange information in a distributed environment.

SOAP consists of three parts:

- an envelope that defines a framework for describing what is in a message and how to process it,
- a set of encoding rules for expressing instances of application defined data types, and
- a convention for representing remote procedure calls and responses.

z/VSE implemented SOAP for CICS TS applications.

z/VSE may act as

- a service provider (server): A CICS TS application can be provided as a Web Service that is callable from outside of z/VSE using the SOAP protocol,
- a service requestor (client): Any CICS TS application can call a Web Service that resides outside of z/VSE using an EXEC CICS LINK.

We enhanced our SOAP implementation with z/VSE 5.2:

- support of mapping rules (commarea / path in XML file)
- SOAP enhancements in CICS2WS tool (encoding enhancements)

See also the z/VSE 5.2 Release Guide on our [documentation page](#).

More information and related links on web services are [here](#).

One more thing: Please let me know, if there are any topics of interest that I should post.

Tags: web_service, cics, xml, vse, soap

Articles and news about the mainframe (2014-07-08)

Today it's raining all day. Therefore some recommendations for reading:

The June / July 2014 issue of the **Enterprise Tech Journal** (ETJ) was just published. It also contains an z/VSE article from one of my colleagues. It's title is "Monitoring Your z/VSE System With SNMP". The link to the article is [here](#).

The new ETJ issue has many more articles - all around the mainframe. More information is [here](#) (articles, the journal, etc.).

... and more to read: I posted information about the "**IBM Mainframe Weekly**" newsletter some month ago. The latest newsletter just came out. It's [here](#).

Enjoy the soccer game today: Germany - Brazil.

Tags: article, etj, mainframe_weekly, vse, enterprise_tech_journal

Reminder for upcoming conferences in October 2014 (2014-07-07)

There are still three month until the next conference with z/VSE topics. However, if you are planning to participate, it's time to think about a registration.

The first conference - **Enterprise2014** - is scheduled for October 6-10, 2014 at the Venetian in Las Vegas, Nevada, USA.

It's a combination of IBM System z Technical University, the IBM Power Systems Technical University and the Enterprise Executive Summit.

We will have a z/VSE track there. More information is [here](#).

The second conference - **8th European GSE / IBM TU for z/VSE, z/VM and Linux on System z** - is scheduled for October 20-22, 2014 in Dresden, Germany. The conference has a German and English track. You can find the agenda on the conference web page. You are asked to enroll until July 15, 2014 to get a guaranteed hotel room. See conditions of participation on the conference web page.

The web page is [here](#).

Tags: conference, vse, zuniversity, gse

Do you have multiple z/VSE systems ? (2014-07-04)

If you are running multiple z/VSE system, you may share data between those systems. z/VSE provides DASD sharing through a lock file for that purpose, which is provided by the lock manager in the Supervisor. That's my topic for today.

The beginning of the 1980's I was responsible for the lock manger function. That also led me to my first international trip for IBM to Amsterdam (Netherlands) in 1984. I had to give a education session about lock management to the VSE Supervisor Level 2 team, which was located there at that time. By the way Amsterdam is one of my favorite cities since then. It's worth a trip.

Now a few words about DASD sharing: In an application you may lock a resource - defined by the DTL (Define the Lock) macro - e.g. to be locked for exclusive use. That is you may synchronize access to a specific code path or access to data on a disk. You may lock resources locally within one z/VSE system, or you may lock a resource across systems. In the latter case you have to define a lock file during IPL via the DLF command. Disks you want to share need to have the SHR parameter on the IPL ADD statement. My recommendation: Do not allocate the lock file on the system disks DOSRES or SYSWK1. For a SCSI disk such a DLF command would be rejected. I would allocate it on a small disk with just the lock file on it, but that is your choice. All systems that want to participate in sharing need to have access to that lock file and a corresponding IPL DLF statement. If an application locks a resource, the CPU id of that system, the resource name and the lock option (e.g. exclusive lock) are written to the lock file. That is you have to ensure, that CPU ids are unique for all z/VSE systems that access the lock file. I/O to the lock file is controlled by the reserve / release channel commands (exclusive access to the lock file - and to the corresponding disk).

If you are running your z/VSE systems in z/VM guests you have to define the lock file on (mini-) disks with multiple write (MWV). You may also allocate the lock file on a z/VM virtual disk.

The system disks (DOSRES or SYSWK1) should not be shared. If you put the SHR parameter to the IPL ADD statement of those system disks the message "0I23I DASD ON 007 NOT PHYSICALLY SHARABLE" will be written to the console. The SHR option is not reset, however. A lock error message may occur later dependent on your environment..

More information on DASD sharing is in the z/VSE Guide to System Function,

which can be downloaded from our [documentation web page](#).

Today is a public holiday in the United States (Independence Day) and at the 2014 FIFA World Cup we are looking forward to the soccer game France vs. Germany.

Enjoy the game and your (long) weekend.

Tags: lock_manager, dasd_sharing, lock_file, vse, lock, sharing

z/VSE 5.2 security enhancements (2014-07-03)

z/VSE 5.2 provides several security and encryption enhancements. Today I want to give some more details.

Here is a brief overview of the new z/VSE 5.2 security / encryption enhancements:

- Support for the latest crypto card on zEC12 / zBC12: the support for the configurable Crypto Express4s feature.
- Separation of the auditor function from the administrator function: The administrator is responsible for the resource profile definitions, the audit options and the collection of the logging information. With the new user type AUDITOR you can now separate the logging information and the system-wide audit options.
- Extension of the IUI security dialogs to support MQ classes
Since z/VSE 4.3 the Basic Security Manager (BSM) supports MQ resource classes. Now those resource classes can be managed via a new BSM panel (BSM Resource Classes).
- Unique Group (GPR) and User Id (UID) names are ensured
With z/VSE 5.2 the BSM will no longer allow new groups with the same name as existing user ids and vice versa.
- Integration of openSSL
The openSSL open source project provides Secure Socket Layer (SSL), Transport Layer Security (TLS) and key management utilities. We integrated the openSSL 1.0.1e level. z/VSE SSL applications such as the z/VSE Connector Server or LDAP client can now run transparently with openSSL
- openSSL to GSK interface
z/VSE 5.2 provides the OS/390 GSK API for openSSL
- Key store conversion
Now you can manage different SSL key store types, e.g. an openSSL and CSI key store type.
- openSSL multiplexer
The Language Environment (LE) Multiplexer is enhanced to separate SSL functions from other socket API functions.
- LDAP tools
New LDAP batch tools for LDAP search, add, modify and delete are introduced.
- Monitoring Agent (SNMP) security enhancements
The Simple Network Management Protocol (SNMP) is not encrypted. The

Monitoring Agent now checks, if the source IP address of each incoming packed matches a ruleset in the configuration file.

- VSE/VSAM IDCAMS security

The IDCAMS tool provides a number of backup / restore, define / delete and catalog maintenance commands. Now you can protect those IDCAMS commands. RACROUTE security checks are used. The administrator can control access to IDCAMS commands by using BSM resource profiles of resource class FACILITY called IDCAMS.GENERAL.

More information of the the security functionality is in the z/VSE Administration and z/VSE TCP/IP Support books.

Both books can be downloaded from our [z/VSE Documentation web page](#).

The z/VSE TCP/IP Support book is still in the update process. I expect that on our web page in about a month.

If you want to get an overview of z/VSE's (BSM) security, I recommend the IBM Redbook "[Security on IBM z/VSE](#)".

Tags: crypto, security, vsam, bsm, encryption, vse

CICS Transaction Gateway connecting to z/VSE (2014-07-02)

This blog entry provides some internals, how a CICS Transaction Gateway request is processed by the CICS server.

The CICS Transaction Gateway for multiplatforms (CTG) provides an API, that may be used in Java applications for multi-user access to CICS servers such as CICS Transaction Server for VSE/ESA 1.1.1 (CICS TS). You may communicate from CTG to CICS TS via ECI (External Call Interface) calls over TCP/IP or SNA. The CTG directly connects to the CICS TS for VSE/ESA server.

The CTG web page is [here](#).

The reference I will provide points to topics in the CICS TS for z/OS info center. However, they are also relevant for CICS TS for VSE/ESA. For more information on ECI and CTG please search in the CICS info center [here](#). (I tried to use links, but that did not work).

An ECI request is processed as follows:

Multiple CTGs can all connect to the same CICS using a single CICS TCPIP SERVICE. There is only a single listener task (CSOL) for the whole CICS so adding more TCPIP SERVICES does not change that or help with processing work in parallel. A benefit that using one TCPIP SERVICE per CTG gives you is the ability to stop all work coming in to CICS from a particular CTG as the TCPIP SERVICE can be closed and will only affect that CTG connection.

Even though there is only a single listener task, that task does very little processing so does not cause a problem. When data is received from the CTG, the listener task will attach a CIEP task to analyze the data and attach a mirror. More information on CIEP is [here](#).

That CIEP will read all the data available from the CTG at the time and attach a mirror task for each application request. CIEP terminates when there is no more data to receive and leaves an outstanding async receive, so CICS is notified when more data arrives. There can be 1 CIEP task per CTG running in parallel receiving request.

The mirror tasks all run as standard mirrors. So they will be restricted due to availability of the QR TCB (quasi-reentrant task control block), TCLASS (transaction class) and any other mechanisms used to affect a normal non-terminal task running. When the mirror tasks need to send their response back

to the CTG, then all the mirrors for a specific CTG will be serialized using a lock so only one is sending at a time (this is required otherwise the CTG could receive data in a random order). Also all the mirror tasks actually sending data will be serialized on the SO TCB (socket TCB) so only one mirror will actually be doing its TCPIP send at a time. As long as the CTGs (and intermediate networks) are responsive then this serialization of sending responses would not be noticed.

Thanks to a CICS colleague, who described the internals.

Tags: `ctg`, `cics`, `vse`, `internals`, `cics_transaction_gateway`

News on our IBM Redbooks pages - Linux on System z (2014-07-01)

Many of our z/VSE users implement a heterogenous environment with Linux on System z and z/VSE - as described in our PIE (Protect Integrate Extend) strategy. See my related [blog entry](#).

There are a new Redbook Solution Guide and a new Redbook draft on the IBM Redbooks pages addressing the Linux on System z platform:

- IBM Redbooks Solution Guide - Linux on System z: An Ideal Platform to Migrate Your IT Workload. The guide is [here](#).
- IBM Redbook draft - x86/Unix Practical Migration to Linux on System z. The draft is [here](#).

Tags: vse, strategy, redbook, linux, unix

End of marketing announcements - IBM EP (2014-06-30)

Just a few weeks ago, I informed you about the end of marketing announcements of z/VSE 5.1 and WebSphere MQ for z/VSE 3.0. For more information see my related [blog entry](#).

In the corresponding announcement letter there was the end of marketing announcement of one more product that may affect z/VSE customers: IBM Emulation Program 1.14.0 (5735-XXB). For dates see the [announcement letter](#).

Tags: ep, vse, end-of-marketing, announcement

z/VSE Live Virtual Class: VSAM file performance under CICS TS (2014-06-27)

There is a new z/VSE Live Virtual Class (LVC) scheduled for **July 22, 2014**.

My colleague Mike Poil speaks to the topic "An introduction to tuning VSAM file performance under CICS TS in z/VSE".

He will describe how VSAM works under CICS TS and how the local VSAM file performance can be tuned.

More information is on our education web page for [Live Virtual Classes](#).

Have a good weekend.

Tags: vse, performance, vsam, cics, lvc

z/VSE Live Virtual Class: Tape-less Initial Installation - presentation and playback available (2014-06-27)

In between the playback and presentation of the last Live Virtual Class (LVC) is available. The topic was "Tape-less Initial Installation".

You can find that [here](#).

Tags: tape-less, lvc, vse, installation

No blog entry today (June 26, 2014) (2014-06-26)

Today I had some unexpected meetings. Therefore I can't write a blog entry today.

Enjoy the soccer game - Germany - USA.

Tags: vse

Do you want to be a z/VSE beta customer ? (2014-06-25)

We are still looking for z/VSE customers, that want to run their workload on future z/VSE releases in development.

Requirements to participate in a z/VSE beta program:

You need to

- have a z/VSE license and z/VSE running in production,
- sign a test agreement, which basically says that you can only use the beta release for test purposes, not in production and provide some feedback at the end of the test period.

Before we start a beta program most functionality is verified and the system is stable.

Your benefit is to get early information on the release content, and experience on new functionality.

You will also have a close contact to z/VSE development during the test cycle (if you want).

Our benefit is to get early feedback on new functions and the behavior of a new release in customer environments.

Please let me know, if you are interested. You may send feedback or questions to my id - salm@de.ibm.com.

Tags: vse, test, beta

z/VSE Download: CICSWS Toolkit (web services - SOAP) (2014-06-24)

The CICSWS Toolkit was updated. It is a development tool, that helps to use Web Services with existing CICS programs.

More information is [here](#). It is available for download.

The corresponding documentation was updated too. "How to use Web Services with z/VSE" can be download from the "[Web Services \(SOAP\) with z/VSE](#)" section.

More downloads (connectors, tools, samples) are [here](#).

Tags: web_service, cics, vse, soap, tools, download

z/VSE service news (openssl PTFs) (2014-06-23)

New openssl PTFs are available. They fix a problem as described in vulnerability CVE-2014-0224. The PTFs affect z/VSE Version 5 only, because openssl was first delivered with z/VSE 5.1.

The APAR is DY47545. It is described [here](#). The corresponding PTFs are UD54036 (z/VSE 5.1) and UD54037 (z/VSE 5.2).

In z/VSE 5.1 openssl is exploited by the product IPv6/VSE. In zVSE 5.2 there are more exploiters. Therefore I recommend that all IPv6/VSE and z/VSE 5.2 users apply these new PTFs.

The APAR will show up tomorrow on our [security service portal](#).

Tags: vse, apar, ptf, security, ipv6_vse, openssl, service, support

Next blog entry on Monday - June 23, 2014 (2014-06-19)

Today is another public holiday in southern Germany, the last one until October. Therefore I take a long weekend.

Enjoy your weekend.

Tags: vse

z/VSE security (2014-06-18)

I am currently looking into a security requirement, which I received from a customer. It is in our new Request for Enhancements ([RFE](#)) database.

The request asks to "Eliminate the DTSECTAB" (RFE number 50467, was MR0605134213).

Some background on z/VSE's security concept:

z/VSE provides batch and online security - supported by the z/VSE Basic Security Manager (BSM). Instead of the BSM you may choose an external security manager from a vendor.

You may protect resources to be used by **batch** jobs with our batch security, which can be activate with the IPL parameter SYS SEC=YES. Resources to be protected are defined in the **DTSECTAB**. Resources can be files, libraries, sublibraries or members, The DTSECTAB is generated (compiled) by the z/VSE user. A batch job may be authorized via user id / password to access these resources (e.g. via the JCL ID statement).

In the **online** environment the CICS Transaction Server (CICS TS) authorizes users to access online resources such as transactions. CICS uses RACROUTE calls (a security programming interface) to verify, if a user is authorized to access a resource.

The BSM manages and provides the access control information to the RACROUTE services. BSM runs in a server partition, which is started after system initialization, usually in partition FB.

Access control information such as

- user profiles (userid / password) are stored in the VSE control file,
- profiles for resource classes are stored in the BSM control file,
- batch resources are defined in the DTSECTAB.

To verify the access to a batch resource the z/VSE system uses the SECHECK instead of the RACROUTE services.

Now back to the requirement: There are two possible implementations to "Eliminate the DTSECTAB":

1. to change the SECHECK services (not the API) and use the BSM control file as the only central repository for all resources - batch and online. That is remove the need for a DTSECTAB.
2. Let the system generate the DTSECTAB based on information in the BSM control file. There is no need to change the SECHECK services. That is batch security would still use the DTSECTAB, but we would have a central repository - the BSM control file.

Which one would you like more ?

More information on z/VSE security is in the

- [Security on IBM z/VSE Redbook](#) or
- z/VSE Administration book on our [documentation page](#).

We also have a z/VSE service section for security APARs. That section is [here](#).

Tags: requirements, racroute, documentation, redbook, cics, secheck, vse, batch, security

z/VSE service news (CICS PTF) (2014-06-17)

There are new PTFs available for CICS TS for VSE/ESA 1.1.1:

- **PTF UI18480 (APAR PI12578):** DFHAP0001 ABEND (CODE 0C4/AKEA) HAS OCCURRED AT OFFSET X'00001DAA' IN MODULE DFHICP AFTER APPLYING PM81883
This APAR is flagged as Hiper (High Impact or Pervasive APAR). More information is [here](#).
- **PTF UI18008 (APAR PI16728):** Security/Integrity exposure

The latest **fix list** for the CICS TS for VSE/ESA product is [here](#).

Tags: ptf, vse, service, support, cics

New tool for z/VSE requirements: RFE (2014-06-16)

Your requirements have a direct impact on the content of future z/VSE releases. As you may have noticed, in z/VSE 5.2 we fulfilled 18 customer requirements. If we define the content for a new release, we always look into our requirements databases.

In the past we stored the requirements into an internal database and you needed to check the status of your requirement with us. Now we have a new tool called Request for Enhancement (RFE). Our internal database was migrated to the RFE database. With RFE you can raise your requirements. Just submit the requirements on that [link](#).

You may vote and comment on or search for requirements and get the status of your requirement.

To use the RFE tool you just need to sign on with your IBM id.

That is you now have three options to submit z/VSE requirements:

- [Contact z/VSE](#)
- [Open a PMR \(Problem Management Record\)](#)
- [Submit a requirement via the Request for Enhancement tool \(RFE\)](#)

The preferred option is to use RFE.

For z/VSE requirements please select

- Brand = Servers and System Software
- Product family = zSeries Software
- Product = z/VSE
- Component = You may choose the component.
- Operating System = IBM z/VSE

For CICS TS for VSE requirements please select

- Brand = WebSphere
- Product family = Transaction Processing
- Product = CICS Transaction Server
- Component = Runtime (= CICS TS) or Explorer
- Operating System = IBM z/VSE

I am looking forward to receive your requirements.

Tags: vse, cics, requirements

Next blog entry on Monday - June 16, 2014 (2014-06-13)

Today is my daughter's birthday. She wants to go to the zoo in Stuttgart (Wilhelma). Therefore there is no z/VSE related blog entry today.

Have a good weekend.

Tags: vse

End of marketing announcements (2014-06-12)

Last week there were multiple end of marketing announcements. End of marketing means, that products are no longer orderable after the announced date.

A few z/VSE products were included:

- z/VSE 5.1 and z/VSE Central Function 9.1 with end of marketing on May 23, 2014. I informed you about that in a separate [blog entry](#). If you still have a need for z/VSE 5.1, please contact us.

- IBM WebSphere MQ for z/VSE 3.0 with an end of marketing date of October 13, 2014.

Remark in the announcement letter: While IBM WebSphere MQ for z/VSE V3.0 is being withdrawn from marketing with no direct replacement, a WebSphere MQ Client for VSE will continue to be available to enable connectivity over WebSphere MQ from VSE environments to MQ deployments on other systems.

The announcement letter is [here](#).

Tags: end-of-marketing, vse, mq

z/VSE Live Virtual Class: Tape-less Initial Installation (2014-06-11)

On **June 24, 2014** we scheduled our next Live Virtual Class (LVC) on Tape-less Initial Installation.

With z/VSE 5.2 we introduced tape-less initial installation, in addition to initial installation from tape. That is you may create an installation disk and install your z/VSE system from there - in a LPAR or a z/VM guest. More details are in [my blog](#) entry related to this z/VSE 5.2 function.

The LVC session lasts 60 min. More details are [here](#).

Tags: installation, install, tape-less, vse

New IBM Redbooks for IBM Wave and OSA-Express (2014-06-10)

As you know I like the IBM Redbooks, especially with the IBM Redbook mobile app available for Android and iOS devices.

Just the last few days 2 new Redbooks were published that may be of interest for z/VSE, z/VM and Linux on System z users.

The first one is the **IBM Wave for z/VM Installation, Implementation and Exploitation** Redbook.

Besides the installation, implementation and exploitation, it also has an introduction to IBM Wave for z/VM as well as a chapter that describes the architecture. The Redbook is [here](#).

The second Redbook is the **OSA-Express Implementation Guide**. It provides a Open System Adapter (OSA) overview, a quick start guide, details on QDIO and non-QDIO mode for z/VSE, z/OS and z/VM, VLAN support, z/VM virtual switch, OSA/SF, TCP/IP passthru mode and much more. You can find this Redbook [here](#).

The ITSO team (most famous for its IBM Redbooks) also holds **workshops**. In October there will be workshops on IBM Wave for z/VM. Here the [link](#).

Tags: redbook, workshop, network, vse, osa, osa_express, wave

Next blog entry on June 10, 2014 (Tuesday) (2014-06-06)

We have a public holiday on Monday (Whit Monday). Therefore you will see my next blog entry on Tuesday.

We expect a very nice long weekend with up to 36 C (97 F) :-). May be I need some cold water.

Have a good weekend too.

z/VSE service news (RSLs, PTFs, CICS news) (2014-06-06)

New **Recommended Service Levels** (RSLs) are available for z/VSE 4.3.1, z/VSE 5.1.2 and z/VSE 5.2.0. The RSL cutoff was May 2014.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

New **PTFs / APARs** are available too:

- a new PTF for the product IBM TCP/IP for VSE/ESA 1.5F. The TCP/IP section on our corrective service page is [here](#). See latest [TCP/IP for VSE/ESA APARs](#).
- new Connector APARs in the z/VSE Connector section on this [link](#).
- a new z/VSE 5.1 APAR for VLAN. The link to the z/VSE AF section is [here](#).

Are you interested in any **CICS news**? If so, you may want to subscribe to the CICS newsletter. More information is [here](#).

Tags: apar, cics, rsl, service, vse, ptf, support

Are you aware of the IBM Service Management Connect (SMC) communities ? (2014-06-05)

The IBM Service Management Connect (SMC) portal provide access to communities, where you get the latest information about products, platforms or links to the corresponding web pages. You may interact with the expert for specific areas. SMC is hosted on developerWorks. You may start with the SMC home page. The link is [here](#).

When you are on the SMC home page, you may select "System z". On the System z community you see, the z/OS topics are already there.

I am currently working on the input for the z/VSE appearance and hope, that it will show up on SMC soon.

Another example how a SMC appearance could look like shows the SMC page for the IBM Tivoli product [Netcool/Impact](#).

I will keep you posted, when the z/VSE SMC page is available.

Tags: smc, portal, service, vse, community

Did you ever want to save your z/VSE test system ? (2014-06-04)

Just last week I had to modify my z/VSE 5.2 test system to verify a SNA network setup. However, I wanted to keep my VSE/POWER PNET TCP/IP environment. My test systems are running as z/VM guests.

There are multiple options to achieve that, e.g. to backup the existing system to tape or disk (e.g. via DDR). I tried a faster way and used Flashcopy. ... and it turned out that was really fast. I did not use minidisk caching. The "backup" just took seconds.

This only works for ECKD devices and the Flashcopy feature need to be installed. See also [my blog entry on Flashcopy](#).

My system (DOSRS, SYSWK1) and data devices were on fullpack minidisks (dedicated disks would be OK too). I asked our system administrator to define a disk of the same size and type for each z/VSE disk (target devices). Then I IPLed my z/VSE system, added the new disks to the IPL procedure with the DVCDN (device down) parameter. You may modify the IPL procedure yourself or use the hardware configuration dialog (selection 2 -> 4 -> 1). In the dialog define the ECKD device, select it for further processing and select DVCDN. The resulting IPL ADD statement could look like this: `ADD 1297:1298 AS 00B:00C,ECKD,DVCDN`. Then I re-IPLed my system, shutdown all subsystems (VTAM, TCP/IP, CICS, ...) and applications to avoid I/O activity and did a Flashcopy with the following Attention Routine command: `ixfp snap,008:00b` and answered "YES", when prompted. I used `ixfp status,00b` to verify, if the Flashcopy is completed. Completion messages will show up on the console too. I did the Flashcopy for all z/VSE devices.

After the Flashcopies were completed I verified that I could startup the z/VSE system on the new devices: I detached the source devices, renamed the device addresses and IPLed the z/VSE system from the target device. If you want to IPL the target disks, they have to have the same device addresses as the source disks.

Everything was fine. Now I worked on my SNA setup.

For later IPL of your test system be sure, that you always select the right set of disks.

More information on Flashcopy is in our z/VSE Administration book, that you can download from our [documentation page](#).

Tags: vse, backup, test, flashcopy

No blog entry today - June 3, 2014 (2014-06-03)

Sorry, our web page was under maintenance. Therefore I could not write a blog entry.

Enjoy the remaining day.

Tags: vse

Live Virtual Class: IBM Wave for z/VM (2014-06-02)

Mid March I informed you about a new tool - IBM Wave for z/VM. It provides management, administration, provisioning, and enables automation of Linux virtual servers in a z/VM environment.

See my blog entry for [more details](#).

We plan a Live Virtual Class (LVC) on IBM Wave for z/VM, that may also be of interest for our customers running z/VSE in a z/VM guest together with Linux on System z guests.

Topic: Virtualization and Systems Management of z/VM and Linux with IBM Wave for z/VM

Date & Time: Wednesday, June 4, 2014 & Thursday, June 5, 2014

Duration: 75 minutes

Abstract: In this session based on a live demonstration, we will introduce IBM Wave for z/VM and review how capabilities such as Intelligent Visualization Simplified Monitoring and Unified Management would reduce operational costs, reduce risks and speed up time to value. We will do a high level overview of the architecture and discuss some of the capabilities offered by IBM Wave that simplify the deployment of Linux on System z enabling application owners and/or authorized users to manage applications without the need of deep System z specific skills.

More details are [here](#).

Tags: lvc, wave, system-management, linux, vm, vse

Next blog entry on Monday - June 2, 2014 (2014-05-28)

As mentioned on Moday I will take a long weekend. We have a public holiday tomorrow (Father'sDay).

Have a good weekend too.

Tags: vse

z/VSE 5.2 Service news: PTF application from disk (2014-05-28)

The IJSYSPF file (used to apply service from disk) was delivered with an incorrect definition on z/VSE 5.2. In order to apply service from disk it is necessary to redefine this file prior to service application.

More information is on our [hot service news](#) web page.

Tags: ijsyspf, support, service, vse, ptf

Do you use z/VSE Fast Service Upgrade (FSU) ? (2014-05-27)

Traditionally you use the Fast Service Upgrade (FSU) process to upgrade your system to the current maintenance level. That is you perform an FSU to install a new modification level of z/VSE (or service refresh).

If you want to upgrade to z/VSE 5.2 you have 2 options: initial installation or Fast Service Upgrade.

That is you may use the FSU process too to upgrade e.g. z/VSE 4.3 or z/VSE 5.1 to z/VSE 5.2. The FSU process can be started with our IUI dialogs.

Unlike an initial installation, the FSU does not replace user data and hardware configuration tables. It only replaces system data. So FSU may reduce the effort to upgrade to a new z/VSE release.

We offer Fast Service Upgrade to new refresh levels or new z/VSE versions / releases since VSE/ESA 2.4 without the need for an initial installation.

An initial installation was only required from releases prior to VSE/ESA 2.4, because of adaptations to the CICS Transaction Server in VSE/ESA 2.4 (first VSE release with the CICS TS)..

As you already know from our [Statement of Direction](#) (SOD - see April 7, 2014 - z/VSE 5.2 announcement). We again plan for a new CICS Transaction Server in a future version of z/VSE.

Now a question for you: Would it be a problem, if we would ask for an initial installation to such a new z/VSE version ?

Please send your feedback to my email address: salm@de.ibm.com

Fast Service Upgrade is described in detail in the z/VSE System Upgrade and Service book. More information about FSU to z/VSE 5.2 is described in the z/VSE Planning book. Both books are on our [documentation web page](#).

Tags: vse, upgrade, refresh, fast_service_upgrade, service, installation, fsu

Some z/VSE Connector and Tools updates (2014-05-26)

This will be a short week for me. We have a public holiday on Thursday (Father's Day) and I will take a day off on Friday.

Today I want to point you to our "Download" web pages, You can find them [here](#). Some connectors were update. The latest update was for the [VSAM Redirector Server](#).

On the [tools page](#) the Language Environment tools were updated. Details are in the related tool sections for

- [LE/VSE Control Center V4.0](#) and
- [LE/VSE CEETRACE Feature V1.2.1](#).

Tags: update, tools, vse, language_environment, connector

Do you use the IBM Support Portal ? (2014-05-23)

One more blog entry for the weekend.

You may use the IBM Support Portal to verify, if a problem is already known and an APAR is available. The link to the portal is [here](#).

You may start with the selection of the product, that you want to search for.

Just select e.g. IBM Operating Systems -> z/VSE, then enter the symptoms of your problem in the search field. That is you could search for a specific abend, or message number, or component id and so on. E.g. if you have an abend in CICS related to VSAM access, you could search for "vsam abend cics". You would get APARs and/or Technotes related to that query.

Have a good weekend.

Tags: portal, vse, support, service, apar

z/VSE 5.2 Kanji support available (2014-05-23)

This is my 302nd blog entry !

The blog entry may be of interest to our z/VSE users that are dependent on the Kanji support. As of today the z/VSE 5.2 Kanji support is available. See also our z/VSE 5.2 announcement on April 7, 2014 and my related [blog entry](#).

z/VSE service news: TCP/IP for VSE/ESA PTF available (2014-05-22)

There is a new PTF for the product IBM TCP/IP for VSE/ESA 1.5F available. The PTF UI17147 (APAR PI16096) and included zaps are listed on our corrective service web page. The TCP/IP section is [here](#).

You may also go to the corresponding [APAR page](#).

Tags: vse, service, support, tcpip

Next IBM Conference with z/VSE track: Enterprise2014 (2014-05-21)

We just updated our "Events" web page with the schedule for the IBM Enterprise2014 conference. This event brings together the IBM System z Technical University, the IBM Power Systems Technical University and the Enterprise Executive Summit.

The IBM System z Technical University offers a broad selection of technical sessions covering the latest z/VSE, z/VM, Linux on System z, z/OS, and IBM System z technology. We are planning again lots of z/VSE sessions.

The conference is scheduled from October 6-10, 2014. More information is [here](#).

Tags: enterprise, vse, zuniversity, conference

Some Links related to CICS (2014-05-20)

Do you follow the IBM_CICS news on Twitter ? The tweets cover any kind of information related to the CICS family. There are mainly z/OS topics, but some of them are also related to CICS TS for VSE. The Twitter link is [here](#).

One of the postings for example addressed "storage violation, when using the COMMAREA". The IBM Technote is [here](#).

There was also a Twitter link to the WebSphere and CICS support blog. Again it's more z/OS oriented, but there are also useful posts for CICS TS for VSE users. The link to that IBM blog is [here](#).

Tags: twitter, vse, link, news, cics

Playback of z/VSE Live Virtual Class: z/VSE Version 5 Update (2014-05-19)

In between the playback of our last Live Virtual Class (LVC) is available on our education web page.

The LVC was on May 6, 2014 with the topic: z/VSE Version 5 Update.

The link to the presentation and the playback is [here](#).

Tags: education, live-virtual-class, presentations, vse, lvc

Are you still dependent on the Network Control Program (NCP) ? (2014-05-16)

Do you still have VTAM SNA (Systems Network Architecture) solutions that require NCP ? If so, I assume you don't use the old communication controllers (3745, 3746 or other) anymore, right ? Instead you migrated to the IBM Communication Controller for Linux on System z (CCL) that works together with the OSA Express adapter - CHPID type OSN. Are you using that approach for NCP ?

It would be great, if I could get your feedback. Please send your feedback to my email address: salm@de.ibm.com.

If you want to understand, what I am talking about - here the link to [more information](#).

The description is z/OS related and a bit outdated, but the basic information is also valid for z/VSE. CHPID type OSN is available on the OSA Express3, OSA Express4S and OSA Express5S cards too.

Have a good weekend.

Tags: controller, osan, vse, network, communication, osa_express, ncp

VSE/POWER networking (PNET) (2014-05-15)

In my test environment I just defined a VSE/POWER network between two z/VSE systems. I wanted to verify that a specific configuration still works.

With this blog entry I want share how I defined PNET. May be that is also of interest for you and you may want to try it in your test environment.

My small network communicates via TCP/IP. That is you have to configure and start one of the TCP/IP solutions first (TCP/IP for VSE/ESA, IPV6/VSE or Linux Fast Path). I used the IUI Program Development to define/edit the VSE/POWER members, but you may use any editor and catalog the members into the z/VSE Library afterwards. I describe a very simple configuration, without security definitions. Please consult the VSE/POWER books and job skeletons in ICCF library 59 for more details. The VSE/POWER Networking book would be a good start. The z/VSE Administration book describes the use of the PNET skeletons, if you want to use the IUI setup. The books are here.

Let's start:

You have to install the z/VSE Generation Feature. It's on the z/VSE base tape. You may use the IUI dialog for installation (Installation -> Install Generation Feature).

I have two z/VSE systems - VSE1 and VSE2 - both connected to a TCP/IP network. All skeletons that I mention are in ICCF library 59. First I started with the Network definition table (NDT). You may use the skeleton SKPWRNDT.

In my example it looks like this:

VSE1 NDT

```
NDT1 PNODE NODE=VSE1, - (own node)
    LOCAL=YES, -
    PORT=175
    SPACE
    PNODE NODE=VSE2, (remote node) -
    LOCAL=NO, -
    IPHOSTAD=IP address of VSE2, -
    AUTH=JOB, -
    BUFSIZE=4096, -
    MAXBUF=(4,4), -
    PORT=175          TCP/IP PORT NUMBER
```

VSE2 NDT

```

NDT2 PNODE NODE=VSE2, - (own node)
    LOCAL=YES, -
    PORT=175
    SPACE
    PNODE NODE=VSE1, - (remote node)
    LOCAL=NO,
    IPHOSTAD=IP address of VSE1, -
    AUTH=JOB, -
    BUFSIZE=4096, -
    MAXBUF=(4,4), -
    PORT=175 TCP/IP PORT NUMBER

```

You need to compile that with High Level Assembler (HLASM) and link / catalog the VSE1 NDT into VSE1's PRD2.CONFIG sublibrary and VSE2 NDT into VSE2's PRD2 CONFIG sublibrary. Save a prior NDT into PRD2.SAVE.

Next you need to generate to VSE/POWER startup phase. You may use skeleton SKPWGEN.

You need to add the PNET=VSE1 for the VSE/POWER generation of VSE1 and PNET=VSE2 for VSE2 (to the POWER macro parameters).

Please use a different phase name than IPWPOWER, the pregenerated phase. So you can always go back, if your new phase fails.

E.g. you may use the phase name PWRVSE1 and PWRVSE2. Then assemble, link and catalog the VSE/POWER phase into the PRD2.CONFIG library.

Now we go to the most critical part: We need to change the VSE/POWER startup procedure. It's in skeleton SKPWSTRT.

If you use our predefined environment A, B or C you need to change the procedure name by replacing the "N" in POWSTRTN.PROC with your environment character.

If you don't use our skeletons you may punch your procedure and edit that one.

Please save your existing procedure into PRD2.SAVE before you replace it.

In the VSE/POWER startup procedure on VSE1 and VSE2 you need to change the EXEC phase name for VSE1 to

```
// EXEC PWRVSE1,DSPACE=2M
```

and for VSE2 to

```
// EXEC PWRVSE2,DSPACE=2M
```

and add/change the startup parameter

SET PNET=NDT1 for the VSE1 procedure

and

SET PNET=NDT2 for the VSE2 procedure

>>>> If you use skeleton SKPWSTRT and you want to try out my PNET configuration, please remove the "SET SYSID=Y" card and change the "SET PNET=YYYYYYYY". Just locate the labels marked with "/. WARM" and change or change all startup phase/parameters.

The VSE/POWER startup procedure is located in z/VSE sublibrary IJSYSRS.SYSLIB. Please save it in PRD2.SAVE before any changes. After that you have to catalog the changed procedure into z/VSE sublibrary IJSYSRS.SYSLIB.

Now you can shutdown your z/VSE systems and re-IPL. After your TCP/IP stack is active VSE/POWER will connect to the other z/VSE system. You will see some PNET messages that show the connection status.

To verify if VSE/POWER networking works you may submit a small VSE/POWER job like this from VSE1:

```
* $$ JOB
JNM=PAUSEX,DISP=D,CLASS=0,LDEST=VSE1,XDEST=VSE2
// JOB PAUSEC
// PAUSE
/&
* $$ EOJ
```

It will be executed on VSE2. After you answered the PAUSE statement on VSE2, the output will be transferred back into the LST queue of VSE1.

If your VSE/POWER startup fails, you can use the following method:

- IPL your system,
- When you see the messages just after IPL complete


```
IESI0221I PARTITIONS F8 F3 F2 F1 WILL BE INITIALIZED IN
RECOV START MODE.
IESI0222I REMAINING PARTITIONS WILL BE INITIALIZED IN
WARM START MODE.
IF YOU WANT TO INTERRUPT THEN ENTER MSG BG.
```

 enter MSG BG. You will be prompted. Select "COLD".
- You will be prompted in BG again.

- Now you can restore your VSE/POWER startup procedure from PRD2.SAVE by using EXEC LIBR,PARM='MSHP'.

You may use such a PNET environment e.g. to separate your online workload from batch, which may require to share data. Consider the performance implications of data sharing.

Please let me know, if this blog entry was useful.

Tags: vse, networking, vse-power, pnet, example

z/VSE Version 5 Service news: VSAM APARs (2014-05-14)

There are new z/VSE 5.2 VSAM PTFs available - sys-routed from z/VSE 5.1.

z/VSE 5.2 VSAM PTF UD54028 (APAR DY47535) resolves "OS03I PROGRAM CHECK INTERRUPTION WITH DSN IKQOPNPR OFFSET +X'3AE'". More details are in the [APAR DY47535](#) description.

The corresponding z/VSE 5.1 PTF is UD54012 ([APAR DY47518](#)),

The other z/VSE 5.2 VSAM PTF UD54029 (APAR DY47537) fixes the problem "MSG4228I RC X'22' VOLSER IN DLBL NOT MATCH CATALOG ". More details are in the [APAR DY47537](#) description.

I already had a blog entry on the corresponding z/VSE 5.1 PTF UD54017 ([APAR DY47526](#)).

That blog entry is [here](#).

Tags: vsam, support, service, vse

z/VSE 5.2: VSE/POWER Extended Event Messages (2014-05-13)

A few days ago I had a blog entry about a VSE/POWER enhancement in z/VSE 5.2: [Delete SLI member after reading](#).

Today I want to write about another VSE/POWER enhancement: the extended event message (XEM).

Before z/VSE 5.2 VSE/POWER provided fixed format job generation message (JGM), job completion message (JCM), and output generation message (OGM) support. With that support application programs can watch corresponding events. Only a few events were covered so far.

With **z/VSE 5.2** the new XEM support was introduced. It extends the JGM / JCM / OGM events for application programs (SAS users). One of the exploiters are the z/VSE Connectors.

VSE/POWER generates an XEM entry every time, when

- a new VSE/POWER queue entry (Q-entry) within the RDR, LST, PUN or XMT is created,
- an existing Q-entries has been altered within a VSE/POWER queue,
- an existing Q-entry has been deleted from the RDR, LST, PUN or XMT queue.

Using extended event messages, an application program can check VSE/POWER queues for new and altered entries and can obtain information about deleted q-entries.

More information is in the VSE/POWER Application Programming book. You can download it from our [documentation web page](#).

Tags: program, vse, vse-power, sas, xem, application

Live Virtual Class for z/VM users (2014-05-12)

At the end of my day I have a recommendation for a z/VM Live Virtual Class (LVC).

The LVC is scheduled for Wednesday, May 14, 2014 and will be repeated on Thursday, May 15, 2014.

The topic is: Linux on System z - Automatic CPU and memory resource management for z/VM Linux guests

More information is [here](#).

Tags: vm, vse, education, lvc

z/VSE service news: an openssl APAR and how to track CICS APARs (2014-05-09)

There is a new openssl APAR available for z/VSE 5.2. It was sysrouted from z/VSE 5.1 and resolves a few security issues. All users using SSL with the IPv6/VSE product should apply this APAR. The APAR description is [here](#).

There was a Technote (FAQ) related to CICS APARs published just recently: Tracking specific CICS APARs or CICS APARs by component id. It provides a detailed description on how to subscribe to specific CICS APARs and get notified. Let us know, if you have any problems with it. The Technote is [here](#).

Tags: support, service, openssl, vse, apar

Do you still want to order z/VSE 5.1 ? (2014-05-08)

As I mentioned earlier z/VSE 5.1 is no longer orderable since z/VSE 5.2 is available (since April 25, 2014). That is you can not order z/VSE 5.1 from Shopz. See our service page on how to order PTFs or refreshes. More information is [here](#).

If you want to order z/VSE 5.1 instead of z/VSE 5.2, you may

- open a PMR,
- contact us, e.g. via our [contact web page](#), or
- contact me - salm@de.ibm.com

Reasons for ordering z/VSE 5.1 instead of z/VSE 5.2 could be:

- If you are on z/VSE 4.2 and want to use Fast Service Upgrade (FSU). FSU is only supported from the last two releases. E.g. from z/VSE 4.2 you can FSU to z/VSE 4.3 or z/VSE 5.1. You may then FSU from z/VSE 5.1 to z/VSE 5.2.
- If your vendor products are not yet ready for z/VSE 5.2, but you want to migrate to a supported release before z/VSE 4.3 is out of service.
- You are already on z/VSE 5.1, but want to migrate to the z/VSE 5.1.2 refresh.

Please consider the single version charging requirements, if you are coming from z/VSE version 4 or before. More information on IBM software pricing is [here](#).

Tags: vse, shopz, order, fsu

z/VSE 5.2: Delete the VSE/POWER SLI member after reading (2014-05-07)

Today I will briefly describe another enhancement that we provide with z/VSE 5.2. This time it's a VSE/POWER enhancement.

With the "*" \$\$ SLI" statement (SLI = Source Library Inclusion) you may include the content of VSE/AF or VSE/ICCF library member into a VSE/POWER job stream. The content of the library member will be included at the point VSE/POWER finds the "*" \$\$ SLI" statement, when the spooled job is executed.

With **z/VSE 5.2** it is possible to request, that the VSE/AF library member is deleted after its content is included into the VSE/POWER job stream. It may be requested by the new SLI keyword "DEL= YES" (delete after inclusion) or "DEL=NO" (do not delete = default.). The DEL keyword is not allowed for nested SLI statements.

The new SLI keyword will be described in the VSE/POWER Administration and Operation book on our documentation web page. The book update for z/VSE 5.2 will be there soon. I will keep you posted. You will find it [here](#).

Tags: vse-power, vse, enhancements

z/VSE 5.2: CICS Listener enhancements (2014-05-06)

Today I will describe the z/VSE 5.2 enhancements for the CICS Listener.

The CICS Listener is a TCP/IP application running on CICS TS for VSE/ESA and was introduced with VSE/ESA 2.5. It was ported from z/OS. A TCP/IP client may connect and interact with the CICS Listener applications. It's a long running CICS transaction. An incoming request starts a CICS server transaction as specified by the client (transaction id). A TCP/IP communication path between the client and the CICS server will be established.

z/VSE 5,2 enhances the CICS Listener. The client now no longer needs to specify the transaction id. It's also possible to specify the TCP/IP stack to be used with the CICS Listener. Both - the transaction id and the TCP/IP stack - can be specified in the configuration file.

Besides those enhancements the CICS Listener supports IPv4 and IPv6 communication. The corresponding dialogs are also adapted to support the new functionality.

The enhancements will be described in our z/VSE TCP/IP Support book. The update including the CICS Listener enhancement will be available on our [documentation web page](#) soon.

Tags: vse, listener, cics_listener, tcpip, cics

Live Virtual Class tomorrow: z/VSE Version 5 update (2014-05-05)

After the long weekend I had too many emails that needed my attention. Therefore I just want to remind you about the Live Virtual Class (LVC) scheduled for tomorrow.

I will give a short overview about the key new functions in z/VSE 5.2, available since April 25.

You can choose between two sessions one in the morning, the other in the afternoon (CET).

More information about this LVC is [here](#).

Tags: vse, lvc, live-virtual-class

Next blog entry on Monday - May 5, 2014 (2014-04-30)

We have a public holiday tomorrow - 1st of May and I will take a day off on Friday.

Therefore you can expect my next blog entry on Monday.

Have a good rest of the week and enjoy the weekend.

Tags: vse

WAVV 2014 presentations online (2014-04-30)

In between we uploaded some IBM presentations of the WAVV 2014 conference to our new WAVV 2014 section on the z/VSE documentation pages (see presentations tab). The WAVV 2014 presentations are [here](#).

My presentations will be uploaded today. So you will see them tomorrow.

I know this post is a bit early. However, I want to take a long weekend. We will have a public holiday tomorrow - 1st of May.

I also want to remind you about my Live Virtual Class on Tuesday next week: [z/VSE V5 update](#).

Tags: vse, presentations, wavv, conference, lvc

Live Virtual Class today & tomorrow: Mobile Computing on System z (2014-04-29)

Sorry for the late notice: There is a new Live Virtual Class (LVC) scheduled for today and tomorrow.

Title: Mobile Computing on System z with IBM Worklight

Date: Tuesday (Wednesday) April 29 (April 30), 2014

Wilhelm Mild will discuss how System z can host a mobile environment with end-to-end secured solutions from mobile devices to back-end services.

More information and the registration link are [here](#).

Tags: mobile, vse, security, lvc

z/VSE service news: openssl APAR for z/VSE 5.2 available (2014-04-28)

The openssl APAR DY47534 (PTF UD54027), that fixes the Transport Layer Security (TLS) problem as described in CVE-2014-0160 (Heartbleed bug), is now available for z/VSE 5.2

I already posted the APAR information for z/VSE 5.1. That blog entry is [here](#).

The link to APAR DY47534 for z/VSE 5.2 is [here](#).

All IPV6/VSE customers running on z/VSE 5.1 or z/VSE 5.2, that use SSL (Secure Socket Layer) should apply this APAR.

The security section of our preventive service web page was also updated accordingly. Here the [link](#).

Tags: support, openssl, apar, service, vse

Today is the GA of z/VSE 5.2 ! (2014-04-25)

We released our **new z/VSE 5.2** today. All our web pages are set up for this new release. I hope you will like it.

It would be great, if I could get your feedback on z/VSE 5.2's functionality. Do we exceed your expectations ?

What functions are still missing - may be a function for a next releases ;-)?

It would be great, if you could order / try out z/VSE 5.2 soon.

On April 7 - the z/VSE 5.2 announcement day - I described the most important content of z/VSE 5.2.

The related blog entries are here - [z/VSE 5.2 content](#) and [Statements of Direction \(SODs\)](#).

Additional information is on our [z/VSE web page](#).

You can find the z/VSE 5.2 documentation [here](#). I recommend the [z/VSE 5..2 Release Guide](#), if you want to get more details about the functionality of our new release.

The [z/VSE 5.2 bookshelf](#) provides the latest books as PDFs.

If you want to download the z/VSE Collection Kit, it is [here](#).

Have a good weekend.

Tags: ga, documentation, vse, bookshelf, collection_kit, availability, release, ckit

z/VSE 5.2: Virtual Disks in memory objects (2014-04-24)

Today I will describe another z/VSE 5.2 enhancement: Virtual Disks in memory objects.

Last November I described z/VSE's Virtual Disk support in a [blog entry](#). Before z/VSE 5.2 Virtual Disks could be allocated in data spaces only with a size of up to 2 GB - the architectural limitation of data spaces.

With z/VSE 5.2 you can allocate a Virtual Disk in memory objects. Memory objects are chunks of virtual storage, allocated above 2 GB (in 64 bit virtual storage). With memory objects it is possible to define Virtual Disks (via the VDISK command) with a size of up to 4 GB.

The z/VSE system allocates Virtual Disks in data spaces or memory objects dependent on the availability of 64 bit virtual storage. With the SYSDEF MEMOBJ,MEMLIMIT=..., SHRLIMIT=... command you can specify the amount of 64 bit virtual storage. If you want to allocate Virtual Disks in memory objects, all Virtual Disks need to fit into the size as defined in MEMLIMIT and SHRLIMIT. You may need to increase the VSIZE (total virtual storage size) in the IPL Supervisor parameter too .

That is if there is enough 64 bit virtual storage available, the virtual Disk will be allocated in a memory object. Otherwise it will be allocated in a data space.

Tags: virtual_disk, vse, memory_objects, 64-bit

New z/VSE Live Virtual Class: z/VSE V5 Update (2014-04-23)

A new z/VSE Live Virtual Class (LVC) is scheduled for May 6, 2014.

I will talk about the new functions of z/VSE 5.2 as well as the z/VSE exploitation of the zEnterprise processors and new devices.

More details are [here](#).

Please let me know, if there are specific areas that I should address.

Tags: `lvc`, `vse`, `live-virtual-class`

z/VSE 5.1 service news: VSAM fix for PE (PTF in Error) available (2014-04-22)

There is a new VSAM PTF UD54017 (APAR DY47526) available, that fixes the PTF UD53991 (APAR DY47507). PTF UD53991 is in error (PE).

The PTF UD54017 resolves a VSAM open error failing with return code X'22'. More details are in the [APAR DY47526 description](#). The APAR will be flagged Hiper.

The failing PTF is also in the the latest z/VSE 5.1.2 Recommended Service Level (RSL) from January 31, 2014. That is please apply the new PTF UD54017 after you upgraded to that RSL.

Tags: ptf, support, vsam, service, vse, apar

Going mobile with IBM System z (2014-04-22)

My first day in the office after Easter and WAVV 2014. I hope all WAVV attendees had a safe trip back home and you liked the information you got in the sessions and from the vendors. The presentation will soon be on the IBM and WAVV web pages. I will let you know, when we have them uploaded.

Today I want to point you to a new IBM Redbook blog entry: 5 Things to Know About why System z is Ideal for Mobile Apps. This blog entry is related to mobile apps and new middleware connected to z/OS. It gives you an idea, what you can do with IBM System z.

The mobile blog entry is [here](#).

Please let me know, if you are interested in such mobile solutions with z/VSE as the backend and what possibilities you have with our connectors. Just comment on this blog entry or send me an email: salm@de.ibm.com

Tags: blog, vse, app, mobile, redbook

Next blog entry planned for Tuesday (April 22) (2014-04-16)

Tomorrow I am on the plane to Germany - returning from WAVV.

On Friday is a public holiday in Germany (Good Friday) and on Monday is another public holiday (Easter Monday).

I wish a save trip home to all WAVV attendees.

... and a nice weekend for all my blog readers. Happy Easter !

I plan my next blog entry for Tuesday (April 22).

Tags: vse

Last day of WAVV conference (2014-04-16)

Today was the last day of the WAVV conference. We had good presentation and discussions with customer and vendors about current functionality and requirements for the future.

The z/VSE focus was on CICS debugging, Soap and the CICS Explorer. We had VSAM and POWER sessions, with the latest news on those components, but also networking, Linux security and z/VM sessions. WAVV closed with the traditional requirements session.

Today only 4 z/VSE requirements were raised, one VSAM requirement (overcome 4GB limit of file for batch and online), 2 Power requirements - new parameters to preserve the date and time, and a GETVIS command requirement for more exact GETVIS usage. When I receive the requirements from WAVV. I will post some more information on those.

Overall it was again a successful conference. I got valuable feedback from customers and vendors.

Presentations will be uploaded to the WAVV or IBM web page. I will post the link, when they are available

Let's see how we continue next year. I am looking forward to see you at a conference.

Tags: vse, conference, wavv

Tuesday, third day of the WAVV conference (2014-04-15)

Before I go to bed a short blog entry. Yes, it's already the third day (we started on Sunday evening). We had again good sessions.

The day started with z/VSE release migration, and performance discussions. In parallel a customer talked about how they use z/VSE in their company. There were CICS, z/VSE performance and hardware exploitation sessions too.

Besides the z/VSE sessions attendees could participate in the z/VM 6.3 installation, migration or upgrade hands-on lab. Vendors talked about their products. Two sessions focused on mobile computing. Linux on System z performance was also addressed as well as the new IBM Wave system management product.

During lunch and the evening we were in the exhibitor hall, where customers could talk to vendors and got first hand information on their products.

Tomorrow is the last day of WAVV, again with interesting sessions. I am looking forward to the z/VSE requirements session at the end of the day. I hope you raised all your requirements. Don't miss that chance to influence the content of z/VSE releases.

Good night.

z/VSE service news: openssl APAR available (2014-04-15)

A new openssl APAR DY47532 / PTF UD54020 is available. It fixes the Transport Layer Security (TLS) problem as described in CVE-2014-0160 (Heartbleed bug).

All IPV6/VSE customers running on z/VSE 5.1, that use SSL (Secure Socket Layer) should apply this APAR.

The APAR information is [here](#).

Tags: service, support, vse, ssl, openssl, apar, ipv6_vse

Greetings from WAVV 2014 (2014-04-14)

Today I send greetings from WAVV 2014. This year we are again in Covington, KY.

Yesterday evening we had the opening session with a quick overview of the latest news on System z hardware, z/VSE, z/VM and Linux on System z. After that the WAVV committee had some give-aways from the last 20 years, followed by a dinner. In between we had a fire alarm, where we had to leave the hotel. It was a minor incident. So we could get back to our meeting room soon and continued the celebration of 50 years of mainframe and the kickoff for the 50 years of VSE with a nice cake for each event. This was an exciting evening.

Today my first session - already 8:30 a.m. - was about the Statement of Direction (SOD) for the new CICS TS and channels and containers. There were good interest in the implementation and usage. I will describe channels and containers in a future blog entry.

By the way I am looking for CICS TS beta customers. Please send me an email, if you are interested - email to salm@de.ibm.com

There are lots of good sessions today and the next 2 days. The agenda is on the [WAVV web page](#).

This morning we had an interactive session led by Pete Clark about the future of WAVV.

Number of WAVV participants are about the same this year as last year. However, we need to change something to get the participants up, get new customers to the conference and make the conference more attractive for vendors. There were several options discussed, e.g. merge WAVV with another user group, change the name to make it more obvious that this is a user group meeting (show the educational character), and much more.

What's your opinion on that ? What kind of sessions / conference would you attend - or would it make easier for you to justify to go to a conference ?

Please let me know.

Tags: wavv, vse, conference

I am travelling to the WAVV Conference tomorrow (Friday, April 11) (2014-04-10)

I am on the way to the WAVV conference tomorrow. Therefore I can not post a blog entry.

I will see what I can do for Monday during WAVV.

Have a good weekend.

Tags: vse, wavv

z/VSE 5.2: Stacking tape support (2014-04-10)

As promised here is the next new function of z/VSE 5.2: the stacking tape support - available on April 25, 2014.

The stacking tape support is based on z/VSE's virtual tape support. Below I will describe virtual tapes that reside on physical 3592 tape cartridges, called stacking tapes.

A stacking tape can be useful for the tape migration of older tapes, such as 3480 and 3490. It can help to exploit the large capacity of modern tape volumes, such as TS1140, may reduce cost and more.

We extended the VTAPE command to support stacking tapes (STACKTAPE). You may use the following sequence to write to a stacking tape:

- VTAPE INIT - initializes a stacking tape and writes a directory to the tape.
- VTAPE START with WRITE access opens a new (virtual) tape file.
- VTAPE STOP closes the tape file.

The cuu provided in the STACKTAPE operand of the VTAPE command must

- be a 3592 tape,
- be in ready state,
- contain an IBM standard labeled tape cartridge,
- not be write-protected,
- not have an owner,

The stacking tape contains a directory for the virtual tape files on it.

The VTAPE LIST function lists the contents of a stacking tape (virtual tapes on stacking tape).

VTAPE START with READ access reads the directory and positions to the requested file.

Stacking tapes have the following restrictions

- no alternate tape support,
- tape file can not be accessed via MTC command,
- concurrent tape file access is not supported,
- existing tape files can not be deleted, modified or replaced. However, new tape files can be appended.

Tags: virtual_tape, stacking_tape, vse, tape

z/VSE 5.2: Tape-less installation (2014-04-09)

With this and the next blog entries I will provide some more details about the key functions of z/VSE 5.2.

Today some details about the "Tape-less installation" (install from DVD).

Starting with z/VSE 5.2, installation of z/VSE from a bootable installation disk is supported, for both LPAR and z/VM guest environments. Initial installation from a physical tape is still supported.

z/VSE provides utilities to create a bootable installation disk. The layout of the installation disk is identical no matter in which environment it was created.

The installation disk

- contains the z/VSE base tape in AWS format, a boot program, and the VTOC.
- that was created in an LPAR environment can also be used in a z/VM guest environment or vice versa.
- can be used as often as needed.
- can be used for initial installation only.
- can be created on ECKD devices only.

The files that are needed to create the installation disk are available on DVD, or from the internet (orderable from Shopz).

Hardware Requirements:

- Installation disk - 3390 disk device with at least 500 cylinders.
Note: Disk device 3380 is not supported. The type of the installation disk can be different from the DOSRES device type.
- z/VM disk space - approximately 400 cylinders additional CMS disk space for the z/VSE base tape and the z/VM utilities to create the installation disk.
- Processor storage - the minimum processor storage to IPL a z/VSE 5.2 system is 64 MB.
- Minimum processor storage to create an installation disk in an LPAR is 512 MB.
Once the installation disk is created the processor storage can be changed.

Mor details are in the z/VSE 5.2 Installation book. z/VSE 5.2 books can be download from our [z/VSE documentation web page](#) after z/VSE 5.2 GA on April 25, 2014.

Tags: vse, installation, tape-less

Migration to a supported z/VSE Version 5 release (2014-04-08)

My recommendation is to run your z/VSE system in a supported environment to benefit from the latest software service and hardware exploitation.

If your systems are still on z/VSE Version 4 or earlier, you may be interested in this short blog entry.

z/VSE 4.3's service will end on October 31, 2014. Then all z/VSE Version 4 releases are out of service.

That is if you want to stay in a supported environment, you have 6 month to migrate to z/VSE 5.1 or z/VSE 5.2. If you don't want to migrate to z/VSE 5.2 at this time, you have only a few days to order z/VSE 5.1, because z/VSE 5.1 will have end of marketing, when z/VSE 5.2 GAs.

End of marketing of z/VSE 5.1 is April 25, 2014. After that date it can no longer be ordered.

Please also consider single version charging requirements.

The z/VSE service dates are [here](#).

Tags: vse, service, migration, end-of-service, end-of-marketing

z/VSE 5.2 announced today - Statement of Directions (SODs) (2014-04-07)

I just posted a blog entry with the [z/VSE 5.2 content](#).

Now I want to share important Statement of Directions (SODs) included into the [z/VSE 5.2 announcement](#).

Here are the **SODs**:

IBM intends to provide new capability in a future release of IBM CICS Transaction Server for z/VSE, to provide:

- **(i) Updates to CICS resources for CICS Explorer, and**
- **(ii) Channels and Containers to enable the transfer of large amounts of data between CICS applications.**

The CICS SOD describes the content of a future release of **CICS TS for z/VSE**. The last major CICS TS for VSE/ESA enhancements were made available September 2000, followed by the CICS Explorer with monitoring functionality, released in June 2012.

This SOD is a significant enhancement for the z/VSE system. Both the CICS Explorer update capability and Channels and Containers are highly rated customer requirements. The Channels and Containers lift the 32K COMMAREA limitation. A Container is a named block of data for passing information between programs - allocated in 31 bit virtual storage (EDSA). A Channel is a sort of programming interface and may hold one to multiple Containers. New CICS EXEC APIs are provided.

The Channel and Container APIs will be ported from CICS TS for z/OS 3.1. That is if you want to get more information now, you may consult the CICS TS for z/OS 3.1 Administration Guide. The book is [here](#).

Please let me know, if you want to be a beta customer for those CICS enhancements (email to: salm@de.ibm.com).

Stabilization of support and discontinued functions:

Support for CICS Distributed Data Management (DDM) is stabilized in CICS TS for VSE/ESA V1.1.1. In a future release of CICS TS for z/VSE, IBM intends to discontinue support for CICS DDM.

IBM intends to rename the product z/VSE Central Functions to z/VSE in a new z/VSE version.

This change will make it easier to differentiate between future z/VSE releases of the same z/VSE Version in the ordering process, e.g. Shopz.

z/VSE V5.2 will be the last release that supports IBM System z9. Future releases of z/VSE will support IBM System z10 and higher.

This change is necessary to benefit from new functions of z10 and zEnterprise processors. It also aligns processor support of future z/VSE releases with that of the z/VM Version 6 releases.

Please consider the disclaimer for Statement of Directions (SOD): All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice. See the z/VSE 5.2 SOD section for details.

Tags: release, cics, vse, sod

z/VSE 5.2 announced today ! (2014-04-07)

Today we celebrate 50 years mainframe - and a **new z/VSE release** !

z/VSE 5.2 is announced today. This new release will be available April 25, 2014.

You may use Fast Service Upgrade (FSU) from z/VSE 4.3 and z/VSE 5.1 to z/VSE 5.2.

In this blog entry I am describing a high level overview of the the functional content of z/VSE 5.2.

More details will follow the next days on my blog.

z/VSE 5.2 content:

Hardware exploitation:

- Processor support:
 - z/VSE 5.2 supports z9 processors or higher
 - zEC12 and zBC12 support with the latest crypto and network cards
 - Configurable crypto Express4S feature
 - OSA-Express5S features
 - HMC based configuration of OSA-Express4 and OSA Express5S (OSA/SF)

If you are running on backlevel releases and use those cards, you no longer need OSA/SF PTFs on your VSE system, instead you can use the HMC to configure the cards.

IBM System Storage support:

- Tape support
 - System managed encryption with IBM Storage TS1140
 - IBM System Storage TS7700 Virtualization Engine Release 3.1
- ECKD / FCP-attached SCSI disk support
 - IBM System Storage DS8870 Release 7.2
 - Upgrade of the z/VSE support for the Parallel Access Volume (PAV) feature (ECKD)
- FCP-attached SCSI disk support
 - IBM Storwize V7000
 - IBM Storwize V5000 midrange disk
 - IBM Storwize V3700 entry disk

64 bit virtual exploitation:

- 64 bit virtual I/O (I/O buffers in memory objects)
- Virtual disk in shared memory objects (above 2 GB) allows Virtual Disk sizes of up to 4 GB
- Dump enhancements for memory objects

Remark: Memory objects are chunks of virtual storage allocated above 2 GB.

Ease of use:

- Tape-less initial installation in a z/VM guest or LPAR
 - preparation of an installation disk from a z/VSE base tape in AWS format (downloaded or on a DVD)
 - initial installation from the installation disk
- Stacking tape support - multiple virtual tapes on one physical tape

Networking:

- IPv6 support for z/VSE functions
 - connector client / server, script server / client, VSAM Redirector, HTTP / SOAP / LDAP client, monitoring agent / trap client
 - Virtual Tape
 - CICS Listener
- IBM TCP/IP for VSE/ESA in separate AF sublibrary

Security:

- openssl updated to 1.0.1e level with Transport Layer Security (TLS) 1.2
- IBM IPv6/VSE enhancements
 - updated to support openssl 1.0.1e, TLS 1.2 support
- Basic Security Manager (BSM) / IUI enhancement
 - Separation of auditor and administrator function - new AUDITOR id - unique group and userid names ensured
 - Extension of IUI security dialog for MQ classes
- Key store conversion to manage multiple key stores (TCP/IP for VSE/ESA / openssl)
- LE/C multiplexer to separate SSL function from TCP/P API
- LDAP batch tools to support search, add, modify, delete
- VSE/VSAM security: IDCAMS protected via RACROUTE

Further enhancements in z/VSE components:

- VSE/VSAM
 - Chaining VSAM requests (RPL chaining): whole RPL chain released when error detected
 - Removal of duplicate VOLSERS on DEFINE CLUSTER
 - SHOWCB macro enhancements
 - New catalog management trace
 - CISIZE definition on DLBL statement for VSAM files
- VSE/POWER
 - Extended Generation Messages (XEM) - generated for created, altered or deleted Q-entries
 - Delete SLI member after reading
- Connectors
 - SOAP enhancements
 - VSE/POWER XEM messages may be retrieved by Java applications
- Language Environment
 - Easy activation of run-unit work area (RUWA) tracing via CRUT transaction to debug and monitor CICS program storage requirements
- IUI dialogs
 - Display VTOC dialog - sorted by volume id
 - Updated device information dialog
- Installation
 - Base installation without VTAM terminals (with TCP/IP terminals instead)
 - Duplicate volumes are detected during installation and set to device down
- FCOPY performance improvements

You can get more details about the z/VSE 5.2 functionality in the next days on my blog, or you may want to read the [announcement letter](#) or go to the [z/VSE home page](#).

There were also important **Statement of Directions (SODs)** included into today's announcement. I will provide more information on those in another blog entry today.

Don't miss tomorrow's [live event](#).

Tags: announcement, vse

Service news: CICS TS for VSE APARs (2014-04-04)

There are updates on the CICS TS for VSE/ESA service web page.

The service web page is [here](#). You may want to bookmark that page.

I am preparing a blog entry for Monday. You should not miss that one.

Have a good weekend.

Tags: `service, cics, vse, apar`

New z/VSE customer reference (2014-04-03)

There is a new customer reference related to z/VSE. It describes, why customer AFCU (America First Credit Union) migrated to the latest mainframe technology - zEC12 - and how their workload exploits the zEC12 server. It's a good example for our [PIE \(Protect, Integrate, Extend\)](#) strategy.

The story is [here](#).

Tags: pie, customer, vse, reference

Do you have any z/VSE requirements for WAVV ? (2014-04-02)

Requirements for future enhancements are important for the z/VSE. You can influence the content of z/VSE releases with your input (requirement). If we define the line items for a new z/VSE release, we first look into our requirements database - independent on the requirement status. Even rejected requirements may be considered.

As you know it's just 11 days to the [WAVV 2014 conference](#). We have a requirements session at WAVV, where participants can vote on new requirements. With those votes, your requirement may get a higher weight.

WAVV is now accepting your requirements. For details see the [related posting](#) on the VSE-L mailing list.

Tags: requirements, wavv, vse

Mainframe 50 live stream on April 8, 2014 (2014-04-01)

There will be a mainframe 50 event next Tuesday - April 8, at 2 p.m. ET. I recommend to watch this live stream. You will find more information [here](#).

By the way on April 7 is the 50th anniversary of the first mainframe announcement. The IBM System/360 was announced on April 7, 1964. The announcement press release is [here](#) and some more technical details are [here](#).

... and there is one more anniversary this year: the 49th anniversary of VSE.

Tags: `live_stream`, `mainframe`, `vse`

How to prevent a job from execution in case of problems (2014-03-31)

In rare cases it could happen, that a VSE/POWER job fails and does not terminate or a system failure occurs and jobs are in execution. That is you may need to re-ipl the z/VSE system. To prevent e.g. such a job from execution after IPL you may add a SET NORUN=YES card to your VSE/POWER startup. It applies to locally submitted jobs.

The SET NORUN=YES causes a disposition of "X" to be assigned to any reader queue entry, that was active when the system failed (except reader queue entries that specify the * \$\$ JOB NORUN=IGN operand). You may get a list of affected entries with the command PDISPLAY RDR,CDISP=X.

You can then change the disposition of affected queue entries and so prevent the failing job to rerun.

If you did not add SET NORUN=YES to your VSE/POWER startup, you may "emulate" the NORUN=YES by issuing the Attention Routine PAUSE F1 command (F1 = the VSE/POWER partition) after IPL but before the F1 startup. When prompted in partition F1, issue the JCL statement "// UPSI 1" and continue. You can now change the dispositions of the queue entries.

With the PALTER RDR,CDISP=X,DISP=* command you can change the temporary disposition X of queue entries back to their original dispositions.

Special consideration apply to shared spool environments.

More information is in the VSE/POWER Administration and Operation book. You can find it on our [documentation web page](#).

Tags: vse-power, problem, vse, ipl, startup

Next blog entry on Monday (March 31) (2014-03-25)

I will be on vacation the next few days to help my son moving his household.

I will be back on Monday.

Have a good rest of the week.

Tags: vse

WAVV - z/VSE requirements (2014-03-25)

In the requirements session of last year's WAVV conference some new requirements were raised. See also my related [blog entry](#) in April 2013.

In between we looked into the requirements and have some feedback:

- WAVV201301 - VSE/POWER control of TCP/IP printers
 - Answer: rejected - We do not have plans to implement that requirement. Please look into available vendor solutions for IP printing.
- WAVV201302 - Allow AR DUMP command to direct dump output to disk
 - Answer: available - You may use the AR DUMP command to dump virtual storage. As cuu you may specify the device address of a local virtual tape. That is the dump on virtual tape is on disk and you may use it for further processing. This fulfils the requirement.
- WAVV201303 - Full Integrated Cryptographic Services Facility (ICSF) support (same as in z/OS)
 - Answer: rejected - It is a very good requirement. However, the effort is too high to implement it in z/VSE.
- WAVV201304 - Allow z/VSE to run without a real tape attached
 - Answer: suggestion - We are looking into it. The requirement may be resolved in a future releases. Please check our web page for any news on releases or resolved requirements. I will also provide any news in this blog.
- WAVV201305 - Provide a better way to retrieve current APARs/PTFs
 - Answer: ongoing - We constantly improve our service web pages. E.g. we just added a section for security related APARs just a few weeks ago. The information is [here](#).
- WAVV201306 - TCP/IP printer support or alternative for CICS application printing
 - Answer: rejected - We do not have plans to implement it. You may look into vendor solutions to achieve TCP/IP printing from CICS.

I had some questions on requirement WAVV201305 - see my [blog entry](#), but did not get much input.

Requirements are important to us - see my related [blog entry](#).

Currently we are working on getting the requirements into the Request for Enhancements (RFE) database, same repository as for the CICS TS requirements.

You may want to discuss those requirements or new requirements during the upcoming [WAVV 2014 conference](#) in Covington, KY (April 13 to April 16, 2014).

Tags: requirements, conference, wavv, vse

z/VM 6.3 enhancements (2014-03-24)

Today some news for our customers that run z/VM.

Just a month ago the z/VM team announced new functions for z/VM 6.3 planned for June 2014, such as

- CPU pooling
- Environment information interface
- Guest exploitation of 10GbE RoCE Express feature on zEC12 / zBC12 servers
- Guest exploitation of zEDC Express feature on zEC12 / zBC12.servers

z/VSE does not support the above zEC12 / zBC12 features.

More information is on the [z/VM 6.3 web page](#) or in the [announcement letter](#).

Tags: enhancements, zvm, announcement, vse

z/VSE service news: openssl / VSAM Redirector (2014-03-21)

We just released an update to openssl (APAR DY47516). The PTF resolves a few issues.

If you are using openssl, e.g. for IPV6/VSE, I recommend to apply this APAR.

The link to the APAR is [here](#).

Another APAR was just added to the [z/VSE Connector service page](#):

It's related to the VSAM Redirector, see APAR [PI13749](#).

Have a good weekend.

Tags: `apar, openssl, connector, security, service, vse`

No blog entry today (Thursday) (2014-03-20)

I want enjoy the nice weather today. We have blue skys and 21 C.

Therefore I don't have a blog entry for you.

IBM Redbook Blog (2014-03-19)

Since some time there is an active IBM Redbook blog. It's called "5 Things to Know (Brought to you by IBM Redbooks)".

The bog entries describe technical details of a specific topic - usually related to an IBM Redbook.

The last blog entry described 5 things to know about HiperSockets on System z.

The blog is [here](#).

Tags: redbook, blog, vse

Next z/VSE conference is coming soon (2014-03-18)

In about three weeks the next z/VSE conference is scheduled. It's the GSE conference in Frankfurt, Germany. The conference language is German.

It covers z/VSE, z/VM and Linux on System z topics. The conference starts on Monday April 7 and ends on Wednesday April 9.

The registration page is [here](#).

Just a few days later we have the WAVV conference in Covington, KY, USA. WAVV starts on Sunday April 13.

The WAVV web page is [here](#).

Tags: gse, conference, vse, wavv

z/VSE option to access virtual storage (2014-03-17)

Today I want to talk about the z/VSE options you have to access virtual storage.

From a one address space system with up to 16 MB (megabyte) virtual storage, VSE grew to an environment with multiple address spaces of up to 16 MB each. In 1990 each partition had its own address space. In 1993 we extended the address spaces to 2 GB (31 bit addressing). At the same time we introduced data spaces, which provide additional spaces of up to 2 GB. Since 2011 - with z/VSE 5.1 - programs may access virtual storage larger than 2 GB (gigabyte).

Old programs and at least the program called with the JCL EXEC card still depend on 24 bit virtual storage (below the 16 MB line). Programs may be loaded in or switch into 31 bit mode (AMODE 31) to access storage of up to 2 GB. You may use system services (GETMAIN, GETVIS, STORAGE) to allocate additional virtual storage in address spaces or system services (DSPSERV / ALESERV) to allocate additional data spaces and use access registers to identify a data space. E.g. CICS data tables may be allocated in data spaces. With data spaces you may separate programs from data or they provide better sharing between partitions.

Within an address space you may allocate chunks of 64 bit virtual storage (private memory objects - via IARV64 services) for data above 2 GB (above the bar). You may also allocate shared memory objects above the bar for sharing data between partitions. If the memory object is allocated, you just need to switch into 64 bit addressing mode (AMODE 64) to access the data.

That is z/VSE has lots of options to exploit virtual storage and keep data in memory, which avoids or reduces I/O and therefore may give a better CPU exploitation and improved elapse times.

More information on virtual storage is in the z/VSE Extend Addressability book. You can download it from our [documentation page](#).

Tags: vse, storage, virtual, dataspace, address_space

New management product for z/VM (2014-03-14)

Today I have news for our customers that run z/VSE in z/VM guests together with Linux on System z servers. Just a few weeks ago there was an announcement about a new product for virtualization management - IBM Wave for z/VM. It provides management, administration, provisioning, and enables automation of Linux virtual servers in a z/VM environment. The product comes with a nice graphical user interface (GUI).

I just got a demo and liked it. The GUI shows e.g. the (network) topology of the z/VM system with its guests. It's a product to manage Linux guests, but it also displays z/VSE guests with its status. You may select a z/VSE guest and can display its z/VM directory. You may even access and display the 3270 console and enter z/VSE commands.

More details are on the [web page](#).

Please let me know, if I should continue to inform you about such more z/VM related topics.

Have a good weekend

Tags: product, linux, wave, management, vse, zvm

How to find a topic in my blog (2014-03-13)

Many of my blog entries are hints & tips, technical information to a z/VSE function or news about z/VSE. Those blog entries may be useful even after a year.

Therefore I tried to give each blog entry tags to make it easier to find the entry of a specific topic again.

All z/VSE blog entries are tagged with "vse" and categories are the function name itself. You see tags below each blog entry. If you click on a tag, all blog entries, that are marked with this tag, are selected. You may select a tag from the tag cloud on the right side of the web page or you may enter the tag name in "Find a Tag" field. You may refine your results by using additional tags, e.g. the the tags service -> tcpip - you will get two entries:

"z/VSE service news" and "Do you use CICS Web Support with z/VSE ?"

Tags: vse, tag

No blog entry today (2014-03-12)

The blog server was under maintenance. Therefore there will be no blog entry today.

By the way this is my 252nd blog entry since I started about a year ago.

Tags: vse

Are you using Java tools from the z/VSE download page ? (2014-03-11)

Today I downloaded the "Installed Software Report Tool" from the "Tools" section of the z/VSE Downloads web page. You can find it [here](#). I installed it on Windows to get a report of the software installed on my z/VSE system. However, it did not work.

My colleague pointed me to a section, where we describe additional installation instructions for Windows. I migrated my notebook from Windows XP to Windows 7 mid of last years. For Windows 7 the Java installation process does no longer copy the Java executable (java.exe) into the Windows system folder. Instead you have to add the java.exe location to the PATH variable in the system settings.

After that change the "Installed Software Report Tool" just run fine and I got the expected report.

You can find that installation notice [here](#) (it's on the Connectors section).

We will add a notice to the "Tools" section too.

Tags: tools, vse, download, java

Live Virtual Class (LVC) charts available (2014-03-10)

The charts and replay of the last Live Virtual Class are available on our education web page.

You may download them [here](#).

The last LVC session was about CSI's TCP/IP Stack - TCP/IP for VSE/ESA update.

Tags: vse, replay, lvc, charts

z/VSE service news (2014-03-07)

New **Recommended Service Levels (RSLs)** are available for z/VSE 4.3.1 and z/VSE 5.1.2. The RSL cutoff was January 31, 2014.

RSLs are preventive service offerings. They fill the gap between z/VSE refreshes and HIPER (High Impact or Pervasive APAR) service provided via PSP (Preventive Service Planning) buckets. An RSL consists of a list of all APARs/PTF numbers, that are available at RSL cutoff dates. More information is [here](#).

[News on our corrective service web page:](#)

There are also new APARs for VSE/POWER (z/VSE 5.1), the VSAM Redirector and IBM TCP/IP for VSE/ESA 1.5F.

- The VSE/POWER APAR fixes a POFFLOAD problem. More details are [here](#).
- More information on the VSAM Redirector APAR is [here](#).
- The TCP/IP service update includes more than 20 zaps (fixes). The APAR information is [here](#).

A few weeks ago I also posted a blog entry about our latest Parallel Access Volume (PAV) update. The information is [here](#).

... and the CICS TS for VSE/ESA fix list was updated. You can find it [here](#). See also my related [blog entry](#) this week.

Have a good weekend.

Tags: tcpip, rsl, service, vse., support

Are you looking for z/VSE I/O counts ? (2014-03-06)

If you are interested in the I/O counts and timing of your z/VSE workload, you can use one of the performance monitors provided by vendors. If you just want to see a snapshot of the counters, you may be interested in the output of the Attention Routine command "SIR SMF".

SIR SMF retrieves I/O information from the channel subsystem or the z/VSE Supervisor itself. You may use the output, e.g. to analyze performance issues. SIR SMF provides the total I/O count, average z/VSE queuing time, the average time to complete an I/O, etc. for all devices - or a specified device.

More information is the z/VSE Hints & Tips book. It's on [our documentation page](#).

Tags: vse, performance, sir, io

Do you have your data on SCSI disks ? (2014-03-05)

z/VSE can access a SCSI disk through a port (CHPID) of an IBM System z Fibre Channel Protocol (FCP) adapter. One z/VSE system may connect to one physical port or multiple systems may share one physical port with N-Port ID Virtualization (NPIV).

Today a few words about **NPIV**. Thanks to my colleague Monika for details.

With NPIV the FCP adapters (CHPIDs) can be shared by multiple operating systems.

The Service Element (SE) creates new worldwide port names (WWPNs - identifies the port in a storage network) for the FCP adapter. A unique WWPN is assigned to each subchannel of the adapter, that is each operating system sharing the adapter has its own WWPN.

NPIV is available on IBM System z9, z10 and zEnterprise processors.

Advantages of NPIV:

- 1) Access rights: NPIV allows to define more granular access rights for LUNs (SCSI disks).
- 2) DASD sharing: With NPIV you can share the same SCSI disk (LUN) between z/VSE systems.
- 3) Isolation: Operating systems using the same physical FCP adapter cannot interfere with each other.
- 4) Cost: Sharing of a FCP adapter among operating systems can save cost (for additional adapters).

Therefore we recommend to use NPIV.

For more details about z/VSE's SCSI support please read the SCSI white paper on [our documentation page](#).

Tags: npiv, device, vse, fcp, chpid, scsi

No blog entry tomorrow (March 4) (2014-03-03)

Tomorrow will be carnival in our area. Therefore I don't plan to be in the office.

Enjoy Tuesday.

Potential problem in CICS APAR (2014-03-03)

There is a potential problem in CICS TS for VSE/ESA APAR [PM81883](#), that could result in the CICS task going into a "for-ever" wait. That is you have to cancel CICS to get rid of that task, if you run into the problem. My CICS colleague is working on a fix, it will be available with APAR PI12578 soon.

The problem will only happen, if there is a non-zero full word at storage location 0. You can display storage locations with the Attention Routine command DSPLY. E.g. use **DSPLY 0** to display the content of location 0. Remark: Storage location 0 (up to X'2000') is not unique, if you have more than one CPU active. DSPLY shows the storage content of one of those CPUs.

The CICS service team has a temporary fix available, if you run into that problem,

The latest news will be available on the "Fix list for CICS Transaction Server for VSE/ESA V1.1.1" to be updated once a month. I assume that will happen next week. The fix list is [here](#).

This problem was published on VSE-L last week too.

Tags: apar, service, vse, cics, support

Do you know, what the z/VSE MIH does ? (2014-02-28)

The MIH (Missing Interrupt Handler) is a z/VSE Supervisor routine, that gets control regularly. It verifies, if a device did not complete an I/O after a defined time interval. The I/O Supervisor will then try to determine, why the device did not answer. An appropriate message may be written to the z/VSE console. If the device is in error, a record will be written to the recorder file too.

You may set the time interval with the Attention Routine SIR MIH command and enable or disable the MIH process in z/VSE. The time interval may be set for a single device or in general for all devices. SIR MIH without any parameter displays the general MIH settings. By default the MIH is enabled and the time interval 3 minutes. That is z/VSE waits for at least 3 minutes, if an I/O does not complete, until it writes an (action) message (OE02t DEVICE cuu LOST CHAN+DEV END) to the z/VSE console.

The time interval depends on the interrupt timing of your devices, e.g. tape devices need longer intervals than a disk / DASD device. In most cases there is no need to change the defaults. If you see message OE02t and it's not a device error, you may need to adapt the MIH time interval. If you don't want to wait three minutes (default) in case of an I/O problem and you know that your devices can handle interrupts much faster, you may reduce the time interval.

More details are in the Hints and Tips for z/VSE 5.1 book on our [z/VSE documentation page](#).

Have a good weekend.

Tags: mih, missing, interrupt, vse, io

Reminder for next z/VSE LVC: TCP/IP for VSE (2014-02-27)

Today I have another reminder.

What are your plans for next Tuesday ?

May be you can reserve an hour for the z/VSE Live Virtual Class (LVC).

It's about TCP/IP for VSE/ESA. Don Stoever from CSI International talks about the latest news on CSI's TCP/IP stack. He will cover new functionality, hints & tips, debugging aids and the latest service news. Finally he will give an outlook.

The LVC is planned for March 4 (Tuesday). This time it's just one session for all geographies. More details are [here](#).

More z/VSE networking details and option are described in the new IBM Redbook: **Enhanced Networking on IBM z/VSE**.

The Redbook is [here](#) together with a video on the Redbook content.

Tags: redbook, tcpip, lvc, vse, network

WAVV 2014 is not far away (2014-02-26)

Today I have a reminder for WAVV - World Alliance of VSE VM Linux. I just sent my registration form.

The WAVV conference is scheduled for April 13 - 16, 2014 in Covington, KY.

The WAVV web page with the session grid / abstracts, conference registration form and hotel information is [here](#).

Do you consider to migrate your z/VSE systems to zBC12 ? (2014-02-25)

Just last week I had a discussion with a z/VSE customer about the new IBM zEnterprise BC12 (zBC12) mainframe and the z/VSE hardware support. This blog entry gives some links to related information.

The customer is running z/VM 5.4 with z/VSE 5.1 guests on an IBM System z9 server. He may consider to migrate to the zBC12 with the most current software level (for z/VM 5.4 and z/VSE 5.1) and may be later to z/VM Version 6. z/VM Version 6 only supports z10 or zEnterprise processors. The latest z/VM release is z/VM 6.3 available since July 2013.

The link to the z/VSE server support page is [here](#).

The link to the zBC12 web page is [here](#).

The link to any z/VM information is [here](#) and the link to the z/VM 6.3 announcement letter [here](#).

If you read the Statement of direction (SOD) section of the z/VM 6.3 announcement letter, there is a SOD that may be of interest for z/VM 5.4 users too:

Stabilization of z/VM V5.4 support - The IBM zEnterprise EC12 and IBM zEnterprise BC12 are planned to be the last System z servers supported by z/VM V5.4 and the last System z servers that will support z/VM V5.4 running as a guest (second level). z/VM V5.4 will continue to be supported until December 31, 2014, or until the IBM System z9 EC and IBM System z9 BC are withdrawn from support, whichever is later. Refer to Withdrawal Announcement [912-144](#), dated August 07, 2012 .

Please see the disclaimer about IBM's SODs in the announcement letter.

... and finally there is a new [Mainframe Weekly](#) published.

Tags: zvm, vse, support, migration, zbc12, hardware

Next blog entry on Tuesday (Feb. 25) (2014-02-21)

I won't be available on Monday. Therefore you can expect my next blog entry on Tuesday.

Have a good weekend.

Tags: vse

Suggestions from the "CICS TS for VSE" Service Team (2014-02-21)

Today my colleague, Mike Poil, from the CICS service team want to give some suggestions to avoid CICS problems after a **z/VSE upgrade**.

Thanks, Mike.

The following suggestions are based on CICS PMRs that we have received, and from experience before joining IBM when I worked in a team that provided technical support for customers.

1. CICS Service Level

CICS is normally stable, but you can never say that it is completely bug-free. As previously mentioned in this blog, all CICS APARs are listed [here](#). If a PTF is flagged as PE (PE = PTF in error - non-blank in the "Fixing APAR if PE" column), there is a BIG risk if it is applied but the fixing PTF is not applied. We don't have many PEs, but when they do occur, they normally have very high impact if you use that bit of CICS function.

I completely understand the "if it isn't broken don't fix it" argument, so this is not a recommendation to mass-apply CICS PTFs, but a z/VSE upgrade may result in a higher CICS service level. However, more than one customer has been caught out, because they were on an old z/VSE release and did not consider that a preventive service application policy may have merit when new function is being exploited.

2. Non-CICS Service Level

CICS is not immune from bugs in z/VSE and Vendor products. A z/VSE upgrade will make changes in both of these areas, hence both installed, available-but-not-installed and yet-to-be-released service needs to be considered. I don't normally deal directly with Vendors, but I subscribe to email updates for new z/VSE itself, VSAM and Language Environment APARs as some may apply to CICS and it is useful for me to be aware of them in case the problem is reported in a CICS PMR.

3. Code Contamination/Back-levelling

This is one of the hardest problems to diagnose as the symptoms are often very obscure and dramatic, and may hit one VSE system but not another.

It can happen when there are old CICS phases outside of PRD1.BASE that are pulled in and used to work before the upgrade but don't work now. Look for

duplicated DFH phases and/or use an SDAID PGMLoad trace when testing to check where each phase comes from.

In one case, a customer force applied very old PTFs and the damage was so extensive that they had to reinstall z/VSE. Always check the age and relevance of PTFs even if it is somebody in CICS Service that is giving you a suggestion or recommendation. For example, we are sometimes asked about problems such as "GETVIS leaks" and any suggested UQnnnnn PTFs for CICS bugs have been long since been integrated in the z/VSE base.

4. Testing an Upgrade

A couple of simple suggestions.

- Always use CEMT P SHUT to ensure that CICS closes normally.
- Consider comparing storage usage to what it was in that test when you did the last upgrade.
- Wherever possible, use system tests that are as close to a production workload as you can make them in terms of load and duration.

5. Matching Environments

Do Test and Production environments match in terms of data and file physical structures (e.g. level of VSAM disorganisation, VSAM catalog and data space fragmentation), IBM, Vendor and application code levels, z/VSE and product configuration and possibly even hardware (e.g. the same number of CPs)? If not, there is a risk. One high priority PMR for an unstable CICS production environment was the result of a different service level for one key product in test, which was not producing the problem seen in production..

Make sure that all CICS configuration done for the old CICS systems is repeated for the new one if you did not use FSU (Fast Service Upgrade). Try to keep a list of all configuration tasks, no matter how small, to avoid them being forgotten by you or by somebody else that does not know the system as well as you do.

6. Latent Application Errors

Although it is not that common, I have known application problems to be hidden until an upgrade, when something changed in the new environment to make them manifest.

Weekend is coming. Have a good one.

Tags: suggestion, service, support, cics, vse

IBM Mainframe Weekly available (2014-02-20)

Just today I got the notification that a new IBM Mainframe Weekly newsletter is available. The newsletter is [here](#). It's getting more and more content.

You may be interested in the topic on the left hand side of that web page: IBM System z - Discover the IBM Enterprise Linux Server.

Tags: linux, mainframe, vse, newsletter

History of VSE dispatching (2014-02-19)

Today I want to talk about the history of VSE dispatching. End of the 70's, when VSE got to a 12 partition system, a new dispatching algorithm was introduced. It was based on 4 byte bit strings and a translation table.

There was a 4 byte string for VSE partitions (in z/OS terms regions) - the Partition Selection String (PSS) and for each partition a 4 byte Task Selection String (TSS). With a 4 byte string (full word) you have 32 bits that can be used as dispatching indicator, one PSS bit for each partition and one TSS bit for each VSE task of a partition. Therefore you can have up to 32 VSE tasks within a partition - one maintask and up to 31 subtasks. If the corresponding bit is on, the partition/task is ready-to-run.

With the TRT (Translate and Test) instruction, the PSS and the translation table you got the offset into a partition address table (in priority order) of the highest priority partition ready-to-run, with the TSS, the highest priority VSE task ready-to-run. This kind of dispatching was very effective for 12 partitions, with up to 223 user tasks (plus 32 system tasks = 255 tasks).

In the mid 80's I started with a more partition prototype, just by extending the PSS bit strings and the partition control block structures in the Supervisor. Because of the storage constraints and control block structures I got up to one hundred partitions to run. I still have the Supervisor listing in my locker - a pack of paper, about 50 centimeters high. I looked into something more dynamic and expandable, without impacting existing applications.

To keep the dispatching structure I had to use the 4 byte PSS, that is I could extend the number of partitions to 32 - one system partition holding all the system tasks and up to 31 partitions for applications.

That wasn't enough. Therefore I had to introduce an additional level of dispatching, the (dynamic) class - the Class Partition Selection String (CPSS), again a 4 byte string. I had to keep the old 12 partitions - the so called **static partitions**, because of compatibility reasons and added dynamic classes. Each class can hold up to 32 partitions. That is the dispatcher selected first the highest priority static partition or dynamic class, for dynamic classes the highest priority **dynamic partition** and finally the highest priority task of the static/dynamic partition.

With dynamic partitions you can define up to 212 partitions (200 dynamic + 12 static). Dynamic partitions were introduced in 1990 with VSE/ESA Version 1.

The work for multiprocessing started and it showed that bit strings were no longer practical. Therefore I introduced queues with ready-to-run elements (control blocks) - with pointers to the next ready-to-run elements - for both partitions and tasks. In multiprocessor environments each CPU run through the dispatcher and compete for ready to run elements (partitions). The three level dispatching was no longer required for dynamic partitions. If a ready-to-run partition was selected, the dispatcher looked for the highest priority task in the task queue of that partition. At conferences in the mid 90's I always showed a demo about our multiprocessor support. Attendees were impressed about the speed, when I added a second CPU. Therefore we called the new dispatcher **Turbo Dispatcher**. It was introduced with VSE/ESA 2.1 in 1994. Because of a few incompatibilities and a minor performance impact, we kept the old dispatcher (with the bit strings).

With the port of CICS Transaction Server and infrastructure changes we had to discontinue the support of the old dispatcher in 1999 with VSE/ESA 2.4. Since then the Turbo Dispatcher is the only dispatcher in the VSE system.

The latest dispatcher changes came with z/VSE 4.2 in 2008. Now **up to 512 VSE tasks** can be used. We also introduced **CPU balancing**, where the dispatcher only activates additional CPUs, that are required to run the workload.

Tags: vse, dispatcher, history

How to order z/VSE ? (2014-02-18)

I assume this topic is not new to you. I just want to point out, where you can get information about IBM Shopz, how to order the z/VSE base system and products, PTFs or service refreshes.

With Shopz you can order z/VSE base tapes, optional products, preventive service (Hiper PTFs), corrective service (PTFs, APARs).

If you order z/VSE base tapes or optional products, you may get a CD-ROM/DVD or download a file containing a tape image in AWSTAPE format. If you order z/VSE service, you get a binary job stream with the PTF.

More information is on our [service and support web page](#).

Tags: vse, shopz, ptf, service, order

How to send dumps/traces to z/VSE Level 2 ? (2014-02-17)

I hope, that your system runs always without any problems. However, just in case you got a problem and my z/VSE Level 2 colleagues ask to send data to analyze the problem such as dumps, traces, etc., this blog entry may be useful.

If you reported the problem and before sending a dump, the Level 2 person will give you the PMR (Problem Management Record) number, target FTP server or any other information to send the requested information.

If you send information via FTP, you may send it in binary format (VSE dump library or stand alone dump) or text format (printed dumps, traces, etc.).

To get that information into the correct FTP directory, you must use a unique file name for each document you place on the FTP server.

Please use [this web page](#) for more details.

Tags: dump, problem, vse, pmr, service

z/VSE Parallel Access Volume (PAV) enhancements (2014-02-14)

Parallel Access Volume (PAV) is an optional licensed feature on the IBM System Storage DS6000/DS8000/ESS series. Parallel access volumes are managed by creating multiple addresses for a single logical device. z/VSE supports one base device and up to 7 alias devices. With basic PAV support for ECKD devices z/VSE can access such a PAV device in parallel, which allow more than one I/O operation to be processed for a single logical device. This may give significant performance benefits dependent on your workload.

Now we improved our PAV support - especially the error recovery - and released the APARs just today..

These improvements are available for z/VSE 4.3 and z/VSE 5.1. The APARs are [DY47396](#) for z/VSE 4.3 and [DY47501](#) for z/VSE 5.1.

We also have a PAV white paper for more information or our z/VSE Planning and z/VSE Administration books.

The white paper is [here](#) and the books on our [documentation web page](#) as usual.

Have a good weekend.

Tags: service, apar, pav, device, vse, eckd

Next z/VSE LVC scheduled - TCP/IP for VSE Update (2014-02-13)

You now can register for the next Live Virtual Class (LVC), scheduled for Tuesday, March 4, 2014.

Session title: TCP/IP for VSE Update

Speaker: Don Stoeber, CSI International

The session will address the latest TCP/IP development and support activities for the product TCP/IP for VSE/ESA. The speaker will talk about new functionality, corrections, hints, tips, and debugging aids.

More details are [here](#).

Tags: vse, lvc, tcpip

Do you use the CICS Web Support with z/VSE ? (2014-02-12)

The CICS Web Support (CWS) was introduced in September 2000 together with CICS Transaction Server for VSE/ESA 1.1.1 (CICS TS) and VSE/ESA 2.5. Since then HTTP requests can be sent directly from the Web browser to the CICS TS without the need for an intermediate gateway. CICS processes the request and returns the results to the Web browser.

The addition of EXEC CICS application programming interface commands for the manipulation of web entities allows the definition and management of HTML files.

How does it work ?

A Web browser is an HTTP client. The Web browser constructs an HTTP request, which is passed across the network to the TCP/IP server on z/VSE. The TCP/IP server relays the request to the CICS Web Interface on CICS TS, which calls a CICS program to service the request. The output from the CICS program is sent back to the Web browser in an HTTP response.

The CICS Web Support comes with the 3270 Bridge, which allows existing (3270) applications to be integrated into new applications. That is the 3270 Bridge can be used to provide Web browser access to existing 3270-based transactions without requiring any application changes.

Finally a recommendation from CICS Level 3 for the CICS Web Support:

If you use CICS Web Support TCPIP SERVICES and applied APAR PM60076, please apply APAR PM74905 too. Otherwise you could encounter a severe storage leak. This is also discussed on VSE-L.

Symptom: The least that will happen is that a CEMT P SHUT (normal shutdown) will hang, and the worst is that you will get SOS (short on storage). You may see a large number of "SOSTE" (STE socket control blocks) in the Extended CICS Dynamic Storage Area (ECDSA). You can avoid the hang condition by using CEMT P SHUT IMM.

Always check for the latest fix status at [CICS TS fix list](#).

Tags: apar, cics, service, vse, tcpip, cws

Why do you need z/VSE SDL entries ? (2014-02-11)

The System Directory List (SDL) is the directory of all phases (programs) loaded into the SVA (Shared Virtual Area - 24-bit) or SVA (31-bit). There is one SDL entry per SVA phase. An entry holds e.g. the phase name and the entry point of the phase. The SDL is allocated in the SVA (24 bit).

The size of the SDL depends on the number of (system) phases to be loaded automatically into the SVA and the number of phases defined by the IPL SVA SDL parameter. It's a static table. The value of the SDL parameter need to be increased if additional vendor, user phases or phases of installed products are to be loaded into the SVA.

IPL SVA PSIZE defines additional SVA size (24-bit and 31-bit) for SVA-eligible phases to be loaded with the SET SDL JCL command.

The PHASE statement provides the linkage editor with a phase name, the load address and an indication, if the phase is SVA-eligible (SVA or SVAPFIX parameter).

Products may recommend to load phases into the SVA e.g. to reduce partition virtual storage or if they want to share information between partitions. Those kind of phases need to be re-entrant.

The SET SDL JCL command can be issued at any time after IPL. A fresh copy of an existing SVA phase is loaded each time a SET SDL command for that phase is issued. That is the space of a prior copy is not freed. The new copy is used by the system dependent on the implementation of the caller. If the caller saves the entry point only once, the original copy is used (an IPL is required to get to the new copy). If the caller always retrieved the address before the call, the latest copy is used.

The LIBDEF (define sublibrary chain) statement defines, which sublibraries are to be searched e.g. for phases. The SDL can also be specified explicitly in the operand list.

More information is in the z/VSE System Control Statements or z/VSE Guide to System Functions books. As always these books are on our [z/VSE documentation page](#).

Tags: sdl, phase, jcl, vse, sva

Did you notice that z/VSE supports 4-digit device addresses ? (2014-02-10)

With z/VSE 4.3 we introduced 4-digit device addresses. That is you can define device addresses up to X'FFFF'. So you are no longer forced to define 3-digit device addresses for z/VSE specific configurations, which simplifies IT environments with different operating systems (Linux on System z, z/OS, z/VM).

The 4-digit device address is called **physical address** (pcuu) and is defined for the z/VM guest or LPAR. During the IPL process the pcuu is mapped to a 3-digit device address - the **VSE address** (cuu).

The mapping may be defined by the system (e.g. during initial installation) or the IPL ADD statement, e.g. "ADD 2402 AS 240,ECKD". In the example the pcuu of the ECKD device is 2402, the cuu 240.

You may display the mapping of all I/O devices with the Attention Routine command "QUERY IO,CUU=ALL" or you may use our IUI hardware configuration dialogs.

z/VSE applications, messages, commands and so on address devices by the VSE address (cuu), which range from X'000' to X'FFF'.

To each physical address there is a corresponding VSE address. If the physical address is less or equal to X'FFF', the VSE address is equal to the physical address - otherwise they are different.

Virtual tape or virtual disk and POWER dummy devices always have 3-digit device addresses.

z/VM CP commands always use physical addresses.

More information is in the z/VSE Planning book on our [documentation web page](#), see paragraph "Device Address Support Of Up to X'FFFF'"

Tags: disk, tape, address, ipl, device, vse

Mobile and new z/VSE Redbooks (2014-02-07)

May be you have some time to read an interesting book over the weekend.. At least in Germany it will be a grey and rainy weekend.

How about an IBM Redbook ?

If you have a smart phone or tablet you may download the new **IBM Redbooks mobile app** for iOS and Android. I Like that app, you can search for Redbooks, view table of contents of a Redbook, save Redbooks, build your own Redbook library and more. Just a tip: If you select a Redbook for reading, save it before you select read. You will not be able to save it, if you are already reading it.

On the app's "Find IBM Redbooks" page you select just published, most popular, subject area (e.g. security, Networking, storage, ...) or publication type (Redbooks, Redpaper, Solution Guide, ...) or just search. You can get the app from the Apple App Store or Google play.

More information on the IBM Redbook mobile app is [here](#).

The new IBM Redbook "**Enhanced Networking on IBM z/VSE**" could be one of the first books in your mobile Redbook library . Besides z/VSE team members, the two TCP/IP vendors - CSI International (CSI) and Barnard Software, Inc (BSI) - participated. The Redbook gives an overview about the networking options, addresses both TCP/IP stacks - TCP/IP for VSE/ESA and IPv6/VSE, the Linux Fast Path, openssl and compares the TCP/IP stacks and protocols.

You may also download the new z/VSE Redbook from [here](#).

And there is another IBM Redbook I recommend: **System z in a Mobile World** - a point of view publication. It has just a few pages, but is worth to read. Two thirds of that Redbook give a high level overview about mobile in the enterprise. The last few paragraphs are related to z/OS.

Do you consider to access z/VSE from mobile devices ? ... or is it already real ?

You may download that paper [here](#) - or just save it in your mobile library.

Have a nice weekend - and good reading ;-)

Tags: vse, app, network, mobile, documentation, redbook

One year z/VSE blog (2014-02-06)

Just a year ago on February 6, 2013 I started my blog. In between I posted 227 blog entries - most of them related to z/VSE.

The blog entries discussed announcements, supported processors, DASD, disks and tape, latest news on service, hints & tips, technical details of z/VSE functions, tools and much more. I also tried to point you to more information via links, to white papers and IBM Redbooks.

Today I want to get your **feedback**:

- What did you like ? What should I change ?
- Should I continue ?
- Which topics should I address in future blog entries ?
- Anything else ?

You may give your feedback as a comment to this blog entry - or just send me an email - salm@de.ibm.com

Tags: vse, blog, feedback

New z/VSE 4.3 end of service date (2014-02-05)

A new end of service (eos) date for **z/VSE 4.3** was announced yesterday. z/VSE 4.3 eos will be October 31, 2014 (it was May 31, 2014). That is you have some more time to migrate your z/VSE 4.3 system to a supported release - z/VSE 5.1.

The withdrawal announcement letter is [here](#).

The same announcement letter also holds a new end of service date for **z/VM 6.2**. It will be December 31, 2016.

Tags: service, support, end-of-service, eos, vm, vse

Are you concerned about z/VSE security APARs ? (2014-02-04)

We always recommend to apply security APARs as soon as possible to your z/VSE system. To find security APARs easier we just created a new section on our "Service and support" web page for preventive service. It is titled "Security and system integrity". You can reach that section with [this url](#).

We will post there any security related APARs. My experience over the past years showed that we have very few z/VSE security APARs, but we recommend to check this section regularly.

You may reach our new security section also via the **IBM System z Security Portal**. On the portal select "Integrity", then z/VSE. The direct link is [here](#). You can get to our "Service and support" web page from there, then select "Preventive service".

The subscription process is not implemented for z/VSE.

Tags: integrity, service, security, vse, apar

How to get more z/VSE information for debugging ? (2014-02-03)

If you contact the z/VSE service team because of a problem, my colleagues may ask to turn "DEBUG ON", which activates the z/VSE debug facility and provides some more information on the behavior of the system.

The Attention Routine (AR) command "DEBUG ON" allocates debug areas in virtual storage - SVA (31 bit) and starts a debug trace. The z/VSE system writes system events into the debug area, which can be helpful to analyze a problem - or just see which partition causes the system events. The z/VSE system may use up to 3 debug areas, each starting with a debug control header, which has pointers to the next free entry within the debug area, the next debug area to be used and the previous debug area. Debug entries are written in wrap around mode. The z/VSE system switches to the next debug area in case of an abnormal task termination (abend). The debug trace can be suspended with the AR command DEBUG OFF or terminated with DEBUG END. DEBUG END also frees the debug areas.

The AR command "DEBUG" shows, if the debug trace is active.

Mainly the z/VSE Supervisor writes debug trace entries. Trace entries start with the hexadecimal string "EEEE". The first 32 bytes have the same layout and show the entry type, the caller's PSW, task id, CPU state, time stamp, CPU id, etc. You may see the following debug entries:

- EEEE00IC - Program check (IC = interruption code)
- EEEE0200 - Display registers
- EEEE0300 - Dispatcher exit
- EEEE0400 - I/O interrupt
- EEEE0500 - I/O
- EEEE0600 - External interrupt (CPU timer, clock comparator, emergency signal, external call, ...)
- EEEE0700 - Dispatcher entry
- EEEE0800 - Supervisor call
- EEEE0900 - Task cancel
- EEEE0A00 - Swap debug area
- EEEE0B00 - Display data
- EEEE0C00 - User entry (additional information from system routines)
- EEEE0Fnn - Monitor call (nn = monitor call class)

The z/VSE system calls debug routines via a branch or monitor call interface to write a debug entry.

The z/VSE debug facility may have a performance impact dependent on the system activity, if the facility is activated.

More z/VSE debug details and commands are described in the books "Hints and Tips for z/VSE 5.1" and "z/VSE Supervisor Diagnosis Reference" on the bottom of our [documentation page](#).

Tags: supervisor, sva, debug, trace, vse

Next blog entry on Monday - February 3 (2014-01-30)

I am not available today and tomorrow. Therefore you will see my next blog entry on Monday.

Have a good weekend.

Tags: vse

z/VSE's OSA-Express support (2014-01-29)

z/VSE supports the Open Systems Adapter (OSA) Express network cards of the IBM System z processors for a long time, which always includes the support of the latest technology.

z/VSE supports the following OSA-Express features:

- 10 Gigabit Ethernet, Gigabit Ethernet
- 1000BASE-T Ethernet (4 modes of operation)
 - ICC (Integrated Console Controller)
 - QDIO (Queued Direct I/O) for TCP/IP traffic
 - Non-QDIO for TCP/IP and SNA traffic
 - OSN (Open System Adapter for NCP)

QDIO mode (CHPID type OSD or OSX) is used for fast data-transmission via TCP/IP. It is implemented in the z/VSE QDIO network driver. The QDIO network driver supports TCP/IP Layer 2 and 3 as well as IPv4 and IPv6 protocols. Both z/VSE TCP/IP stacks - TCP/IP for VSE/ESA and IPv6/VSE - use the QDIO network driver. The Layer 2 and IPv6 protocol is provided by IPv6/VSE only.

Non-QDIO mode (CHPID type OSE) provides backward compatibility for VTAM applications and TCP/IP applications that use the OSA-2 interface. Both TCP/IP stacks support this configuration.

You can find more information in the z/VSE Planning book on our [documentation web page](#).

The latest supported network card is OSA-Express 5S. More information on supported network cards and z/VSE releases are [here](#).

You may also be interested in the OSA-Express Implementation Guide, currently available as a draft. You can download it [here](#).

Tags: vse, osa, osa_express, tcpip, network

z/VSE Live Virtual Class charts (LVC) available, new LVC planned (2014-01-28)

The charts of the Live Virtual Class (LVC) from last week are now available. The topic was "Update on Encryption and SSL ". You can download the charts from [here](#).

The next z/VSE Live Virtual Class is planned for March 4, 2014. It will be a "CSI TCP/IP for VSE Update".

The session will present information about the latest development and support activities on the CSI TCP/IP for VSE product. New functionality, corrections, hints, tips, and debugging aids will be discussed.

Details will be soon on our [LVC web page for upcoming classes](#).

Tags: encryption, ssl, lvc, tcpip, vse, openssl

IBM Storage announcements (2014-01-27)

Today a short blog entry about the latest IBM storage announcements, that may be of interest for z/VSE users.

The first announcement is related to a new release of the IBM Virtualization Engine TS7700. It now can be used with 8 Gb FICON adapters. There are some more enhancements. Announcement details are [here](#).

The second announcement is about a new release of the IBM DS8870 disk (or microcode level). The DS8870 is designed to offer better performance, has different configuration options and more. The announcement letter is [here](#).

If you are looking for those announcement for your geo, you may search for the announcement on the [IBM Offering Information web page](#), just use the "Search results" tab.

You may be interested in a new IBM Redbook draft too: IBM DS8870 Architecture and Implementation - see [here](#).

Tags: disk, storage, vse, ssi, tape, announcement

IBM mainframe newsletter available (2014-01-24)

Just a reminder, because the "IBM Mainframe Weekly" just started. I informed you about it last week. It's a resource that provides the latest news, links and any information around the IBM mainframe. IBM Mainframe Weekly is [here](#).

You may subscribe it, if you like it.

Have a good weekend.

Tags: mainframe, vse, system_z, newsletter

Publish / Subscribe support in IBM Websphere MQ for z/VSE 3.0 (2014-01-23)

I am not sure, if you are aware of the IBM WebSphere MQ for z/VSE 3.0 functionality introduced with APAR [PM73453](#): "PROVIDE PUBLISH/SUBSCRIBE SUPPORT" some time ago. In between it is described in WebSphere MQ for z/VSE Version 3.0.0 System Management Guide. The latest book is [here](#).

Publish / subscribe messaging allows you to decouple the provider of information, from the consumers of that information. The sending application and receiving application do not need to know anything about each other for the information to be sent and received.

Security: The publish / subscribe function required the introduction of the new resource class MXTOPIC for the Basic Security Manager (BSM) or any External Security Manager (ESM).

The MXTOPIC resource class was implemented for z/VSE 4.3 with APAR [DY47410](#), for z/VSE 5.1 with APAR [DY47411](#).

You can find a **service summary** for WebSphere MQ for z/VSE 3.0 [here](#)

Tags: mq, apar, vse, bsm

Do you need tape cartridges with more capacity ? (2014-01-22)

If you need tape cartridges with more capacity, the IBM TS1140 tape drive may be an option. z/VSE supports this tape drive since mid of last year. To get the TS1140 supported you need to apply APAR [DY47436](#). DITTO/ESA also needs to be updated with APAR [PM62302](#). The TS1140 support is included into z/VSE 5.1.2.

Cartridges are supported as re-writable or WORM (Write Once Read Many) formats.

The TS1140 also supports drive-based data encryption to protect your data. The IBM Encryption Key Manager (EKM) component, a Java program, is used to manage encryption keys. The EKM and the tape drive communicate via the TCP/IP protocol.

A job running on z/VSE can issue a request to encrypt the data to be stored on tape. This request is initiated using the appropriate mode setting in the Job Control ASSGN statement and the Job Control KEKL statement. The KEKL statement contains the key-encryption-key label retrieved from the EKM.

Tags: tape, vse, ts1140, encryption

z/VSE capacity measurement / sub-capacity reporting (2014-01-21)

Since z/VSE version 4 we support sub-capacity reporting. Sub-capacity reporting is required for the price metrics Midrange Workload License Charge (MWLC) with sub-capacity option for zEC12, z196, z10 and z9 processors as well as the price metrics Advanced Entry Workload License Charge (AEWLC) with sub-capacity option for zBC12 and z114 processors.

For z/VSE installations the Sub-Capacity Reporting Tool (SCRT) - an IBM tool - reports the capacity information of sub-capacity products. Those are charged based on the four hour rolling average utilization of your workload. The four hour rolling average utilization is gathered by z/VSE's Capacity Measurement Tool (CMT) and recorded in sequential files on ECKD, FBA or SCSI disks.

SCRT uses that data to generate the reports, which can be send to the License Management System (LMS - via email or the web application).

With the zBC12 you may limit the physical processor capacity of an LPAR (absolute capping), which helps to achieve your sub-capacity targets. This is transparently reflected in the measured data.

z/VSE's Query Virtual Server (QVS) API may also retrieve the measurement data, that may be used for license management. QVS supports absolute capping with the z/VSE V5.1 APAR [DY47479](#). When running as a z/VM guest you need z/VM APAR [VM65360](#) in addition.

More information on sub-capacity measurement is [here](#).

Tags: sub-capacity, pricing, capping, scrt, vse, lpar

New CICS TS for VSE APARs available / customer requirement resolved. (2014-01-20)

Just before year end two new CICS TS for VSE APARs were released. You can find that APAR information and corresponding links on the " Fix list for CICS Transaction Server for VSE/ESA V1.1.1". It was just updated. There the CICS team documents released APARs as well as APARs they are working on. The fix list is [here](#).

One of the APARs resolves a **customer requirement** (APAR PM69135). It adds address space (partition) CPU time to the output of DFHOSTAT, which shows how much CPU time has been used since CICS was started. The APAR also increases the size of the LSR buffer and data / index displays to avoid losing significant digits.

The APAR description is [here](#).

Please also consider that the DFHOSTAT in the ICCF library 59 needs to be updated. This is fixed with APAR PI09239, which is [here](#).

You may use the [Request for Enhancements \(RFE\)](#) tool to raise or review CICS requirements.

Tags: vse, rfe, cics, apar, iui, iccf, requirements

Agenda for the WAVV 2014 conference is available ! (2014-01-17)

The agenda for the next WAVV (World Alliance of VSE VM Linux) conference is available.

WAVV will be in Covington, Kentucky, USA and is scheduled for April 13-16, 2014.

WAVV starts with the opening session, an IBM update and the VSE 50th year celebration kickoff. You can attend sessions covering general z/VSE, z/VM and Linux on System z topics as well as special sessions about CICS, networking, security, hardware support, performance, setup and migration, hints & tips, mobile computing and many more.

The agenda, registration and hotel information is posted at www.wavv.org

I am looking forward to see you at WAVV.

Have a good weekend.

Tags: conference, wavv, vse

IBM mainframe newsletter available (2014-01-16)

You may be interested in a new resource that provides the latest news, links and any information around the IBM mainframe.

This newsletter is called **IBM Mainframe Weekly**.

IBM Mainframe Weekly is [here](#).

Live Virtual Classes on z/VM's LVC web page (2014-01-15)

It's a bit late for the first session, because that Live Virtual Class (LVC) is scheduled for today (12 pm EST). Linux on System z users may be interested.

The LVC is about "Porting Java Application to Linux on System z". The charts are already available for download. The session will be repeated tomorrow (01/16/2014).

The schedule and more details are on [z/VM's LVC web page](#).

As a reminder you will find the z/VSE LVC scheduled for January 22, 2014 - "Update on Encryption and SSL" on that page too.

z/VSE's FlashCopy support (2014-01-14)

Today I want to give some information on z/VSE's FlashCopy support provided by the IBM System Storage servers DS8000, DS6000 and ESS.

z/VSE does not support FlashCopy for SCSI devices.

FlashCopy is a point in time copy. It enables data to be copied in the background and made available both source and copied data to users almost immediately. FlashCopy can be used e.g. to reduce planned outages for backups, or provide live data for test environments.

z/VSE supports the following FlashCopy functions:

- **NOCOPY option:** can be used to copy most, or all of the data directly from the source to the tape without the need to copy the data to an intermediate target copy.
- **Dataset Copy:** the source and target volumes may be different in size. The copy does not need to be on the volume level, when just a dataset copy is required. Dataset Copy can not be used for VSAM datasets, because of the VSAM file structure.
- **Elimination of LLS Constraint:** Source and target volumes can span logical subsystems within a storage server.
- **IBM FlashCopy SE feature (optionally licensed DS8000 feature):** allocates storage space as needed, only uses space on a target volume, if tracks are copied from the source volume.
- **FlashCopy Consistency Group:** can be used, if data is spread over multiple volumes.

z/VSE does not support Incremental FlashCopy, Persistent FlashCopy Relationship and Inband Commands over a Remote Mirror Link.

Additional information is in the [z/VSE Planning](#) book.

Tags: vse, dasd, scsi, flashcopy, disk, device

New IBM Redbook: The Virtualization Cookbook (2014-01-13)

A new IBM Redbook was just published last week. It more related to z/VM and Linux on System z, but may be of interest for pur z/VSE customers too, who implemented our PIE (Protect, Integrate, Extent) strategy. More details on the PIE strategy is in one of my blog entries - [here](#) - or you may just search the blog entries via the tag "pie".

The new IBM Redbook's title is "The Virtualization Cookbook for IBM z/VM 6.3, RHEL 6.4, and SLES 11 SP3". It describes how to implement Linux virtual servers on the latest z/VM release. More information and the download page is [here](#).

Tags: redhat, virtualization, suse, vse, redbook, distribution, linux, zvm, pie, vm

Security in z/VSE enhanced - openssl and IPv6/VSE upgraded (2014-01-10)

Besides the SSL implementation available since some z/VSE releases z/VSE 5.1 provides openssl for secured SSL communication in addition. The IPv6/VSE product from Barnard Software, Inc (BSI) was the first exploiter of OpenSSL. IPv6/VSE can be licensed from BSI or IBM.

openssl is an open source project that provides an SSL implementation and key management utilities. z/VSE implemented a subset of the openssl functionality. openssl is provided as part of the VSE cryptoServices.

Just before year end 2013 we enhanced the z/VSE Secure Socket Layer (SSL) security through an upgrade of openssl and one of the exploiters of openssl - IPv6/VSE.

z/VSE now upgraded to the openssl 1.0.1e level. This new openssl level also enhances the Transport Layer Security (TLS). It provides support for TLS 1.2, which is currently the newest SSL protocol version.

The openssl 1.0.1e upgrade is available through APAR [DY47499](#).

Support for TLS 1.2 in IPv6/VSE is available with APAR [PM98875](#), which prereqs APAR DY47499.

You can find more information on openssl, TLS and IPv6/VSE in the IBM Redbook "Enhanced Networking on IBM z/VSE" draft, which is close to be finalized. The download page is [here](#).

Those security enhancements will also be addressed in the upcoming Live Virtual Class (LVC) on January 22. See my blog entries from December 5 and yesterday. Details on that LVC is [here](#).

Have a good weekend.

Tags: vse, openssl, tls, apar, ipv6_vse, security

z/VSE events (Conferences, LVCs) (2014-01-09)

Today I will inform you about the next Live Virtual Class (LVC) and conferences with z/VSE topics.

The next **Live Virtual Class** is scheduled for January 22, 2014. It's an "Update on Encryption and SSL".

More information and the schedule are [here](#).

Next **conferences** with z/VSE topics are scheduled for April 2014:

- April 7 - 9, 2014: Guide Share Europe (GSE) Meeting in Frankfurt, Germany for z/VSE, z/VM and Linux on System z
Sessions are in German.
- April 13 - 16, 2014: WAVV 2014 in Covington, KY, USA
A session grid is already on the WAVV web page.

More information is [here](#).

Tags: wavv, conference, lvc, gse, vse

Happy New Year ! (2014-01-08)

Happy New Year !

I just returned from vacation and will now continue to provide any topics related to z/VSE..

Merry Christmas and a happy, healthy and successful New Year (2013-12-18)

I will leave for vacation and enjoy some holidays. I will be back in the week of January 7, 2014.

That is you can expect my next blog entry that week.

I wish you and your families a Merry Christmas and a happy, healthy and successful New Year.

Enjoy the holidays.

Tags: vse

Support Newsletter for CICS Transaction Server and CICS Tools (2013-12-17)

The CICS Newsletter web page holds links to useful information all around the CICS Transaction Server and Tools. It has lots of CICS TS for z/OS information, but also addresses CICS TS for VSE/ESA needs.

E.g. you may be interested in the "Plan" section of that page. You will find links to the end-of-service dates, the latest fixes for CICS TS and information about CICS/VSE.

The link to the CICS Newsletter page is [here](#).

May be you can help me with the following questions:

- Are you still using CICS/DDM ?
- Are you dependent on the German translation of CICS manuals, messages or panels ?

You may answer by adding a comment to this blog or send me an email (my email address is on the right side of my blog page).

Tags: service, cics_vse, cics, vse, newsletter, support

What can I do with the unused shared area (24 bit) space ? (2013-12-16)

The shared area (24 bit) consists of the Supervisor, the Shared Virtual Area (SVA - 24 bit) and Shared Partitions (if allocated).

The SVA (24 bit) starts after the Supervisor area and consists of the System Directory List (SDL), Virtual Library Area (VLA), System GETVIS area (24 bit), System Label Work Area (SLA) and VPOOL. Shared Partitions are allocated after the SVA (24 bit). Non-shared (static and dynamic) partitions are allocated in the private area. The private area starts at the next one Megabyte (MB) boundary after the shared area (24 bit) as required by the z/Architecture.

The rounding to the one MB boundary may cause unused space in the shared area (24 bit), which cannot be allocated for any use after IPL complete. The MAP command output shows that unused space in the SVA-24 line in column "UNUSED". You may increase system resources e.g. via the IPL SVA command sizes (SDL, PSIZE, GETVIS), SYS command sizes (CHANQ, NPARTS), or the Supervisor parameter command sizes (IODEV, VPOOL), which reduce the unused space.

Most installations do not allocate shared partitions, that is the IPL SYS SPSIZE parameter is zero.

If your SPSIZE is not zero and your shared partitions are not yet allocated, you need to reduce the UNUSED space by the SPSIZE value. The resulting unused space may be available for other shared area (24 bit) resources defined during IPL.

There is another option too: If your UNUSED value is close to one MB, you may adapt system sources defined during IPL to reduce the shared area (24 bit) to get to a lower MB boundary, which increases the private area below the 16 MB line. ... but be careful, this change very depends on your system layout, workload and needs some more fine tuning.

Please change the IPL values only, if you need additional resources. Change one parameter at a time and verify the resulting unused space afterwards. Be aware that parameters such as NPARTS may require additional shared space, when partitions are allocated/started.

Tags: supervisor, vse, shared-area, sva, map

Next blog entry on Monday (Dec. 16) (2013-12-12)

I will take a long weekend. Therefore my next blog entry will be on Monday.

Have a good weekend.

Tags: vse

Host name support in PSF/VSE (2013-12-12)

Just lately there was a customer requirement that asked for host name support in PSF/VSE. I also talked to a customer, who had the same question.

The Print Service Facility (PSF) for VSE provides Advanced Function Printing (AFP) capability and supports TCP/IP distributed print attachments, barcodes and more. You may change pages to be printed and fonts.

This host name support is already available.

To code a host name instead of an IP address you have to include the name in single quotes.

For example:

```
IPADDR='MY.PRINTER',
```

instead of

```
IPADDR=192.168.0.104,
```

Tags: requirements, psf, print, tcpip, vse

IBM Mainframe wins 2013 award (2013-12-11)

Maybe you read about the award in the category of cloud solutions for zBC12 - the CRN Tech Innovator Award 2013.

You can get more information about it [here](#). This web page is also the entry for any mainframe related information.

I also recommend another web page: If you want to read more about Linux solutions, please go to this [web page](#).

z/VSE's virtual and real storage support (2013-12-10)

Last week there was a question on z/VSE's real storage support on VSE-L. Therefore I think it's worth to have a blog entry for virtual and real storage support in z/VSE.

Virtual storage defined by VSIZE of the IPL Supervisor parameter command is used by private areas, shared areas, data spaces and memory objects. The private area is the space between the end of the Shared Virtual Area (SVA 24 bit), up to the beginning of the Shared Virtual Area (SVA 31-bit). z/VSE partitions are usually allocated in the private area. The private area also includes private (64 bit) memory objects, if allocated. Shared areas are shared among all address spaces and include the Supervisor, all shared areas (SVA 24 bit, SVA 31 bit) as well as shared memory objects, if allocated. Data spaces can be defined by programs and for virtual disks. Data spaces and memory objects can only hold data. Memory objects are contiguous ranges of virtual storage that are allocated by programs.

The maximum value of virtual storage (VSIZE) that z/VSE can support is about 90 GB. However, the actual usable VSIZE on your z/VSE system depends on the size of the processor (real) storage, the capacity of your page data set devices, the type of your workload, the system setup, the processor capacity, ... If VSIZE "fits" into the real storage you may run without a page data set. z/VSE can support a maximum of 32 GB of **real storage**. If you have more real storage available than you need for your workload, you may consider to add virtual disks to improve I/O performance for temporary files or libraries. See my blog entry on [virtual disk](#).

You can get more information on z/VSE's storage support in the z/VSE Planning book. Our documentation is [here](#).

Tags: virtual_disk, processor, storage, virtual, vse, vsize, real

z/VM LVC on December 11 / 12: z/VM 6.2 Live Guest Relocation with Linux Middleware (2013-12-09)

This is my 200th blog entry.

Some of our z/VSE customers are also interested in z/VM topics Therefore I recommend the

next z/VM Live Virtual Class (LVC) on "z/VM 6.2 Live Guest Relocation with Linux Middleware" - scheduled for

December 11, 2013 and December 12, 2013

More information is [here](#).

Tags: vm, lvc

News on z/VSE's SCSI support (2013-12-06)

Today I have news on SCSI devices. In earlier blog entries I described IBM storage options for our SCSI support and provided a link to the [SCSI white paper](#). Just select the "**scsi**" tag on the right side.

Applications can access SCSI disk via FBA channel programs or FBA interfaces. FBA channel programs are translated at low level I/O interfaces to SCSI commands. Disks like IBM System Storage DS8870, IBM Storwize V7000 or IBM XIV support the SCSI architecture. z/VSE's SCSI support is transparent to FBA and device independent applications.

Today I found out that the **IBM Storwize 5000** SCSI device is supported by z/VSE too. More information is [here](#).

The IBM Storwize V5000, V7000 and IBM XIV devices need to be attached through a switch.

You may verify hardware options and supported releases via the [IBM System Storage Interoperation Center](#) (SSIC).

E.g. for the Storwize V5000 select

- Storage Family = IBM System Storage Midrange Disk
- Storage Model = Storwize V5000 Host Attachment
- Connection Protocol = FCP

You then will see the storage version, supported operating systems, etc.

Enjoy your weekend.

Tags: device, vse, disk, scsi

Next z/VSE LVC on January, 22: Update on Encryption and SSL (2013-12-05)

Our next Live Virtual Class (LVC) is scheduled for January 22, 2014.

The topic is: Update on Encryption and SSL

This LVC provides an update on encryption and SSL in z/VSE 5.1. It shows the benefits of TLS 1.2 in OpenSSL 1.0.1e and their relationship to the SHA-1 hash algorithm. It finally gives an overview of Perfect Forward Secrecy (PFS) and the Diffie-Hellman key exchange.

More information is [here](#).

Tags: `tls, security, vse, crypto, lvc, ssl, openssl`

New z/VSE RSL available - Cutoff October 31, 2013 (2013-12-05)

Sorry for the delay. Again a service blog entry. I waited for the web page update.

There is a new Recommended Service Level (RSL) for z/VSE 4.3.1 and 5.1.2 available. The cutoff for the RSLs were October 31, 2013.

You may upgrade via Fast Service Upgrade to z/VSE 5.1.2 and then to the new RSL level - or to the latest 5.1.1 RSL and then the 5.1.2 RSL. In the latter case the SIR command output will still show 5.1.1.

An RSL is a preventive service offering for z/VSE. This service offering fills the gap between z/VSE Refresh levels and the "High Impact or Pervasive APAR" (HIPER) service provided via "Preventive Service Planning" (PSP) buckets. An RSL consists of a list of ALL APAR/PTF numbers, which are available at specific cutoff dates. RSLs are updated more frequently than refreshes and contain ALL available service, not only the HIPER service.

The link to the RSL information is [here](#).

Tags: vse, rsl, service

New VSAM Hiper APARs for z/VSE 4.3 (DY47503) and 5.1 (DY47504) (2013-12-03)

Today I want to make you aware of new VSE/VSAM APARs.

The APARs resolves the following problem:

Garbage records can appear in a catalog in z/VSE 5.1 or z/VSE 4.3, if the catalog is shared between z/VSE 4.3 and z/VSE 5.1. The catalog is slowly degrading, if there are too many garbage records. Besides that the garbage records may cause loops on delete space.

The APARs are flagged "Hiper".

The APARs are:

- [DY47504](#) for z/VSE 5.1
- [DY47503](#) for z/VSE 4.3

Both APARs should be applied, if you are sharing z/VSE 5.1 and z/VSE 4.3.

Tags: `apar, service, vse, vsam`

Hardware assisted encryption supported by z/VSE (2013-12-02)

z/VSE provides hardware assisted encryption via crypto cards or crypto functions provided by the processor itself. They both can help to increase the throughput in a TCP/IP network using SSL (Secure Socket Layer).

The CP Assist for Cryptographic Function (CPACF) provides hardware support for symmetric cryptographic algorithms, like AES, DES, Triple-DES, and SHA-1. CPACF can accelerate symmetric cryptographic operations.

z/VSE supports the latest crypto cards such as Crypto Express3 (z10 or higher) and Crypto Express4S (zEC12, zBC12).

SSL uses cryptography both for authentication of clients and servers, and for data confidentiality. It is a public key cryptography-based extension to TCP/IP networking. The usage of hardware assisted encryption in SSL is transparent to the application.

Both TCP/IP stacks, IPv6/VSE and TCP/IP for VSE/ESA, support CPACF and Crypto cards. IPv6/VSE exploits the newly added openssl support of z/VSE. Other exploiters are CICS Web Support, VSE/POWER PNET, VSE connectors, Secure FTP, Secure Telnet, and WebSphere MQ.

Another exploiter of hardware assisted encryption is the Encryption Facility for z/VSE (EF for z/VSE). It provides encryption for SAM and VSAM files, VSE Library members, backups from the z/VSE backup utilities (IDCAMS, LIBR, POFFLOAD).

z/VSE tests for CPACF and crypto cards at IPL-time.

z/VSE also supports hardware-based tape encryption (IBM System Storage TS1120, 1130, 1140).

More information is in the z/VSE Planning and z/VSE Administration books. Our documentation is [here](#).

Tags: vse, zbc12, crypto, cpacf, processor

Updated Software Support Handbook available & Tags (2013-11-29)

I hope your z/VSE system runs fine all the time. However, sometimes it might be necessary to contact IBM.

A good source for all kind of information related to IBM software support is the **Software Support Handbook**.

An updated version was just made available. You can download it [here](#).

By the way did you notice the **tags** on the right side of my blog page. I am trying to use meaningful tags for all my blog entries. If you click on a tag, you will get all blog entries related to this subject (tag).

Have a good weekend.

Tags: software, documentation, service, support, vse

Setting a suitable CICS trace table size for z/VSE (2013-11-28)

The CICS service team asked me to post a blog entry related to the CICS trace table size.

The CICS service team often have problems debugging CICS VSE problems because the SIT TRTABSZ value for the internal trace is too small, and they cannot see the problem from the start until the end.

They recommend to allocate a *minimum* of 4 MB (SIT TRTABSZ=4096) for each CICS system, but be aware that the service team may ask for 10 MB in some situations. The trace table uses 31-bit Partition GETVIS and is allocated when CICS initializes, which is before files are opened etc. Customers can use the GETVIS command output before shutting CICS down to compare the delta trace table size against what is the largest free area above 16 MB and increase the Partition allocation if required.

Mike, thanks for the details.

Tags: cics, debug, service, vse

There is a new z/VSE - SCSI white paper available (2013-11-27)

Since 2005 (introduced with z/VSE 3.1) z/VSE supports SCSI devices in addition to FBA and ECKD devices, which gives z/VSE customers more storage options. Especially with the IBM Storwize V7000 our SCSI support is getting more and more customer interest.

Applications can access SCSI disks via FBA channel programs or FBA interfaces. . FBA channel programs are translated at low level I/O interfaces to SCSI commands. Disks like IBM System Storage DS8870, IBM Storwize V7000 or IBM XIV support the SCSI architecture. z/VSE's SCSI support is transparent to FBA and device independent applications.

If you want to migrate from ECKD to SCSI devices please consider that you can not Fast Service Upgrade (FSU) to a SCSI device (FSU only works from ECKD to ECKD or SCSI to SCSI). If your applications is not written device independent, you need to adapt them. The same is true for Job Control statements, e.g. EXTENT information needs to be changed from tracks to blocks.

To provide some more information we just published a **SCSI white paper**. You may download it [here](#). It's on our web page for [technical articles](#).

Some general information is in our z/VSE Planning book. The link to it is on the [z/VSE documentation page](#).

Tags: white_paper, fba, scsi, vse, device, documentation, disk

Do you use z/VSE virtual disks for temporary data ? (2013-11-26)

z/VSE has virtual disk support for a long time. I still see z/VSE installations, that don't use virtual disks, but could benefit from them.

With the virtual disk it is possible to have (temporary) data reside in virtual storage (in a data space) and not on a real disk device. Each virtual disk resides in its own separate data space. A virtual disk in z/VSE has been implemented by emulating a FBA (Fixed Block Architecture) disk device. You can use it like a real FBA device, without being required to change code in your applications. In addition, applications running in different partitions on the same z/VSE system can share virtual disks like real disk devices. However, you can not place a lock file on a virtual disk, because it is only known to the same system, where it is allocated. You can not share it with other z/VSE systems.

You can define up to 128 virtual disks in z/VSE.

Data on virtual disks can be accessed at memory speed. That is I/O intensive jobs and transaction see improved throughput and response times. Virtual disks are ideal for read only data. You may use virtual disks for temporary data, which can easily be recovered in case of normal or abnormal shutdown, e.g.

- temporary work files or test files
- VSAM space and user catalogs (with a few considerations)
- VSE libraries to reduce real I/O requests to frequently used applications and data. You may copy VSE libraries from real to virtual disks by using the LIBR program.
- ...

z/VSE Virtual disks can not be used for the IUI control file, hardcopy file, system history file, page data sets, CSD file, VSAM master catalog, ...

Performance consideration: Virtual disks in data spaces are subject to the same paging rules as virtual storage for address spaces. To benefit from virtual disks, you must have sufficient real (processor) storage available to avoid a possible paging bottleneck. If the real storage available is insufficient, I/O requests to real disks are replaced by I/O requests to the page data set.

For more information on virtual disks see the z/VSE Planning book. Our documentation is [here](#).

Tags: vse, disk, performance, virtual_disk, fba

New z/VSE LVC download material available (2013-11-25)

Today I have a short blog entry.

May be you attended our Live Virtual Class (LVC) on "Exploit new z/VSE solutions with zBC12 in a virtualized environment " last week.

In between the presentation and playback of the session is available on our education web page.

You can find both [here](#).

Tags: zbc12, lvc, vse, live-virtual-class, education, solution

No blog entry today (2013-11-22)

I take a day off today (Friday). Therefore you will see no blog entry. My next blog entry will be on Monday.

Have a nice weekend. We got the first snowflakes this fall.

Tags: vse

Are you still dependent on CICS/VSE ? (2013-11-21)

Still a hot topic is the old CICS/VSE 2.3. I had a related blog entry in February 2013, see [here](#).

Some customers are dependent on CICS/VSE because their or vendor applications are not yet adapted to run on CICS TS for VSE/ESA 1.1.1.

A short summary about CICS/VSE and the use on z/VSE 4.3:

When z/VSE V4.3 became generally available on 26 November 2010, the installation and run-time support for CICS/VSE V2.3 changed significantly. There are some changes that you need to be aware of when upgrading to z/VSE 4.3. IBM recommends that you migrate your CICS/VSE V2.3 applications to run on CICS TS for VSE/ESA before you migrate to z/VSE 4.3 or later releases or versions. z/VSE 4.3 is the last release that can be used as the run-time environment for CICS/VSE 2.3, but this is subject to restrictions on the use of CICS/VSE and DL/I and the successful execution of applications as documented. CICS/VSE 2.3's support ended on October 31, 2012.

CICS/VSE 2.3 can not run on z/VSE 5.1.

See the following web pages for more details:

- my blog entry on the use of EXCPAD - [here](#)
- our CICS TS for VSE/ESA product page - [here](#)
- the CICS/VSE support document for CICS/VSE 2.3 and migration aspects - [here](#)

If will be updated in the next few days.

Tags: cics, support, cics_vse, vse

How to improve TCP/IP performance for z/VSE running as a z/VM guest (2013-11-20)

Today we got questions about z/VSE running in a z/VM guest. One aspect was TCP/IP performance in z/VM guests.

You may improve your network performance with the z/VM queue-I/O assist (QDIO performance assist) for z/VM V=V guests, if the guest uses real adapters and real networking devices via the Queued Direct I/O (QDIO) facility. z/VSE exploits queue-IO assist for OSA Express (CHPID type OSD) and HiperSockets (CHPID type IQD) devices.

With the aid of the assist, I/O interruptions can be passed directly from the hardware to the z/VM guest. In addition certain QDIO-related instructions can be interpretively executed by the processor without z/VM's involvement.

To exploit the queue-I/O assist function in z/VSE use the z/VM CP command "SET QIOASSIST ON" before you IPL the z/VSE system. After you enabled the queue-I/O assist function each z/VSE "DEFINE LINK,TYPE=OSAX" command will automatically exploit it.

The queue-I/O assist function is supported on z/VM 5.4 or higher. z/VM must be running in an LPAR and not as a z/VM guest.

The "z/VSE Planning" and "z/VM CP Commands and Utilities Reference" books provide more information.

Links to z/VSE books are [here](#) and links to z/VM books are [there](#).

Tags: performance, vm, vse, tcpip

z/VSE 5.1: New Database Connector (DBCLI) APAR available (2013-11-19)

Some time ago I described our z/VSE database connector (DBCLI) interfaces in a blog entry. With this new connector we provide an API to connect to any database running on a -non-z/VSE platform (e.g. on Linux) with a JDBC interface. The blog entry is [here](#).

Just last week we posted APAR information on the z/VSE connector support page. The APAR fixes a problem for the z/VSE Database Connector (DBCLI), that calls an Oracle stored procedure. The output parameters are not returned back to the z/VSE program. More information is [here](#).

Tags: database, apar, connector, vse, service

Important info on APAR PM80542/UK91650 (2013-11-18)

Important info on APAR PM80542/UK91650 - see also [z/VSE hot service news](#):

The description for APAR PM80542 is [here](#).

With APAR PM80542/UK91650, which was included in z/VSE 5.1.2 Upgrade, the transaction security phase DTSECTXN was delivered by error. This phase will get active in the system replacing transaction security settings for IBM provided transactions in case the new security concept based on BSTCNTL definition is used. If not yet migrated to the new concept it will even replace all customer defined transaction security settings.

In case the **new** concept is used (you can find out using IUI dialog 285, you will not get migration offered) delete DTSECTXN.PHASE from IJSYSRS.SYSLIB.

If the **old** concept is used, there should be the original phase stored in PRD2.SAVE, the new (IBM transactions only) phase in IJSYSRS.SYSLIB. It is recommended to merge the new IBM definition into existing setup as follows:

1. Run the following REXX procedure

```
// EXEC REXX=IPFTABLE,PARM='IJSYSR1.SYSLIB.DTSECTXN.A IJSYSR2.SYSLIB.DT*  
RISEC.U'
```

2. In dialog 285 specify do not migrate, use PF5 merge key and process key after verifying your transactions are included. This will replace the wrongly delivered DTSECTXN phase.

Error symptoms:

1. If on new concept, IBM provided transactions will run with default authorization, that means if for example CEMT transaction was moved out of GROUP01, after above PTF CEMT is authorized for GROUP01 again.
2. If on old concept, IBM provided transactions will be authorized for standard setup, but transactions for user applications are not authorized anymore.

Tags: security, apar, service, ptf, vse

What are the areas where you would like to have more information ? (2013-11-15)

Our z/VSE books describe planning, installation, administration, job and application interfaces, networking and much more.

However, there may be areas where you would like to see more information - may be in form of

- white papers - usage of a specific system function, configuration, implementation, ...
- hints & tips
- migration - version / release migration, ECKD to SCSI migration, ...
- presentations addressing a specific topic
- Live Virtual Classes
- session at conferences - WAVV, zUniversity, GSE, ...
- education material
- tools
- ...

Please let me know what kind of information - in addition to the z/VSE books - would help to make your work with z/VSE more effective.

Have a good weekend.

Tags: documentation, vse, book

There are new IBM Redbooks related to z/VSE. (2013-11-14)

As you may have noticed I like our IBM Redbooks. Today I want to inform you about new IBM Redbooks that do not directly address z/VSE, but are related to z/VSE.

A few blog entries ago I mentioned the draft Redbook "Setting up Linux on System z for production". This Redbook is now final. The corresponding Redbook page has a short video and the table of contents. The Redbook may be valuable for our customers that implemented z/VSE's PIE (Protect, Integrate, Extent) strategy, that is our connectors to Linux on System z or Linux Fats Path (LFP). The Redbook page is [here](#).

... and there is another draft Redbook available related to Linux on System z and z/VM: The Virtualization Cookbook for z/VM 6.3, RHEL 6.4 and SLES 11 SP3. You can find the Redbook draft [here](#).

Another IBM Redbook available since a few weeks is titled "IBM System Storage DS8870 Architecture and Implementation". This Redbook more z/OS oriented. However, it gives a good overview about the DS8870 storage architecture and configuration options. The Redbook is [here](#).

The IBM Redbook "IBM Virtualization Engine TS7700 with R3.0" gives an overview of the TS7700 architecture, components and capabilities. considerations and planning, hardware and software implementation (including z/VSE). migration and operation and much more. The corresponding IBM Redbook page is [here](#).

Tags: redbook, documentation, vse, zvm, linux, tape, storage

LVC on Nov. 19: Exploit new z/VSE solutions with zBC12 in a virtualized environment (2013-11-13)

The next Live Virtual Class (LVC) is scheduled for November 19, 2013.

This LVC is titled: Exploit new z/VSE solutions with zBC12 in a virtualized environment

Abstract:

In the last releases, z/VSE implemented new functions to enable it for modern solutions in a virtualized, heterogenous environment on the newest zBC12 Hardware. Integrate existing traditional transactional workload with web environments and mobile. Use your data in information management and Business Intelligence solutions. We will elaborate how you can take advantage of these concepts.

More details (speaker, time, ...) are on our [LVC web page](#).

Tags: virtual, mobile, vse, lvc, zbc12, solution

Did you know that you can send your z/VSE SDAID trace to a VTAPE ? (2013-11-12)

In case of a problem with your z/VSE system it may be necessary to trace your application or workload. **SDAID** may be used to analyze such problems. Please see the z/VSE Diagnosis Tools book for details. The trace output may be directed (OUTDEV) to a printer, real tape or the SDAID buffer (BUFFER).

If you want to get the trace output to a virtual tape (VTAPE),

- you need to define the virtual tape first. See the z/VSE Administration book for details.
- Now you can initialize your SDAID trace with a wraparound buffer as output destination - OUTDEV BUFFER=<size = buffer size from 4K to 256K>
- Stop SDAID (STOPSD), when you want to finish the trace.
- Dump the SDAID buffer to your virtual tape via the Attention Routine (AR) command - DUMP BUFFER,<cuu of virtual tape>
- You now may use the virtual tape for further processing, e.g. to print the virtual (SDAID) tape via the DOSVSDMP utility or the IUI dialog - option 4-6-8.

Note: When the buffer becomes full, SDAID wraps around and continues to write event records at the beginning of the buffer overwriting previously stored records. To keep all records, you need to dump the buffer to VTAPE before it is full.

Please verify the SDAID trace to virtual tape in your test environment first, before you use this method for problem analysis.

Thanks to my colleague Sa for trying that out.

As always you will find the mentioned books on our [z/VSE documentation web page](#).

Tags: vse, sdaid, diagnosis, vtape

Are you aware of your z/VSE copy buffer usage ? (2013-11-11)

Supervisor buffers (also called **copy blocks**) are use for I/O processing (CCW translation). The number of copy blocks to be allocated are defined with the SYS BUFSIZE command during IPL. See [z/VSE System Control Statements](#) for details. Because of system requirements the actually allocated number of copy blocks can be much larger than the number specified. Before IPL completes a message displays the actual BUFSIZE value.

You may verify the copy block usage of your system via the SIR Attention Routine (AR) command. Close to the bottom of the SIR command output on your console you can find the current copy block usage (COPY-BKLS), the high water mark (HIGH-MARK) and the maximum number of copy blocks (MAX). If your HIGH-MARK is close to the MAX value, you should consider to increase the number of copy blocks in your next maintenance window. Copy blocks are allocated in 24 bit storage (in the Supervisor area below 16 MB). Copy block shortage may cause system hangs.

There are situations where you may need to increase the number of copy blocks, e.g. if you start using VTAM 31-bit I/O buffers, or if you migrate from ECKD to SCSI devices.

Tags: io, vse, supervisor, ipl

z/VSE Presentations at the zUniversity 2013 in Orlando are available (2013-11-07)

The presentations of the z/VSE session at the zUniversity in Orlando are now available for download.

You can find them [here](#) on our z/VSE presentation web page.

... back on Monday ...

Tags: vse, zuniversity, presentations

Expect my next Blog entry on Monday (November 11) (2013-11-06)

I am at a converence and assume that I can't post any blog entries the next two days.

I will be back on Monday.

Have a good weekend.

How does z/VSE's PRTY SHARE work ? (2013-11-05)

Just a few days ago there was a discussion on VSE-L on PRTY SHARE. I think, that could be worth a blog entry.

Let's start with the PRTY command.

The **PRTY** command is used to query and set the priority of static partitions and dynamic classes. You may separate specified partitions via comma or equal sign (=). Static partitions / dynamic classes concatenated with "=" belong to a balanced group. You can have just one balanced group. The first static partition / dynamic class in the PRTY list has the lowest priority, the last one the highest. All members of the balanced group participate in time slicing, that is after a given time slice (CPU time) is used, the member of the balanced group will be moved to the lowest priority within the group.

E.g. PRTY FB,Q=FA=F9=F7,F6,P,F3,F2,F1

"Q=FA=F9=F7" forms the balanced group, F1 has the highest, FB the lowest priority. Q, P are dynamic classes. All dynamic partitions of dynamic classes Q belong to the balanced group, that is they will get the same time slice as the static partitions in the balanced group.

The balanced group can be used to avoid, that a partition can monopolize the CPU consumption.

For some static partitions / dynamic classes of the balanced group you may want to give a higher weight (larger time slice). To allow higher weights (relative shares) the PRTY SHARE command was introduced. PRTY SHARE gives more flexibility to control partitions in an environment with high overall CPU utilization.

The **PRTY SHARE** command is used to allocate a relative share of CPU time to partitions belonging to a balanced group. The relative share of CPU time for a partition is reflected by a numeric value. Such a value can be defined for a static partition or for a dynamic class. The PRTY command displays the relative shares.

The default share value for static partitions / dynamic classes is 100, the maximum 9999. A value of "0" means that the static partition / dynamic class of the balanced group will be moved to lowest priority and will not receive a time slice except all other partitions with a higher priority are in wait state. All dynamic partitions of a dynamic class receive the same share value. The **time**

slice of a static or dynamic partition will be calculated with the ratio of the partitions share, the total share values of all active partitions within the balanced group and the MSECS value - with some adjustments.

The share value will only be used for members of the balanced group to calculate the time slice. Shares / time slices only have effect to partitions, if they are dispatchable.

I would adjust the share values dependent on the results you observe and want to have. Refine the share values in an iterative way.

Finally a word on the **MSECS** value: The time slice will be calculated from the MSECS command value (default is about 1 sec. - 976). On faster processors, I would lower the MSECS value. E.g. try a value of 100 (lowest value), you would have more granular time slicing and I would assume that you do not see too much additional overhead. If you see more overhead, increase the MSECS value again to a value you can afford.

The PRTY and PRTY SHARE commands are described in the z/VSE System Control Statements book. You can find that on our [documentation web page](#).

Tags: prty_share, vse, cpu-balancing, prty

z/VSE tools updated (2013-11-04)

Just recently there were two z/VSE tools updated, that are available for download:

- **z/VSE Installed Software Report Tool**

This Java tool is able to generate a z/VSE Installed Software Report used for IBM Shopz. More information is [here](#).

- **z/VSE CPU Monitor Tool**

The z/VSE CPU Monitor Tool is intended to measure the CPU utilization of a z/VSE system over a period of time. It only provides very basic monitoring capabilities. More information is [here](#).

Tags: shopz, software-order, cpu, tools, monitoring, vse

LVC playback and charts available: Language Environment for z/VSE - no blog entry tomorrow (Nov. 1) (2013-10-31)

The playback and charts of the Live Virtual Class (LVC) from October 24, 2013 are now available on our education web page. The topic was: **Language Environment for z/VSE** - Pieces of News, Tips and Enhancements.

You may download the playback and charts [here](#).

Tomorrow, November 1, is a public holiday in south Germany. Therefore you can expect the next blog entry on Monday.

Have a nice weekend. We may have some rain.

Tags: vse, lvc

Can your VSE/VSAM applications transparently access remote data ? (2013-10-30)

The answer is yes.

We implemented a connector that allows to redirect all accesses to a VSAM file into any other file system or database on any other Java-enabled platform. The connector is called **VSAM Redirector** connector - available since VSE/ESA 2.6..

The VSAM Redirector consists of two parts:

- The VSAM Redirector Client (part of z/VSE) is an exit program running on z/VSE. It is called for each VSAM request and forwards it to the VSAM Redirector Server.
- The VSAM Redirector Server (downloadable from our web page) is running on a Java enabled platform. It receives the VSAM requests and translates them into SQL queries or requests to flat files.

You redirect access to a VSAM file by setting up the Redirector's config table, which specifies a list of VSAM files and their new locations.

The VSAM Redirector can be used to migrate a VSE/VSAM file to a DB2 database running on a Linux on IBM System z in another LPAR, or running on any other Java enabled platform. By utilizing the VSAM Redirector your existing VSAM programs do not require any revisions.

Information on the VSAM Redirector such as documentation, download and support links are [here](#).

Service news:

We just posted the latest information, an APAR / PTF (PM97205 / UK97651 for z/VSE 5.1) that addresses the MapperConfigGUI tool. To get this fix you just need to download the VSAM Redirector server and reinstall the component on your workstation.

See the [VSAM Redirector Server section](#), [z/VSE 5.1 connector support page](#) or [APAR page](#) for details.

There is an APAR for z/VSE 4.3 too - PM97203 / UK97650, see [z/VSE 4.3 connector support page](#) or [APAR page](#).

Tags: vse, service, connector, vsam, redirector

Updated CICS TS for VSE/ESA 1.1.1 fix list available (2013-10-29)

There is a new update for the CICS TS for VSE/ESA 1.1.1 fix list available.

My CICS colleagues do a very good job to let you know, which APARs are released and fixes are in work for the CICS TS product.

You can find the fix list [here](#).

Why doesn't z/VSE support Java ? (2013-10-28)

After some travel I am back in the office. I got lots of customer feedback and insight, which I will feed to the z/VSE team and use for future z/VSE releases. We are very dependent on customer input for z/VSE development of new functions. That is whenever you see a need for new functionality or a direction that z/VSE should take, please raise a requirement or talk to us. You may use our "[Contact z/VSE](#)" web page or send me an email for any feedback.

From time to time I am asked, **why doesn't z/VSE support Java ?**

We looked into that around the year 2000 and found that it is far too expensive for z/VSE development to implement a Java environment on z/VSE and provide all required interfaces, programs and functions. ... and why we should implement Java environment, if other platforms have it already.

Therefore we defined the **PIE strategy** - Protect, Integrate, Extend - see my earlier [blog entry](#) or [our web page](#) for details on our strategy.

With Integrate z/VSE will integrate into Java platforms, with Extend z/VSE especially benefits from Java, tools and products on Linux on System z. The experience over the past years showed that our decision was right. We have much more flexibility with our connectors to integrate into Java applications and direct development resources to enhance z/VSE components / products and connectivity to non-z/VSE platforms. The PIE strategy also gives customers much faster access to new application.

Tags: contact, strategy, connector, java, requirements, vse, pie

What z/VSE refresh level do I see in my SIR output or SPLEVEL ? Next Blog entry on Oct 28, 2013 (2013-10-22)

In general the **Refresh level** (see snap below) shown in the SIR output or SPLEVEL output of your VSE system will only be changed/modified when your system is upgraded via a Fast Service Upgrade (FSU). During a FSU the SPLEVEL.PROC will be replaced. The SIR command extracts the z/VSE Refresh level from the SPLEVEL proc.

When ever a PSB Bucket (summary of Hiper PTF's) or a RSL (summary of PTF's based on a specific Refresh level) or single PTF is applied to your system then the Refresh Level won't be modified.

The **Component levels for VSE/AF and VSE/POWER** (see snap below) are modified by a FSU, PSB Bucket and/or RSL application, by PTF application only if the VSE/AF or the VSE/POWER component is affected by the applied PTF:

- The VSE/POWER level shown by the SIR command is extracted from Phase IPW\$\$DT.
- The VSE/AF level shown by the SIR command is extracted from the supervisor (\$\$A\$SUPI)

sir

```
AR 0015 CPUID VM = xxxxxxxxxxxxxxxxxxxx VSE = FFxxxxxxxxxxxxxxxxx
AR 0015 PROCESSOR = IBM 2097-729 51 (xxxxxxx) LPAR = SPB No. = xxxx
AR 0015 CPUs = 0003 (Ded.=0000 Shr.=0003) Cap. = 10%
AR 0015 VM-SYSTEM = z/VM 6.1.0 (1301) USERID = ZVSE510 VMCF = ON
AR 0015 CPUs = 0001 Cap. = 33%
AR 0015 PROC-MODE = z/Arch(64-BIT) IPL(230) 23:47:55 EST 08/27/2013
AR 0015 SYSTEM = z/VSE 5.1.2 04/19/2013 <--- Refresh Level
AR 0015 VSE/AF 9.1.0 DY47436 02/12/2013 <--- Component Level AF
AR 0015 VSE/POWER 9.1.0 DY47302 04/12/2012 <--- Component Level
POWER
AR 0015 IPL-PROC = $IPLESA JCL-PROC = $$JCL
AR 0015 SUPVR = $$A$SUPI TURBO-DISPATCHER (81) ACTIVE
AR 0015 HARDWARE COMPRESSION ENABLED
AR 0015 SEC. MGR. = BASIC SECURITY = ONLINE
```

Thanks to my colleague Heinz for that description.

You can expect my next blog entry on Monday next week - October 28, 2013.

Archive of Ingolf's z/VSE Blog What z/VSE refresh level do I see in my SIR output or SPLEVEL ? Next Blog entry on Oct 28, 2013 (2013-10-22)

Tags: refresh, service, vse, ptf

New IBM Redbook draft available: Enhanced Networking on IBM z/VSE (2013-10-21)

My colleagues and our TCP/IP vendors are working on a new IBM Redbook. The draft is now available on the IBM Redbook page.

The title is "Enhanced Networking on IBM z/VSE"

You can find more details [here](#) - or may download it.

The IBM Redbook will address the following topics:

- Chapter 1. Overview of networking options
- Chapter 2. TCP/IP for VSE/ESA
- Chapter 3. IPv6/VSE
- Chapter 4. Fast Path to Linux on System z
- Chapter 5. OpenSSL
- Chapter 6. Comparison of stacks and protocols
- Appendix A. API reference

Tags: lfp, linux_fast_path, network, vse, tcpip, redbook

Travelling to Enterprise2013 in Orlando (2013-10-18)

I am travelling to the IBM System z Technical University at Enterprise2013 conference in Orlando. There are lots of technical sessions on IBM zEnterprise, z/OS, z/VM, Linux on System z and z/VSE.

I am not yet sure, if I can post blog entries daily next week, but I will let you know.

You can find the agenda [here](#).

May be I meet you in Orlando ?

Tags: vse, conference, zuniversity

Reminder: z/VSE Live Virtual Class - Language Environment - October 24, 2013 (2013-10-17)

The next Live Virtual Class (LVC) is scheduled for next week - October 24, 2013.

My colleagues will talk about run-time capabilities and z/VSE 5.1 enhancements as well as "hands-on" advise for callable service use programming, environment independent application execution, 4083 abend handling, some tuning tips, optional features and tools usage.

This LVC is an 80 minutes session.

Links for registration and more information are [here](#).

Do you like IBM Redbooks ? (2013-10-17)

If I have a specific topic related to operating systems, I always check our IBM Redbook pages, if there is any information available related to that. In many cases I find what I am looking for. In the past I always downloaded the pdf version of the document.

Just lately I found many of the Redbooks are available in EPUB format. That is you can download and use them on your e-reader, including iPhone, iPad or other devices in a much better format than pdf. I loaded one on my e-reader and read the book on the airplane. It was very easy to read, even going back and forward was easy.

The link to IBM Redbooks in EPUB format is [here](#).

In my RSS reader on my smart phone I also registered the IBM Redbook RSS feed to always get the latest IBM Redbook information.

This link is [here](#).

Tags: epub, redbook, rss, pdf, vse

New presentations on z/VSE web page (2013-10-15)

We just uploaded the IBM presentations held at the 7th European GSE/IBM Technical University in Hamburg.

Presentation cover z/VSE, z/VM and Linux on System z topics.

The presentation can be downloaded [here](#).

Tags: vse, gse, conference, presentations

Do you want to be a z/VSE beta customer ? (2013-10-14)

Today just a short blog entry, because I visited a customer all day.

Such visits are very important to me, because I need to understand the needs of our z/VSE customers and pain points as input for new z/VSE releases or to adjust the z/VSE releases to your requirements.

Also - to get early feedback from our customers to upcoming releases I am always looking for beta customers, that are willing to run early drivers of z/VSE in test environments (not for production) before GA with their applications.

Your benefits are that you get early information about new functionality and you may prepare for that. You need to have a VSE license and to sign a test agreement.

Would you like be a beta customer ? Just send me an email (salm@de.ibm.com).

Tags: test, customer, beta, vse

New z/VSE 5.1.2 & z/VSE 4.3.1 RSLs available (2013-10-11)

New Recommended Service Levels for z/VSE 5.1.2 and z/VSE 4.3.1 are available on our service web page.

An RSL consists of a list of all APAR/PTF numbers, which are available at specific cutoff dates. RSLs are updated more frequently than refreshes and contain all available service, not only Hiper service.

The cutoff date for these new RSLs was August 31, 2013.

You can find the RSL information [here](#).

Have a good weekend.

Tags: rsl, service, ptf, apar, vse

z/VSE requirements - any feedback ? (2013-10-10)

The IBM developerWorks Web site was under maintenance and I am in the US eastern time zone. Therefore the late posting.

I am still reviewing some z/VSE customer requirements.

They are for sure very important for customers, who raised them. I want to understand, if other customers have similar needs. May be you can help me with your feedback to get to some kind of ranking. Just send your feedback or questions to my user-id: salm@de.ibm.com

Requirements below are just listed, no priority is implied.

I already discussed the WAVV 2013 requirements in an earlier blog entry:

- WAVV201201 - VSE/Power control of TCPIP printers
- WAVV201302 - Allow AR DUMP command to direct dump output to disk
- WAVV201303 - ICSF (z/OS cryptographic services) full support
- WAVV201304 - Allow z/VSE to run without a real tape attached
- WAVV201305 - Provide Better Way To Retrieve Current APAR's/PTF's
- WAVV201306 - TCPIP printer support or alternative for CICS application printing

... and here are some more that I need to answer:

- MR0517132816 -- Hyperswap Support for z/VSE as z/VM guests
- MR0517133653 -- VSE-FlashCopy for SCSI-devices over SVC
- MR0402132247 -- Suppress AOM display on multiple consoles (option)
- MR0304135328 -- VSAM BACKUP of NONCI Format File
- MR1002125134 -- Utility to Copy/Duplicate Librarian Backup Data Sets
- MR071112311 -- DEBUG: Provide capability to include / exclude AOM messages
- MR0625126650 -- DL/I to DB2 Redirector
- MR050611235 -- Provide a Shutdown script to automate z/VSE System shutdown
- MR0527092918 -- Resolving Variable Names In SYSIPT Data
- MR0318102617 -- Multiple LIBR BACKUP jobs on a single VTAPE in VSAM Space

.... and finally some CICS requirements:

- CICS ISC Connections using TCPIP/IP

- Add more current cypher suites (AES128/256) to CICS Web support
- Channels and containers (application enablement)
- Provide the HTTP 1.1 support for CICS Web Support and SOAP
- CICS Preprocessor I/O Exit
- CICS Web support: Support for chunksize parameter
- Named Storage - EXEC CICS GETMAIN SHARED

Thanks in advance for your feedback.

If you have more requirements, just let us know. Please use our [requirements page](#) to raise them (see also CICS requirements process)..

Tags: requirements, vse, cics

I am travelling, therefore there will be no blog entry tomorrow (Oct 8) (2013-10-07)

I am travelling the next 3 weeks. I will try to continue to write blog entries as time permits.

I will keep you posted.

There is for sure no blog entry tomorrow.

Which Profiles (userid) are provided with the z/VSE initial installation ? (2013-10-07)

Just recently I got the question, how z/VSE provided profiles (user-ids) are used for.

A user profile defines a user to the z/VSE system. It indicates a user-id and password, which is used to sign on to the system. The profile defines what is invoked after you sign on. The model profiles reflect different levels of authorization.

The following user-ids are provided with z/VSE:

- SYSA - model administrator
- PROG - model programmer
- OPER - model operator
- POST - user to complete initial installation
- CICSUSER - CICS default user
- DBDCCICS - CICS partition user (F2 - after initial installation)
- PRODCICS - CICS partition user (F8 - with IBM provided job skeleton)
- CNSL - default CICS user with administrator authority for the internal master console and other internal consoles
- FORSEC - model system administrator (without VSE/ICCF)
- \$SRV - Model for problem determination
- VCSRVR - connector server / virtual tape data handler partition user

You may add your own user-ids after initial installation using the IUI dialog (Maintain User Profiles).

More information on profiles and user-ids is in the z/VSE Administration book, which may be downloaded [here](#).

z/VSE 5.1: Stand-alone dump / system dump APAR DY47471 (2013-10-04)

Today I want to inform you about a stand-alone dump APAR, that is available for z/VSE 5.1 since some weeks now.

I recommend to apply this APAR, because it resolves a few problems and helps our service team to be more efficient with their problem analysis - in case you need to send a stand-alone dump.

With this APAR the stand-alone dump uses the prefix page 0 in multiprocessor environments, which is processor specific and provides better information about the interrupt status of the failing CPU.

Corrects SDUMPX (system dump) issues such as parameter checking and wording of a message.

Please see the [APAR page](#) for details.

Important: After the corresponding PTF is applied, you have to rebuild the stand-alone dump program on disk or tape.

If you are using our dialogs (IUI), you may rebuild the stand-alone dump program by selecting

```
4  Problem Handling
then 6  Dump Program Utilities
then 1  Create Standalone Dump Program on Tape
or 2   Create Standalone Dump Program on Disk
```

to create a job which will rebuild the Stand-Alone dump program on disk or tape and will reformat the IJSYSDU dump file.

See also my blog entry on [z/VSE stand-alone dump](#).

Have a good weekend.

Tags: service, vse, apar, dump

No blog entry on October 3, 2013 (2013-10-02)

There will be no blog entry tomorrow, because October 3 is a public holiday (reunion) in Germany.

Tags: vse

Greetings from the GSE Conference .- last day - and an updated CICS fix list (2013-10-02)

Good Morning ! Today I am early.

It's the last day of the GSE conference in Hamburg, Germany.

I am looking forward to session like DB2 10.5, customer experience, news on storage and tape technology and a session about the port community system of Hamburg.

So far it was a good conference - as usual - with general sessions, news and customer experience. I also got some requirements for z/VSE, which is important for us. It's a possibility for customers to influence the contents of z/VSE releases, because when we define a new release, we always look into our requirements database first. You can raise requirements any time. More information is on this [link](#).

Just yesterday the Hursley team released an updated **CICS fix list**. You will find it [here](#) for CICS TS for VSE/ESA 1.1.1.

There is still a fix list available for the old CICS/VSE release, which is no longer in service since October 2012. This fix list is [here](#).

Tags: gse, fix_list, cics_vse, conference, cics, vse

Greetings from the GSE Conference - Day 2 (2013-10-01)

Greetings from the GSE conference in Hamburg. Again a nice day.

Today we had main tent sessions on z/VM 6.3 and Mobile Computing with System z - and now there are three tracks in parallel:

- a German track with z/VM and Linux sessions
- a German track with z/VSE sessions
- an international (English) track with z/VM, z/VSE and Linux on System z sessions.

I am looking forward to the discussions with customers and the requirements session.

If you want to get some more details about the agenda, you can find that [here](#) (this link points to a GSE web page).

You may find one or the other IBM presentation on our [conference web pages](#), when they are uploaded (will take a bit).

Tags: conference, gse, vse

Greetings from the GSE Conference - and a new Redbook (2013-09-30)

I arrived in Hamburg, Germany this morning to attend the 7th European GSE / IBM Technical University.

Greetings from Hamburg. It's nice and sunny here.

The second GSE session discussed the news about z/VM, z/VSE and Linux on System z. There was lots of news. I don't want to discuss that here. You may get this information from our web pages.

There was one Linux on System z slide that may be of interest for our z/VSE customer that follow our PIE (Protect, Integrate Extend) strategy - extend with Linux on System z.

The slide pointed to a new Redbook draft: **Set up Linux on System z for Production**. They released just a new update.

You can download this Redbook [here](#), if you are interested.

There is no Blog entry today (Friday, Sept 27) (2013-09-27)

I have to skip today.

There were too many emails, that arrived during my vacation, I need to work on and I had some guests this week.

Thanks for your feedback on my service question from yesterday.

Enjoy your weekend.

Tags: vse

Requirement WAVV201305: Provide a better way to retrieve the current APARs/PTFs (2013-09-26)

It's already late, but I am preparing my presentations for GSE. Today's entry is related to service.

At WAVV the requirement was raised to provide a better way to retrieve the current APARs/PTFs.

The requirement text is:

The introduction of RSL's provided a better method to ensure more currency with APAR's/PTF's. Unfortunately RSL's are usually 90+ days old and do NOT contain APAR's/PTF's created AFTER the 90 day cutoff. There needs to be a method that searches IBM's databases for recent CLOSED APAR's/PTF's which can be compared against a systems History File to select the more recent APAR's/PTF's.

In general I hope that there aren't too many APARs between RSLs.

I would like to have your input how that should be implemented, e.g.

- Should it be a standalone tool ?
- Should it be a web based tool, e.g. as part of the "[Technical help database](#)", where you can search for APARs ?
- Would it be sufficient, if we provide a file with the products / APARs that you can compare with your MSHP RETRACE ?
- Do you have any other ideas ?

To communicate important APARs we use our [service web page](#).

I could also post important one's in my blog.

Would that be sufficient ?

I am looking forward to your feedback. Please send it to salm@de.ibm.com.

Tags: vse, apar, wavv, service, requirements

Next z/VSE Conference is GSE in Hamburg, Germany (2013-09-25)

This is a reminder for the conference scheduled for next week - 30th September to 2nd October, 2013 - in Hamburg, Germany.

It's the 7th Europe GSE / IBM Technical University for z/VSE, z/VM and Linux with maintent sessions in Englisch and tracks in English and German.

This year's motto is "Largest scalable server integrates with Mobile".

The sessions cover news of z/VM, z/VSE and Linux on System z, customer experience, news on vendor products, hints & tips, software solutions, and many more topics. There will be a vendor area too and enough time to exchange experiences with other customers, vendors and developers.

The agenda and more information is [here](#).

I will be there.

Tags: conference, vse, gse

New IBM System z mainframe (zBC12) Redbooks page available (2013-09-24)

New IBM zEnterprise BC12 (zBC12) Redbooks are now available. You will find those Redbooks on the IBM zEnterprise System Redbook [page](#).

There are links to Redbooks

- IBM zEnterprise System Technical Introduction, SG24-8050
- IBM zEnterprise EC12 Technical Guide, SG24-8049
- IBM zEnterprise BC12 Technical Guide, SG24-8138
- IBM System z Connectivity Handbook, SG24-5444

Next Live Virtual Class on Language Environment (2013-09-23)

Welcome back !

I just returned from vacation and hope that the last three weeks passed well for you.

May be you had the time to attend the Live Virtual Class (LVC) on September 10 addressing the topic z/VSE CMT and SCRT Update.

If not, you will find the presentation [here](#).

The **next LVC** is scheduled for October 24, 2013.

My colleagues Garry Hasler and Wolfgang Bosch will present

"Language Environment for z/VSE pieces of News, Tips and Enhancements".

This LVC will show of a recap of application run-time capabilities, discuss enhancements with z/VSE 5.1, complemented by "hands-on" advise for callable service use programming, environment independent application execution, 4083 abend handling and some tuning tips. Furthermore it will highlight the benefits available with optional feature and tools usage. The session will be given in two consecutive parts.

The detailed schedule is [here](#).

Tags: lvc, le, vse

LVC Reminder, next blog entry on September 23, 2013 (2013-08-29)

This is my **150th** blog entry since I started in February. I need to celebrate that ;-)
)

I hope, you enjoyed my blog and get some interesting information about z/VSE and its environment.

Please let me know, what topic you would expect for future entries.

Before I leave for vacation, I want to remind you on our next Live Virtual Class (LVC). I posted some information on [August 16](#), and you will find the details on our [web page](#).

This time my colleague will talk about "z/VSE CMT and SCRT Update".

You can expect my next blog entry on **September 23, 2013**. Have a good time until then.

Tags: vse, lvc

z/VSE internals: Are you aware of one megabyte frames ? (2013-08-28)

It's again late today, but as you may know, just before vacation these are always long days.

Today I want to talk about megabyte (1 MB) frame support in z/VSE.

1 MB frames or large pages are available on z10 and zEnterprise processors. It's more an z/VSE internal item, because applications don't care about it. It's transparent to application. Usually the virtual and real storage is organized in 4 KB (page) sizes. With 1 MB frame support one MB of virtual storage is backed with a 1 MB (real) frame, if enough processor (real) storage is available. The virtual storage assign to a 1 MB frame can be viewed as being "fixed", because paging does not occur. 1 MB frame support is available in LPAR mode only.

z/VSE uses 1 MB frames to back virtual storage of data spaces. Long running applications accessing data spaces frequently might benefit from improved CPU utilization. z/VSE decides internally when and how data spaces will be backed with 1 MB frames. Therefore a data space may consist of both "fixed" and "pageable" virtual storage.

If the z/VSE system runs out of processor storage, one or more 1 MB frames used for backing data spaces will be made available again for use by the system. That is the one MB virtual storage will then be backed with 4 KB frames and now can be paged. You might increase the processor storage to avoid that situation.

All data spaces that you define with a maximum size of at least 960 KB will benefit from 1 MB frames as long as sufficient processor storage is available.

No configuration option is required.

Tags: frames, internals, vse, paging

Do you want to install your z/VSE system on SCSI devices ? (2013-08-27)

Today I am late.

[In April](#) I posted already some information about z/VSE's SCSI support. We are getting more and more customer interest in that storage option. Therefore I want to give some more details about our SCSI support today.

z/VSE supports SCSI devices since 2005 native (in LPAR) as well as in z/VM guests. Yes, z/VM support SCSI devices too and Linux on System z since SCSI is supported on the mainframe.

z/VSE supports SCSI disk devices only, such as the IBM Storewize V7000, IBM XIV Storage System, devices available through the IBM SAN Volume Controller (SVC) or the IBM System Storage DS8000.

You can run z/VSE on SCSI only systems, that is you can install the system devices (DOSRES, SYSWK1) as well as your data devices on SCSI disks without a dependency on ECKD disks. Applications use FBA (Fixed Block Architecture) channel programs or FBA interfaces to access SCSI disks. The FBA requests are translated to SCSI commands on low level I/O interfaces. Therefore the SCSI support is transparent to FBA or device independent applications. z/VSE supports up to 25 GB per volume, VSAM can use up to 16 GB per volume. If you are running z/VSE in a z/VM guest, you may use direct attached SCSI disks, minidisks or emulated FBA disks. Emulated FBA disks can have up to 2 GB per volume, which is the architected FBA size. Then z/VSE uses FBA I/O to those emulated FBA disks.

Migration:

Data on FBA and SCSI devices are organized in blocks instead of tracks on ECKD devices. That is if you migrate from ECKD to SCSI, you have to change the EXTENT job control statements, which define the location of the data. Most applications are written device independent, but if an application does I/O via ECKD channel commands, it needs to be adapted. z/VSE. Fast Service Upgrade (FSU) from z/VSE systems running on ECKD to z/VSE systems on SCSI is not support. In that migration scenario you have to do a new install. FSU to a new z/VSE release from SCSI to SCSI environments is supported as you can expected.

I would start with the [z/VSE Planning book](#) for details on SCSI.

Please let me know, if you have any questions.

Tags: scsi, migration, vse

Are you interested in monitoring your z/VSE system ? (2013-08-26)

If you want to monitor your z/VSE system, you may be interested in z/VSE's application framework based on SNMP (Simple Network Management Protocol) and TCP/IP. Some (vendor) monitoring software running on a workstation already exploit our SNMP interfaces, but you may also write your own applications. z/VSE supports SNMP version 1 requests.

The application frame work consists of thee layers:

- A client, that runs e.g. on a workstation with monitoring software installed,
- The VSE monitoring agent , which processes requests from the client, controls access to business logic and data, The monitoring agent is a batch program, that runs in a z/VSE partition.
- Plug-ins, which provide access to z/VSE data and data of your programs. You may write your own plug-ins to access data of your programs. z/VSE provides a CPU plugin to collect CPU data, a system plugin to collect system data and a sample plugin, that you may adapt to your needs..

Besides the SNMP requests, z/VSE supports a trap client API, that allows to monitor the progress of a z/VSE job or application.

You can find more details in the [z/VSE e-business Connectors User's Guide](#).

Tags: connector, snmp, vse, monitor

How to determine the release/service level of your z/VSE system ? (2013-08-23)

A good way to retrieve the release or service level of your z/VSE system is the SIR command. SIR is the appreciation for System Information Report.

SIR provides system information as well as system functions. In an earlier blog entry I already described the functionality of the SIR command briefly.

Today I just discuss the SIR Attention Routine (console) command without any parameter.

SIR shows, if you are running in a z/VM guest or LPAR environment. You get the CPU id of the LPAR and z/VM guest, the processor , LPAR information, the z/VM release level and guest user id, the number of (virtual) CPUs available for z/VSE and capping value.

SIR display the z/VSE release / refresh level and for VSE/AF, VSE/POWER the release / refresh and APAR level with the corresponding service dates. You also see the names of the IPL and JCL procedures. There are some more statistics displayed.

In case of a problem, it is always good to send the SIR output to the z/VSE service team.

The SIR command is described in the [z/VSE Hints & Tips book](#).

Enjoy your weekend.

Do you want to monitor the GETVIS usage of your z/VSE system ? (2013-08-22)

Certain functions need to acquire virtual storage dynamically during job and program execution. The dynamic storage can be requested, e.g. by using the GETVIS system service, that allocates virtual storage in the GETVIS area. GETVIS areas are allocated below the bar (below 2 GB).

There are three GETVIS areas:

- Partition (in z/OS terms Region) GETVIS area: Each partition has its own partition GETVIS area which may cross the 16MB line depending on the allocation value, the size of the GETVIS area and the requested location (below 16 MB or ANYwhere within the Partition GETVIS area).
- System GETVIS area: This area is reserved for system use. It is permanently assigned and belongs to the shared areas of virtual storage. z/VSE supports a 24-bit and a 31-bit system GETVIS area located in the corresponding shared areas.
- Dynamic space GETVIS area: z/VSE supports a 24-bit dynamic space GETVIS area. It can be considered as an extension of the system GETVIS area and is defined via the dynamic class table. The area exists from dynamic partition initialization until partition deactivation and is allocated per address space.

Sometimes it may be necessary to monitor the usage of the GETVIS are, e.g. in case of GETVIS shortage, or if GETVIS usage grow over time.

There are non-IBM tools and performance monitors available to analyze such problems. In less complex cases our **GETVIS command** may be useful. The GETVIS command displays information about the current size, allocation, and usage of the GETVIS area of a static or dynamic partition or of the system GETVIS area.

The GETVIS SVA or GETVIS <partition> commands provide information about the GETVIS 24-bit and overall usage as well as the largest free areas and the maxim area ever used. If you want to get more information, just at the DETAILS or ALL parameter, such as GETVIS SVA,DETAILS. DETAILS displays the subpool names and their allocations. ALL displays the subpool names and their usage.

With these parameters you may get information on subpools, that have an increased need for GETVIS space. Just issue the command from time to time. Or,

you may get information on how to adapt the partition allocations or system GETVIS definitions.

The GETVIS command is described in the [z/VSE Control Statements book](#).

Tags: vse, getvis

Reminder for upcoming conferences (2013-08-21)

Today I want to remind you about upcoming conferences with z/VSE coverage in September / October 2013.

The first conference is the 7th European GSE/IBM Technical University for z/VSE, z/VM and Linux on System z in Hamburg, Germany from September 30 to October 2, 2013. This conference has a German as well as an international (English) track.

The 2nd conference is the 2013 IBM System z Technical University in Orlando, Florida from October 21 to 25, 2013.

Links and more information is on our [Events web page](#).

Tags: vse, gse, conference, zuniversity

Are you running your z/VSE system with multiple CPUs active ? (2013-08-20)

z/VSE workloads run best on uni-, two or three processors (CPUs). How many processors your z/VSE workload can exploit depends on your non-parallel share (NPS), that is the ratio of the non-parallel work units to all work units. The z/VSE Turbo Dispatcher controls the selection of work units to CPUs. A work unit is defined as a set of instructions, that is executed from the selection by the z/VSE Turbo dispatcher until the next interrupt. A z/VSE job consists of many work units. One work unit of a job can be processed at a time, that is no other work unit of the same job can run on a different CPU. That means for multitasking applications (applications with z/VSE subtasks attached), no other task of the same job can execute on a different CPU, if one task of that job is already active.

A z/VSE job consists of non-parallel and/or parallel work units.

Most customer applications - batch and on-line (CICS), are processed as parallel work units. However, if an application calls a Supervisor service, it has to process non-parallel work units.

Non-parallel work units are most system services and key 0 applications, such as Supervisor and VTAM services. Only one CPU (started for the z/VSE system) may process a non-parallel work unit at a time, that is as long as this work unit type is active, no other CPU can process a non-parallel work unit. Any other job, that wants to process a non-parallel work unit, has to wait until no other CPU processes a non-parallel work unit. However, other CPUs may process parallel work units of tasks within the same job or other jobs.

Back to non-parallel share (NPS): The QUERY TD shows the non-parallel share (NP/TOT value) since the last IPL or counter reset (via SYSDEF TD, RESETCNT).

The higher the NPS is, the lower the multiprocessor exploitation will be. E.g. a NPS value of 0.3 may allow the exploitation of three processors, 0.5 up to two processors. Heavy I/O workloads usually limit the exploitation of processors. They have a high NPS value. To reduce the multiprocessor overhead, please only start CPUs that you really need. Best would be to run the workload on a uni-processor, if the uni is large enough for your workload.

If your workload has different CPU requirements during day and night I recommend CPU balancing. CPU balancing starts only additional CPUs, if that's required for the workload. That is you can reduce multiprocessing overhead. It is easy to activate CPU balancing. Just start it with the SYSDEF TD,INT=

command. Use an inspection interval of e.g. 9 seconds (INT=9), leave the threshold (THR 50) as is. The z/VSE Turbo Dispatcher will now inspect the CPU utilization every 9 seconds. If the CPU utilization passes 50 %, an additional CPU will be added.

More information is in the z/VSE Hints and Tips for z/VSE 5.1, in the z/VSE System Control Statements book or in our performance documentation - located on our documentation [web page](#).

Please let me know, if this post was useful.

If you don't want to answer by email or comment, just view this post ;-)

Tags: turbo_dispatcher, vse, cpu, cpu-balancing

How to get a list of (IBM) products of your z/VSE system ? (2013-08-19)

The Maintain System History Program (MSHP) can be used to retrieve a list of z/VSE products or components. MSHP is a service program to service and install IBM products. Installed components / products (parts) are registered in the System History File named IJSYSHF.. It is a permanent file that reflects the information about the parts contained in your system and the service applied to them. All changes made to your system via MSHP commands are recorded in the System History File.

You may use the MSHP RETRACE PRODUCTS statement to print information about products / components.

Just submit a job like this:

```
// JOB RETRPRD
// ASSGN SYS018,DISK,VOL=DOSRES,SHR
// DLBL IJSYSHF,'VSE.SYSTEM.HISTORY.FILE',99/366,SD
// EXTENT SYS018,DOSRES,..... <location of file>
// EXEC MSHP
  RETRACE PRODUCTS
/*
/ &
```

You may also use the IUI dialog to submit the job:

From the administrator main panel goto -> 1 - Installation -> 4 - IBM Service -> 4 - Retrace History File -> 2 - Retrace Products. Before you submit the job (on panel Job Disposition) you may store the Job Control Statements into your Primary ICCF library (Job Destination = 3).

MSHP is described in z/VSE System Control Statements, the dialogs in z/VSE System Upgrade and Service.

Both books are on our [z/VSE documentation web page](#).

Tags: product, service, vse, mshp

You may register for the next z/VSE Live Virtual Class (LVC) now. (2013-08-16)

The next Live Virtual Class is scheduled for September 10, 2013 with the topic "z/VSE CMT and SCRT Update".

Registration is open now.

The session provides a technical overview of the implementation of sub-capacity software pricing in a z/VSE environment using the z/VSE Capacity Measurement Tool (CMT) and Sub-Capacity Reporting Tool (SCRT). It introduces the basis for the sub-capacity software pricing. It explains the measurement data gathering process, using the CMT, and sub-capacity report generation, using the SCRT. It provides a short overview of past CMT enhancements and user errors, to be avoided.

Speaker: Jens Remus, IBM

Date: Tuesday, September 10, 2013

Duration: 60 minutes

Please visit our [web page](#) for the schedule and registration.

A requirement I got for one of my LVC blog entries to provide a ".ics" reminder with the registration should also work now.

Have a good weekend.

Tags: vse, scrt, lvc

z/VSE internals: z/Architecture mode and low core - what is special in z/VSE ? (2013-08-15)

Processors like MP3000 support ESA/390 mode only. In ESA/390 mode you can address up to 2 GB (Gigabyte) real and virtual storage.. All System z processors (z800, z890, z9, z10 and zEnterprise) support ESA/390 as well as z/Architecture mode. In z/Architecture mode you can access more than 2 GB real and virtual storage - in z/VSE up to 32 GB real and up to 90 GB virtual storage.

z/VSE runs in z/Architecture mode since z/VSE 4.1. To hold the larger addresses (8 byte addresses instead of 4 byte addresses) the location of the interrupt information changed, such as the location for I/O, program, supervisor call and external interrupt information. The interrupt information is stored in low core (prefix area - starting at address zero), which is 4 KB (Kilobyte) in ESA/390 mode and 8 KB in z/Architecture mode.

To avoid the adaption of system routines and vendor applications to the new z/Architecture layout, z/VSE emulates the z/Architecture interrupt information to the corresponding ESA/390 locations. That is most of the system routines and vendor applications still use the ESA/390 interrupt information executing in z/Archetecture mode. No adaption was necessary in most cases. That reduces the effort to support z/Architectre mode significantly - or even better - no change was required for nearly all applications.

This is just an example how z/VSE always tries to make it easy even for system application to migrate to new releases.

Tags: vse, internals, low_core

Why do you need a z/VSE page data set ? (2013-08-14)

Some z/VSE releases ago a page data set (PDS) was always required to map virtual storage. The PDS size is mainly dependent on VSIZE and VIO as defined in the IPL Supervisor Parameters Command. Growing workloads require more virtual storage, that is larger page data sets. On ECKD the initialization of large PDSes may take a relatively long time. You can avoid that, if you allocate the page data set on FBA (e.g. minidisks on z/VM) or FBA-SCSI disks, because they do not need to be formatted.

Since some time we have the NOPDS option. With the NOPDS option you can run z/VSE without a page data set, if your processor storage can cover the required virtual storage size (VSIZE + VIO). That is there will be no page I/O to the PDS, and you can avoid double paging in z/VM environments (paging by z/VSE and z/VM), Your workload may perform better. NOPDS can be specified in the Supervisor Parameters Command.

If your System z configuration allows, I would run with the NOPDS option. If your z/VM system can handle the storage size of the z/VSE guest, I would also run without the page dataset.

The Supervisor Parameters Command is described in the z/VSE System Control Statements. PDS considerations are discussed in the z/VSE Planning book. Both books are on our [z/VSE documentation web page](#).

Tags: page_data_set, performance, vse

Are you interested in some performance tips for your z/VSE system ? (2013-08-13)

During the conferences like WAVV and zUniversity we always prepare a z/VSE performance session. The last session was in Covington, KY, the next one will be at the zUniveristy in Orlando, Fl. in October.

The z/VSE performance update presentation at WAVV can be downloaded [here](#).

The presentation covers CPU overhead deltas for z/VSE release migrations (usually 3 - 5% per release), z/VSE 4.3 as well as z/VSE 5.1 performance considerations, some facts about the sizing of a system for z/VSE, useful tools, z/VM and Linux considerations.

z/VSE 5.1 Layer 2 support and connectivity options with zBX (2013-08-12)

Before z/VSE 5.1 z/VSE only supported **Layer 3** configurations. Layer 3 is the network layer (IP) of the TCP/IP protocol stack (Open Systems Interconnection - OSI model). With Layer 3 the TCP/IP stack uses IP packets that include IP addresses to determine source and destination. Layer 3 is supported by both z/VSE TCP/IP Stacks - TCP/IP for VSE/ESA (licensed from CSI) and IPv6/VSE (licensed from BSI).

Since z/VSE 5.1 **Layer 2** - the data link layer of the OSI model - is supported in addition to Layer 3. In Layer 2 configurations the TCP/IP stack uses Ethernet frames that include MAC addresses to determine source and destination. Layer 2 is supported by the TCP/IP stack IPv6/VSE only.

The use of Layer 2 and Layer 3 is transparent to TCP/IP applications. Layer 3 is the default mode for z/VSE devices of type OSAX (OSA Express, HiperSockets).

IPv6/VSE V1.1 adds Layer 2 support for OSA Express devices (CHPID type OSD or OSX) when used in an IPv6 link. Layer 2 has to be specified explicitly in the IPv6/VSE configuration. You can now include a z/VM VSWITCH into your z/VSE IPv6 configuration.

When accessing the Intra-Ensemble Data Network (IEDN) through a z/VM VSWITCH connected to a zEnterprise Blade Center Extension (zBX) you can use IPv6 links in addition to IPv4 links.

zBX is a new infrastructure, that can be connected to the zEnterprise system, running POWER and System x compute elements. The zBX network connectivity options (including Layer 2 and Layer 3) are described in a new [IBM Redpaper](#) draft.

You may start with the [z/VSE Planning](#) book to read about z/VSE's connectivity options.

Tags: vse, network, layer_2, layer_3

Do you use Hipersockets with z/VSE ? (2013-08-09)

HiperSockets is a feature of the System z mainframe. It can be used like a "network in a box". It allows to interconnect operating system with z/VSE running on the same System z mainframe. LPARs and z/VM guests can be connected. Communication through HiperSockets is fast, secure and reliable, because no cabling is required. z/VSE may communicate with other z/VSE systems, z/OS, z/VM or Linux on System z.

The latest HiperSockets enhancement for z/VSE 5.1 was the support of HiperSockets Completion Queues, available on zEnterprise processors, such as z114 and zBC12.

HiperSockets Completion Queues support provides a mechanism by which the hardware can buffer requests and perform them asynchronously. This support was required to allow Linux Fast Path (LFP) in LPAR, that is both z/VSE and Linux on System can run in LPAR. There is no longer a z/VM dependency as it was with z/VSE 4.3 and before that System z enhancement.

More information is in the [z/VSE Planning, z/VSE Administration books](#) and on that [web page](#).

Have a good weekend.

z/VM 6.3 is available since a few days (2013-08-08)

A few weeks ago I posted information about the z/VM 6.3 announcement - see my [July 24 blog entry](#).

In between z/VM 6.3 is available.

Just a few z/VM 6.3 facts:

- support for 1 TB real storage
 - better performance for larger virtual machines
 - more virtual machines can be consolidated in a single LPAR
- improved performance with z/VM HiperDispatch
- support for zEC12 and zBC12 servers

You can find some more information on the [z/VM 6.3 web page](#).

Tags: zvm, vse, availability

z/VSE stand-alone dump program (2013-08-07)

Today I want to talk briefly about our stand-alone dump program. I hope you never need it and your system always runs fine.

But in case of a system loop or hardwait the most valuable information for problem analysis is a stand-alone dump.

You may write the stand-alone dump to tape or (ECKD / FBA) disk. Because of performance reasons I would prefer the stand-alone dump to disk to reduce the down time.

If you upgrade your system to a new z/VSE version, release or refresh level, please always create a new stand-alone dump program (tape or disk) with the DOSVSDMP utility.

If you have to take a stand-alone, please "store status" first and IPL the stand-alone dump program on tape or disk.

You may set the priority order for partitions, data spaces and memory objects via the Job Control "// OPTION" statement.

More information is in the z/VSE Diagnosis Tools and z/VSE Hints & Tips books, that are located on our [documentation web page](#)..

Tags: stand-alone_dump, dump, service, vse

Small VSE/VSAM enhancement for LISTCAT available (2013-08-06)

A small VSE/VSAM enhancement was implemented with APAR DY47478 for z/VSE 4.3. The z/VSE 5.1 version will be available soon with APAR DY47482.

The APAR fixes an IDCAMS LISTCAT loop for a large number of datasets residing on one volume (more than 5000 VSAM datasets per volume). With this APAR applied IDCAMS LISTCAT will provide part of the output along with the error message:

```
IDC3009I ** VSAM CATALOG RETURN CODE IS 44 - REASON CODE IS  
IGGOCLAZ-4
```

Messages and Codes book to be updated accordingly:

IDCAMS Return and Reason Codes section Return Code 44 - Reason Code 4

=====

Explanation:

It has been detected that the catalog work area size required for LISTCAT processing exceeds 64K. Usually caused by the large amount of data sets (over 5000) residing on single volume. Only part of the LISTCAT output is displayed.

Programmer Response:

Reorganize the catalog to have less number of data sets per single volume or limit the LISTCAT output requested by specifying parameters like ENTRIES or entry-type.

You may check for APARs with this [link](#).

Tags: vse, apar, vsam, service

Hints and Tips for z/VSE 5.1 (2013-08-05)

Do you know the Hints and Tips for z/VSE 5.1 book ?

It is available since some month now. The contents is provided by z/VSE developers, the Level 2 and change teams.

The Hints & Tips give more insight into some functions, how they work and how to get more use out of the z/VSE system - also based on the feedback we got from customers and vendors. It provides some background of new and existing functions. It may help to analyze or solve problems as well as prepare material for the z/VSE service team - just in case.

Below are Hints & Tips for z/VSE 5.1 chapters:

System control program; Internal Attention Routine commands; z/VSE Turbo Dispatcher and exploitation; Console; Job Control; VSE/POWER; Librarian; VSE/VSAM; VSE/ICCF; REXX/VSE; Tape Library Support; Language Environment for VSE; z/VSE Security and CICS/VSE migration; CICS TS for z/VSE; Crypto and SSL; IWS file transfer; Interactive interface, system files and configuration; VSE e-business connectors; VSE Health Checker; Debug Tool for VSE/ESA and more.

Please let us know, if you want to get more information on one or the other topic - or which topic we should add.

The book can be downloaded [here](#).

Tags: vse, hints, book, tips

There will be no blog entry on Friday (August 2, 2013) (2013-08-01)

z/VSE PSP bucket for zBC12 available (2013-08-01)

The Preventive Service Planning (PSP) bucket for the new zBC12 mainframe is available. You can find the PSP [here](#).

PSP buckets for z/VSE contain all Hiper PTFs and other recommended service for a specific set of products, components or new hardware. More information on PSPs is on our [service web page \(preventive service\)](#).

The PSP content may change. Therefore please check the zBC12 PSP page again before you order PTFs.

Tags: service, vse, psp, zbc12

New z/VSE Collection Kit July 2013 available for download (2013-07-31)

A new z/VSE collection kit is available in the IBM Publication Center. The collection kit includes all updated books for the new z/VSE 5.1 functionality provided in June 2013.

You can download the collection kit as follows:

1. Go to the [IBM Publication Center](#)
2. Select your language
3. Select "Search for publications" on next web page
4. Use the "Quick Publication Center search" (on next page) to locate the collection kit.
Search on "z/VSE Collection July 2013" or the publication number SK3T-8348-11.
5. Download the collection kit (on next page)

This z/VSE 5.1 collection is electronic-only. No Physical DVD is available.

Tags: documentation, vse, collection_kit

New System z Redbook Drafts & z/VSE Live Virtual Class (2013-07-30)

Today I want to make you aware of two new **IBM Redbook drafts**:

1. IBM System z Connectivity Handbook

This IBM Redbooks publication discusses the connectivity options available for use within and beyond the data center for the following IBM System z family of mainframes: zEC12, zBC12, z196, z114, z10 BC and z10 EC. Details are on the [Redbook page](#).

2. IBM zEnterprise System Technical Introduction

This IBM Redbooks publication describes the zEC12 and zBC12, with their improved scalability, performance, security, resiliency, availability, and virtualization. See the related [Redbooks page](#) for details.

If you are interested in our **z/VSE Live Virtual Classes (LVC)**, the next one is targeted for September 10, 2013 with the topic "SCRT and Capacity Measurement Tools". See the [z/VSE web page](#) for the announcement

Tags: redbook, vse, lvc, live-virtual-class

z/VSE 5.1: CICS TS Support for VSE/Power punched output to a z/VSE sublibrary member (2013-07-29)

If you are running on z/VSE 5.1 and using the new * \$\$ PUN statement format to allow punched output to be written directly into a z/VSE sublibrary member, you may be interested in the CICS TS for VSE/ESA APAR "**PM90076**: ENABLE DFHMSD TYPE=FINAL TO AVOID PUNCHING A LIBR /+ STATEMENT".

PROBLEM DESCRIPTION: Provide options to stop DFHMSD punching a /+ statement when creating a BMS symbolic description map.

Please see the [APAR description](#) for details.

Tags: cics, vse, vse-power, apar

CICS TS for VSE performance impact when using invalid VSAM file names (2013-07-26)

Today a CICS TS performance tip:

If you pass an 8 byte VSAM file name, e.g. "VSETESTC", you may see more CPU cycles than it should.

Reason: A valid VSAM file name should have a maximum of 7 bytes and a space as documented in the CICS Application Programming Reference (of the [CICS bookshelf](#)). An invalid specification causes CICS to spend some more CPU cycles to resolve it.

If you change the program to use a correct "7 bytes + space" file name, e.g. "VSETEST ", you can avoid such overhead.

Your program runs faster.

The old CICS/VSE was more tolerant of the wrong length file name. You may consider that, if you are still on CICS/VSE and plan to migrate to CICS TS.

Enjoy your weekend.

This weekend becomes hot in some areas of Germany - up to 40 C (about 100 F).

Tags: cics, vse, performance, tips, vsam

z/VSE: New OSA/SF configuration with zBC12 (2013-07-25)

OSA/SF is now available on the HMC for zBC12 (and the enhanced zEC12): OSA Advanced Facilities on the Hardware Management Console (HMC) has been enhanced to provide configuration, validation, activation, and display support exclusively for the OSA-Express5S and OSA-Express4S features. For these features, the Advanced Facilities function on the HMC is used instead of the Open Systems Adapter Support Facility (OSA/SF) - a component of z/OS , z/VM , and z/VSE.

OSA/SF on the HMC can be used to configure channel path identifier (CHPID) type OSE. It can be used to manage (query/display) CHPID types OSD, OSE, and OSN.

OSA-Express cards provide networking features for 1000BASE-T Ethernet, Gigabit Ethernet and 10 Gigabit Ethernet.

See the [zBC12 announcement letter](#) for more details.

The OSA-Express3 card on a zBC12 must still be configured using the OSA/SF component on z/VSE. Please ensure that you have the latest OSA/SF PTFs applied.

Besides the HMC configuration you may configure OSA-Express4S via the OSA/SF component on z/VSE too. However, the new OSA-Express5S card can only be configured via the HMC.

See also our [z/VSE adapter and crypto support](#) page.

Tags: zbc12, osa_express, osa, vse, network, hmc

New z/VM 6.3 release announced (2013-07-24)

Besides the mainframe announcements yesterday, IBM also announced a new z/VM release - z/VM 6.3.

As mentioned in earlier blogs about 50% of our z/VSE customers are running their z/VSE systems in z/VM guests. Therefore this announcement is also relevant for our z/VSE customers.

The new z/VM 6.3 release will improve performance for large z/VM environments, provide simplified migration to z/VM 6.3, supports for the new zEC12 and zBC12 servers and more.

Detailed information is on the [z/VM 6.3 web page](#).

By the way the zBC12 updates on the [z/VSE web pages](#) are now live.

Tags: announcement, vse, zvm, vm

New System z mainframe announced today: IBM zEnterprise BC12 - and zEC12 enhancements (2013-07-23)

Today IBM announce a new System z mainframe - the IBM zEnterprise BC12 (zBC12).

The zEnterprise BC12 (zBC12) is the successor to the z114 and very well suited for z/VSE workloads. More information is on the [System z web page](#) or in the [announcement letter](#).

zEC12 enhancements are announced too. Details are in the [announcement letter](#).

Please see the announcement letters for availability dates.

Our releases in service - z/VSE 4.3 and z/VSE 5.1 - support the new zBC12 at day one - as always (see [z/VSE server support](#)).

If you are still running on unsupported releases, please see our [support matrix](#). E.g. z/VSE 4.1 and z/VSE 4.2 do not need additional PTFs to run on zBC12 (if you are on the latest service level).

Please give one more day for the z/VSE status page updates.

Tags: zbc12, zec12, announcement, vse

No Blog entry today (Monday July 7, 2013) (2013-07-22)

There will be no blog entry today, because I have to upgrade my laptop from Window XP to Windows 7 and may have no access to the network.

You will see the next entry tomorrow.

Enjoy the day. Weather in Germany is sunny and around 31 C (90 F).

Tags: vse

Are you looking for new IBM storage devices supported by z/VSE ? (2013-07-19)

If you want to get information about IBM storage devices for z/VSE, you may go to the [IBM System Storage Interoperability Center \(SSIC\)](#).

In the SSIC you can select the host platform "IBM System z", operating system, e.g. "IBM z/VSE 5.1. Now you may select the storage family, storage version, connection protocol, server model , ...

If you do not find the storage you are looking for, you may consult the [z/VSE Planning](#) book or our [z/VSE storage support](#) web page.

Have a good weekend.

Tags: support, vse, storage, planning

How to get control during z/VSE system startup (2013-07-18)

It may be necessary to have control (enter commands) before the first "// JOB" statement after the IPL complete message.

For example the hardcopy or the recorder file will be opened during the execution of the first JOB statement. If you need to recreate one of these files, you have to enter the corresponding commands (e.g. SET HC=CREATE or SET RF=CREATE) before the first // JOB statement, however.

The following "procedure" may be used to interrupt the startup process:

1. Specify the IPL parameter LOADPARAM ..P
2. You will be prompted to enter the Supervisor or ASI parameters
3. Enter your IPL procedure and a JCL procedure, e.g.
IPL=\$IPLESA,JCL=\$\$JCLXXX, where the procedure \$\$JCLXXX does not exist.
4. You will be prompted after IPL complete with message:
BG 0000 // EXEC PROC=\$\$JCLXXX STATEMENT IS GENERATED
BG-0000 1N20D PROCEDURE NOT FOUND
5. Now you can instruct z/VSE e.g. to recreate the hardcopy file with the command SET HC=CREATE - see book [z/VSE System Control Statements](#) for details
6. Continue with your BG startup procedure - e.g. // EXEC PROC=\$\$JCL
It is just necessary to process the first // JOB statement to open the hardcopy file.
7. Re-IPL your system

Please be careful when using such system commands.

Tags: vse, hardcopy_file, recorder_file, ipl, startup, job, system_startup

z/VSE Documentation - Are you looking for a specific release or topic ? (2013-07-17)

If you are looking for the documentation of a VSE release, even old releases that are out of service since more than 10 years, you may find those books in the [z/VSE Internet Library](#). Just use the "z/VSE or VSE/ESA" in "Search titles" and you will get some of the books or use "[List all z/VSE bookshelves](#)" to get all available bookshelves and related books.

With "Search text" you may even find a specific topic in a book, e.g. if you want to get information about a user macro.

Tags: documentation, vse

Do you know the resource consumption of your z/VSE workload ? (2013-07-16)

I accompanied many z/VSE migrations to new releases or new hardware over the last years. In some cases we were involved after the migration, because the system didn't meet the expectations. In nearly all of those cases performance data of the system prior to the migration was not available, such as CPU utilization or I/O rates.

Therefore I recommend to measure the resource consumption (CPU utilization, I/O rates, ...) regularly, Not just, if you plan a migration, but also to detect e.g. resource shortages, growing workloads and for future planning purposes. Always use days with comparable workloads.

In case of a migration please measure your workload before the migration and after each migration step. That is e.g. before a migration to new hardware (processor, disk, ...) and after that, before migration to a new z/VSE release and after that.

Please do not migrate to new hardware and a new z/VSE release in one step. My recommendation is to migrate to new hardware first with the current release, wait some weeks and then migrate to a new release.

To measure your workload you may use performance monitors from vendors or functions / tools that are included in z/VSE or that are available on our web pages for download.

E.g. to measure the CPU utilization / activity of your z/VSE system you may use the QUERY TD attention routine (AR) command, the IUI system activity dialog or the CPU monitor tool.

See the [blog entry from July 1](#) related to this topic.

Tags: performance, measurement, vse, migration

Updates on z/VSE's download page (2013-07-15)

I am not sure, if you have noticed that there were some updates on [z/VSE's download page](#) within the last two month.

The following connectors were updated:

- VSE Script Server
- VSE Connector Client
- z/VSE Database Connector

The tool "LE/VSE CEETRACE feature" was updated too.

Tags: connector, tools, download, vse

VSE/POWER enhancement in z/VSE 5.1: TKN job attribute (2013-07-12)

z/VSE users that installed or migrated to z/VSE 5.1 have already noticed that each VSE/POWER job and all of its spooled output have a TKN job attribute.

A VSE/POWER job can create multiple LST and PUN outputs. With the TKN job attribute VSE/POWER operator commands can now address all spooled outputs of one job as an entity. The CTKN operand has been added to PALTER, PDELETE, PDISPLAY, PHOLD; POFFLOAD, SELECT and PRELEASE commands to select output produced by a specific job.

The TKN attribute is defined either by the job submitter via the TKN operand of the "*" \$\$ JOB" statement or by VSE/POWER itself, if no TKN operand is specified. In the latter case VSE/POWER will select a hexadecimal value between 00000001 and 7FFFFFFF.

Enjoy your weekend.

Tags: vse, vse-power, job

News from z/VSE service: RSLs are available (2013-07-11)

The Recommended Service Level (RSL) for z/VSE 5.1.2 and z/VSE 4.3.1 was upgraded to the June 18, 2013 PTF level.

An RSL consists of a list of all APAR/PTF numbers, which are available at specific cutoff dates. RSLs are updated more frequently than refreshes and contain all available service, not only the hiper service.

The RSL information is published on our preventive service web page - [here](#).

New PTFs are indicated by an asterisk.

Tags: service, vse, rsl

Next z/VSE conference (2013-07-10)

Because summer vacation time is starting, I want to make you already aware, that the next z/VSE conference is scheduled for September 30 to October 2, 2013 in Hamburg, Germany.

It's the "7th European GSE / IBM Technical University for z/VSE, z/VM and Linux on System z". The link to the conference page is [here](#).

Latest z/VSE announcement related to IBM IPv6/VSE (2013-07-09)

z/VSE licenses TCP/IP stacks and applications from two vendors (ISVs):

- TCP/IP for VSE/ESA - a full function TCP/IP stack and applications for IPv4 communication licensed from CSI International
- IPv6/VSE - a full function TCP/IP stack and applications for IPv4 and IPv6 communication licensed from Barnard Software, Inc. (BSI)

IBM announced a few weeks ago, decreases in monthly workload license charges (MWLC) and advanced entry workload license charges (AEWLC) on a selected IBM IPv6/VSE software product. This fulfills the Statement of Directions announced on April 2nd, 2013.

If you are interested, please see the [announcement](#) or the [z/VSE web page](#) for more information.

Tags: ipv6_vse, tcpip, pricing, vse

How can a 31 bit program be changed to use z/VSE memory objects ? (2013-07-08)

z/VSE 5.1 supports 64 bit virtual addressing. To allow access to virtual storage above 2 GB, the program has to define memory objects (chunks of virtual storage) via the IARV64 assembler macro.

The benefit of 64 bit virtual is not just to have access to a large amount of virtual storage, it also provides the capability to access virtual storage without changing partition allocations or startup procedures. You just need to have enough VSIZE (virtual storage defined at IPL time) available and to issue the command "sysdef memobj,limit=20m", where limit defines the available storage for memory objects in megabytes (in the example 20 MB).

As shown in the following example it is not that hard to change a program that uses GETVIS storage to use 64 bit virtual storage (above 2 GB).

First an extract of a small program using **GETVIS / FREEVIS**:

```
GETVIS ADDRESS=ADDR,LENGTH=LEN,LOC=ANY <<<<< allocate GETVIS
storage
```

```
LTR 15,15
```

```
BNZ ERR1
```

```
L 4,ADDR          load the address (ADDR) into
register 4
```

```
MVC 0(30,4),INFO  <<<<< move some data into
GETVIS storage
```

```
FREEVIS ADDRESS=ADDR,LENGTH=LEN <<<<< free storage
```

```
LTR 15,15
```

```
check return code
```

```
BNZ ERR2
```

```
.....
```

```
* Data Area
```

```
DATA DS 0F          align to fullword
```

```
LEN DC F'10000000'  GETVIS storage to be allocated
```

```
ADDR DC A(0)        address returned by GETVIS
```

```
INFO DC CL30'THIS IS A GETVIS TEST !'
```


Instead of GETVIS / FREEVIS we are now using **IARV64 services** to allocate 64 bit virtual storage:

```

SYSSTATE AMODE64=YES          <<<<< required for expansion of
IARV64
IARV64 REQUEST=GETSTOR,SEGMENTS=SEG,USERTKN=TOKEN, *
          ORIGIN=ADDR64      <<<<< allocate one memory object,
token identifies the object

```

```

LTR  15,15          check return code
BNZ  ERR1

```

```

LLGTR 5,5          all registers with 31 bit addresses must have
the first 33 bits of          of the 64 bit register cleared. LLGTR does
that.

```

```

LG  4,ADDR64      LG  loads the 64 bit memory object
address

```

```

SAM64          switch into 64 bit mode

```

```

MVC  0(20,4),INFO  move data into the memory object

```

```

SAM31          switch back into 31 bit mode

```

```

IARV64 REQUEST=DETACH,MATCH=USERTOKEN,USERTKN=TOKEN,
          COND=YES          * free the memory object

```

```

LTR  15,15
BNZ  ERR2

```

.....

* Data area

```

DATA  DS  OD          align to double word
ADDR64 DC  AD(0)      holds the 64 bit address of the memory object
after GETSTOR
SEG   DC  FD'10'      size of the memory object to be allocated
TOKEN DC  FD'1'       token to identify the memory object (e.g. for
DETACH)
INFO  DC  CL30'THIS IS A MEMORY OBJECT TEST !'

```

With the "QUERY TD" command you can verify the memory object usage.

It's not hard to change to memory objects, right ?

Tags: example, 64-bit, vse, memory_objects

There will be no blog entry on Friday. (2013-07-04)

Good weather is expected for tomorrow. Therefore I will stay at home.

You can expect the next blog entry on Monday.

Have a good weekend.

Tags: vse

Are you using the z/VSE virtual tape support (VTAPE) ? (2013-07-04)

Just a few words to our virtual tape support (VTAPE), if you are not yet aware of it.

z/VSE's virtual tape support provides the ability to read and write to a virtual tape in the same way as if it were a physical tape. The full range of the capabilities of a physical tape has not been implemented and there are some restrictions. However, the intention is to keep the virtual tape support transparent to applications. You may define VSE/VSAM virtual tapes or remote virtual tapes. For VSE/VSAM virtual tapes the tape image is stored in a VSE/VSAM ESDS file. Remote virtual tapes require a TCP/IP connection between z/VSE and a remote workstation. With the VTAPE command you can define the location of the virtual tape.

The virtual tape support consists of three functional components:

- The virtual tape simulator is part of z/VSE and ready for use after z/VSE installation. It controls virtual tape processing, provides status information, receives requests and forwards them to the virtual tape data handler.
- The virtual tape data handler is also part of z/VSE and ready for startup after z/VSE installation. It is required to handle read or write requests to a virtual tape - located in VSE/VSAM or remote. The virtual tape support is activated or deactivated via the VTAPE command.
- The virtual tape server is required for remote virtual tapes only, It is the workstation counterpart to the virtual tape data handler on z/VSE. It must be installed on a Java-capable workstation.. Virtual tapes are represented by a file in AWSTAPE format.

You may use virtual tapes to back up and restore data, transfer virtual tapes between workstations and z/VSE, back up data using the Tivoli Storage Manager (TSM), Fast Service Upgrade (FSU) from a virtual tape, and more.

Details are available in the [z/VSE Administration](#) book and on our [web page](#).

Remark to my readers from the US: Enjoy your holiday.

Tags: vse, vtape, virtual_tape

Fix list for CICS Transaction Server for VSE/ESA V1.1.1 (2013-07-03)

An updated fix list for the CICS Transaction Server for VSE/ESA V1.1.1 is available.

You can find it [here](#).

Tags: service, apar, cics, vse

SCRT Version 21.2.2 available for z/OS - not for z/VSE (2013-07-03)

SCRT (Sub-Capacity Reporting Tool) customers were informed, that a new SCRT version - SCRT V21.2.2 - is available.

SCRT V21.2.2 is currently only available for z/OS and there are no plans to make it available for z/VSE. This is because the areas addressed by the modification level, defined capacity and group capacity, are z/OS-only features that are not supported by z/VSE. This fact was not mentioned in the newsletter sent by IBM LMS on last Friday and yesterday.

SCRT generates a sub-capacity report, that need to be send to IBM each month, if you use sub-capacity pricing.

See the [IBM System z Software Pricing](#) web page and related z/VSE page (z/VSE tab on this page) for details.

Tags: vse, pricing, scrt, sub-capacity

Do you know our z/VSE Language Environment (LE) tools ? (2013-07-02)

On our tools web page you can download two tools that support the Language Environment component of z/VSE.

1. The LE/VSE Control Center (LECC)
LECC is a Java based tool to access z/VSE language resources. It offers various tools and usage options for language planning, customization, diagnostics, environmental verification and programming purposes.
2. The LE/VSE CEETRACE feature
CEETRACE complements the already available z/VSE LE dump information.

See our [tools page](#) for the download and more information.

You may be interested in the [Language Environment for z/VSE](#) blog too.

Tags: le, tools, vse, language_environment, le_blog

Do you want to measure the CPU utilization of your z/VSE workload ? (2013-07-01)

Besides the performance monitors from vendors there are also z/VSE provided tools available - not so sophisticated than monitors, but good enough to understand the CPU utilization. .

1) The IUI "**Display System Activity**" dialog, which gives a snapshot of the actual CPU usage in total and by partition. CICS TS with IUI needs to be started. You can reach the display via the "z/VSE Function Selection" -> 3 - Operation -> 6 - System Status -> 1 - Display System Activity.

```

IESADMDA          DISPLAY SYSTEM ACTIVITY          15 Seconds  12:02:05
*-----*-----*-----*-----*-----*-----*-----*-----*-----*
| CPU      : 55%  I0/s : 1  | No. Tasks: 83  Per Second : *
| Page In  : 0    PIn/s : * | Dispatchable: 0  Suspended  : 3
| Page Ou  : 0    P0u/s : * | Curr. Active: 4  MXT reached: 0
*-----*-----*-----*-----*-----*-----*
Priority: Z,Y,S,R,P,C=X=BG=FA=F9=F8=F6=F5=F4=F2=F7=FB=F3,F1

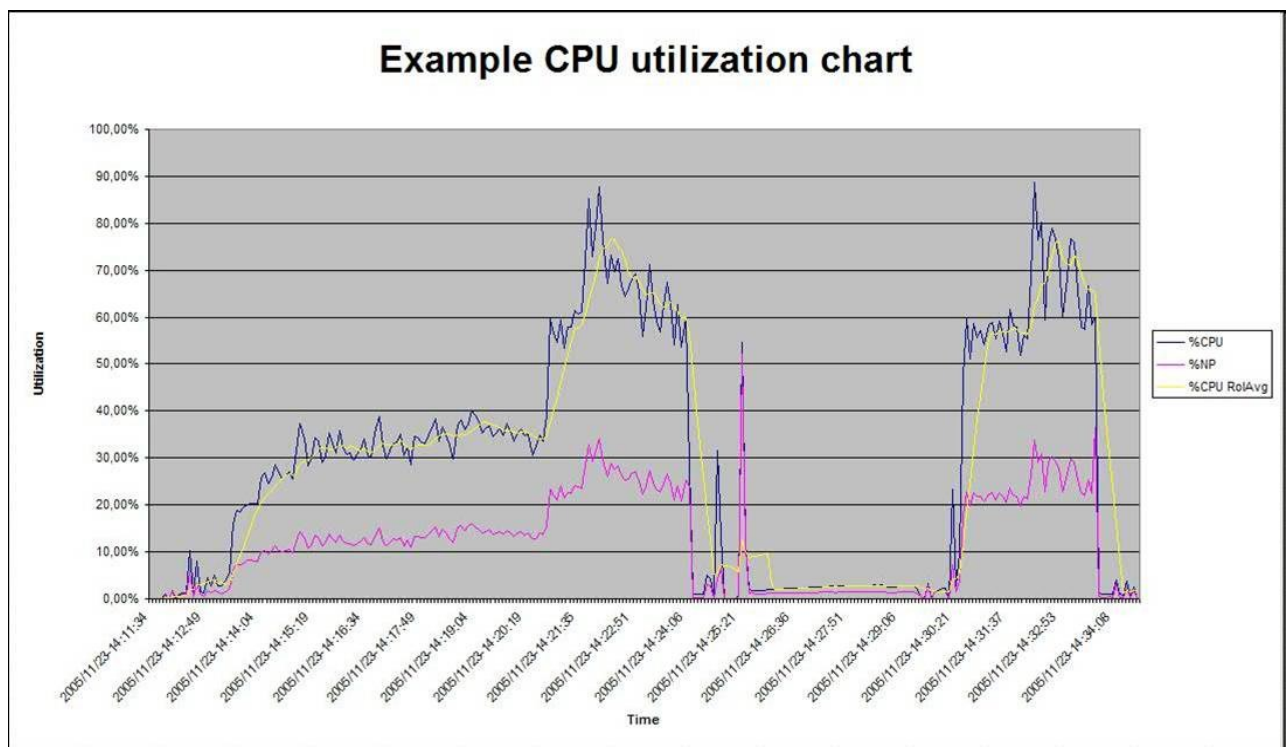
ID S JOB NAME      PHASE NAME      ELAPSED      CPU TIME      OVERHEAD      %CPU      I/O
F1 1 POWSTART      IPWPOWER       00:17:03     .05           .03            3,732
F3 3 VTAMSTRT      ISTINCVT       00:17:02     .04           .01            2,329
FB B SECSESV      BSTPSTS        00:17:03     .01           .00            583
*F7 7 PAUSEF7      CPUIST         00:06:04     .00           .00            4
F2 2 CICSICCF      DFHSIP        00:17:02     .96           .13            9,780
F4 4 PAUSEF4      CPUIST         00:06:04     35.64         .03            10%        47
*F5 5 PAUSEF5      CPUIST         00:06:04     .00           .00            4
*F6 6 PAUSEF6      CPUIST         00:06:04     .00           .00            4
F8 8 PAUSEF8      CPUIST         00:06:04     55.43         .05            16%        47
F9 9 PAUSEF9      CPUIST         00:06:54     40.38         .04            9%         47
FA A PAUSEFA      CPUIST         00:06:59     39.66         .04            10%        47
BG 0 PAUSEBG      CPUIST         00:07:49     45.18         .05            10%        46
PF1=HELP      2=PART.BAL.   3=END          4=RETURN      5=DYN.PART    6=CPU
    
```

2) The Attention Routine (AR) command "**QUERY TD**", which displays the CPU utilization and non-parallel share of your workload on the system console. Before you start the monitoring for your peak hour(s), reset the system counters via the Attention Routine (AR) command "SYSDEF TD,RESETCNT". Now the monitoring period starts. After e.g. one hour enter the "QUERY TD" AR command.


```

query td
AR 0015 CPU STATUS SPIN_TIME NP_TIME TOTAL_TIME NP/TOT
AR 0015 00 ACTIVE 0 63715 96636 0.659
AR 0015 01 ACTIVE 0 13668 22614 0.604
AR 0015 02 INACTIVE 210 23692 34187 0.693
AR 0015
AR 0015 TOTAL 210 101075 153437 0.658
AR 0015
AR 0015 NP/TOT: 0.658 SPIN/(SPIN+TOT): 0.001
AR 0015 OVERALL UTILIZATION: 80% NP UTILIZATION: 53%
AR 0015
AR 0015 CPU BALANCING (STOP): INT: 9 SECONDS THR: 50%
AR 0015
AR 0015 ELAPSED TIME SINCE LAST RESET: 190550
AR 0015 1I40I READY
    
```

3) The [z/VSE CPUMON \(CPU Monitor\) tool](#). With **CPUMON** you may monitor the CPU Utilization of a period of time, e.g. a whole day. The results can be displayed in a spreadsheet, e.g. as a line chart, where you can easily see the peaks of your workload.



If you plan a migration from one release to another, please measure the CPU utilization of your workload before and after the migration with one of the vendor products or the tools as described above. You can expect additional CPU time requirements of about 3 to 5% per release upgrade, e.g. z/VSE 4.2 to z/VSE 4.3 about 3 to 5%, z/VSE 4.2 -> z/VSE 5.1 (one release skipped) about 6 to 10% dependent on your workload.

Tags: cpu, measurement, utilization, workload, vse

Do you use 4-digit device addresses in z/VSE ? (2013-06-28)

4-digit device address were introduced in z/VSE 4.3 - a long standing customer requirement.

In VSE releases before z/VSE 4.3, VSE devices needed to be configured with 3-digit device addresses in I/O configuration. Especially for environments that run different operating environments (z/OS, Linux, z/VM) that caused problems, because the z/VSE restriction of the 3-digit device addresses were often not considered and needed to be adjusted..

Starting with z/VSE 4.3 that restriction is resolved and you can configure devices like you do for the other System z operating systems.

z/VSE IPL accepts 4 digit (physical) device addresses which will be mapped to 3-digit device addresses during the IPL process. After the IPL complete message only 3-digit device address are used in most cases. That approach reduced the effort for the 4-digit device addresses implementation and is transparent to applications, IBM and vendor products. Only a few system management functions had to be adapted.

The mapping can be done via the IPL ADD statement

```

BG 0000 ADD 1000 AS 001,3277
BG 0000 ADD 1010 AS 002,3277
BG 0000 ADD 1020 AS 003,3277
BG 0000 ADD 1030 AS 004,3277
BG 0000 ADD 1810 AS 005,TPA384
BG 0000 ADD 1FF0 AS 006,3277
BG 0000 ADD 6400 AS 007,ECKD
BG 0000 ADD 6410 AS 008,ECKD

```

or the IUI dialog - Hardware Configuration: Unit Address List:

z/VSE Function Selection -> 2 - Resource Definition -> 4 - Hardware Configuration and IPL -> 1 - Configure Hardware

```

ADM$HDWB          HARDWARE CONFIGURATION: UNIT ADDRESS LIST

OPTIONS:  2 = ALTER DEVICE TYPE CODE/MODE          3 = SELECT FOR FURTHER PROCESSING
          4 = LIST SIMILAR DEVICES                  5 = DELETE A DEVICE

  OPT   VSE  PHYSICAL  DEVICE      DTYPE      DEVICE  DEVICE  DEF
        ADDR  ADDR     TYPE          CODE        MODE    DOWN   INCOMPL
  ---   ---  ---      ---          ---         ---     ---    ---
  ---   001  1000     32X80      3277
  ---   002  1010     32X80      3277
  ---   003  1020     32X80C     3277
  ---   004  1030     32X80CP    3277
  ---   005  1810     3590-H     TPA384
  ---   006  1FF0     3270CONS   3277
  ---   007  6400     3390-X     ECKD
  ---   008  6410     3390-X     ECKD
  ---   009  0009     3270CONS   3277
  ---   00A  0000     2540-R     2540R

POSITION NEAR ADDR == >
PF1=HELP      2=REDISPLAY  3=END          5=PROCESS     6=ADD ADDR
               8=FORWARD  9=PRINT       10=SORT PHY
THE DEVICES ARE SORTED BY THE VSE ADDRESS.

```

How can you find the mapping of the physical 4 digit to the 3 digit devices ?

1) via the above dialog

2) via the QUERY command

We introduced a command - QUERY IO, CUU=<device address> or ALL to display the mapping of the physical 4-device addresses to the 3-digit device addresses.

If you can't remember the command syntax just use the PF key 11 on the system console:

Set the cursor to any figure on the console screen, press PF11 (11=PCUU).

In the sample screen below I positioned the cursor to any partition begin address and pressed PF11.

You will see in the command line QUERY IO, CUU=500. Now you can replace "500" to the device address you want to see the mapping for or to "ALL" for the mapping of all devices.

```

SYSTEM: z/VSE z/VSE 5.1 TURBO (01) USER: SYS
VM USER ID: SALMDEMO TIME: 14:32:34
#SP
AR 0015 SPACE AREA V-SIZE GETVIS V-ADDR UNUSED NAME
AR 0015 S SUP 760K 0 0 $$$SUPI
AR 0015 S SVA-24 1364K 2228K BE000 768K
AR 0015 0 BG V 1280K 8960K 500000 1525760K
AR 0015 1 F1 V 1500K 29220K 500000 0K POWSTART
AR 0015 2 F2 V 2048K 49152K 500000 0K CICSICCF
AR 0015 3 F3 V 600K 14760K 500000 0K VTAMSTRT
AR 0015 4 F4 V 2048K 18432K 500000 0K
AR 0015 5 F5 V 768K 4352K 500000 0K
AR 0015 6 F6 V 1024K 50176K 500000 0K
AR 0015 7 F7 V 1024K 19456K 500000 0K
AR 0015 8 F8 V 2048K 100352K 500000 0K
AR 0015 9 F9 V 1024K 4096K 500000 0K
AR 0015 A FA V 1024K 4096K 500000 0K
AR 0015 B FB V 512K 512K 500000 0K SECSERV
AR 0015 S SVA-31 8684K 11796K 5E100000
AR 0015 DYN-PA 0K
AR 0015 DSPACE 6880K
AR 0015 SHR-64 0K
AR 0015 PRV-64 0K
AR 0015 SYSTEM 32256K
AR 0015 AVAIL 7874784K
AR 0015 TOTAL 8257216K <----'
AR 0015 1140I READY

==> QUERY IO, CUU=500
1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV
ACT_MSG: HOLDRUN PAUSE: 01 SCROLL: 1 MODE: CONSOLE
MA a 39/006
    
```

QUERY IO, CUU=ALL results in the following display:

```

SYSTEM: z/VSE z/VSE 5.1 TURBO (01) USER: SYS
VM USER ID: SALMDEMO TIME: 14:37:56
QUERY 10, CUU=a11
AR 0015 VSE ADDR PHYSICAL ADDR DEVICE INFORMATION
AR 0015 001 1000 TERMINAL
AR 0015 002 1010 TERMINAL
AR 0015 003 1020 TERMINAL
AR 0015 004 1030 TERMINAL
AR 0015 005 1810 TAPE
AR 0015 006 1FF0 TERMINAL
AR 0015 007 6400 DASD
AR 0015 008 6410 DASD
AR 0015 009 0009 SYSLOG
AR 0015 00A C000 UNIT-RECORD DEVICE
AR 0015 00B D000 UNIT-RECORD DEVICE
AR 0015 00C E000 UNIT-RECORD DEVICE
AR 0015 010 F115 COMMUN. CONTROLLER
AR 0015 011 F116 COMMUN. CONTROLLER
AR 0015 012 F117 COMMUN. CONTROLLER
AR 0015 300 0300 DASD
AR 0015 E54 0E54 COMMUN. CONTROLLER
AR 0015 E55 0E55 COMMUN. CONTROLLER
AR 0015 FDF 0FDF VIRTUAL FBA
AR 0015 FEC 0FEC UNIT-RECORD DEVICE
AR 0015 FED 0FED UNIT-RECORD DEVICE
AR 0015 FEE 0FEE UNIT-RECORD DEVICE
AR 0015 FEF 0FEF UNIT-RECORD DEVICE
AR 0015 FFA 0FFA UNIT-RECORD DEVICE
AR 0015 FFC 0FFC UNIT-RECORD DEVICE
AR 0015 FFD 0FFD UNIT-RECORD DEVICE
AR 0015 FFE 0FFE UNIT-RECORD DEVICE
AR 0015 FFF 0FFF TERMINAL
AR 0015 11401 READY

==>
1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV
ACT_MSG: HOLDRUN PAUSE: 01 SCROLL: 1 MODE: CONSOLE

```

It's again weekend :-) Enjoy !

Tags: mapping, vse, device

How to buy z/VSE (2013-06-27)

We just got a call from a customer, who wanted to buy a z/VSE license, but did not know whom to contact.

We are pleased about every new customer. Therefore I want to address this topic today.

We prepared a web page with ordering information and our pricing models.

You may order z/VSE by phone, email, fax or IBM Shopz (web page / tool).

We have the following pricing models:

-- Midrange Workload License Charge (MWLC) for all IBM System z9, z10 and zEnterprise servers except z114

-- Advanced Entry Workload License Charges (AEWLC) for z114 servers

Both pricing models support sub capacity pricing. To participate in sub capacity pricing you need to run the Capacity Measurement Tool (CMT), which is part of the z/VSE operating system. The CMT tool records the MSUs (Million Service Units) used by your workload. Each month you have to prepare a sub capacity report (SCRT) based on the CMT data and send it to IBM billing.

On our "[How to buy](#)" web page you will find links to all related ordering as well as pricing topics

Tags: pricing, buy, vse, order

How to find security documents and books for z/VSE (2013-06-26)

Are you aware of our z/VSE web page, that provides links to the most important security related topics for z/VSE ?

That web page holds links for:

- z/VSE security documentation
- hardware security
- How to setup hardware crypto and SSL with z/VSE
- CICS, TCP/IP and SSL

You can find that information [here](#).

Tags: documentation, vse, book, security

Hard capping and the impact on z/VSE (2013-06-25)

Today it's just a short discussion on LPAR (logical partition) capping and how it may impact z/VSE.

A flavor of virtualization is integrated into System z servers provided by the Processor Resource/System Manager (PR/SM). PR/SM allows to divide the servers into **logical partitions (LPARs)**. Each LPAR get assigned a portion of available physical resources, which can be shared with other LPARs or dedicated to a specific LPAR. You may create up to 60 LPARs running z/OS, z/VM, Linux, TPF or z/VSE. z/VSE may run in a LPAR or as z/VM guest on z/VM in a LPAR.

Capping can be used to limit the CPU consumption of an LPAR. This may be necessary, if you want to ensure that your LPAR (and z/VSE system) only gets a specific amount of MSUs (Million Service Units) - or MIPS.

Reasons can be that you want to

- optimize the MSU usage for sub-capacity or MSU based pricing,
- limit the CPU usage of your test systems,
- ensure that an application loop does not impact other LPARs.

There are for sure more reasons.

Each partition has a relative weight (set via HMC - Hardware Management Console), which affects the available resources to a LPAR. You may enforce a relative weight, that is PR/SM never allows to use more shared resources (CPUs) than specified in the relative weight (**hard capping** or intial capping). That is you may limit the MSUs available for the LPAR workload.

If z/VSE runs in a hard capped LPAR, you may need to adjust a few system parameters. Dependent on the available CPU resources

z/VSE partition balancing - especially balancing of online and batch workload - should be considered. You may adjust the PRTY (priority command) shares or lower the MSECs command value, which defines the interval in milliseconds after which the balanced group is inspected as long as the time slice is not exhausted. By default the value is about 1 second. You may set it to 100 (milliseconds).

Dependent on your workload there may be more tuning efforts necessary - or you may need to increase the relative weight.

If you use the QUERY TD command or the IUI system activity display to monitor the CPU consumption of your workload, you will see the CPU utilization that corresponds to the relative value - and not 100%, if your workload uses all hard capped CPU resources.

Tags: capping, workload, lpar, vse, performance

Reminder - Next LVC scheduled for tomorrow (June 25) - CICS (2013-06-24)

Our next Live Virtual Calss (LVC) is scheduled for tomorrow - June 25.
I posted that some days ago in my blog.

The subject is "**How to avoid or handle CICS storage availability problems**".

Please join the session with Mike Poil.

For details you may go to our [z/VSE education page](#).

Tags: cics, lvc, vse

Are you aware of Assembler common control sections (COM) and how they can be used in z/VSE ? (2013-06-21)

Today I have a topic for Assembler developers. **This is my hundredth blog entry since I started blogging in February.**

On Tuesday a z/VSE user asked me, if z/VSE supports the High Level Assembler (HLASM) COM instruction.

I wasn't aware of that support, although I wrote thousands of lines of system code since I joined the VSE team more than 30 years ago.

The COM instruction identifies the beginning or continuation of a common control section.

A common control section is a reference control section that lets you reserve a storage area that can be used by one or more source modules. One or more common sections can be defined in a source module. That is common control sections can be used to share **common storage** between modules linked as one program (**phase**) by the z/VSE Linkage Editor.

How is COM supported in z/VSE ?

This common storage is reserved in the partition in front of the phase loaded by the EXEC <program> Job Control statement, that is at the beginning of the partition, just after the partition save area.

If the COM instruction has a label, the common control section is referred to as named, otherwise it is blank or unnamed. In addition to blank common control sections, named common control sections are supported as well. A control section which has the same name as a common control section must have at least the same length. The z/VSE Linkage Editor accepts ESD (External Symbol Dictionary) records as produced by the High Level Assembler for common control sections.

Common control sections are not supported for phases that are loaded from a program (e.g. via the LOAD or CDLOAD services).

More information is in the [High Level Assembler for z/OS & z/VM & z/VSE Language Reference](#) book.

Enjoy your weekend.

Archive of Ingolf's z/VSE Blog Are you aware of Assembler common control sections (COM) and how they can be used in z/VSE ?
(2013-06-21)

Tags: common, vse, assembler

Do you know where to find a list of z/VSE Software Vendors ? (2013-06-20)

We are working closely with our z/VSE software vendors. E.g we provide early development drivers for new releases and information on content and interfaces to our vendors. That is they can run tests, adapt their products or exploit new functions and be ready at the GA (general availability) of the new release or short after.

We have a web page for vendors, where you have a link to the corresponding vendor web page and in many cases a link to the latest product status.

You can find the vendor web page [here](#).

Tags: vendor, vse, software

High Availability Connector for z/VSE (2013-06-19)

I am late again. Temperatures are still around 90 F.

As you may remember from my blog entry related to [z/VSE's Strategy](#), which is PIE - Protect Integrate Extend, connectors are a key element to fulfill "Integrate".

With z/VSE 5.1 we therefore implemented a new connector - called GDPS (Geographically Dispersed Parallel Sysplex) Client, that can be used for high availability and disaster recovery in large computer environments. The GDPS Client collects availability data from your z/VSE systems and sent them to a central GDPS K-System running under z/OS.

The GDPS K-System is monitoring z/VSE running under z/VM. z/VSE supports the heartbeat mechanism of GDPS.

A GDPS K-System can indirectly manage a z/VSE system, because it can manage the z/VM under which z/VSE is running. That is the GDPS K-System may initiate a disk swap or shut down of a z/VM guest where z/VSE is running.

Please see the [e-business Connectors](#), User's Guide for more information.

Tags: connector, recovery, gdps, availability, vm, disaster, vse

z/VSE 5.1.2 now on DVD-ROM - z/VSE delivery - naming (2013-06-18)

Today I am a bit late, but it has more than 90 degrees Fahrenheit in our area ;-)

As announced in April - z/VSE 5.1 is no longer delivered on CD-ROM, but on DVD-ROM.

This update to z/VSE V5 is named z/VSE V5.1.1 update, although it should be z/VSE V5.1.2, but this is not possible due to technical reasons. The VSE SIR command displays z/VSE V5.1.2 and also the RSL PSP bucket for this release is published specifying VSERSL512.

The upgrade value for preventive service planning for this release is zVSE512. However, the tape labels and the DVD-ROM labels show z/VSE V5.1.1 for technical reasons.

The z/VSE 5.1.1 update is delivered either

- on THREE volumes of either 3590 or 3592 cartridges
- z/VSE Base
- z/VSE Extended Base
- DB2 Server for VM & VSE Help Text
- or on ONE DVD-ROM containing:
 - ReadMe File
 - z/VSE Base
 - z/VSE Extended Base
 - DB2 Server for VM & VSE Help Text
- or through internet delivery (via ShopzSeries) to be downloaded
 - ReadMe File
 - z/VSE Base
 - z/VSE Extended Base
 - DB2 Server for VM & VSE Help Text

More information is in the [z/VSE 5.1.1 Program Directory](#).

Tags: dvd, delivery, naming, vse

Updated z/VSE 5.1 Books are available (2013-06-17)

We updated some of our z/VSE 5.1 documentation. The updated books include now the latest functionality - including the latest z/VSE 5.1 enhancements.

The updated books are on our [documentation web page](#). They are marked with "updated" behind the book title.

The following books are updated:

- z/VSE 5.1.1 Program Directory
- z/VSE V5R1.1 Release Guide
- z/VSE V5R1 Planning
- z/VSE V5R1 Administration
- z/VSE V5R1 System Control Statements
- z/VSE V5R1 e-business Connectors User's Guide
- z/VSE V5R1 Diagnosis Tools
- z/VSE V5R1 Extended Addressability
- z/VSE V5R1 TCP/IP Support

Tags: book, vse, documentation

z/VSE 5.1.2 available; GA of enhancements announced in April (2013-06-14)

You may remember our z/VSE announcement in April 2013, where we announced additional enhancements for z/VSE 5.1, such as

- Support innovative IBM zEnterprise EC12 technology
 - Configurable Crypto Express4S
 - OSA-Express4S 1000BASE-T
- Support enhanced IBM System Storage options
 - IBM System Storage TS1140
 - IBM System Storage TS7700 Virtualization Engine Release 3.0
 - IBM System Storage DS8870
 - IBM Storwize V7000 Release 6.4
- Allow 64-bit Input/Output (I/O) processing for applications
- Extend the z/VSE connectivity and networking options in heterogeneous environments
- Provide IPv6/VSE V1.1 security enhancements

see our [z/VSE home page](#) for details.

All enhancements are now available. They are included into the new **z/VSE 5.1.2** refresh, which we made available today.

You may apply the corresponding PTF to your z/VSE 5.1 system or install the z/VSE 5.1.2 refresh to get the enhancements.

Have a good weekend !

Tags: announcement, vse, refresh

No blog entry tomorrow - June 13, 2013 (2013-06-12)

I am not in the office tomorrow - June 13, because I want celebrate my daughter's birthday.

You can expect my next blog entry on Friday with some z/VSE news.

Tags: vse

Do you synchronize the time for z/VSE ? (2013-06-12)

Customers are increasingly implementing the Server Time Protocol (STP) to provide an accurate timestamp to operating systems.

z/VSE does not support STP. However, if the System z STP feature is installed you can configure a STP Coordinated Timing Network (CTN) which will then allow you to configure an NTP (Network Time Protocol) server to be used as the ETS (External Time Source). The SE (Service Element) on the CEC has an SNTP (Simple Network Time Protocol) client and it can access the NTP server on the HMC, if the HMC has been properly configured to enable it to become an NTP server.

The HMC when configured gets its NTP time from your "internal network" NTP server. Once the HMC is an NTP server it can be used to provide NTP time to the SE. STP code on the SE calculates the adjustment of time needed and STP code in the CEC itself steers the time so as to maintain time accuracy.

The [STP Planning Guide](#) on the Redbook web pages has some more information.

You don't need to read the whole book but going through Chapter 1 and then the External Time Source (ETS) section in Chapter 2 specific to NTP servers will give you good background. There are paragraphs related to z/VSE and z/VM.

It is currently being updated. The draft is [here](#).

You may also be interested in the technical [STP flash](#) for operating systems that don't support STP.

Tags: ntp, time, vse, stp

Next LVC scheduled for June 25: How to avoid or handle CICS storage availability problems (2013-06-11)

The next Live Virtual Class (LVC) is scheduled for June 25, 2013.

Title: How to avoid or handle CICS storage availability problems

Abstract: Storage availability problems can often result in CICS or even z/VSE system down conditions, and it is often possible to avoid these situations by ensuring that your system is configured appropriately and is being monitored and reconfigured proactively. However, life is not always that simple, and issues such as performance problems, changes and new bugs can result in outages. Hence it is important that the appropriate diagnostic information is provided so that IBM can deal with the problem as efficiently as possible. For CICS storage availability problems, understanding both CICS and z/VSE GETVIS storage usage is of vital importance, therefore, Partition, Space and System GETVIS usage, optimisation, monitoring and diagnosis are explained as well as the CICS equivalents. The session explains what diagnostic material IBM needs based on the symptoms, the correct commands to be used to monitor storage usage and to force CICS dumps for cases such as SOS, and even includes typical SDAID commands for the various types of GETVIS storage leak. This session is based on experience of dealing with customer PMRs reported against CICS TS for VSE/ESA.

Speaker: Michael Poil, IBM UK

Date: Tuesday, June 25, 2013

More information is on our [z/VSE web page](#).

News from z/VSE service - RSLs available (2013-06-10)

The Recommended Service Level (RSL) for z/VSE 5.1.1 and z/VSE 4.3.1 was upgraded to the April 9, 2013 PTF level.

An RSL consists of a list of all APAR/PTF numbers, which are available at specific cutoff dates. RSLs are updated more frequently than refreshes and contain all available service, not only the hiper service.

The RSL information is published on our preventive service web page - [here](#).

New PTFs are indicated by an asterisk.

Tags: service, vse, rsl

Do you know the Encryption Facility for z/VSE ? (2013-06-07)

The Encryption Facility for z/VSE (EF for z/VSE) provides software-based encryption capabilities and makes use of System z crypto and compression hardware and key management - based on the Keyman/VSE utility (downloadable from the z/VSE home page).

EF for z/VSE provides encryption for single SAM files, VSAM files, VSE Library members, complete backups that were made using any z/VSE backup utility (such as IDCAMS, LIBR, POFFLOAD) or a vendor product.

Encrypted data can be exchanged between different operating systems. EF for z/VSE can read encrypted files that were created by the Encryption Facility for z/OS or the z/OS Java client. The z/OS facilities can read encrypted files that were created by EF for z/VSE. Other platforms than z/VSE or z/OS may encrypt / decrypt such data too.

EF for z/VSE supports the openPGP protocol. That is you may exchange encrypted data with platforms that support openPGP.

Encryption Facility for z/VSE is a priced optional feature.

More information is on our [z/VSE Web page](#).

For more details, see the [z/VSE Planning and z/VSE Administration books](#).

Enjoy your weekend !

Tags: security, vse, encryption

z/VSE processor (server) and device support (2013-06-06)

We had already some discussion in the past about z/VSE's - or I should say VSE's processor (server) and device support.

I often get questions from customers and sales reps, if a VSE system (supported and unsupported releases) runs on a specific server and what PTFs / APARs are required.

We have good web pages, that show the server support of releases in service and releases, that had end of service. The web pages list the old ESA/390 servers up to the latest System z servers and the requirements for the release.

You can find the z/VSE server support for z/VSE releases in service [here](#).

z/VSE and VSE/ESA releases that are out of service are listed [here](#).

On those pages you can also see, if a release supports new IBM Storage (tape and disk) and adapters or other hardware related information.

Tags: adapter, device, tape, server, disk, support, processor, vse

TCP/IP printers accessed from z/VSE (2013-06-05)

On April 16 I posted a blog entry, where I asked for your feedback on how you do printing on TCP/IP connected printers - see my blog entry [TCP/IP printers attached to z/VSE](#).

There is currently a discussion on [VSE-L](#) too.

Therefore I think it's time to inform you on the feedback I got.

The good thing is that there are several solutions available. Your choice depends on your needs and expectations.

Functionality for Printing from VSE/POWER is provided by both TCP/IP products - TCP/IP for VSE/ESA from CSI (CSI International) and IPv6/VSE from BSI (Barnard Software, Inc).

You may also consider VtamPrint (Columbus Z) from Macro4 or VSE2PDF from Thigpen Enterprises, Inc (or BSI) - or PSF/VSE. These are just a few examples. There are more solutions available. TCP/IP printer vendors may also provide tools to control their printers.

The feedback that I got from most customers was that they do not direct printing to TCP/IP connected printers, instead they transfer data from the VSE/POWER LST queue to a workstation based server, which then prints the data.

May be you do it different. Please let me know, how you print your documents. I would be interested too, which software you use to get output to TCP/IP connected printers.

My impression is that we do not need new software. It's mainly the awareness of available solutions, Would a kind of white paper or article help?

Tags: tcpip, printer, vse

IBM System z Technical University in Munich, Germany - June 10 to 14 (2013-06-04)

Sorry for the late post. I did not have access to our server.

I just want to remind you about the upcoming conference in Munich, Germany next week:

The IBM System z Technical University, which is scheduled for June 10 to 14, 2013.

The conference covers z/VSE, z/VM, Linux on System z, z/OS and Storage topics.

[Here](#) you can find more information.

If you are interested, the agenda is [here](#).

Tags: vse, conference

Reminder: Next LVC tomorrow (June 4) - z/VSE Security (2013-06-03)

Our next Live Virtual Calss (LVC) is scheduled for tomorrow - June 4.
I posted that some days ago in my blog.

The subject is "z/VSE Security Overview and Update". Please join the session with this important topic.

For details you may go to our [z/VSE home page](#).

Tags: security, lvc, vse

Next blog entry on Monday, June 3rd (2013-05-29)

We have another public holiday tomorrow :-)) and I will take a day off on Friday.

Therefore you can expect my next blog entry on Monday.

z/VSE: Success Story (2013-05-29)

It seems that you are interested in success stories. At least the SUSE success story I posted a few days ago, showed [more views](#) than average.

Therefore I have another z/VSE success story for you. May be you are interested in it. It's an older one.

The customer integrated legacy applications through their VSE systems with a Linux environment on the IBM System z.

You can find the story [here](#).

One more recommendation:

You may have recognized the [analyst paper](#) about z/VSE. If not, I recommend to read that paper.

Tags: success_story, vse, customer

z/VSE: Backup data to virtual tape (2013-05-28)

Today I will describe a few examples that use virtual tape to backup data.

You may consider the z/VSE virtual tape support for backup functions, that produce tape output. Backup on virtual tape may be faster and more flexible than real tapes. You don't need to mount and manage real tapes. You may backup to a local virtual tape in VSAM (VSAM virtual tape) or remote (Remote virtual tape) to a TCP/IP connected platform. You can use virtual tapes for any types of backup (VSAM, libraries, history files, volumes, files, ...).

Just a few examples for backup on virtual tapes:

- Backup data to a remote virtual tape and save it to a DVD for archiving or for distribution.
- Backup data to a VSAM virtual tape and transfer it via TCP/IP file transfer to any other host.
- Backup data to the IBM Tivoli Storage Manager (TSM). TSM is an IBM software product that allows to backup / restore over the network, manages storage for backup data and controls where the backup data is to be stored. TSM runs, e.g. on Linux on System z. Only remote virtual tapes are supported. You may encrypt the data before you send it over the network to the TSM server.

Please see the [z/VSE Administration](#) book for more information on the virtual tape usage and backup.

Tags: tape, backup, virtual_tape, remote, vse, vsam

z/VSE 5.1 Security / Crypto Enhancements (2013-05-27)

In this blog entry I briefly describe the z/VSE 5.1 security / crypto enhancements:

z/VSE 5.1 crypto enhancements:

- Improved Crypto Commands: The status=cr and status=cpacf commands for displaying hardware crypto information have changed.
- New AP Crypto Command: A new APSTAT command has been included for displaying details about an Adjunct Processor.
- 4096-Bit Key Lengths: In addition to 2048-bit RSA keys, z/VSE 5.1 now supports 4096-bit RSA keys, that are exploited by TCP/IP for VSE/ESA, IPv6/VSE, the e-business Connectors and the Encryption Facility for z/VSE OpenPGP for public-key encryption
- openssl encryption ([APAR DY47397](#)): exploited by IPv6/VSE, see also my related [blog entry](#)

z/VSE 5.1 Basic Security Manager (BSM) enhancements:

- BSM support for IBM WebSphere MQ with [APAR DY47410](#) - new resource class MXTOPIC

Tags: security, vse, crypto

Success story with z/VSE and Linux on z114 (2013-05-24)

Today I recommend reading a success story, that SUSE posted on their web pages. The article describes how a customer uses the SUSE Linux Enterprise Server for System z alongside with z/VSE on the IBM zEnterprise 114 (z114) mainframe.

That is the customer is following our PIE strategy (protect, integrate, extent). See my related [blog entry](#), that describes our strategy.

... and [here](#) is the success story.

Enjoy the weekend and in the US the long Memorial Day weekend.

Tags: linux, vse, suse, strategy

2013 IBM System z Technical University in Orlando, FL. (2013-05-23)

The [2013 IBM z Technical University](#) is scheduled for October 21 - 25 in Orlando, Florida.

Are you planning to attend this conference ?

What are the z/VSE topics you would be interested in ? Are there any sessions that you would propose ?

Please send me your feedback - to salm@de.ibm.com

Tags: zuniversity, conference, vse

z/VSE: New web page layout (2013-05-22)

You may have noticed that our [z/VSE home page](#) has a new web page layout. You will now find the selection of our web pages on the right under "Browse z/VSE".

The new layout is also more reader friendly for mobile devices.

Not all our web pages are converted to the new layout yet. We are in the process of doing that.

Below are a few screen shots:

IBM Systems > Mainframe servers > Operating systems >

z/VSE

z/VSE is built on a heritage of ongoing refinement and innovation that spans more four decades. It brings the value of innovative IBM System z and IBM System Storage technology to z/VSE clients.

z/VSE V5.1 - Additional enhancements are available

IBM z/VSE V5.1 - Additional enhancements

Additional enhancements announced on April 2nd, 2013. In addition to function already available with z/VSE V5.1, you get supplemental enhancements that are designed to:

- Support innovative IBM zEnterprise EC12 technology
 - Configurable Crypto Express4S
 - OSA-Express4S 1000BASE-T
- Support enhanced IBM System Storage options
 - IBM System Storage TS1140
 - IBM System Storage TS7700 Virtualization Engine Release 3.0
 - IBM System Storage DS8870
 - IBM Storwize V7000 Release 6.4
- Allow 64-bit Input/Output (I/O) processing for applications
- Extend the z/VSE connectivity and networking options in heterogeneous environments
- Provide IPv6/VSE V1.1 security enhancements

For more information, please see the [announcement letter](#).

Statements of Direction included in this announcement:
 IBM intends to add functionality that allows initial installation of z/VSE without requiring a physical tape. IBM intends in the future to enhance IBM CICS Explorer for IBM CICS Transaction Server for VSE/ESA to provide updates to CICS resources. It is planned to reduce the AEWLCL and MWI C list price of IPv6/VSE V1.1

Contact IBM

Email z/VSE
 Find a Business Partner
 Call IBM: 1-866-883-8901
 Priority code: 101AS13W

Browse z/VSE

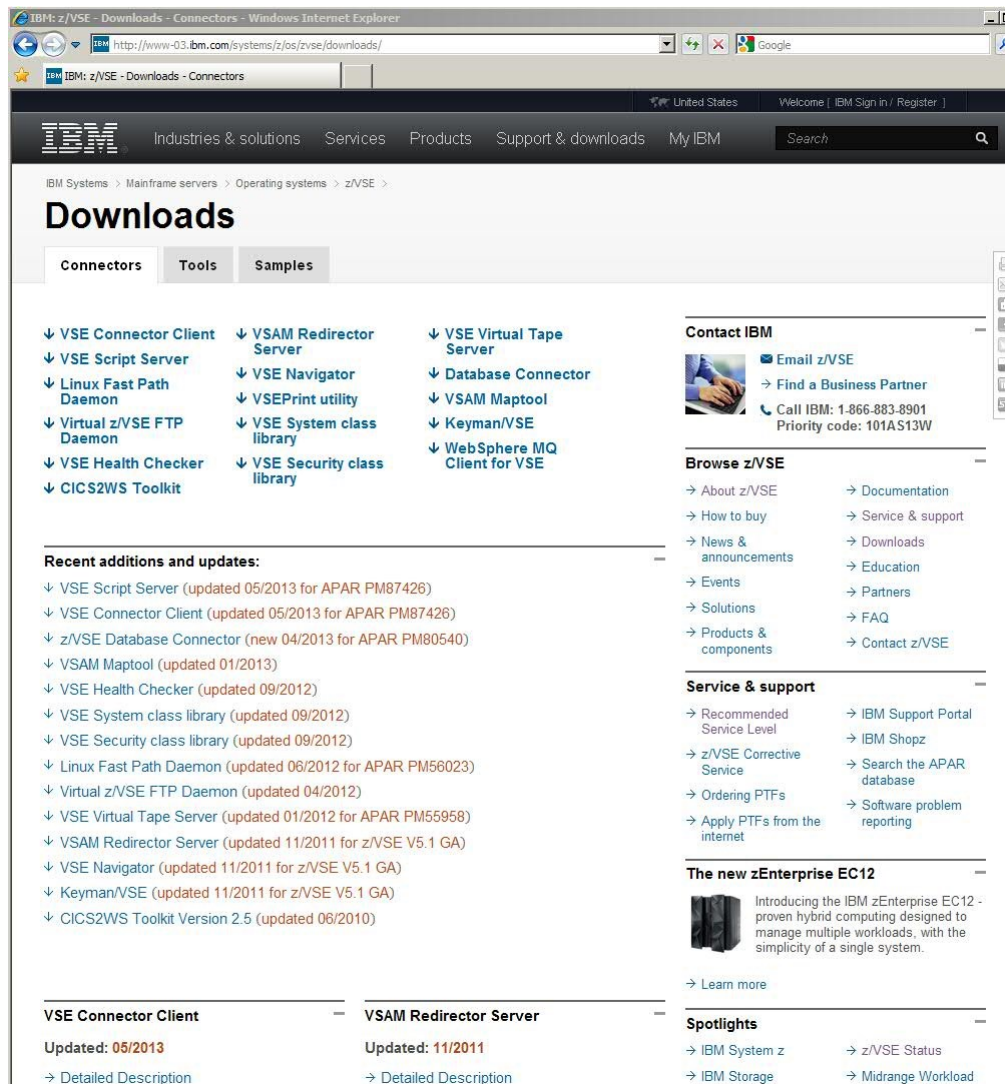
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Mark your calendar

2013 IBM System z Technical University (Europe)
 June 10-14, 2013, Munich, Germany
 Enroll now!

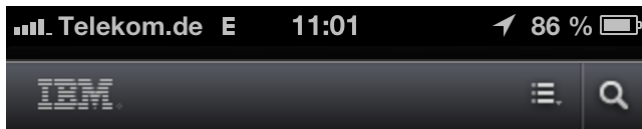
2013 IBM System z Technical University (Americas)
 at EnterpriseSystems2013
 October 21-25, 2013, Orlando, FL, USA
 Enroll now!

If you select "Downloads" on the right in section "Browse z/VSE", you will get:



You may use the following web address to display the z/VSE home page on mobile devices: <http://m.ibm.com/vse>

A screen shot of my iPhone is below. You need to scroll down to the "Browse z/VSE" section.



z/VSE

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Tags: web, home_page, vse

Next z/VSE LVC on June 4: z/VSE Security Overview and Update (2013-05-21)

The next Live Virtual Class (LVC) is scheduled for June 4, 2013.

z/VSE Security Overview and Update

This session provides an introduction and best practices to the basic security concepts of z/VSE. It includes CICS and batch security, plus connector and network security. It will also cover z/VSE security concepts in an open and heterogeneous world where z/VSE may connect to anyone and everyone. This session will also show you how to exploit z/VSE security features like Encryption Facility for z/VSE and SSL (Secure Socket Layer). In addition, it will describe IBM mainframe cryptographic technology, including Crypto Express and CP Assist for Cryptographic Function (CPACF).

Speaker: Ingo Franzki, IBM

Date: Tuesday, June 4, 2013

Time: US & Europe: 11:00 AM New York, 04:00 PM London, 05:00 PM
Boeblingen, 15:00 UTC

Or: Europe & AP: 04:00 PM Japan, 07:00 UTC, 03:00 AM New York, 08:00 AM
London, 09:00 AM Boeblingen

Duration: 60 Minutes

Please see the [LVC section on our z/VSE home page](#) for updates.

Tags: security, vse, lvc

Next blog entry on Tuesday, May 21, 2013 (2013-05-14)

I will be on vacation the next three days and we have a public holiday on Monday (Whit Monday).

Therefore you can expect my next blog entry on Tuesday.

Enjoy your weekend.

Can my VSE system run on a new IBM System z server ? (2013-05-14)

This blog entry may provide useful information, if you are planning to migrate to a new IBM System z server.

Some of our customers are running on unsupported VSE releases. These unsupported releases range from z/VSE 4.2 down to VSE/ESA 2.3. I know a few that are still on VSE/ESA 2.3, which is unsupported since nearly 12 years now.

Please try to migrate to a supported release - z/VSE 4.3 or better z/VSE 5.1.

Even on an unsupported release you may be able to run such a VSE release on the latest System z hardware.

My recommendation is to migrate to a new processor first and migrate to a supported z/VSE release afterwards.

Don't plan a hardware and software migration in one step.

You may need patches or PTFs dependent on your release level. Please consider even with a patch or PTF, an unsupported releases remains unsupported on the new hardware. Patches or PTFs need to be applied before migration to the new processor.

VSE/ESA 2.3 and 2.4 need patches to run on z890, z9, z10 or IBM zEnterprise (z114, z196, zEC12) processors. Please contact me for details -

salm@de.ibm.com

VSE/ESA 2.5 and 2.6 should be at least on APAR level DY45944 and DY45958, VSE/ESA 2.7 should be on the latest service level, that is at least VSE/ESA 2.7.3. z/VSE 3.1, z/VSE 4.1 and 4.2 should run on the latest hardware with the latest service level.

The releases - z/VSE 4.3 and z/VSE 5.1 - support the new hardware anyway.

Please be aware that

- unsupported releases are not tested with new devices; zEC12 does not support ESCON channels,
- you may need to contact your vendors, e.g. because of the new CPU id (e.g. to request new license keys),
- it might be necessary to install a supported z/VSE release (+ required PTFs) to configure the OSA Express3 cards via OSA/SF, e.g. for CHPID-type OSE (OSA-Express for non-QDIO environments - SNA and passthru traffic). OSA/SF needs to be on the latest PTF level.

On our z/VSE status pages you can find more information on [z/VSE's server support](#) or [server support of unsupported releases](#).

Tags: server, migration, vse, system_z

CICS/VSE on z/VSE 4.3: VSAM EXCPAD (2013-05-13)

On February 23 I posted a [blog entry](#), where I described CICS/VSE support on z/VSE 4.3.

Just to recall: The last release, where you had a full CICS/VSE environment, was z/VSE 4.2. CICS/VSE can not run on z/VSE 5.1. CICS/VSE support ended October 31, 2012. That is the only supported CICS on z/VSE is CICS Transaction Server for VSE/ESA.

z/VSE 4.3 dropped the compatibility environment and replaced DL/I DOS/VS 1.10 and DL/I VSE 1.11 by a new DL/I release - DL/I VSE 1.12. DL/I VSE 1.12 only supports CICS TS. However, CICS/VSE can still run on z/VSE 4.3, if you are not dependent on DL/I. CICS/VSE can not run on z/VSE 5.1.

Initially the VSAM EXCPAD exit supported AMODE 31 (31 bit addressing) only. That is EXCPAD could not be used by 24 bit applications in CICS/VSE.

The issue is resolved in between through APAR:

- DY47403 - PTF UD53855 for z/VSE V4.3
- DY47407 - PTF UD53867 for z/VSE V5.1

More information is [here](#).

Background: An EXCPAD exit routine receives control from VSE/VSAM when an I/O operation is started or when a task can be forced to wait for an SHR(4) lock. By supplying an EXCPAD exit routine, you can overlap VSE/VSAM I/O or SHR(4) locking operations with the execution of your processing program. The exit routine must return to VSE/VSAM, so that VSE/VSAM can return to your processing program at the instruction following the I/O request macro.

Tags: `excpad`, `cics`, `vse`, `vsam`, `cics_vse`

RPG II: testptf UX00777 - RPG RELOAD(YES) on CICS TS for VSE/ESA (2013-05-09)

We have RPG test PTF available that resolves a RPG RELOAD(YES) problem.

We are looking for customers, who are willing to test the PTF before we release it.

If you are interested, please let me know - email to salm@de.ibm.com

Below is a short problem description:

There may be a problem with RPG programs in 24 bit storage on CICS Transaction Server for VSE/ESA 1.1.1, when you reload the program with RELOAD(YES). Each new call will load the program, but not free up the storage of the former program. So the 24 bit space will fill up.

RELOAD(YES) works fine on CICS/VSE.

Tags: vse, rpg, cics

z/VSE 5.1: VSAM PTF UD53940 (APAR DY47461) (2013-05-08)

There will be a new VSE/VSAM PTF available for z/VSE 5.1 within the next few days - PTF UD53940.

The PTF fixes a problem with the following symptom:

High Volume, multi-string access to base cluster of Alternate Index pair may cause data records to be overlaid or duplicated, resulting in access error messages

See [DY47461](#) description for details.

I recommend to apply this PTF during your next service window.

PTF UD53940 will supersede PTF UD53942 (APAR DY47457), which fixes the following issue:

Customer receives a DFHAP0001 PVPACT An abend (code 0C4/AKEA) has occurred at offset X'FFFFFFFF' in module DFHFCVR

See [DY47457](#) for details.

Tomorrow is a public holiday in our area and I will take a long weekend.

That is you can expect my next blog entry next Monday.

Enjoy your weekend.

Tags: ptf, apar, vse, vsam

Sub-capacity pricing for z/VSE (2013-05-07)

Starting with z/VSE 4.1 we provide sub-capacity pricing for z/VSE and selected VSE middleware products on z9 BC (not Model A01), z9 EC, z10 BC (not Model A01), z10 EC, z196 and zEC12.

You have the option to produce SCRT89 records, which report sub-capacity MSUs (Million Service Units), on your processor. z/VSE uses the Capacity Measurement Tool (CMT) to produce SCRT89 records of your z/VSE systems running in LPAR or in z/VM guests. CMT need to be started after IPL.

Sub-capacity pricing is based on the four-hour rolling average utilization of the z/VSE systems observed within a one month reporting period. The SCRT tool installed on z/VSE reads the SCRT89 records and creates an official report for the monthly submission to IBM.

See the [z/VSE software pricing page](#) for details and links.

If you are migrating to a new z114, z196 or zEC12 processor with your z/VSE 4.2 system please ensure, that you applied the required CMT APARs. The APARs are listed in the book "[Using the Sub-Capacity Reporting Tool](#)" or in the corresponding PSP (Preventive Service Planning) buckets, e.g. for [z114](#) Otherwise MSUs may not be reported correctly.

Tags: vse, sub-capacity, pricing

The VSE Script Server and it's z/VSE 5.1 enhancements (2013-05-06)

The VSE Script Server provides access to z/VSE resources using the Java based connector.

Java based connectors consist of two parts:

- the VSE connector client on a Java-capable platform and
- the VSE Connector Server running in a z/VSE partition with access to VSAM, Librarian, VSE/POWER, ICCF, etc.

You don't need to write Java programs to use the VSE Script Server and access z/VSE resources. Instead you may use VSE scripts. VSE scripts are written in a script language. Script statements such as if, while, for and script commands to access z/VSE resources may be included.

Any kind of program, e.g. an office program, Java or non-Java program, can invoke a VSE script.

Here is more information on the [VSE Script Server](#).

In z/VSE 5.1 we enhanced the VSE Script server with

- additional code page tools for use with double-byte character set (DBCS) data: binary to string, string to binary, save file binary, read file binary.
- additional VSE/POWER built-in functions: binary Get function, binary Put function
- new Librarian functions: listLibraries, listSubLibs, listMembers, createSubLib, deleteSubLib, copyMember, moveMember, deleteMember, renameMember, downloadMember, uploadMemeber, getMemberFromPowerQueue, putMemberToPowerQueue

More details are described in the [z/VSE e-business Connectors User's Guide](#)

Tags: connector, vse, script_server

Do you consider to use memory objects in z/VSE ? (2013-05-03)

With z/VSE 5.1 we introduces 64 bit virtual addressing. That is now you can allocate and use 64 bit virtual storage above the 2 gigabyte (GB) line = above the bar.

In your Assembler program you may use the **IARV64** services to manage (e.g. create / free) memory objects. Memory objects are chunks of virtual storage above the bar allocated at a megabyte (MB) boundary in megabyte increments. IARV64 services can be compared to GETVIS / GETMAIN and FREEVIS / FREEMAIN for 31 bit virtual storage.

IARV64 services can create private and shared memory objects. **Private memory** objects are accessible from the partition (address space) that created it. Any subtask of that partition may access the memory object. **Shared memory** objects may be accessed by any partition (address space) that is authorized to do so.

Benefits of memory objects: It is much easier to manage memory objects compared to data spaces, because you just need to switch into 64 bit addressing mode with a single instruction (SAM64) to access the data within the address space. In 64 bit addressing mode you can access any virtual storage from 0 to the allocated 64 bit memory objects. You do not need to use ALETs (Access List Entry Tokens) in access registers and switch into access register mode as for data spaces.

There is one more benefit for shard memory objects: IARV64 services allow to specify the storage key of the memory objects. Only programs that have the same PSW (Program Status Word) key than the storage key of the memory object can write into the memory object. With z/VSE 5.1 we allow to set the same user PSW key for partitions. That is you may have an easy way to share / exchange data between partitions, if programs are authorized.

Please see [the z/VSE 5.1 Extended Addressability book](#) for details.

That's my last blog for this week. **Have a good weekend.**

Tags: memory_objects, 64-bit, vse

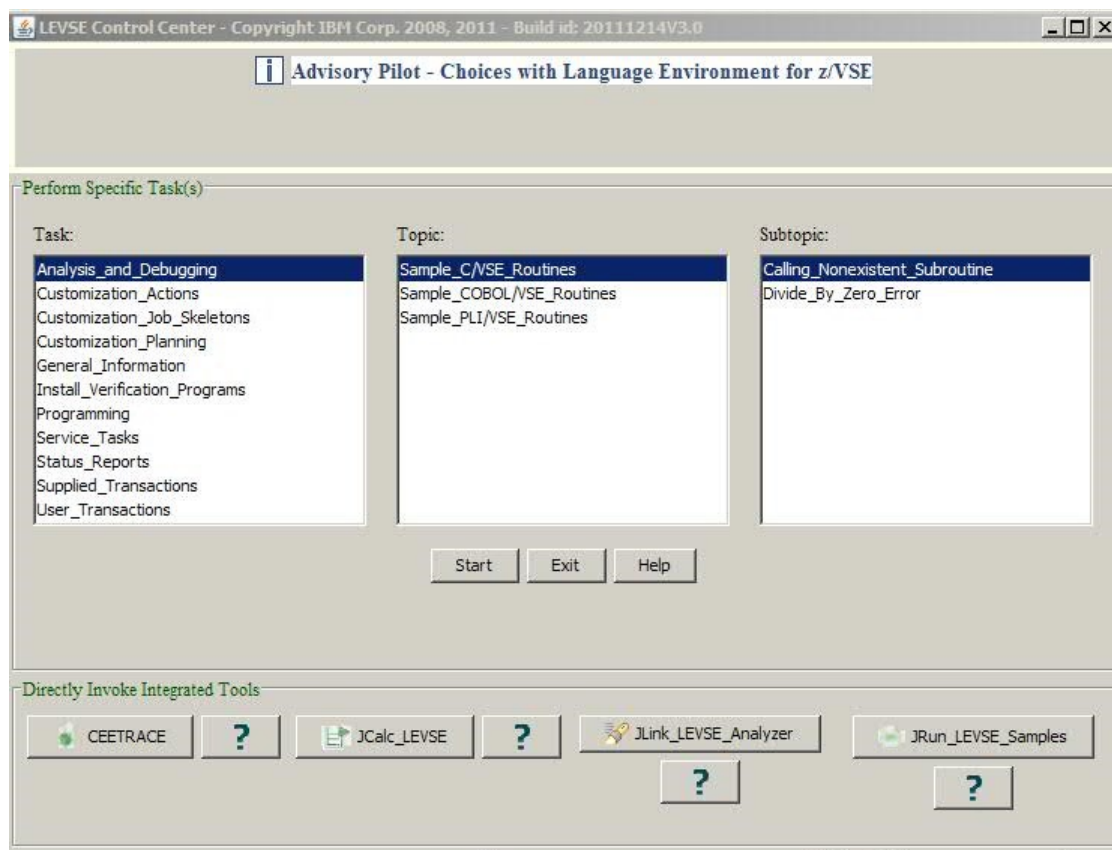
Are you aware of the LE/VSE control center ? (2013-05-02)

The LE/VSE (Language Environment) Control Center (LECC) is a Java based tool to access, exploit and manage z/VSE language resources.

It provides help to customize z/VSE systems from a language point of view, gain access to z/VSE language resources, take reports, explore integrated tooling, install and use option parts, etc.

LECC uses the VSE Java Beans class library and is based on the VSE Connector client. Therefore the VSE Connector client needs to be installed. From the workstation it connects to the VSE Connector server on z/VSE via TCP/IP.

LECC provides a task oriented view to perform language specific tasks such as analysis and debugging, customization actions and planning, retrieve general information, install programs for verification, status reporting, resource access, etc.



Here is the link to download the [LECC tool](#)

Tags: control_center, language_environment, vse

When did you create your last z/VSE stand-alone dump ? (2013-04-30)

I hope, you don't need to take a standalone dump of your z/VSE system and your system is always running as expected.

However, just in case: please create a new stand alone dump program on disk or tape, after a major upgrade of your z/VSE system (release or refresh migration) or as stated in the description of the APARs you applied.

A stand-alone dump is essential for problem analysis of e.g. a hard wait or a system loop (if a system interaction is no longer possible).

To prepare z/VSE for a standalone dump,

- please create the stand-alone program on disk or tape.
- Set appropriate stand-alone dump options for your z/VSE system, e.g. via `// OPTION SADUMP=..`

In z/VSE 5.1 we introduced (64 bit) memory objects. Those will be included into the stand-alone dump, if requested. With the next z/VSE update we will introduce a new stand-alone dump standard option for shared memory objects - Job Control command `STDOPT SADMPSMO`. You then can specify whether or not shared memory objects are to be included into the stand-alone dump.

I hope, the blog entries are useful. I would look forward to your feedback.

Please let me know, if there are any topics I should address in my blog.

Tomorrow is a public holiday in Germany. Therefore you can expect my next entry on Thursday.

Enjoy Wednesday.

Tags: service, dump, vse

How to identify the latest APAR level of your z/VSE system (2013-04-29)

With the Attention Routine command SIR (System Information Report) you can retrieve system information about your z/VSE system.

SIR ? or SIR HELP shows all SIR commands. Some commands provide status, others monitoring information.

Today I want to highlight the **SIR SYS** command, which provide information such as the processor you are running on and service information.

Below is a sample output of my system.

Line one to six show

1. The CPUID of the processor and the CPUID of the z/VM guest,
2. The processor model and LPAR name,
3. The CPUs in LPAR and capping value,
4. If running on z/VM: the z/VM release and z/VM guest userid (if you are running on z/VM),
5. If running on z/VM: the number of virtual CPUs of the guest and z/VM cap. value.
6. This line shows I am running in z/Architecture mode (required for z/VSE V4 and z/VSE 5.1) and the VSE IPL device address (007).

The most important 3 lines for our service team are line 7 through 9:

- The z/VSE release (refresh) level,
- The latest VSE/AF release and APAR level of the base component,
- The VSE/POWER release and APAR level.

Therefore please also provide the output of the SIR SYS command, if you contact IBM service.

The remaining lines show the IPL procedure, JCL startup (ASI) procedure, Supervisor name, Turbo Dispatcher level, security manager and the security manager status.

```
sir_sys
AR 0015 CPUID VM = 003B___220978000          VSE = FF3B___220978000
AR 0015 PROCESSOR = IBM 2097-732 51 (70___251) LPAR = SPB          No. = 0059
AR 0015 CPUS = 0003 (Ded.=0000 Shr.=0003) Cap. = 09%
AR 0015 VM-SYSTEM = z/VM 6.1.0 (1201) USERID = LNXSALM1 VMCF = ON
AR 0015 CPUS = 0006                               Cap. = 100%
AR 0015 PROC-MODE = z/Arch(64-BIT) IPL(007) 14:16:46 04/29/2013
AR 0015 SYSTEM = z/VSE 5.1.1 05/02/2012
AR 0015 VSE/AF 9.1.0 DY47323 ← 04/09/2012
AR 0015 VSE/POWER 9.1.0 DY47302 ← 04/12/2012
AR 0015 IPL-PROC = $IPLESA JCL-PROC = $$JCL
AR 0015 SUPVR = $$$A$SUPI TURBO-DISPATCHER (81) ACTIVE
AR 0015 SEC. MGR. = BASIC HARDWARE COMPRESSION ENABLED
AR 0015 1140I READY SECURITY = ONLINE
```

Tags: service, vse, sir

Did you know, that you can parse XML documents on z/VSE ? (2013-04-26)

Since some releases z/VSE provides interfaces to parse XML (eXtensible Markup Language) documents within z/VSE applications.

The z/VSE XML Parser provides interfaces for batch and online application. It is implemented in LE/C and therefore needs to be called from an LE (Language Environment) conform program.

z/VSE supports two interface types:

1. a SAX (Simple API for XML) like interface that uses call back functions for each XML element and can be used by any LE enabled programming language.
2. a DOM (Document Object Model) like interface that builds a tree representation of XML data in memory. Batch applications can use that interface from any LE enabled programming language, Any online application can use the DOM like interface.

The z/VSE XML Parser may be used to enable z/VSE applications as Web Services.

The z/VSE XML Parser is part of the z/VSE Connector component.

For more information, please see [z/VSE XML Parser](#) description.

Have a good weekend.

Tags: vse, document, xml

Do you still have VSE/VSAM recoverable catalogs ? (2013-04-25)

VSE/VSAM recoverable catalogs are no longer supported on z/VSE 4.3 and z/VSE 5.1. Recoverable catalogs need to be converted by the customer or will automatically be converted to standard (non-recoverable) catalogs.

In earlier z/VSE releases VSE/VSAM provided recoverable catalogs, indicated via an optional parameter during catalog definition.

It caused that all records were written to a catalog recovery area (CRA). In case of a physical device error the failing tracks could be marked as "unusable", the user catalog would be rebuilt and the data copied from the CRA. Because of new DASD technology this function is no longer necessary. Therefore we removed that support in z/VSE 3.1, but existing recoverable catalogs could still be used in z/VSE 4.1 and z/VSE 4.2.

My recommendation is to convert recoverable catalogs to standard catalogs before you migrate to z/VSE 4.3 or 5.1.

However, if one or the other recoverable catalog is not converted after you are on z/VSE 4.3 or 5.1. VSE/VSAM catalog management will automatically convert recoverable catalogs to standard (non-recoverable) catalogs. This will be completely transparent to user applications.

On z/VSE 4.3 please make sure that [APAR DY47322](#) is applied.

I assume your target system is on the latest service level anyway, that is you will have the conversion enhancement included.

Tags: catalog, recoverable, vsam, vse

z/VM 6.1 end of service (2013-04-24)

Today just a short blog entry and reminder.

z/VSE may run in an LPAR of a System z processor or as a guest in a z/VM system. About 50% of our z/VSE customers are running their z/VSE test and production systems in z/VM guests, because of z/VM's virtualization capabilities and flexibility

Key z/VM functions that z/VSE customers like are

- the z/VM hypervisor (virtualization capabilities)
- the VM mode LPAR to exploit standard CPs (for z/VSE) and IFLs (for Linux) in one z/VM system, e.g. to exploit z/VSE's connectors
- the minidisk concept
- the automation / system management capabilities
- the debug and trace capabilities
- IUCV, which may be used as the communication vehicle for z/VSE's Linux Fast Path

To get the latest z/VM benefits, please upgrade to a supported z/VM release and consider

that **z/VM 6.1** will have an end of support date of **April 30, 2013**.

You may consult [z/VM's end of support web page](#)

z/VSE's Storage Options (2013-04-23)

Today I will discuss z/VSE's disk storage options.

z/VSE supports 3 disk architectures: (Extended) Count Key Data (ECKD), Fixed Block Architecture and Small Computer System Interface (SCSI).

ECKD is supported by e.g. the IBM System Storage DS8000 series. DS8870 is the latest ECKD device you can use with z/VSE. Most of our customers are using ECKD disks. z/VSE supports ECKD features such as Parallel Access Volume (PAV) and Flashcopy..

FBA support may be used on z/VM as virtual FBA minidisks or as FBA-SCSI disks.

Applications can access **SCSI** disk via FBA channel programs or FBA interfaces. . FBA channel programs are translated at low level I/O interfaces to SCSI commands. Disks like IBM System Storage DS8870, IBM Storwize V7000 or IBM XIV support the SCSI architecture. z/VSE's SCSI support is transparent to FBA and device independent applications.

If you want to migrate from **ECKD to SCSI** devices please consider that you can not Fast Service Upgrade (FSU) to a SCSI device (FSU only works from ECKD to ECKD or SCSI to SCSI). If your applications is not written device independent, you need to adapt them. The same is true for Job Control statements, e.g. EXTENT information needs to be changed from tracks to blocks.

Please contact me, if you want to have more information.

Tags: vse, storage, fba, eckd, scsi

Do you want to encrypt your data on z/VSE ? (2013-04-22)

Today and tomorrow I am at an IBM internal conference and have only limited access to the internet.

Therefore my posts will be a bit smaller.

Are you looking for tools to secure your data ?

The Encryption Facility for z/VSE might be the tool to encrypt your data. It is an optional priced feature and is compatible with the Encryption Facility for z/OS 1.1 and 1.2.

That is you may exchange an encrypted file between your internal mainframe data centers or with business partners or vendors. The Encryption Facility uses hardware accelerated crypto support for encryption and decryption. You may encrypt SAM and VSAM files or VSE Library members, but also complete backups made with any backup tool.

For compatibility with workstation-based PGP tools the Encryption Facility for z/VSE also supports OpenPGP

z/VSE Service and Support (2013-04-19)

Next week is another z/VSE conference - GSE (Guide Share Europe) in Leipzig, Germany (Monday - Wednesday). It's a conference for German z/VSE users.

I will not be there, my colleagues will cover the latest z/VSE news and solutions. I wish a good conference to my German readers.

In the **WAVV requirements** session I got a requirement related to today's topic: Provide a better way to retrieve current APARs / PTFs.

I don't want to answer the requirement now, but want to briefly describe the service / support information we have on our [z/VSE home page](#)

Supported releases: If you want to get the announcement / announcement dates, end of marketing and end of service dates of our releases, please go to [About z/VSE -> Status](#)

Service and support: The service and support page has 4 sections: an introduction, preventive service, corrective service and problem management. See [Service & support](#)

The **preventive** service provides information on Preventive Service Planning (PSP) buckets, which contain all Hiper PTFs for a specific topic (e.g. new processors, products, components). This web page also shows the latest Recommended Service Level (RSL) per release - just select [Service & support -> Preventive](#)

The **corrective** service gives the latest PTF / APAR information for key components and products, if you select latest APARs for a specific release (see release selection below components and products). This page can be reached via [Service & support -> Corrective](#)

Have a good weekend !

Tags: gse, vse, service, support

z/VSE 5.1: The z/VSE Database Connector + enhancements (2013-04-18)

I had already a blog entry on "access to relational databases" in March. This time I will just write about the z/VSE database connector and the latest enhancements.

Information on required PTFs for the latest enhancements is on our [z/VSE Connector support page](#)

At WAVV we had also a session with a detailed introduction for the z/VSE Database Connector.

You can find more in the [z/VSE Database Connector presentation](#)

We provide a z/VSE Database Call Level Interface (DBCLI), which consists of

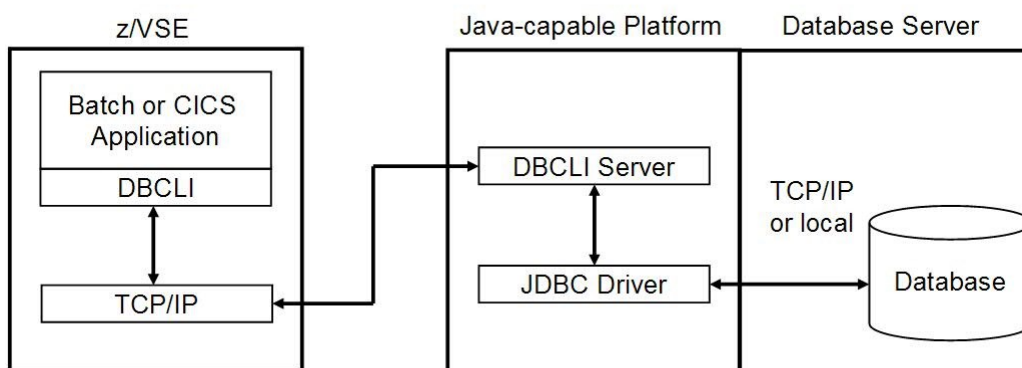
- a DBCLI client, that runs on z/VSE and
- a DBCLI server, that runs on a Java platform.

The DBCLI client provides an API for application programs. The DBCLI client communicates with the DBCLI server via a TCP/IP connection.

The DBCLI server receives the client requests and passes them to a JDBC driver that is provided by the database vendor.

Then DBCLI server returns the result of the call to the application program running on z/VSE.

Any SQL statement or SQL dialect, that is supported by the JDBC driver, can be used.



The latest enhancement - connection pooling - was announced on April 4, 2013.

Connection pooling keeps and reuses existing database connections for the DBCLI application running on the CICS Transaction Server for VSE/ESA 1.1.1. This may reduce the overhead required to establish a new network connection and initialization. Connection pooling is transparent to the application. It is only available for CICS applications.

A detailed description (including setup) will be available in the z/VSE e-business Connectors, User's Guide on June 14, 2013.

Tags: vse, connector, database

z/VSE 5.1: OpenSSL Support (2013-04-17)

Besides the SSL implementation available since some z/VSE releases z/VSE 5.1 provides OpenSSL for secured SSL communication in addition.

The IPv6/VSE product from Barnard Software, Inc (BSI) is the first exploiter of OpenSSL. IPv6/VSE can be licensed from BSI or IBM.

OpenSSL is an open source project that provides an SSL implementation and key management utilities. z/VSE implemented a subset of the OpenSSL functionality. OpenSSL is provided as part of the VSE cryptoServices.

z/VSE provides two functions:

1. A z/OS compatible SSL programming interface, which is used by all existing SSL applications in z/VSE, such as CICS web support, VSE Connector server, WebSphere MQ for z/VSE. The functionality is extended to support OpenSSL. The z/OS compatible programming interface is the recommended way to exploit the new OpenSSL support.
2. Support for IBM System z cryptographic hardware
Although OpenSSL can perform all encryption algorithms in software, performance is dramatically improved by using hardware crypto support.

With the next publication update (z/VSE TCP/IP Support) we will provide more details how OpenSSL works on z/VSE.

Tags: `ssl, openssl, encryption, vse`

TCP/IP printers attached to z/VSE - please provide feedback (2013-04-16)

Two WAVV requirements for printing over TCP/IP were raised and get a high voting:

1) z/VSE POWER control of TCP/IP printers

The requirement was raised, because there are no new system printers such as 6262. Nearly all new printers are now TCP/IP connected. The requirement asked also to control (TCP/IP) print output, e.g. if you have a paper jam at page 900 of a 5000 page document, to continue at page 900, instead of the beginning.

I would also see that requirement more general. That is that a z/VSE application connected to the TCP/IP printer is receiving VSE/POWER output.

2) TCP/IP printing from CICS TS

To get some input on how customers use TCP/IP printers connected to z/VSE, **I need your help !**

I need this information too, to decide for the best solution for z/VSE customers.

Some questions:

-- Are you using TCP/IP printers connected to z/VSE ?

If yes, from batch or online or both ?

-- What is your solution for TCP/IP printing - IBM or vendor solution ?

-- What products / components / functions / platforms are involved to use the TCP/IP printer ?

-- Do you control the TCP/IP printer from z/VSE ?

Please send any feedback to me - salm@de.ibm.com

You may post a blog entry with your feedback as a comment to this blog entry too, if you want other readers to see your feedback.

Tags: vse, printer, tcpip

Travelling next 3 working days (2013-04-10)

I am travelling the next three working days.

Therefore I will post the next blog entry next Tuesday.

Have a safe trip back home from WAVV 2013 and enjoy the weekend.

Tags: vse

WAVV 2013 last day, requirements (2013-04-10)

I am looking at the board, where the customer requirements are posted for this WAVV. Just 5 requirements are there.

Good for us. z/VSE seems to provide all functionality that our customers need - or we are just doing it right.

Customers will vote for requirements this afternoon in the requirements session.

The following requirements were posted:

- VSE/Power controlled TCP/IP printers
- Allow AR Dump command to direct dump output to disk
- Implement full ICSF functions in z/VSE with Crypto support and API's for secured financial applications
- Allow z/VSE to run without a real tape attached
- Provide better way to retrieve current APARs / PTFs

What else (z/VSE sessions) can we expect today ?

- z/VSE security overview and update
- z/VSE 64 bit
- How a CICS application becomes a web service
- z/VSE News
- z/VSE Connectors Update with example
- CICS TS performance tutorial

In the evening I will show a demo of the CICS Explorer and we will discuss any topics related to CICS.

Have a safe trip home. I hope you enjoyed WAVV 2013 - as I did.

Tags: requirements, vse, wavv, conference

z/VSE today at WAVV 2013 (2013-04-09)

There are good sessions at WAVV 2013.

I am just sitting in z/VSE performance session.

A good discussion is ongoing about more timely information about service - to get the latest APAR news for z/VSE products. That may lead to a customer requirement.

Just a quick overview of the other z/VSE sessions today:

- z/VSE Fast Path to Linux on System z
- z/VSE Hardware Support
- The new z/VSE database connector
- CICS performance

... and I am looking forward to the requirements "brainstorm" session this afternoon.

These are just the z/VSE sessions. There are up to 4 other tracks in parallel on Linux on System z, z/VM and vendor products, such as IPv6/VSE.

By the way you will find the presentations online on the [WAVV home page- see presentations tab on left](#) or the IBM presentations on [z/VSE documentation page, WAVV section](#) . The presentation will be uploaded the next days.

Tags: conference, vse, wavv

WAVV 2013 Opening Session, z/VM 6.1 end of service (2013-04-08)

Yesterday we had the WAVV 2013 opening session with an IBM update. On z/VSE the content of the announcement from last Tuesday was discussed - see my related blog entry for details. The latest news for Linux on System was provided,

an update on the latest processor technology - zEC12 as well - and finally an update on z/VM with a discussion on the z/VM 6.3 preview - see the [z/VM 6.3 web page](#) for details.

z/VSE customers are running their systems in LPAR or in a z/VM guest. Therefore it may be important, that the z/VM 6.1 system will have the end of service by end of this month (04/30/2013).

See [z/VM end of service dates](#) for details.

That is it is time to migrate to a supported release.

Tags: conference, vse, vm, wavv

Arrived for WAVV 2013 (2013-04-07)

I just arrived in Covington (KY) to attend the WAVV 2013 conference.

It feels like summer here with 20 C (68 F) after a long winter in Germany, where I left at 2 C (35 F).

Today is the WAVV 2013 opening session and IBM update at 5 p.m. in the Roebing Ballroom (Embassy Suites).

Tags: wavv, vse, conference

Travelling to WAVV (2013-04-05)

I am travelling to WAVV 2013 - the z/VSE, z/VM, Linux on System z conference - to talk about the latest z/VSE news and to meet our customers and vendors.

WAVV is scheduled from April 7 to April 10. I will be there all days. May be we can meet at WAVV ?

You can find more information on the [WAVV home page](#)

My sessions are z/VSE News, z/VSE 64 bit virtual, z/VSE Hardware Support and CICS Explorer.

I am also looking forward to all the other sessions and requirements.

I am not sure, if I can blog daily next week, because besides WAVV I will also visit a customer and vendors.

Enjoy your weekend.

Tags: vse, conference, wavv

Today some tips to order the z/VSE 5.1 product on Shopz (2013-04-04)

In the past we saw orders where customers got just documentation instead of the install media.

Thanks to my colleague Heinz Schulz for the input :-)

The reason for not getting the z/VSE 5.1 product orders packaged as requested may be caused by wrong selections on the Shopz menus.

To help our VSE customers the following is a guidance how to place a z/VSE 5.1 product order:

Please start with the [Shopz home page](#)

Select '**Sign in for registered users**' and sign-in with your IBM-ID / Password. After successful sign in to Shopz the initial menu will show up.

On **initial menu** select the 'My orders' tab

On the **My orders** menu select customer number you want to place an order for
Select z/VSE - Products 'VSE SIPO Version 5' for package category

On **Step 1** menu 'Modify order' to your needs

On **Step 2** menu select your 'Hardware System' where z/VSE is to be installed

On **Step 3** menu (catalog view) select for

Group 'VSE - ALL (Products 112)'

Language 'ENGLISH US'

Filter 'Show all products'

- select 'Show catalog'

On **Step 3** menu (Catalog view extended, shows product list)

It is important that the the mandatory base products

z/VSE Central Functions

High Level Assembler for VSE

both are selected, otherwise no z/VSE 5.1 Base will be delivered.

- select all other base products you need (VTAM, CICS, TCP/IP, etc.)

- select optional products

If no optional product is selected, only the z/VSE 5.1 base image will be packaged for delivery

Follow the instructions on menus **Step 4 to 7**.

Tags: order, vse, shopz

z/VSE Statement of Direction (SOD) (2013-04-03)

In yesterday's announcement we had 3 SODs (see my related blog entry):

IBM intends

- to add functionality that allows initial installation of z/VSE without requiring a physical tape.
- in the future to enhance IBM CICS Explorer for IBM CICS Transaction Server for VSE/ESA to provide updates to CICS resources.
- It is planned to reduce the AEWLC and MWLC list price of IPv6/VSE V1.1.

IBM's statements regarding plans, directions and intent are subject to change or withdrawal without notice at IBM's sole discretion.

Today I want to give a few more details about the first 2 SODs.

Installation without requiring a physical tape:

You may use an install image on a DVD or downloaded from the web (Shopz) to install a z/VSE system.

This is especially useful for environments where no tape unit is attached. With the installation image you can create an installation disk and (base) install from there.

That is when the SOD is fulfilled, you have two options for installation: installation from physical tape and installation from install image.

IBM CICS Explorer to provide updates to CICS resources:

The CICS Explorer provides a system management framework for CICS TS for VSE/ESA 1.1.1.

You can view CICS resources like terminals, transactions, programs, files, etc. The CICS Explorer runs on your PC (CICS Explorer client) and connects via TCP/IP

to CICS TS on z/VSE 5.1. In June 2012 we delivered the CICS Explorer to view the status of

CICS resources. When the SOD is fulfilled we will provide the capability to update the resources as you would do

e.g. with the transaction on your CICS terminal. That is you then can e.g. enable / disable resource, change selected definitions and more from the CICS Explorer client.

Tags: vse, announcement, sod

z/VSE 5.1 Additional Enhancements announced today ! (2013-04-02)

Today we announced the latest enhancements for z/VSE 5.1. All new functions are or will be available as PTFs.

The announcement contains news about z/VSE's hardware (processor and devices) support, I/O Supervisor, networking and encryption enhancements. Some PTFs are already available. Highlighted functions are planned for June 14, 2013.

Please see the enhancements below:

- Support of IBM zEnterprise EC12
 - Configurable Crypto Express4S
 - OSA-Express4S 1000BASE-T
- Support of IBM System Storage
 - **IBM System Storage TS1140 Tape Drive Model E07**
 - IBM System Storage TS7700 Virtualization Engine Release 3.0 (tape)
 - IBM System Storage DS8870 (ECKD / FCP-attached SCSI disks)
 - IBM Storwize V7000 Release 6.4 (SCSI disk)
- 64 bit Input/Output (I/O) processing for applications - see my earlier blog entry
- IPv6/VSE 1.1 (TCP/IP stack)
 - security enhancements provide Secure Socket Layer (SSL) support for IPv4 and IPv6 communication
 - Layer 2 support for IPv4 links in addition to IPv6 links
- **z/VSE database connector enhancements (connection pooling)**
- Configurable input buffers for HiperSockets devices

More information and the link to the announcement is on our [z/VSE home page](#) (later today)

... or in [IBM US Announcement Letter](#)

We also included 3 Statements of Direction (SODs) into the announcement. IBM intends

- to add functionality that allows initial installation of z/VSE without requiring a physical tape.
- in the future to enhance IBM CICS Explorer for IBM CICS Transaction Server for VSE/ESA to provide updates to CICS resources.
- It is planned to reduce the AEWLC and MWLC list price of IPv6/VSE V1.1.

IBM's statements regarding plans, directions and intent are subject to change or withdrawal without notice at IBM's sole discretion.

Tags: vse, announcement, enhancements

Happy Easter ! (2013-03-28)

We have public holidays in Germany - tomorrow (03/29) and on Monday (04/01). Therefore I will not blog those days. You can expect my next blog entry on Tuesday.

Happy Easter - and Easter holidays !

Please let me know, if there are any topics, that I should address in my blog.

Tags: vse

Do you know that we follow our z/VSE strategy since 13 years ? (2013-03-28)

We established our z/VSE strategy around 2000. It is still up-to-date and I see no need to change it in the future.

The z/VSE strategy is based on three keywords

- **Protect**
- **Integrate**
- **Extend**

... or it is as simple as **PIE**.

Protect existing customer investment, that is we design z/VSE improvements in a way, that existing applications and system environments do not need to change. We work closely with vendors (ISVs) to ensure that the impact to their products is kept to a minimum as well.

If we introduce new interfaces, we first verify, if such an interface is available on z/OS - and if so, we port it to z/VSE.

Timely hardware support helps to enable z/VSE customers grow and exploit the latest System z hardware and devices.

Integrate z/VSE into the larger IT network. z/VSE interoperability is supported by two complementary capabilities.

One includes priced middleware such as CICS Transaction Gateway, DB2 Client / Connect, or WebSphere MQ.

The second capability includes connectors and web services provided at no additional charge by z/VSE itself.

With connectors it is possible to access nearly all z/VSE resources from non-z/VSE platforms in a secure manner.

Extend core applications running on z/VSE with new application options not available on z/VSE,

for example WebSphere, Java, DB2 UDB, development tools.

We especially benefit from the Linux on System z environment, which allows to simplify the network infrastructure and consolidation of workloads with the help of z/VM's virtualization capabilities.

More details are on our [z/VSE Strategy page](#)

Tags: pie, vse, strategy

... and another reminder: Will you meet us at WAVV, April 7 -10 ? (2013-03-27)

WAVV is a major annual conference for z/VSE, z/VM and Linux on System z users.

WAVV is just 10 days away. It's scheduled for April 7-10, 2013 in Covington, KY.

You can meet the experts and discuss any topics related to the operating systems

z/VSE, z/VM, Linux on System z and their solutions.

A session grid, session abstracts and more details are on the [WAVV home page](#)

Tags: wavv, vse, conference

Reminder: LVC - Important update on z/VSE 5.1 enhancements on April 2 (2013-03-27)

Sorry, the earlier Blog entry was corrupted and I can't change it anymore.

We have a long Easter weekend in Germany - Friday and Monday are public holidays.

Therefore I will send this reminder for our upcoming Live Virtual Class (LVC) already today.

Additional functional enhancements and hardware support were implemented in z/VSE 5.1 since its availability (November 2011). The webcast (LVC) will discuss the latest z/VSE 5.1 news.

Speaker: Siegfried Langer, IBM

Date: Tuesday, April 2, 2013

Time: US & Europe: 11:00 AM New York, 04:00 PM London, 05:00 PM Boeblingen, 15:00 UTC

Or: Europe & AP: 04:00 PM Japan, 07:00 UTC, 03:00 AM New York, 08:00 AM London, 09:00 AM Boeblingen

Duration: 45 Minutes

Tags: enhancements, lvc, vse

What are the z/VSE options to access a relational database ? (2013-03-26)

With this blog entry I want to describe a few options to access a relational database. My main focus are IBM provided solutions.

There may be more and you may find other solutions provided by vendors (ISVs).

1) The IBM DB2 Server for VSE and VM:

The DB2 server is a database that can be installed locally on z/VSE. Since a few years you may install the DB2 runtime only client editions (DB2 client) to access a DB2 server running e.g. on Linux on System z, both are connected through TCP/IP.

2) The VSAM Redirector

The VSAM Redirector consists of a client on z/VSE that redirects all accesses to a VSAM file to any other file system, database or any Java platform.

That is the VSAM Redirector may route VSAM accesses to a (DB2) database on a Linux on System z server.

The VSAM Redirector can be used to migrate a VSAM file to a DB2 database. This is transparent to the VSAM application.

3) The new z/VSE Database Connector (DBCLI):

DBCLI allows z/VSE applications to access a relational database on any suitable database server. You may choose a database server (IBM DB2, Oracle, Microsoft SQL Server, MySQL, etc.) that runs on a platform other than z/VSE.

The z/VSE DBCLI consists of 2 main parts, the DBCLI client on z/VSE and the DBCLI server on a Java platform. Both are connected via TCP/IP.

Are you interested in more details ? Please see our [z/VSE Connector page](#)

Tags: database, redirector, vse, connector

Are you aware that your IBM zEnterprise server has a special function for z/VSE ? (2013-03-25)

The zEnterprise servers (e.g. z114) with a newer firmware level introduce a function especially implemented for z/VSE, the z/VSE - z/VM IP Assist (z/VSE VIA).

z/VSE VIA provides the counterpart to the Linux Fast Path (LFP) on z/VSE. LFP allows selected TCP/IP applications to communicate with the TCP/IP stack on Linux on System z without using a TCP/IP stack on z/VSE.

The traditional LFP function requires the user to install, administrate and configure a Linux on System z system.

The z/VSE VIA function provides an easy to use and ready to run z/VM guest image that offers all services required to use the z/VSE Linux Fast Path. It is not necessary to install and maintain

a Linux on System z server.

For more details please see the z/VSE TCP/IP Support book on our [z/VSE Documentation page](#)

Tags: server, tcpip, vse, zenterprise, ip-assist

How to prevent and detect a VSE/POWER queue and data file corruption (2013-03-22)

The following messages indicate a VSE/POWER spool file corruption, i.e. the POWER queue file and data file are no longer in sync:

- 1QF8I nnnnnnnnnn FREE DBLK GROUP(S) OF A SUBCHAIN' (ABOUT mmm%) LOST
- 1QFAA USED DBLK GROUP FOUND IN A FREE DBLK GROUP SUBCHAIN
- 1QFBA FREE DBLK GROUP FOUND IN RETURNED QUEUE ENTRY
- 1QFCA MISMATCH OF GROUP COUNT AND ACTUAL NUMBER OF DBLK GROUPS
- 1QFDA MISMATCH OF SUBCHAIN COUNT AND ACTUAL NUMBER OF FREE GROUPS

This may happen if e.g. a running system has been copied to new disks as a new system or when

DOSRES or SYSWK1 are accessed by more than one z/VSE system at the same time.

To avoid this, either perform a VSE/POWER cold start after such a copy or make sure that

VSE/POWER has been terminated by PEND before starting a copy.

Thanks to the VSE/POWER team for this contribution.

Have a good weekend.

Tags: vse, vse-power

Sending dumps and traces to the z/VSE service team (2013-03-21)

The z/VSE Level 2 team asked me for this post.

When reporting a new problem to z/VSE service, please send the available material in the existing format, for example dumps from StandAlone Dump disk or tape should be send as binary data, also dumps stored in the SYSDUMP dump library should be send as binary data. Dumps in binary format are favored by the z/VSE service team for analysis and should not be printed by INFOANA or DOSVSDMP.

Traces and dumps stored in VSE/POWER LST queue should be send as text data.

For details how to send binary and text data see our [Service & Support web page](#)

Tags: vse, service

Reminder: WAVV is just 2 weeks away (2013-03-21)

WAVV is one of the major z/VSE conferences this year to get the latest news on z/VSE, z/VM and Linux on System z.

WAVV is scheduled from April 7 to April 10, 2013.

Are you planning to participate and meet us ?

You can find more information on the [WAVV web page](#)

Tags: vse, conference, wavv

Do you want to manage your z/VSE userids in company-wide repository ? (2013-03-20)

The LDAP (Lightweight Directory Access Protocol) sign-on support in z/VSE allows to implement a centralized management of user-IDs. User-ID and password are authenticated using an LDAP server that is reachable via the TCP/IP network. As a result, password-rules and password-renewal can be enforced via the LDAP server. z/VSE can be integrated into "Identity Management Systems".

The LDAP sign-on overcomes the previous limitation in z/VSE of up to 8 characters user-ID and password. Now you can have up to 64 character long user-IDs and passwords. Users can be enforced to use complex passwords.

Dialogs and tools are provided to map LDAP user-IDs to z/VSE user-IDs.

LDAP sign-on support was introduced with z/VSE 4.2.

The support and setup is described in [z/VSE Administration](#)

Tags: vse, security, userid, ldap

z/VSE: Are you planning to upgrade to a new System z processor ? (2013-03-19)

This blog entries briefly gives a few tips, that might be useful, if you plan to upgrade to a new processor, such as the IBM System z10, the IBM zEnterprise 114 (z114) or the IBM zEnterprise EC12.

As you know from earlier posts I recommend to migrate to the latest z/VSE release - z/VSE 5.1- to get full support of the new processors. z/VSE 4.3 supports all above processors too.

If you are already on z/VSE 5.1, you just need to verify, if you have required PTFs applied - see PSP bucket for the target processor.

In general please do not change the software level and processor at the same time.

What is first - software or processor migration - depends on your current processor. If you are already on an IBM System z9 processor or higher, you may migrate to z/VSE 5.1 first and to the new processor later.

... but it's your choice.

If you are on an IBM System z processor before z9 you need to migrate to the new processor first, because z/VSE 5.1 requires a z9 processor or higher.

If you are migrating an unsupported VSE release to a new processor, ensure that you are on the latest PTF level.

Please contact me, if you are running on a VSE/ESA 2.5 or earlier.

Now a few tips:

Read the PSP information for the processor, e.g. for [z114](#)

Apply PTFs recommended for the new processor before you migrate to it.

Check with your vendors, if they have a processor dependency.

It might be necessary to install a supported z/VSE release to configure the OSA Express3 cards.

You might need to apply an OSA/SF PTF.

Do you use supcapacity pricing (CMT, SCRT) ? Check for updates. Backup your CMT data.

Tags: migration, vse, processor

Do you know our z/VSE Redbooks ? (2013-03-18)

You may be interested in our IBM Redbooks addressing z/VSE topics:

[Introduction to the New Mainframe: z/VSE Basics](#)

provides some basic information of the mainframe and a high level overview of the

z/VSE operating system, its products, components and functions.

[Security on IBM z/VSE](#)

gives an overview of z/VSE's security functionality, how to secure a z/VSE system

and z/VSE's audit capabilities. A key element is the z/VSE Basic Security Manager.

[z/VSE Using DB2 on Linux for System z](#)

describes the implementation and setup of a centralized database in a heterogeneous

environment - z/VSE connected to a database running on Linux on System z.

Tags: vse, redbook

LVC: Important update on z/VSE 5.1 enhancements (2013-03-15)

The next Live Virtual Class (LVC) is scheduled for April 2, 2013.

Since the general availability of z/VSE 5.1 additional hardware support and functional enhancements were implemented. This webcast (LVC) gives an overview of the latest news on z/VSE.

Speaker: Siegfried Langer, IBM

Date: Tuesday, April 2, 2013

Time: US & Europe: 11:00 AM New York, 04:00 PM London, 05:00 PM
Boeblingen, 15:00 UTC

Or: Europe & AP: 04:00 PM Japan, 07:00 UTC, 03:00 AM New York, 08:00 AM
London, 09:00 AM Boeblingen

Duration: 45 Minutes

More information is on our [z/VSE home page](#)

Have a good weekend.

Tags: lvc, vse

z/VSE 5.1: There is a new performance option for TCP/IP traffic. (2013-03-14)

The new configuration option could improve TCP/IP performance especially for z/VSE systems

connected to Linux on System z using communication over HiperSockets.

This enhancement was delivered end of 2012 as [APAR DY47394](#)

The configuration option allows to configure the number of QDIO input buffers (default is 8)

using the new macro QDIOBUFF (and skeleton SKOSACFG). The number of QDIO buffers

can be configured in multiples of 8 in the range from 8 to 120.

QDIO buffers are allocated in 31 bit partition GETVIS space, that is you may need to increase

your partition allocation, if you define more buffers - and the buffers are to be PFIxed.

Therefore the Job Control SETPFIx command need to be adapted.

More QDIO input buffers may improve performance when the number of buffers e.g.

for Linux on system z and z/VSE is unbalanced. More buffers may reduce or avoid resends.

The configuration of QDIO input buffers is available for HiperSockets and OSA Express (CHPID OSD).

Tags: tcpip, performance, osa, vse, hipersockets

Your requirements are important to us (2013-03-13)

You may have noticed in our announcements, that new functionality often fulfill requirements from customers. If we define the content for a new release, we always look into our requirements databases first.

That is you can influence the content of a z/VSE release.

Requirements are an important medium for us to understand your needs.

How can I submit a requirement ?

You may raise requirements through your IBM contacts, our z/VSE requirements

page or at conferences, such as WAVV, GSE or IBM System z technical Universities.

You may submit a requirement via our [z/VSE requirements page](#)

... or you may enter **CICS Transaction Server** requirements yourself into our new

[Request for Enhancement \(RFE\) database](#)

Please select the following to get the requirement assigned to the z/VSE product:

Brand = WebSphere

Product family = Transaction Processing

Product = CICS Transaction Server

Component = Runtime or Explorer

Operating system = IBM z/VSE

I am looking forward to receive your requirements.

Tags: requirements, vse, cics

z/VSE 5.1 migration: Check the service level of your vendor software (2013-03-12)

Yesterday I informed you about our latest Recommended Service Level (RSL). Besides the IBM service it is also important to monitor the latest service level of your

vendor products and follow their recommendations.

If you are migrating to z/VSE 5.1, please do not just ask your vendor for z/VSE 5.1 PTFs,

please ask for the latest z/VSE 5.1 related service level of your vendor software.

I recommend to check for important service news of your vendor software before the

switch to z/VSE 5.1 production as you would do for IBM HIPER service.

Tags: vse, vendor, migration, service

Reminder: z/VSE Release and Version Upgrade, Migration Considerations - Part 2 (2013-03-11)

This just a reminder for the Live Virtual Class (LVC) tomorrow:

z/VSE Release and Version Upgrade, Migration Considerations - Part 2

Speaker: August Madlener, IBM

Date: Tuesday, March 12, 2013

Time: US & Europe: 12:00 PM New York (DST in effect), 04:00 PM London, 05:00 PM Boeblingen, 16:00 UTC

Or: Europe & AP: 05:00 PM Japan, 08:00 UTC, 04:00 AM New York (DST in effect), 08:00 AM London, 09:00 AM Boeblingen

Duration: 90 Minutes

You will find more information on our [z/VSE home page](#)

Tags: lvc, vse, migration

z/VSE: The latest RSL is out. (2013-03-11)

The latest RSL (Recommended Service Level) is available for z/VSE 4.3.1 and 5.1.1.

The RSL consists of a list of all APAR/PTF numbers, which are available at specific cutoff dates.

RSLs are updated more frequently than refreshes and contain all available service,

not only HIPER service.

If you are in the middle of the migration to z/VSE 5.1 and already on z/VSE 5.1.1 + the

November 2012 RSL, I would just add the additional HIPER PTFs - see Preventive

Service Planning (PSP) buckets. If you plan or just started with the migration, please

upgrade to this new (Feb. 2013) RSL.

Here is the link to the [Recommended Service Level \(RSL\)](#)

Tags: rsl, vse, service

Do you follow z/VSE on Twitter ? (2013-03-08)

Besides our [z/VSE web pages](#) you may get the latest news from our Twitter account.

The z/VSE development and service team post latest news on z/VSE topics like development and service news, live virtual classes and conferences.

Just register to our Twitter account [IBMzVSE](#)

Have a good weekend.

Tags: vse, twitter, zvse

Do you want to see any changes to the VSE/POWER queues on your console ? (2013-03-07)

With the VSE/POWER PVAR Y command you can enable additional messages. The CONS operand will cause messages to be written to the console, the HCONLY operand will report messages on the hardcopy file only. Messages will then be issued to report the manipulation of a queue entry by a VSE/POWER command, such as PALTER, PDELETE, PHOLD or PRELEASE. The messages may be used for auditing purposes.

You can stop reporting by using the PVAR Y command with the IGN operand. By default these messages are not issued.

More details are in VSE/POWER Administration and Operation, see [VSE/POWER documentation](#)

Tags: vse-power, auditing, vse

z/VSE: Where can I find latest CICS APAR information ? (2013-03-06)

You already know how to get the latest service news for your z/VSE system. If not, just go to our [z/VSE Service & support](#) page. On the "Corrective" tab you can select the product CICS Transaction Server and find the "Latest CICS TS V1.1.1 APARs" link.

Or you can go directly to the [Fix list for CICS Transaction Server for VSE/ESA 1.1.1](#)

That page contains a table of APARs for CICS TS with a short abstract.

Tags: vse, apar, cics

Are you planning for WAVV ? (2013-03-05)

WAVV is a major conference for z/VSE, z/VM and Linux on System z users. WAVV is just a month away. It is scheduled from April 7 to April 10, 2013 in Covington, KY. Are you planning to participate ?

WAVV is always a good place to get the latest news of the z/VSE, z/VM and Linux on System z operating systems, products and applications.

The presenters will also share hints & tips, their experience, usage scenarios, etc.

You may get into discussion in round tables and requirements sessions.

Please visit the WAVV web page - <http://www.wavv.org/>

to get more details (session grid and abstracts) and information on registration and hotel information.

Tags: vse, wavv

Will you change to daylight saving time ? (2013-03-04)

With the z/VSE IPL commands SET ZONEDEF and SET ZONEBDY you can switch between standard and daylight local times without changing the IPL startup procedure each time. However, you have to IPL the system in order to switch to the new time zone, see the z/VSE System Control Statements for details.

A local time change forward has normally no effect on subsystem operation. It may have an impact on accounting, however.

A local time change backwards could affect subsystems and accounting routines more severely.

Therefore I recommend to IPL the z/VSE system for any time changes.

Tags: time, dst, vse

Did you ever try to run a health check on your z/VSE system ? (2013-03-01)

To get an idea which system parameters could be of interest for a health check, I recommend to install and run our z/VSE Health Checker. You may download that tool from our webpage [z/VSE Health Checker](#). It's a Java-based system utility, that run on your workstation and connects to the z/VSE system via TCP/IP. If you ask to retrieve new data from the z/VSE system, it starts some jobs to gather the data and sends the data back to the z/VSE Health Checker. The z/VSE Health Checker visualizes the information, such as the partition storage layout, data space information, the system directory list, security parameters, subsystem (CICS, VTAM, POWER) related information and system parameters (IPL, Turbo Dispatcher, ...). Next you may ask to analyze the data and the z/VSE Health Checker reports issues colored (green = good, yellow = warning, red = needs attention) and recommendation. The storage analyzer mainly targets the most critical storage resource, the 24-bit area.

I would like to get your feedback. Are the topics I posted so far of interest ?
What other topics would you like to see ?

Have a good weekend.

Tags: vse, healthcheck

Are you looking for the latest status of our z/VSE releases and hardware support ? (2013-02-28)

On our z/VSE status page you find supported z/VSE releases, corresponding announcement letters

and a link to information on unsupported releases.

We also list supported hardware, such as IBM System z servers, adapters and z/VSE storage support (disk and tape).

At the bottom of the status page we have a link to the status of z/VSE's independent

vendor software.

For details see [z/VSE hardware and software status](#)

Tags: status, hardware, vse

LVC: z/VSE Release and Version Upgrade, Migration Considerations - Part 2 (2013-02-27)

This is the second part of the migration Live Virtual Class (LVC). It compares Fast Service Upgrade (FSU) versus initial installation, provides some information on migration tools and migration of applications and data.

Speaker: August Madlener, IBM

Date: Tuesday, March 12, 2013

Time: US & Europe: 12:00 AM New York (DST in effect), 04:00 PM London, 05:00 PM Boeblingen, 16:00 UTC

Or: Europe & AP: 05:00 PM Japan, 08:00 UTC, 04:00 AM New York (DST in effect), 08:00 AM London, 09:00 AM Boeblingen

Duration: 90 Minutes

You will find more details on [z/VSE home page](#)

Tags: lvc, migration, vse

z/VSE 5.1: New system parameter for z/VM Userid of z/VSE Guest (2013-02-26)

In z/VSE 5.1 we implemented a small customer requirements. It is available since June last year.

We introduced the IJBVMID system parameter. It contains the 8 byte z/VM user-id, when z/VSE is running under z/VM. It contains 8 blank characters, when z/VSE is running in a LPAR.

E.g. you may use conditional JCL and check the IJBVMID value and execute different JCL for your test userid than your production userid.

Tags: vse, userid, vm

Are you still running your applications on CICS/VSE 2.3 ? (2013-02-25)

CICS/VSE 2.3 had an end of service date of October 31, 2012.

If you are still dependent on CICS/VSE, it is time to migrate to CICS TS for VSE/ESA 1.1.1.

For details on migration to CICS TS see the "CICS TS Migration Guide".

z/VSE 4.2 - end of service October 31, 2012 - was the last release that provided a compatibility environment

for CICS/VSE and CICS TS. That is z/VSE 4.2 included skeletons and (security) definitions to run

CICS/VSE and CICS TS within one z/VSE system. DL/I DOS/VS 1.10 supported CICS/VSE, DL/I VSE 1.11 supported CICS TS.

z/VSE 4.3 dropped the compatibility environment and replaced DL/I DOS/VS 1.10 and DL/I VSE 1.11

by a new DL/I release - DL/I VSE 1.12.

DL/I VSE 1.12 only supports CICS TS. However, CICS/VSE can still run on z/VSE 4.3, if you are not dependent on DL/I.

CICS/VSE can not run on z/VSE 5.1.

I recommend to migrate from CICS/VSE to CICS TS on z/VSE 4.2 or prior releases.

Tags: cics, vse

z/VSE 5.1: System management enhancements (2013-02-22)

I am a bit late today. I noticed, that I talked already about new functions in VSE/POWER. Therefore I removed that entry.

If you want to read about those, you will find them here: [VSE/POWER enhancements](#)

Now to the system management enhancements:

- SNMP (Simple Network Management Protocol) was introduced with z/VSE 4.3 for e.g. performance monitors to retrieve z/VSE system data like CPU utilization from a remote system. With z/VSE 5.1 and SNMP Symbolic Parameters you can now use symbolic parameters when running the SNMP Trap Client in batch. For details, see "Using the SNMP Trap Client in Batch Jobs" in the z/VSE e-business Connectors User's Guide.
- Another SNMP enhancement is the dynamic linking of th SNMP Trap client API. The VSE Monitoring Agent has been enhanced to allow your COBOL, PL/I, and C/VSE programs, and CICS transactions to dynamically link the SNMP Trap Client API to enable them to send SNMP "traps." For details, see "Collecting Data Using the VSE Monitoring Agent" in the z/VSE e-business Connectors User's Guide.
- We also introduced the new GDPS connector. The support for GDPS (Geographically Dispersed Parallel Sysplex) allows a GDPS Client to collect availability data from your z/VSE systems and send it to a central GDPS K-System running under z/OS. For details, see "Using GDPS Support for High Availability" in the z/VSE e-business Connectors User's Guide.

Our books are on [z/VSE documentation](#)

Have a good weekend.

Tags: system-management, vse

Do you know how many options for TCP/IP communication z/VSE has ? (2013-02-21)

The answer is "three".

Linux Fast Path (LFP) is an IBM developed option for TCP/IP traffic, IPv6/VSE is licensed from

Barnard Software, Inc. and TCP/IP for VSE/ESA is licensed from CSI International.

All three options may run independent on each other within a single z/VSE system.

1. Linux Fast Path (LFP)

Routes TCP/IP traffic to Linux on System z without the need for a z/VSE local TCP/IP stack.

Instead the Linux TCP/IP stack is used to communicate to the internet.

The z/VSE system may be connected to the Linux on System z via

- IUCV (a z/VM communication method): both Linux and z/VSE need to be guests of the same z/VM, available for z/VSE 4.3 and 5.1.
- HiperSockets: one LPAR running Linux is connected via HiperSockets to another LPAR running z/VSE. Available since June 2012 for z/VSE 5.1.

2. IPv6/VSE

Is a full function TCP/IP stack with applications for IPv4 and IPv6 network traffic.

Since December 2012 secured transmission of data using the Secure Socket Layer (SSL) Protocol.

HTTPS, FTPS, SMTPS and TN3270E over SSL is supported.

Available since 2010 for z/VSE 4.2, z/VSE 4.3 and z/VSE 5.1.

3. TCP/IP for VSE/ESA

Is a well known TCP/IP stack with applications for IPv4 traffic.

It provides secure transmission of data via the SSL protocol.

Available since 1997, I believe.

More information on:

- IPv6/VSE and TCP/IP for VSE/ESA: <http://www-03.ibm.com/systems/z/os/zvse/products/tcpip.html>
- Linux Fast Path (LFP): <http://www-03.ibm.com/systems/z/os/zvse/products/connectors.html#lfp>

All three options are described in detail in the z/VSE TCP/IP Support book:

Tags: tcpip, vse

Do you want to generate a bitmap of your installed z/VSE software levels as input for Shopz ? (2013-02-20)

We have a small tool available for download, that generates a bitmap of the installed z/VSE software - called "z/VSE Installed Software Report Tool".

The bitmap can be used for input to Shopz.

The tool is Java based and can be executed on Windows or Linux. It connects to z/VSE via FTP and retrieves the software levels (MSHP retrace).

If you don't have a FTP connection to z/VSE, you may generate the MSHP retrace and use the listings as input for the tool, see the tool readme for details.

A new update is available.

The tool can be downloaded here

<http://www.ibm.com/systems/z/os/zvse/downloads/tools.html#isrtool>

Tags: vse, shopz, software-order, install

Do you access this z/VSE Blog with your smartphone ? (2013-02-20)

You may access my z/VSE blog with an RSS reader App.

RSS readers usually format the blog entries to the screen size of your smartphone.

They also make it easier to select a blog entry.

Tags: vse, smartphone

z/VSE 5.1: Supervisor Diagnosis Reference, Hints & Tips (2013-02-19)

We just uploaded the latest "Supervisor Diagnosis Reference" and "Supervisor Calls and Internal Macros" for z/VSE 5.1. Both books provide information about the internal structure and architecture of z/VSE. For vendors they also describe services that should be used instead of direct control block access. The "Supervisor Diagnosis Reference" also describes how z/VSE exploits the z/Architecture.

Both books can be access on

<http://www.ibm.com/systems/z/os/zvse/documentation/#drm>

Since some time the z/VSE 5.1 Hints & Tips is available on

<http://www.ibm.com/systems/z/os/zvse/documentation/#hints>

The z/VSE development, Level 2 and change teams share their experience in the "Hints and Tips" book. It provides some background information on selected

z/VSE functions as well as configuration tips and samples.

Tags: diagnosis, vse, reference

Just a reminder: Live Virtual Class on z/VSE Release and Version Upgrade, Migration Considerations (2013-02-18)

Speaker: August Madlener, IBM

Date: Tuesday, February 19, 2013

Time: US & Europe: 11:00 AM New York, 04:00 PM London, 05:00 PM
Boeblingen, 16:00 UTC

Or: Europe & AP: 05:00 PM Japan, 08:00 UTC, 03:00 AM New York, 08:00 AM
London, 09:00 AM Boeblingen

Duration: 90 Minutes

For details see <http://www.ibm.com/systems/z/os/zvse/>

Tags: vse, lvc

z/VSE 5.1: Did you know, that z/VSE supports 64 bit I/O ? (2013-02-18)

z/VSE introduced 64 bit virtual addressing with z/VSE 5.1 in November 2011. An application may request 64 bit storage by creating or sharing a memory object (chunk of virtual storage). The IARV64 services manage storage above 2 GB (above the bar).

Since December 2012 you may allocate (64 bit) I/O buffers above the bar. I/O operations are supported on private memory objects only. Private memory objects can be accessed

by the application (partition) that created it.

64 bit I/O is supported via the EXCP (Execute Channel Program) service and for DASD (ECKD).

A new parameter was added to the CCB (Command Control Block) macro: IDAW=FORMAT2.

The CCW (Channel Command Word) with the IDA (Indirect Data Address) flag and

data address points to the Format 2 IDAW (Indirect Data Address Word).

The Format 2 IDAW contains the 64 bit address, the address of the I/O buffer.

The 64 bit I/O support is available with APAR DY47419,

<http://www.ibm.com/support/docview.wss?crawler=1&uid=isg1DY47419>

Tags: vse, 64-bit, io

z/VSE 5.1: Did you hear about the CICS Explorer ? (2013-02-15)

The weekend is coming and this is the last post for this week.

We got some snow the last days in Boeblingen, Germany, but I assume it will start melting tomorrow.

... now to my topic for today:

We delivered z/VSE support for the **IBM CICS Explorer** in June 2012.

The CICS Explorer is also called "The new face of CICS" and provides a system management framework for CICS TS for VSE/ESA 1.1.1.

You can view CICS resources like terminals, transactions, programs, files, etc. The CICS Explorer runs on your PC and connects via TCP/IP to CICS TS on z/VSE 5.1.

To set it up requires just a few steps.

The CICS Explorer can be downloaded from the CICS Explorer web page.

The support for CICS TS is provided via a few PTFs.

More details on the CICS Explorer are here ->

<http://www-03.ibm.com/systems/z/os/zvse/products/cics.html#cicsexplorer>

Tags: cics, vse, cics-explorer

z/VSE 5.1: VSAM PTF UD53927 (APAR DY47452) (2013-02-14)

This blog entry is only of interest for z/VSE 5.1 users.

I just looked into VSAM APAR DY47452. You may remember, that I mentioned it in

one of my previous blog entries.

The problem description says:

1. Missing records when updating KSDS dataset with DFR+LSR options.
2. Gradually eaten-up 31bit Getvis while running CICS transactions actively processing VSAM KSDS files.

DFR is an VSAM ACB option for deferred write, LSR for local shared resources.

If you use DFR, I recommend to apply this PTF.

The 31 bit Getvis issue doesn't free a few bytes, after each iteration. It is applicable for long running

applications in general, not just for CICS.

Sorry, I forgot to add the link to the APAR:

<http://www-01.ibm.com/support/docview.wss?uid=isg1DY47452>

Tags: vse, cics, vsam

Are you a VSE-L reader ? (2013-02-14)

I assume you are already a reader of or active on VSE-L.

Just in case - if not - VSE-L is a discussion list for z/VSE users and you can find it here

<https://groups.google.com/forum/?fromgroups#!forum/bit.listserv.vse-l>

I am not active on VSE-L. However, I monitor it daily. I like how z/VSE users help each other.

... and for me it's valuable input, where problems are and where z/VSE needs to improve,

but also what is good.

Thanks to all z/VSE users that share information.

Tags: vse-l, vse

z/VSE: Are you running z/VSE on a multiprocessor ? (2013-02-13)

This is a topic for customers running z/VSE on multiprocessors.

z/VSE is a good exploiter of up to 3 CPUs (processors), which depend on the non-parallel share (nps) of the workload,

that is the usage of system versus application code. If you have e.g. a higher I/O load (system code),

less CPUs may be fully exploited. You should only activate as many CPUs as your workload can exploit

to reduce the multiprocessor overhead.

You may monitor the non-parallel share and CPU utilization with the Attention Routine (AR) command QUERY TD - described in z/VSE System Control Statements.

You may also be interested in a little tool called z/VSE CPU Monitoring Tool. It is based on

QUERY TD and measures the CPU utilization over a longer time period.

The download is here

<http://www.ibm.com/systems/z/os/zvse/downloads/tools.html#cpumontool>

Did you ever consider to use **CPU balancing** ?

CPU balancing is especially valuable for low utilized systems or if you have just a small number of

partitions active. It may also reduce the CICS TS MRO overhead in multiprocessor environments.

You may activate CPU balancing e.g. via the AR command SYSDEF TD,INT=9, where 9 is the

inspection interval in seconds. I would leave the threshold default as a start, you may tune it later.

CPU balancing will only activate the CPUs, that are required for a workload (depends on CPU utilization).

That is it reduces the multiprocessor overhead.

You can find more information on CPU balancing in the z/VSE Planning book.

Our books are on <http://www.ibm.com/systems/z/os/zvse/documentation/>

For performance related documentation see <http://www->

[03.ibm.com/systems/z/os/zvse/documentation/performance.html#perfdoc](http://www-03.ibm.com/systems/z/os/zvse/documentation/performance.html#perfdoc)

Tags: vse, vse-multiprocesing, cpu-balancing

z/VSE topics (2013-02-13)

Did the z/VSE topics I discussed so far met your expectations ?

What is good ? What should I change ?

What z/VSE topic would you like to see ?

You may add comments to this blog entry or send me an email to

salm@de.ibm.com

Tags: vse, topics

z/VSE 5.1: VSE/POWER enhancements (2013-02-12)

z/VSE 5.1 customers may have already noticed, VSE/POWER had some nice enhancements.

Both are customer requirements.

1) TKN job attribute

For ease of use, the TKN job attribute is introduced, that allows selected VSE/POWER operator commands to address all spooled outputs of one job as an entity.

Please see VSE/POWER Administration and Operation for details.

2) Ease job output handling - available since June 2012

Program driven output segmentation, using the IPWSEGM macro, has been extended to generate duplicates of LST and PUN output.

The support is available through the operand DUP=YES of the * \$\$ LST/PUN statement.

Duplicates can be helpful to distribute output to multiple destinations at the same time.

Please see VSE/POWER Application Programming for details.

VSE/POWER books are on

<http://www.ibm.com/systems/z/os/zvse/documentation/#power>

Tags: vse, vse-power

z/VSE 5.1 Migration: Check your VSAM Catalogs (2013-02-11)

I recommend to run the VSE/VSAM catalog check service aid (IKQVCHK) before the migration to z/VSE 5.1 to determine whether a catalog is damaged - and after migration.

You may check your catalogs from time to time during normal operation too.

I also recommend to run the VSAM LISTCAT before and after the migration and verify in the output, e.g. if there are space allocation mismatches.

LISTCAT may take some time dependent on your installation.

For IKQVCHK and LISTCAT please consult your VSAM documentation:

VSE/VSAM Commands, VSE/VSAM User's Guide and Application Programming

You may also find a little tool useful, that analyzes the LISTCAT output.

The tool runs on your PC and takes e.g. the LISTCAT output you downloaded to your PC as input.

The tool is called **Multi Instant Logic Analyzer4VSAM** and can be downloaded from here ->

<http://www.ibm.com/systems/z/os/zvse/downloads/tools.html#vat>

A presentation, that describes the functionality is here:

<ftp://public.dhe.ibm.com/eserver/zseries/zos/vse/pdf3/wavv08/MILA4VSAM.pdf>

Tags: vse, vsam, migration

LVC: z/VSE Release and Version Upgrade, Migration Considerations (2013-02-11)

If you plan to migrate to z/VSE 5.1, I recommend the upcoming Live Virtual Class (LVC):

z/VSE Release and Version Upgrade, Migration Considerations

Fast Service Upgrade (FSU) overview, what is covered by FSU and how it works. FSU versus initial installation and migration of current data. Overview on migration tools. Specific migration items like security definition, VSAM data, language environment and more issues.

Speaker: August Madlener, IBM

Date: Tuesday, February 19, 2013

Details are on the z/VSE home page, see <http://www.ibm.com/systems/z/os/zvse/>

Tags: lvc, live-virtual-class, vse

Are you concerned about your space for 24 bit applications ? (2013-02-08)

Just a few days ago I saw a z/VSE 5.1 system, that did not use the VTAM 31 bit I/O buffer support.

This support (available since z/VSE 3.1) allocates VTAM buffers in 31 bit storage, which frees up some 24 bit space, that can be used by your 24 bit (CICS) applications.

The 31 bit buffer support can be enabled, if you specifying IOBUF31=YES in the VTAM startup book.

With z/VSE 4.3 we moved many data area, buffers and system routines from 24 bit into 31 bit storage. You may see that relief if you migrate to z/VSE 4.3 or z/VSE 5.1.

Some areas that could be sensitive to vendor program are only moved into 31 bit storage, if you specify so via the IODEV parameter in the IPL Supervisor parameters.

IODEV=1024: I/O control blocks are allocated in 31 bit system Getvis.

If you Fast Service Upgrade (FSU) from z/VSE 4.2 the default is IODEV=1023, that is I/O control blocks are allocated in 24 bit system Getvis; for z/VSE 4.3 or z/VSE 5.1 initial installation it is set to IODEV=1024.

Please consult your vendors, if they have a dependency on IODEV settings. ... and ensure, that you are on the latest PTF level (check for 31 bit related VSAM and Supervisor PTFs).

Now you should have some 24 bit relief.

Next you should check your shared area settings via the Attention Routine (AR) commands MAP SVA and GETVIS SVA.

It may be necessary to increase the shared area (31 bit).

You can do this by adapting the IPL SVA command (PSIZE, GETVIS parameters).

If there is more space in the shared areas (24 bit) than you need, you may reduce the PSIZE/GETVIS values.

Please consider that you may need to adapt the VSIZE and page dataset, if you increase the shared area (31 bit).

After you freed up some shared area (24 bit) space, you will see more 24 bit partition space for your applications.

You may consult the z/VSE Planning manual for details.

As always - plan for a regression test, if you change your system before you go into production.

Tags: vse, iodev, vtam, 24-bit, 31-bit, shared-area

z/VSE 5.1 Migrations - Software Level (2013-02-07)

If you plan to migrate to z/VSE 5.1, please consider the following:

Independ on Fast Service Upgrade (FSU) from a prior release or an initial installation,

please upgrade to z/VSE 5.1.1 and add the latest z/VSE 5.1 Recommended Service Level (RSL) level ->

<http://www.ibm.com/systems/z/os/zvse/support/preventive.html#rsl>

On top of the RSL please apply the Preventive Service Planning (PSP) buckets ->

<http://www.ibm.com/systems/z/os/zvse/support/preventive.html#psp>

PSPs contain all Hiper PTFs (and other recommended service) for a specific set of products

or components on a given VSE refresh level.

Please verify that the following VSAM Hiper PTFs are applied:

- VSAM PTFs UD53921 and UD53922 - The fixes are related to the problems of:
- DY47446 - Backward compatibility of zVSE 5.1 with obsolete VSAM attributes (IMBED, REPLICATE)
- DY47447 - CICS DL/I Performance (I/O EXCPAD calls for DL/I requests)
- VSAM PTF UD53912 (to fix a catalog corruption problem)
- VSAM PTF UD53913 (to fix a LSR problem)
- VSAM PTF UD53927 (APAR DY47452 - to fix a Deferred Write and VSAM Getvis problem)

Upgrade your vendor products to the latest level. Some have new fixes for z/VSE 5.1.

If you are migrating from z/VSE 4.2 or earlier releases, please verify your SVA (shared area) requirements

(e.g. via GETVIS SVA, MAP SVA attention routine commands).

Reason: In z/VSE 4.3 we implemented some virtual storage constraint relief by moving control blocks

and system routines into 31 bit virtual storage.

Please review the z/VSE 5.1 and z/VSE 5.1.1 Release Guides ->

<http://www.ibm.com/systems/z/os/zvse/documentation/>

Tags: fsu, vse, psp, rsl, migration, vsam

z/VSE 4.3 end of service (2013-02-06)

Let's start with the latest announcement related to z/VSE.

Just yesterday we announced the end of service of z/VSE 4.3. It is planned for May 31, 2014.

The announcement letter is at <http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?infotype=an&subtype=ca&appname=GPA&htmlfid=897/ENUS913-010>

If you are on z/VSE 4.3, I recommend to look into our latest supported release - z/VSE 5.1 - and may be start planning for a migration. More information on z/VSE 5.1 is on <http://www-03.ibm.com/systems/z/os/zvse/>

Tags: vse, end-of-service

My first blog entry (2013-02-06)

With this blog I want to provide information about the mainframe operating system z/VSE.

That is news, hints & tips, any z/VSE topic you are interested in, where I am knowledgeable.

I hope you will find this blog valuable.