

IBM z/VSE



Release Guide

Version 5

IBM z/VSE



Release Guide

Version 5

Note: Before using this information and the product it supports, be sure to read the general information under “Notices” on page v.

This edition applies to Version 5 of IBM® z/Virtual Storage Extended (z/VSE), Program Number 5609-ZV5, and to all subsequent releases and modifications until otherwise indicated in new editions.

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Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/VSE enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size

Using Assistive Technologies

Assistive technology products, such as screen readers, function with the user interfaces found in z/VSE. Consult the assistive technology documentation for specific information when using such products to access z/VSE interfaces.

Documentation Format

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About This Book

This manual first provides an introduction to z/VSE 5.2 and a list of the servers that are supported. It then provides an overview of the enhancements and changes implemented with z/VSE 5.2.

Who Should Use This Book

This manual is intended for those z/VSE users who need to be aware of important information provided with z/VSE 5.2.

How to Use This Book

The book contains two chapters:

- Chapter 1, "Introduction and Server Support," on page 1.
- Chapter 2, "Changes introduced with z/VSE 5.2," on page 3.

Where to Find More Information

Whenever appropriate, the book refers to other z/VSE manuals that provide further details on a specific topic.

The z/VSE home page provides additional z/VSE information:

z/VSE Home Page

z/VSE has a home page on the World Wide Web, which offers up-to-date information about VSE-related products and services, new z/VSE functions, and other items of interest to VSE users.

You can find the z/VSE home page at

<http://www.ibm.com/systems/z/os/zvse/>

You can also find VSE User Examples (in zipped format) at

<http://www.ibm.com/systems/z/os/zvse/downloads/samples.html>

Chapter 1. Introduction and Server Support

z/VSE 5.2 aims to continue the strategy that was defined for previous releases. This means:

- **Protect** customers' investments in the z/VSE platform,
- **Integrate** z/VSE into the overall IT environment, and
- **Extend** existing z/VSE application solutions by exploiting and leveraging *Linux on System z* (or any other application platform).

Linux on System z is central to z/VSE's strategy of enabling open standard e-business technologies to support new, more rapidly growing workloads.

Using the *z/VSE connectors*, you can integrate z/VSE resources with any Java-capable platform of your choice (that is, not only System z).

z/VSE 5.2 supports these IBM System z servers:

- IBM zEnterprise EC12 (zEC12).
- IBM zEnterprise BC12 (zBC12).
- IBM zEnterprise 196 (z196).
- IBM zEnterprise 114 (z114).
- IBM System z10 Enterprise Class (z10 EC).
- IBM System z10 Business Class (z10 BC).
- IBM System z9 Enterprise Class (z9 EC).
- IBM System z9 Business Class (z9 BC).

For further details, see "Hardware Support" in the *z/VSE Planning* manual.

Chapter 2. Changes introduced with z/VSE 5.2

This chapter describes the changes delivered at General Availability of z/VSE 5.2.

It contains these topics:

- “Support of innovative IBM zEnterprise EC12 and zEnterprise BC12 technology”
- “Exploitation of IBM System Storage Technology” on page 4.
- Ease of use functionality:
 - “Tapeless initial installation” on page 5
 - “Stacking tape support” on page 5.
- “Exploitation of 64-bit virtual capabilities” on page 5.
- “Security/Encryption Enhancements” on page 6.
- “TCP/IP and Networking Enhancements” on page 8.
- “e-business Connectors Enhancements” on page 8.
- “VSE/POWER Enhancements” on page 9.
- “VSE/VSAM Enhancements” on page 9.
- “Language Environment Enhancements” on page 10.
- “Other enhancements” on page 10.
- “Items no longer supported with z/VSE 5.2” on page 11.

Support of innovative IBM zEnterprise EC12 and zEnterprise BC12 technology

z/VSE 5.2 supports innovative IBM zEnterprise EC12 and zEnterprise BC12 technology:

- Configurable Crypto Express4S feature
The Crypto Express4S feature is exclusive to the zEC12 and zBC12 environment. z/VSE 5.2 supports the Crypto Express4S feature in both IBM Common Cryptographic Architecture (CCA) coprocessor and accelerator mode. It can be used in an LPAR and z/VM guest environment. The support is also available for z/VSE 5.1 with PTF UD53863 (APAR DY47414).
- OSA-Express5S features - an Ethernet technology refresh
The OSA-Express5S family of features is exclusive to the zEC12 and zBC12 environment. z/VSE supports OSA-Express5S features in five modes of operation:
 - CHPID type OSC for TN3270E and non-SNA DFT 3270 emulation
 - CHPID type OSD for TCP/IP traffic with exploitation of two ports per CHPID
 - CHPID type OSE for SNA and TCP/IP passthrough traffic with exploitation of two ports per CHPID
 - CHPID type OSX for access control to the IntraEnsemble Data Network (IEDN) (z/VSE V5.1 and later)
 - CHPID type OSN for OSA-Express for NCP
- OSA/SF now available on the Hardware Management Console (HMC)
OSA/SF on the HMC is exclusive to the zEC12 and zBC12 environment and supports OSA-Express5S and OSA-Express4S features. OSA/SF on the HMC

makes the OSA/SF software component of z/VSE obsolete. This allows clients to include OSA-Express4S and later features in their configuration without the need to install software service for OSA/SF first.

- Absolute physical capacity limit

Processor Resource/Systems Manager (PR/SM) and the Hardware Management Console (HMC) of the zEC12 and zBC12 allow clients to limit the amount of physical processor capacity consumed by an individual logical partition (LPAR). This is transparently reflected in the subcapacity (SCRT89) records generated by the z/VSE Capacity Measurement Tool (CMT) for all z/VSE releases. It is also shown by the z/VSE Query Virtual Server (QVS) API which may be used for licensing purposes. The QVS support is also available.

Exploitation of IBM System Storage Technology

This is how z/VSE 5.2 exploits IBM System Storage technology:

- Systems-managed encryption with the IBM System Storage TS1140:

The IBM TS1140 (3592 Model E07) tape drive is the fourth generation of the highly successful IBM 3592 Enterprise tape drive. The TS1140 is designed to provide higher levels of performance, reliability, and cartridge capacity than the TS1130 (3592 Model E06) tape drive. The TS1140 also supports drive-based data encryption to help protect your data.

The 3592 Model E07 will support three new media types:

- An up to 4 TB capacity standard length media MEDIA11 (R/W).
- An up to 4 TB capacity standard length media MEDIA12 (WORM).
- An up to 500 GB capacity economy cartridge MEDIA13 (R/W).

z/VSE 5.2 supports the TS1140 for use in an LPAR and a z/VM guest environment. Usage of the TS1140 encryption capabilities is identical to that of the TS1130. The support is also available for z/VSE 5.1 with PTF UD53931 (APAR DY47436).

- IBM System Storage TS7700 Virtualization Engine Release 3.1:

IBM Virtualization Engine TS7700 Release 3.1 delivers 8 Gb FICON adapter support, increased capacity, and other system enhancements. z/VSE 4.3 and later transparently supports the TS7700 Release 3.1.

- IBM DS8870 Release 7.2:

IBM DS8870 systems are designed to offer better performance with new processors, microcode, drive options, and advanced functions to enhance data protection. z/VSE 4.3 and later transparently supports the DS8870 Release 7.2 for use with ECKD and FCP-attached SCSI disks.

- Upgrade of the z/VSE Parallel Access Volume (PAV) support with improved recovery capabilities:

PAV is an optional licensed feature of the IBM System Storage DS8000 series. It enables a single System z server to simultaneously process multiple I/O operations to the same volume. PAV may result in a performance improvement compared to traditional I/O and may provide enhanced throughput. The z/VSE PAV support, which was introduced with z/VSE 4.2, allows accessing an ECKD-type volume with multiple concurrent requests. z/VSE 5.2 now provides an upgrade of the PAV support with improved recovery capabilities.

- IBM Storwize V5000 Midrange Disk:

Storwize V5000 is a highly flexible, easy-to-use, virtualized data storage for mid-sized businesses. z/VSE 4.3 and later transparently supports the Storwize V5000 for use with FCP-attached SCSI disks.

- IBM Storwize V3700 Entry Disk:
Storwize V3700 is an easy-to-use entry-level disk storage system with advanced capabilities for small and medium businesses. z/VSE 4.3 and later transparently supports the Storwize V3700 for use with FCP-attached SCSI disks.

Tapeless initial installation

z/VSE 5.2 allows initial installation of z/VSE from an installation disk in addition to tape installation. The installation disk must be an ECKD disk of type 3390.

z/VSE 5.2 provides utilities to create an installation disk, for both the LPAR and the z/VM CMS environment. These utilities are provided to clients who choose DVD or Internet (ShopzSeries) delivery. In an LPAR environment the installation disk can be created directly from the DVD using a 'Load' function of the Hardware Management Console (HMC) or Service Element (SE).

To create the installation disk in z/VM, the utilities and the z/VSE base tape image have to be transferred to the z/VM CMS guest first. The installation disk is identical, no matter in which environment it was created.

For further details, see the *z/VSE Planning* manual.

Stacking tape support

z/VSE 5.2 provides stacking tape support. A stacking tape is a standard labeled tape of type 3592 on which several tape images can be stored. Stacking tape support is especially helpful for tape migration of 'older' tapes, such as 3480 or 3490. Up to 800 tapes of, for example, type 3480 can be stored on one high-capacity 3592 tape. This helps to exploit the capacity of tape volumes such as TS1140 and thus reduces costs.

Stacking tape support is based on z/VSE's virtual tape (VTAPE) support. A stacking tape is implemented as multiple virtual tape files each one containing one single tape image. The Job Control VTAPE command has been extended to support stacking tapes. New VTAPE functions INIT and LIST are provided to initialize a stacking tape and to list its contents.

For further details, see the *z/VSE Administration* manual.

Exploitation of 64-bit virtual capabilities

With z/VSE 5.2, these enhancements are provided in *64-bit support*:

- Virtual disks in 64-bit virtual storage:
With z/VSE 5.2, a VDISK (virtual disk) can now be created in a shared memory object. This overcomes the 2 GB limitation when creating a VDISK in a data space.
The VDISK command places the virtual disk either in a shared memory object or in a data space. If there is enough space in the extended shared area, then the virtual disk is placed transparently in the shared memory object, otherwise it is placed in a data space. For further details, see "Using Memory Objects in the 64-Bit Address Space" in the *z/VSE Planning* manual.
- 64-bit Input/Output (I/O) processing for applications:
With 64-bit I/O processing, clients have the flexibility to use 64-bit virtual storage for I/O buffers and thus benefit from increased processor storage

available with latest IBM System z servers. 64-bit I/O processing is also available for z/VSE 5.1 with PTF UD53915/UD53917/UD53916 (APAR DY47419).

- Include 64-bit storage in a dump:
A new JCL OPTION MODUMP is provided causing parts of a memory object to be dumped, provided:
 1. The failing user program is running in 64-bit mode.
 2. One of the general purpose registers contains a 64-bit address within a memory object.
 3. OPTION DUMP or OPTION PARTDUMP is in effect.If these three conditions are met, 4K of memory object storage on either side of the addresses pointed to by the matching general registers is dumped. This option is supported both as JCL OPTION and as STDOPT. Memory object dumps can be processed with the IUI STORAGE DUMP MANAGEMENT dialog. INFOANA support for memory object dumps is available as well.
For further details, see the *z/VSE Planning* manual.
- Control whether a shared memory object is included in an SADUMP:
The user can now control whether a shared memory object dump file should be included in a stand-alone dump or not. Since SMOs are allocated in the Extended Shared Area, which belongs to the system rather than to a partition a new standard option STDOPT SADMPMO is introduced (which cannot be overridden - similar to STDOPT DATE) by a corresponding OPTION statement. Default processing is now to not include a shared memory object dump file in a stand-alone dump. For further details, see the *z/VSE Planning* manual.
- The IUI Dialog Display Storage Layout will now show the system values for MEMLIMIT and SHRLIMIT.
For further details, see the *z/VSE Planning* manual.

Security/Encryption Enhancements

These are the security/encryption enhancements provided with z/VSE 5.2:

- Separation of the auditor function from the administrator function
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. To separate the processing of the logging information and the administration of the system-wide audit options a new user type, AUDITOR, was introduced.
- Extension of the IUI security dialogs to support MQ classes
MQ resource classes are supported by BSM and its administration services since z/VSE 4.3. Now these resource classes can be managed via the new IUI menu 287 "Unified BSM Resource Profile Maintenance" which leads to the new IUI panel IESADMBSLC ("BSM Resource Classes").
- Unique Group (GRP) and User Id (UID) names are ensured
User IDs and groups with identical names may lead to unwanted behavior on access list processing. Therefore with this z/VSE release the BSM will not allow new groups with the same name as existing user Ids, and vice versa.
- OpenSSL release 1.0.1e integration
OpenSSL is an open source project that provides a Secure Sockets Layer (SSL) and Transport Layer Security (TLS) implementation, and key management

utilities. See www.openssl.org for details. OpenSSL release 1.0.1e provides support for Transport Layer Security (TLS) V1.2 for highest available security. To allow z/VSE clients and vendors to use OpenSSL for their applications, and thus benefit from OpenSSL functionality, z/VSE 5.2 is designed to provide an SSL implementation that integrates OpenSSL release 1.0.1e.

The z/VSE SSL implementation also provides a z/OS compatible SSL programming interface, which allows existing z/VSE SSL applications, such as the z/VSE Connector Server or LDAP client, to run transparently with OpenSSL.

Although OpenSSL provides software-based encryption for supported algorithms and key lengths, the z/VSE implementation transparently uses cryptographic hardware when available for improved performance. Thus clients benefit from IBM zEnterprise cryptographic hardware and its acceleration of cryptographic operations. The z/VSE SSL implementation is delivered as part of the z/VSE Cryptographic Services component. The OpenSSL 1.0.1e upgrade is also available for z/VSE 5.1 with PTF UD53983 (APAR DY47499). OpenSSL on z/VSE is exploited by IBM IPv6/VSE. TLS V1.2 support in IPv6/VSE requires PTF UK98397 (APAR PM98875). For further details, see the *z/VSE TCP/IP Support* manual.

- Interface OpenSSL to GSK

z/VSE 5.2 provides the OS390 GSK API for OpenSSL on VSE.

- Key store conversion

z/VSE 5.2 provides functionality for managing different SSL key stores. Up to now there was only one key store type on VSE, invented by CSI: RSA keys and SSL certificates stored in VSE library members. With OpenSSL, a new key store type PEM is introduced. VSE connector applications already use JKS and PFX key stores on workstations. Enhancements to the Keyman/VSE tool and documentation of how to use openssl on workstation platforms for converting the related key store types are provided.

- Open SSL LE Multiplexer

The LE Multiplexer introduced with LE/VSE 1.4.7 will be enhanced to allow separating SSL functions (`gsk_...`) from other Socket API functions. With this enhancement it will be possible to use one TCP/IP Interface (from Vendor A) for TCP/IP functions and another TCP/IP Interface (from Vendor B) for SSL functions.

- LDAP Tools

z/VSE 5.2 provides LDAP batch tools that support the following LDAP functions:

- LDAP search - performs a search using specified parameters. The search results are then printed into the listing of the job.
- LDAP add - adds an entry.
- LDAP modify - modifies an entry.
- LDAP delete - deletes one or more entries.

This tools can help to inspect and administrate the LDAP directory from within th z/VSE system. For further details, see the *z/VSE Administration* manual.

- Monitoring Agent Security Enhancements

The SNMP protocol used by the Monitoring Agent is not encrypted, so the "community string" as input to the Monitoring Agent is transferred unencrypted in each packet. So, when a "hacker" sniffs the network traffic, he will be able to read the community string. Therefore we want to enhance the security of the z/VSE Monitoring Agent by adding an IP filter. So, the z/VSE Monitoring Agent will additionally check, if the source IP of each incoming packet matches a

ruleset (which is part of the z/VSE Monitoring Agent's configuration file). And if at least one rule matches, the packet will be processed.

TCP/IP and Networking Enhancements

These are the TCP/IP and networking enhancements provided with z/VSE 5.2:

- IPv6 Support has been introduced and extended in various areas
The VSE Connector Server, all IUI dialogs that deal with IP addresses, the z/VSE Monitoring Agent and the z/VSE Trap Client, the VTAPE Support, and the EZA CICS Listener have been enhanced to support IPv6.
- Besides IPv6 Support, the EZA CICS Listener now provides support for the “enhanced” Listener (which does not require the client to send the name of the child server transaction) and also allows to specify an TCP/IP Stack to be used with the CICS Listener. The configuration dialog for the CICS Listener provides a CONVERT function, that converts a standard Listener to an enhanced Listener and vice versa.
- On previous versions of z/VSE TCP/IP for VSE/ESA was shipped in sublibrary PRD1.BASE. It will now be separated into its own sublibrary PRD2.TCPIPC

For details of the above enhancements, refer to “TCP/IP and Networking Support” in the *z/VSE Planning* manual and to the *z/VSE TCP/IP Support* manual.

e-business Connectors Enhancements

These are the e-business Connectors enhancements provided with z/VSE 5.2:

- DDNAME support for redirector SNAP trace
In z/VSE 4.3 support was added to enable the redirector trace via the VSAM SNAP 10 (though IKQVEDA). At that stage, the trace can be enabled or disabled per partition. Once it is enabled, it is enabled for all VSAM files that are redirected. Now support is added for DDNAME specifications, so that the redirector trace can be limited to certain files.
- SOAP Enhancements
Up to now z/VSE supports the RPC/encoded encoding style only. Now it supports “mapping rules” that contain comarea and paths in the xml file. Based on these rules the z/VSE SOAP Engine converts data between User Program and Web Service.
- SOAP Enhancements with the CICS2WS Tool
The z/VSE SOAP Engine and the CICS2WS Tool were enhanced to support literal encoding style, in addition to the already supported SOAP-encoding style. With this enhancement the z/VSE SOAP Engine now supports :
 - RPC-type Web Services using SOAP encoding (old SOAP engine).
 - RPC-type Web Services using literal style encoding (new SOAP engine).

This enables better integration with Web Services in a heterogenous environment.

SOAP Encoding: SOAP encoding is a set of serialization. The rules specify how objects, structures, arrays, and object graphs should be serialized. Generally speaking, an application using SOAP encoding is focused on remote procedure calls and will likely use RPC message style. When SOAP Encoding is used, the SOAP Message contains data type information within the SOAP message. This makes serialization (data translation) easier since the data type of each parameter is denoted with the parameter.

Literal: Data is serialized according to a schema. In practice, this schema is usually expressed using W3C XML Schema. The SOAP message does not directly contain any data type information, just a reference (namespace) to the schema that is used. To perform proper serialization (data translation) both, the sender and the receiver, must know the schema and must use the same rules for translating data.

- Exploit POWER XEM Support

The VSE e-business connector is the first exploiter of the POWER XEM Support. In particular, the Java-based Connector (aka VSE Connector Server and VSE Connector Client) will be enhanced to allow an Java application on the client to retrieve XEM messages. The Java application can then process the entries by means of using POWER access functions already part of the Java-based Connector.

VSE/POWER Enhancements

These are the main VSE/POWER enhancements provided with z/VSE 5.2 :

- XEM (eXtended Event Message)

Up to z/VSE 5.2 VSE/POWER provided Fixed Format JGM/JCM/OGM support. This support gives an SAS user (an application program) an opportunity to watch Job Generation, Job Completion and Output Generation events. However, due to limited scope, the support has restricted usage (only a few events are covered).

Now with z/VSE 5.2 a new XEM support is introduced. XEM (eXtended Event message) is an extension of the JGM/JCM/OGM for a SAS user. XEM meets the requirements from applications such as z/VSE Connector which need to extend the set of events covered by Fixed Format messages. VSE/POWER generates an XEM every time, when

- a new Q-entry is created.
- an existing Q-entry is altered.
- an existing Q-entry is deleted.

For further details, see the *VSE/POWER Application Programming* manual.

- Delete VSE sublibrary member after * \$\$ SLI processing

It is now possible to delete the VSE sublibrary member after its inclusion by an SLI statement. This is achieved by introducing the new *DEL=YES/NO* keyword in the SLI statement.

VSE/VSAM Enhancements

This topic describes the *VSE/VSAM* enhancements provided with z/VSE 5.2:

- Chained RPL Support

VSE/VSAM applications can save significant system overhead by “chaining” VSAM requests. All Request Parameter Lists (RPLs) in the chain are seized (frozen) during initialization in Record Management. A problem showed up when an RPL interior to the chain experiences an error, so all subsequent requests were not carried out. However, the RPLs were released, causing problems with some applications.

Now the entire RPL chain will be released if an error is detected in one RPL in the chain.

- Remove duplicate VOLSERS on DEFINE CLUSTER

In the past, VSAM IDCAMS permitted the use of duplicate VOLSERS in DEFINE CLUSTER statements. This caused problems if this volume ever needed to be

removed.

Now IDCAMS will automatically eliminate duplicate Volsers for DEFINE CLUSTER (for non-“Key Ranged” Clusters only) and DEFINE ALTERNATE-INDEX, but will not bring a non-zero return code. This is to ensure existing user JCL, which currently includes duplicate Volsers, will not start to fail.

- **SHOWCB Macro Enhancements**

The SHOWCB macro allows you to examine the contents of fields in an ACB, EXLST, or RPL control block. VSE/VSAM displays the requested fields in an area specified by the user.

The enhanced SHOWCB macro now returns:

 - A matrix that contains information about a specified SHR pool to eliminate the customer's dependency on the internal VSAM control block format.
 - A matrix that contains information about extents and device characteristics for a specified cluster.
- **New Catalog Management Trace**

The Catalog Management Trace enhancement is provided to support investigation and resolution of Catalog Management problems by dumping the partition in trouble as close as possible to the point where an issue was discovered. For further details, see the *VSE/VSAM User's Guide and Application Programming* manual.
- **DLBL CISIZE definition**

It is now possible to specify the CISIZE parameter on a DLBL statement for VSAM Implicit Defining SAM ESDS Clusters.
- **VSAM IDCAMS Security**

VSAM IDCAMS processing is now integrated into the overall VSE BSM concept. IDCAMS commands are protected via RACROUTE security checking as it is done in z/OS.

Language Environment Enhancements

These are the enhancements provided with *LE/VSE Version 1 Release 4 Modification Level 9*, which is part of z/VSE 5.2:

- **Run-Unit Work Area (RUWA) tracing**

A simple method of activating LE z/VSE run-unit work area tracing information is provided. This information can be used by both IBM support personnel and customers to investigate and tune their applications storage requirements. This tracing function provides information on run-unit storage requirements of a LE z/VSE CICS program. This will consist of both application and run-time storage amounts needed to successfully execute the program. This information can be used to help debug or monitor CICS program storage requirements for both above and below the 16MB line. For further details, see the *LE/VSE Debugging Guide and Run-Time Messages* manual.

Other enhancements

These are the other enhancements provided with z/VSE 5.2:

- **Base install without VTAM terminals**

The requirement to have one local VTAM terminal available during base installation has been dropped. A TCP/IP defined terminal can be used instead.
- **Duplicate volume identifiers**

During installation, duplicate volumes with VOLIDs DOSRES and SYSWK1 are detected and set device down. For further details, see the *Installation* manual.

- FCOPY performance improvement

Currently the OPTIMIZE parameter of the FCOPY DUMP function allows to read a maximum of 5 tracks with one IO operation. With OPTIMIZE=5 FCOPY Performance is improved by reading 15 tracks with one IO and setting Subsystem Operation Mode bit „Inhibit cache loading“ in the Define Extent CCWs for the source disk. The IUI BACKUP dialogs will support this FCOPY performance improvement.

- Onload large dumps with DITTO

The onload dump function of dialog 43 Storage Dump Management gets problems if a dump is larger than 1 GB. Therefore skeleton SKDMPLD is offered in ICCF library 59 to onload a dump using DITTO.

- TAPE command

At system startup z/VSE has initial processing options for tape devices. These options can be overridden with the TAPE command. Note that the TAPE command itself does not perform an action, but only changes the processing options for the tape channel commands. If you issue this command without any operands, the currently active options are written to SYSLOG. For further details, see the *System Control Statements* manual.

Items no longer supported with z/VSE 5.2

These are the items no longer supported with z/VSE 5.2 onwards:

- Migration question

At initial installation the user is asked if he wants to migrate from previous systems :

- Hardware configuration.
- User profiles.

This has been dropped.

Message IESI0063D, which asks if DB2 should be installed during initial installation, is dropped as well.

- Choice of naming conventions for VTAM resources

z/VSE offers the following naming conventions for VTAM resources:

- Two byte subarea addressing (up to 255 subareas are possible) .
- Extended subarea addressing (allowing more than 255 subareas).

The IUI panel asking the user to select the wished naming convention will not be displayed any more. Extended subarea addressing is used as default.

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