

E31

A Review of On Demand Solutions using z/VSE Connectors

Wilhelm Mild

IBM System z Expo
September 17-21, 2007
San Antonio, TX



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z/VSE 4.1 a new version for all needs

z/VSE 4.1



- 64-bit real addressing
- transparent for applications
- 30/60 LPARS
- VSAM – big DASDs
- bigger Systems – without paging

Security

- Crypto HW
- Secure FTP
- Encrypted Tape



System z9



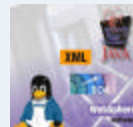
Hardware support

- z Architecture
- Scalability
- Total Storage
- Crypto Cards



Integration with others

- DB2 UDB
- SOA
- WAS
- Portal
- Tivoli
- ESB - MQ
- Newest Java



Network

- FICON Express4
- OSA-Express2
- NPIV
- P-to-P
- NAS – TCP



Price

- New Pricing model - MWLC
- Workload based price – Sub Capacity Pricing
- Consolidation possibilities – easier management

Examples of VSE Modernization

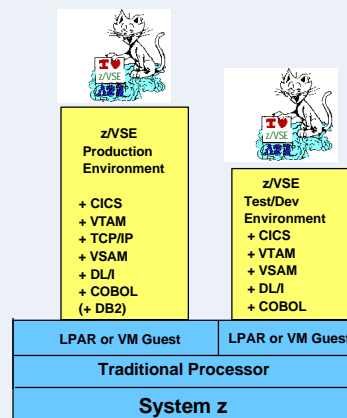
Improve Security/Auditability/Resiliency

Enhance core VSE applications

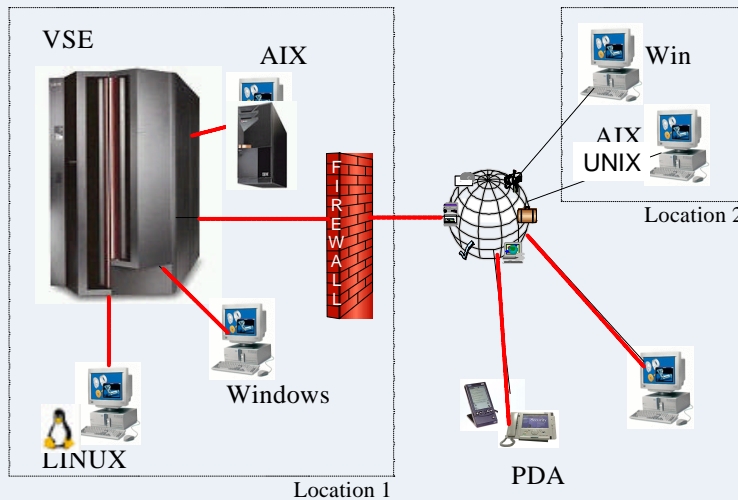
- web access
- integrate (Portal)
- improve user interface
- simplify
- extend

Integrate new (regardless of platform) and existing VSE applications

- leverage VSE data – real-time access to VSAM data
- leverage VSE logic - SOA

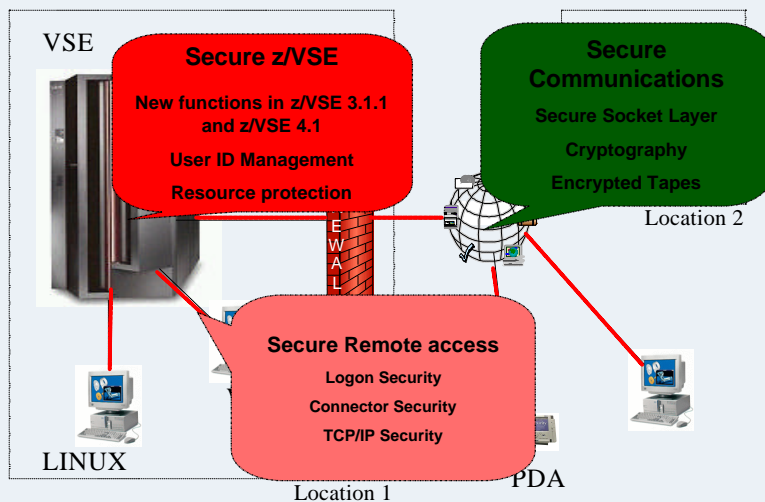


IT Security in a heterogeneous environment



Details in: E55, Wednesday 10:35 AM

IT Security in a heterogeneous environment



Live Virtual class about new Security Concepts:
<http://www-03.ibm.com/servers/eserver/zseries/zvse/education/#completed>

Enhancements for Security in z/VSE 4.1



More granular Security in Basic Security Manager

- **User Groups**
 - Users can be grouped into groups
 - Permissions can be given on groups or individual users
 - Description field for all profiles (20 characters)
 - New admin functions
- **New resource classes for**
 - Transactions (as on VSE/ESA 2.7)
 - Application programs
 - Files
 - Journals
 - Temporary storage queues
 - Transient data queues
 - Transactions (CICS START)
 - Miscellaneous resources

New Security logging with z/VSE 4.1



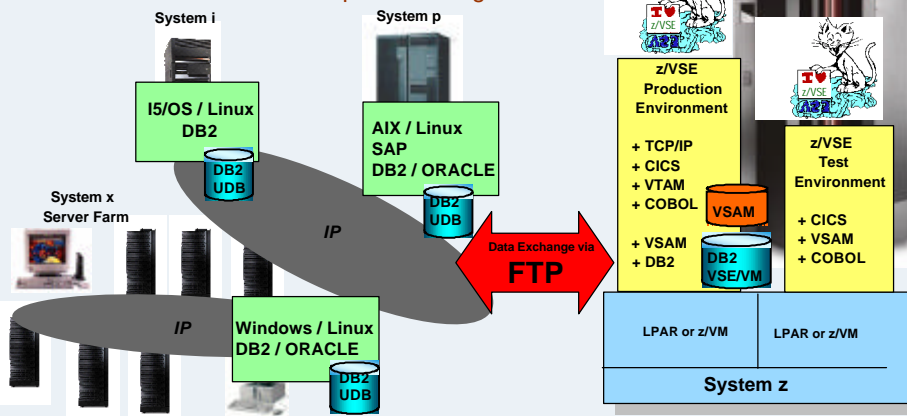
- **Audit-Logging and Reporting**
 - All access attempts to protected resources can be logged
 - Allowed access as well as disallowed access
 - Detect possible attacks
 - i.e. multiple logon attempts with invalid password
 - Logging of accessed resources
 - who did when access which resource
 - Access analysis using a reporting tool
 - Summary report
 - Detailed report of all access attempts
 - Uses the CICS DMF Tool
 - Creates SMF records containing logging information

Details in: E55, Wednesday 10:35 AM

VSE Modernization Scenarios

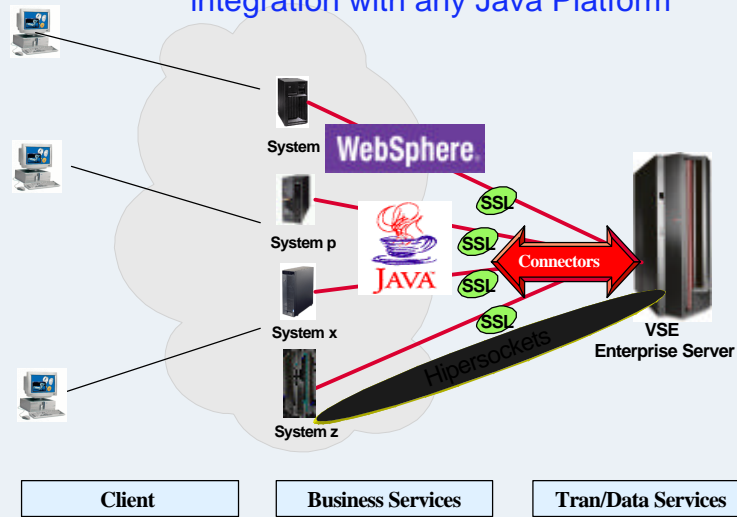
Typical VSE Customer Environment

- Multiple server platforms (System z, System p, System x, System i, and competitive)
- Core CICS and batch applications on VSE
- VSAM data on VSE (plus some DB2, DL/I, or ISV database)
- Relational data bases (DB2, Oracle, etc.) on distributed platforms
- **No real time data access and process integration**

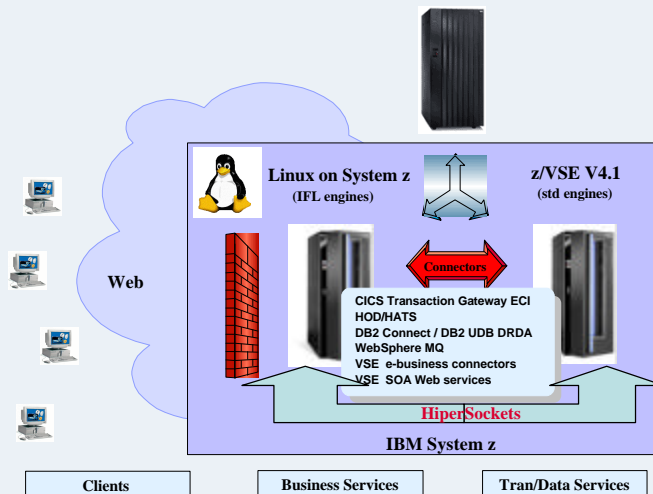


VSE Interoperability

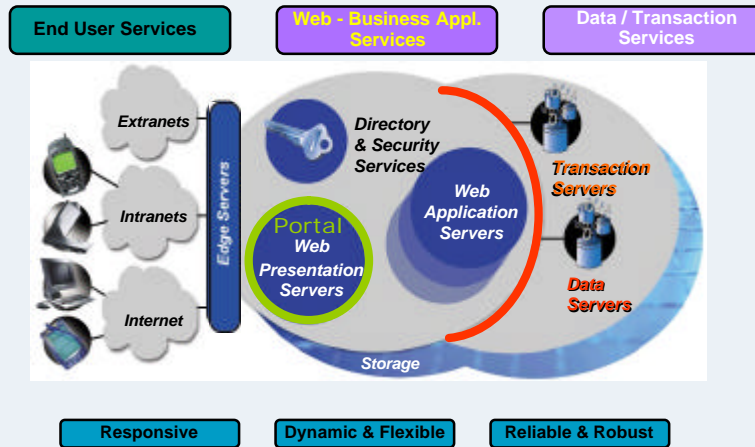
integration with any Java Platform



Think *inside* the box – with Linux on System z

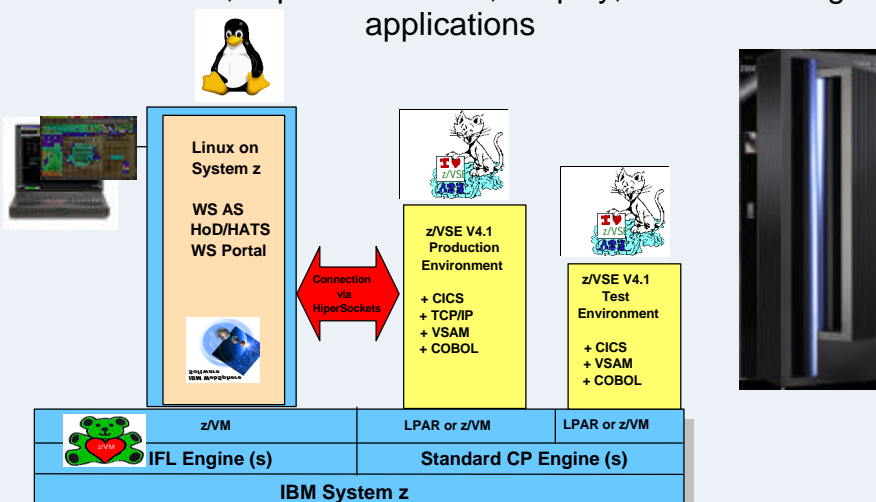


Think for your Enterprise



Scenario 1: Enhance Core VSE Applications

Web enable, improve interface, simplify, extend existing applications



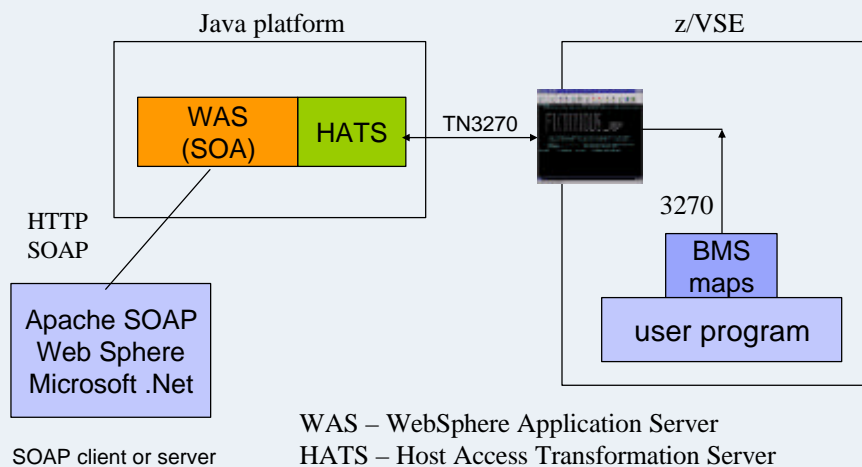
Host Access Transformation Server (HATS) Develop

- A Web-to-host HTML emulator, with ...
- rules-based transformation engine, application integration hat...
- converts green screens to graphical user interfaces
- improves ease-of-use of host applications.



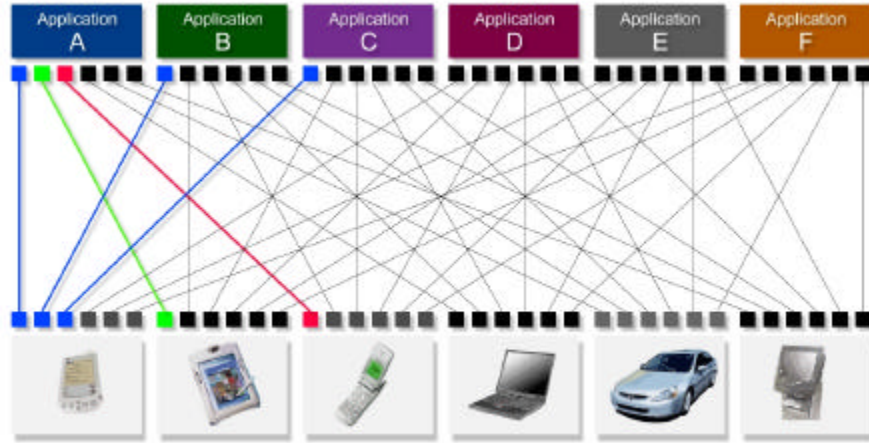
Benefit: Easily extend existing applications to the web

SOA using Web Services with 3270 applications



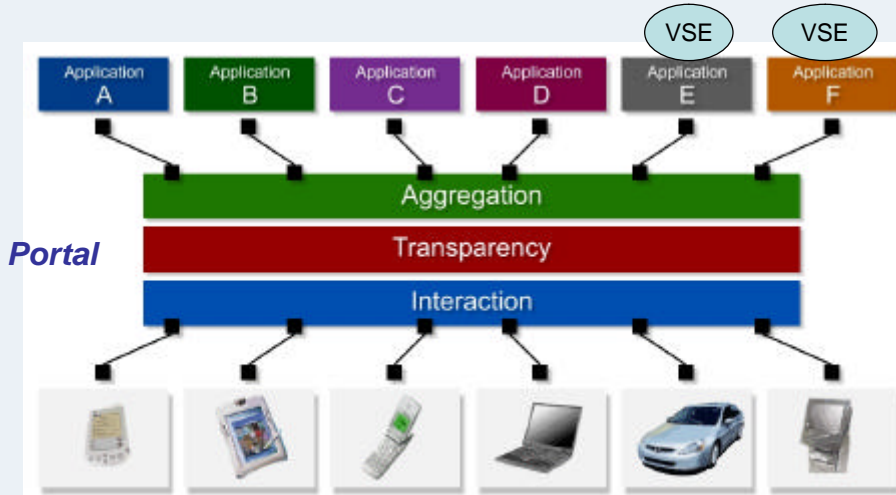
Application integration and Enterprise Modernization

M applications...



N devices *How do you solve an expanding "M x N" matrix?*

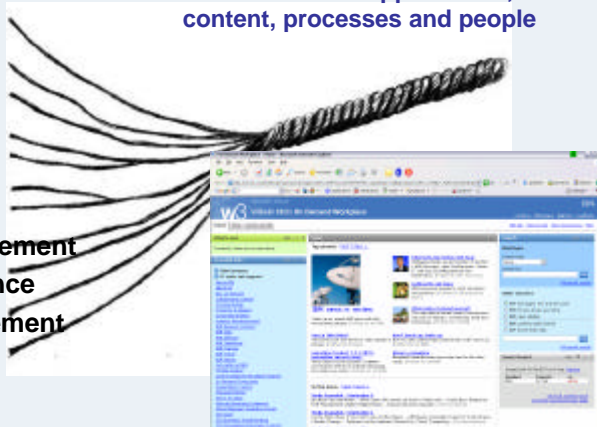
A Mobile Application Platform



What is a Portal?

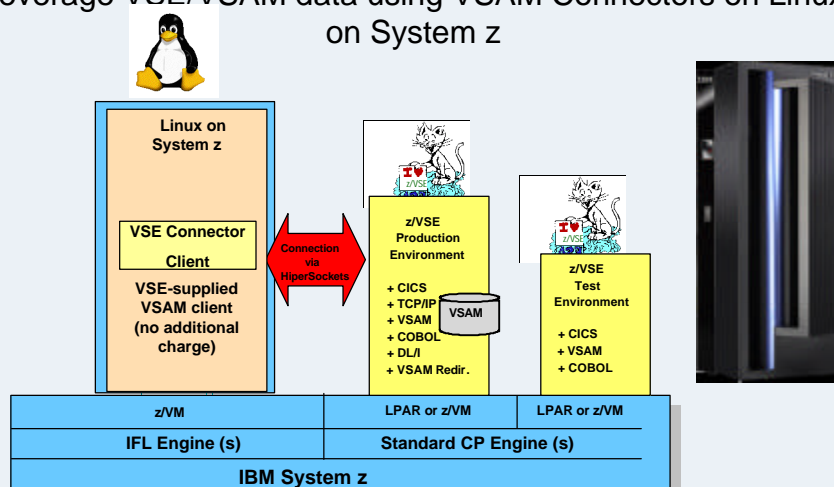
- Enterprise Applications
- Messaging
- Search
- Collaboration
- E-meetings
- Web Content
- People Finder
- Knowledge Management
- Business Intelligence
- Document management
- Host systems

A single point of personalized interaction with applications, content, processes and people

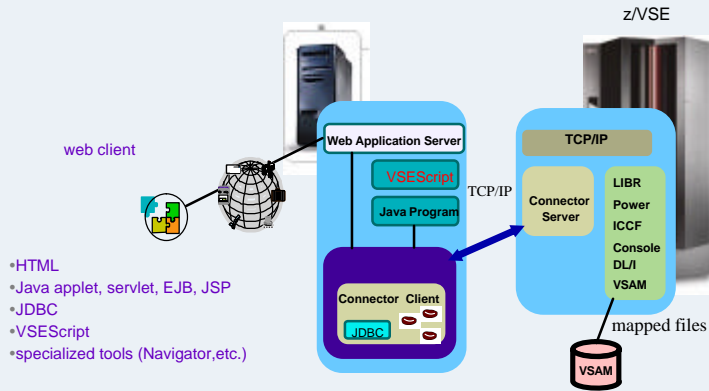


Scenario 2: Leverage z/VSE data and resources

Leverage VSE/VSAM data using VSAM Connectors on Linux on System z



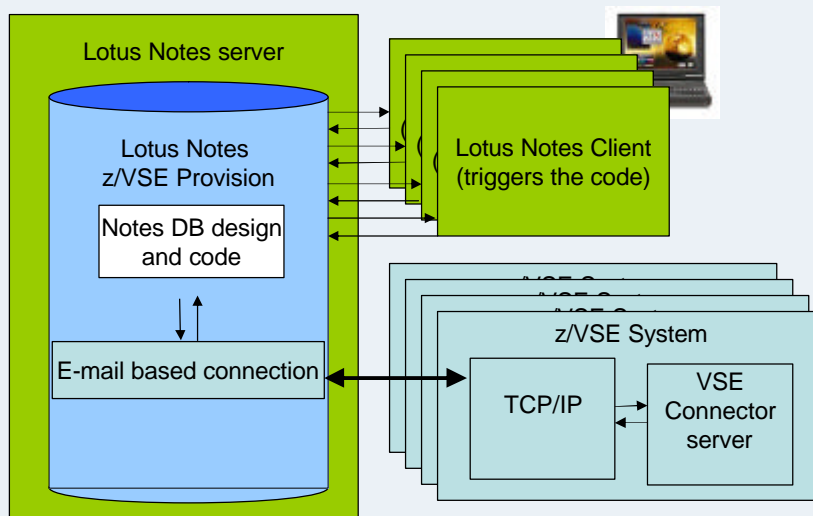
Real time access to VSE resources using the Java-Based Connector (included in z/VSE)



- HTML
 - Java applet, servlet, EJB, JSP
 - JDBC
 - VSEScript
 - specialized tools (Navigator, etc.)
- f* real time access to VSE resources from remote systems
- f* new possibilities for leveraging the VSE investment

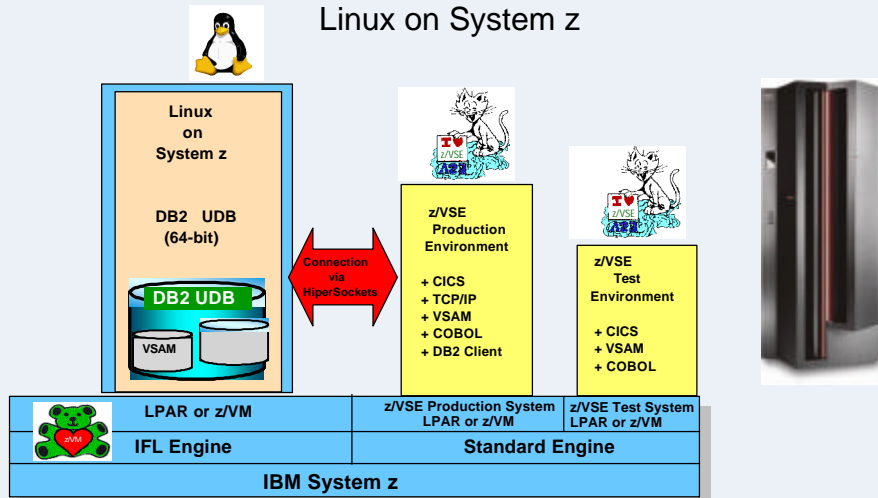
Details in: E33, Thursday 2:35 PM

Lotus Notes and z/VSE interaction

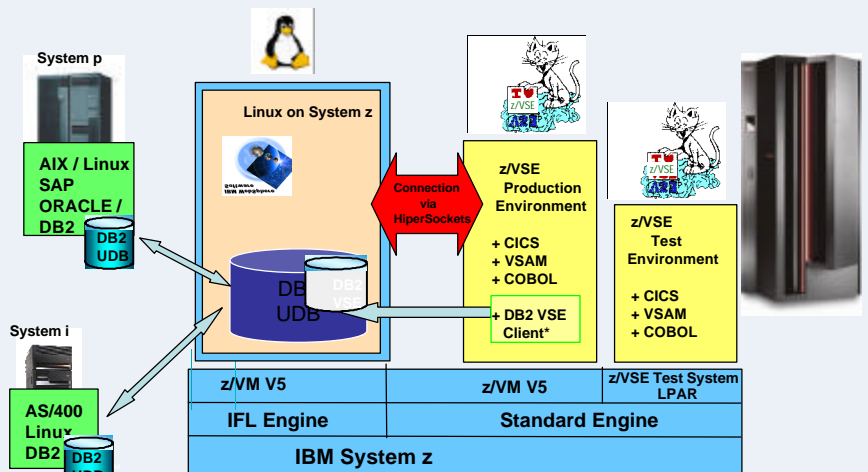


Scenario 3: Common data Store; Warehousing

Leverage VSE/VSAM or DB2 data using shared DB2 UDB on Linux on System z



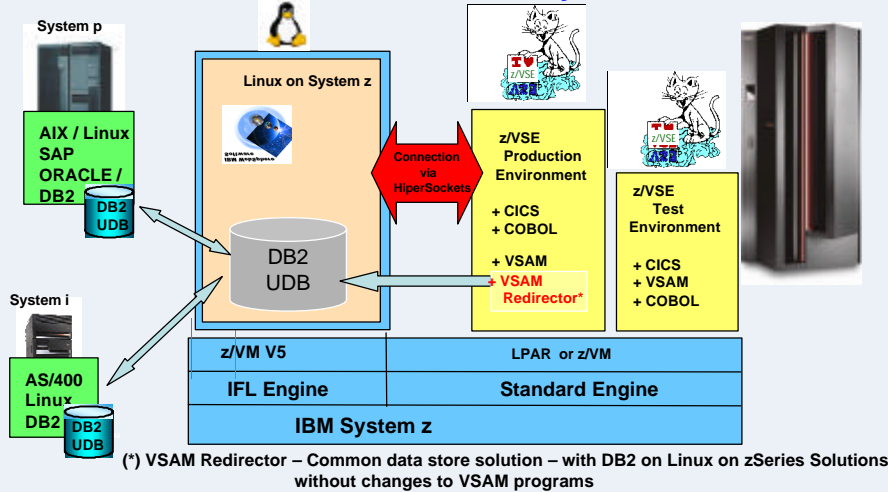
From DB2 VSE to – DB2 UDB using Linux on System z



(*) DB2 VSE Client – the client functionality only, can be obtained with [PRPQ P10154](#)

Details in: E36, Thursday 10:35 AM

Transparent Work of VSAM Programs with DB2 UDB on Linux on System z



Details in: E35, Tuesday 2:35 PM

z/VSE 4.1 - Interoperability

- VSAM to relational with VSAM Redirector

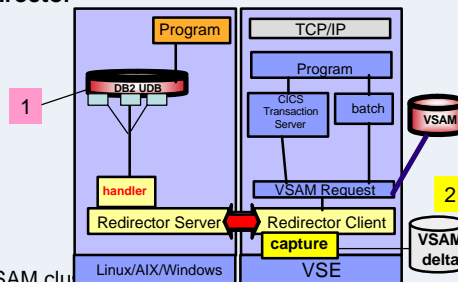
- 1 Normalizing Database handler

- Store VSAM data in a normalized form into a relational database

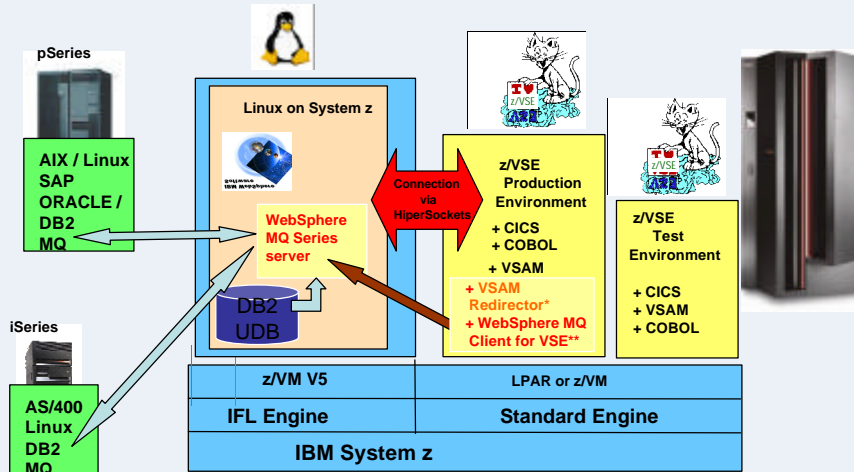
- VSAM Capture Exit

- 2

- part of the VSAM Redirector.
- It captures all changes done in a VSAM cluster
- creates a delta record in another VSAM cluster (that is a “delta file”)
- the delta record/message contains the data of the changed record and information about when (timestamp) and by whom (partition, phase name, origin value, etc.) the record was changed.
- **These data can be processed asynchronously by another program or system.**
 - for example using the VSE Connectors can be used to read the delta cluster and process the records
- **Alternatively, the Capture Exit can be used to create a MQ Message**

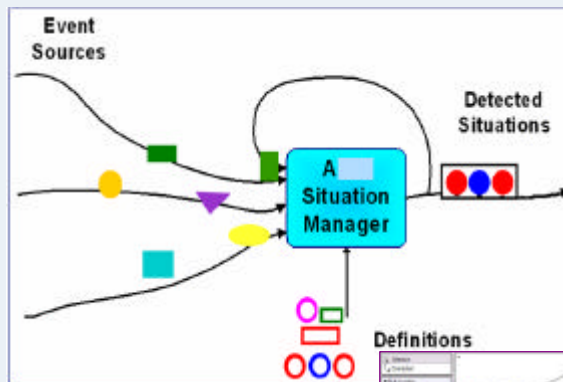


Scenario 4: Solutions with MQ Messaging



(*) VSAM Redirector + Redirector MQ Exit allows MQ Solutions without changes to VSAM programs
 (**) WebSphere MQ Client for VSE is free of charge

How does WebSphere Message Broker help



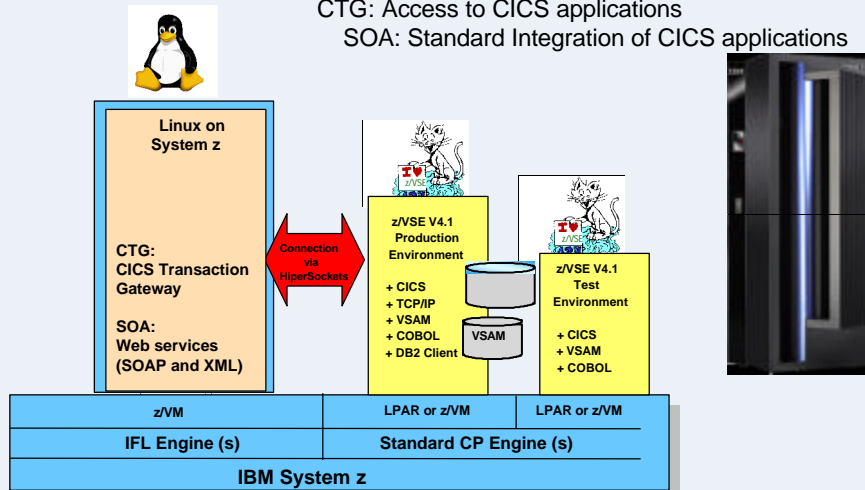
1. A framework for processing MQ messages
2. A robust hosting environment for:
 - ✓ Transforming data
 - ✓ Enriching data
 - ✓ Interacting with databases
 - ✓ Routing messages based on content
 - ✓ Detecting complex combinations of messages
 - ✓ Interacting existing applications with Web Services

Scenario 5: Integrate Applications

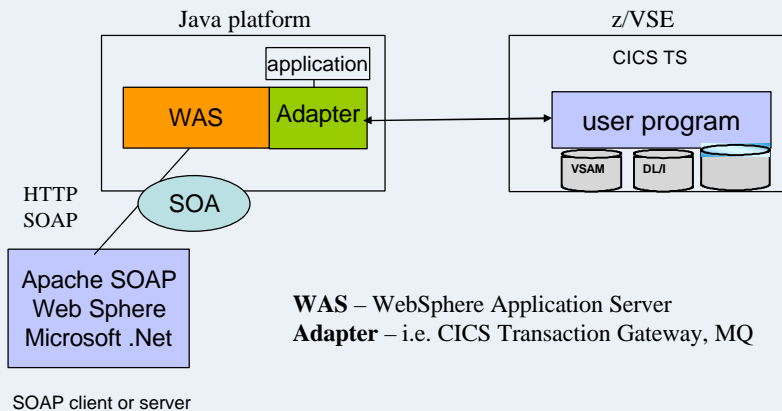
Leverage VSE application logic using SOA or CTG

CTG: Access to CICS applications

SOA: Standard Integration of CICS applications

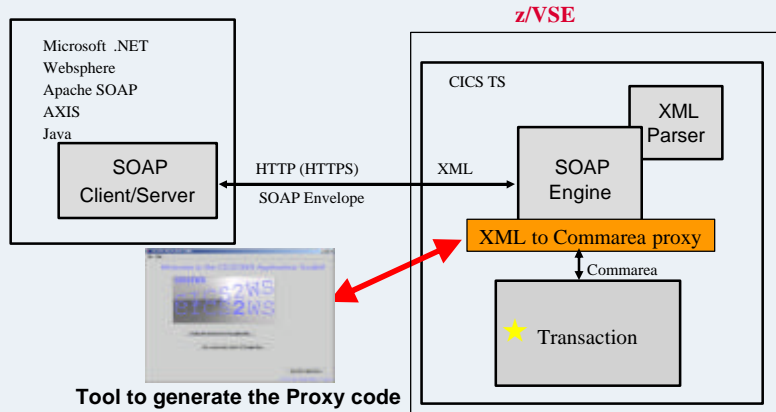


Integrate z/VSE with Middle tier applications



Web Services with z/VSE

SOA and XML data interchange with CICS applications in VSE



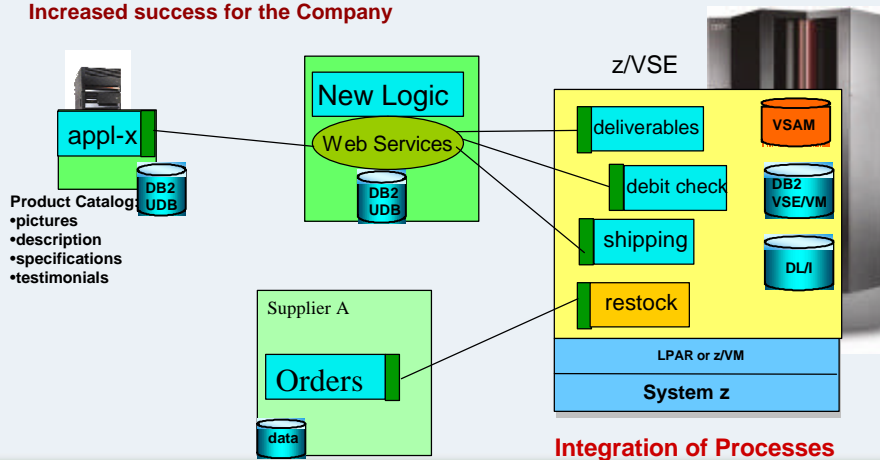
Tool to generate the Proxy code

- ★ Existing VSE Transactions as Web Service
- ★ Existing Transactions can call a remote Web Service

SOA – the way to New applications and processes

- Applications look the same for all users
- Core applications can be enhanced (independent of their language, COBOL, ASM, PL/I)
- New business logic is built

Increased success for the Company



Integration of Processes

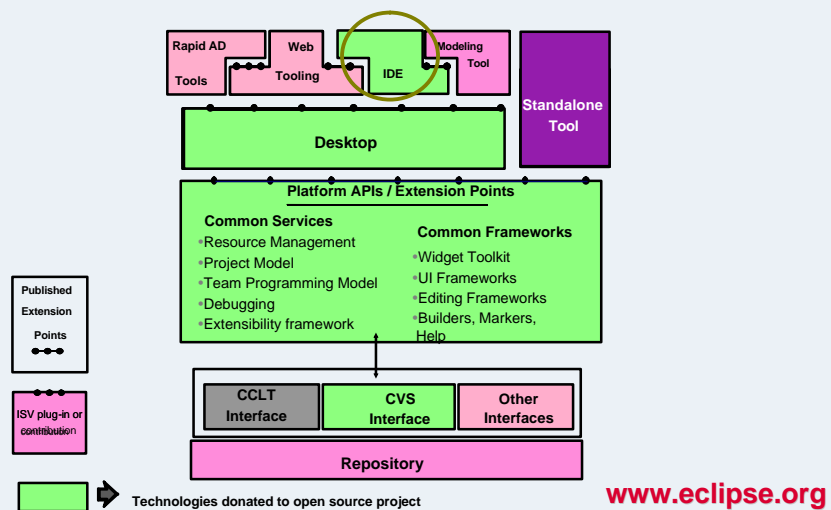
z/VSE - Greater Value through SOA



Details in: E32, Tuesday 9:00 AM

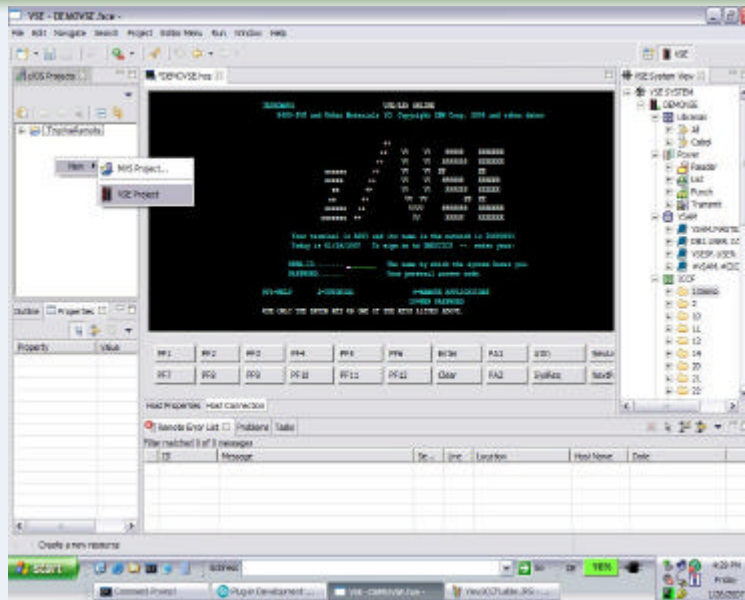
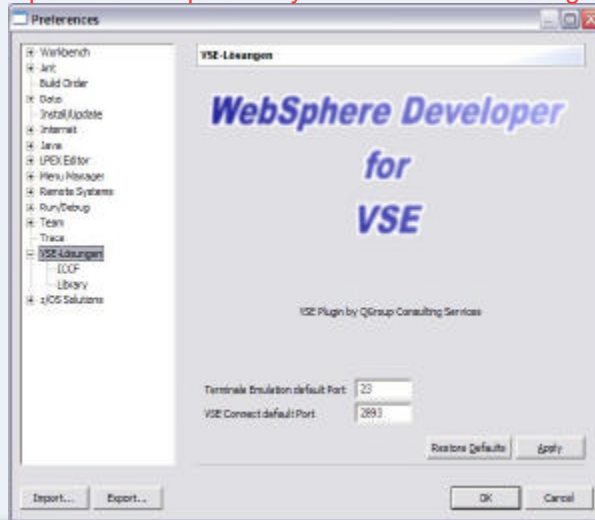
Scenario 6: Application development for z/VSE

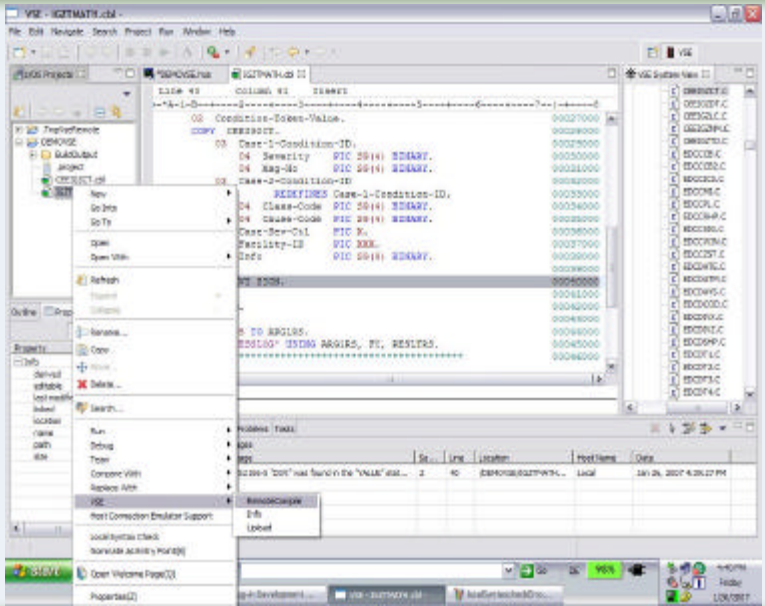
Use of open platform ECLIPSE and WebSphere Developer



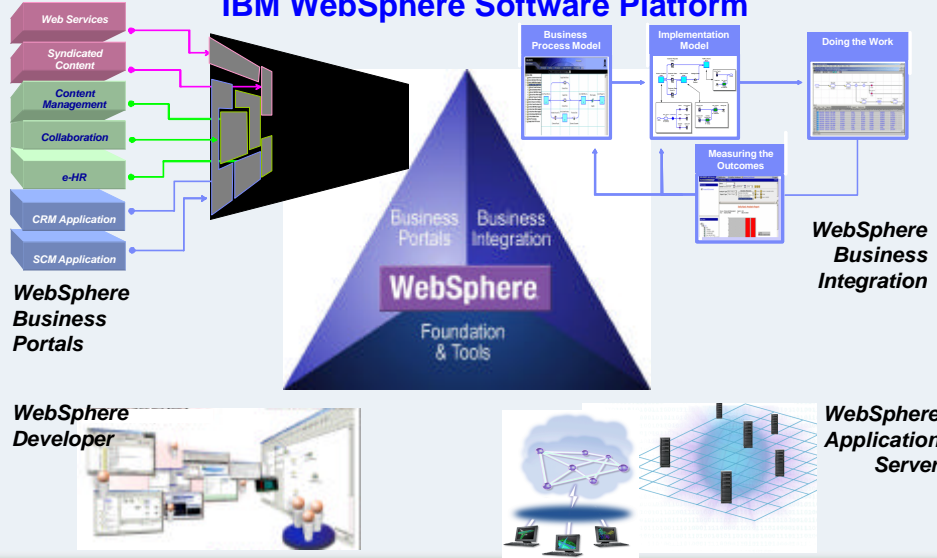
Cross Platform Integrated Development Environment

WebSphere Developer for System z with z/VSE Plug-In

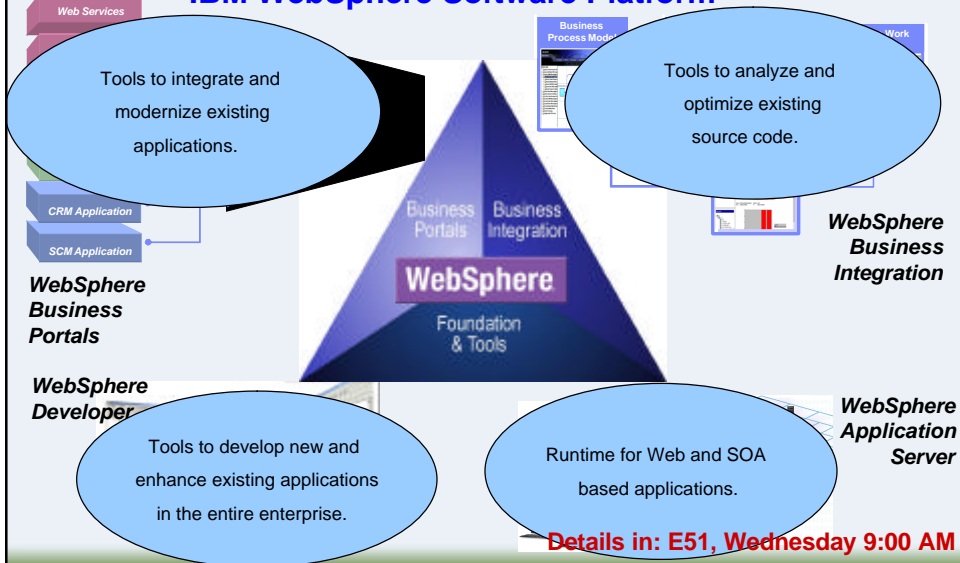




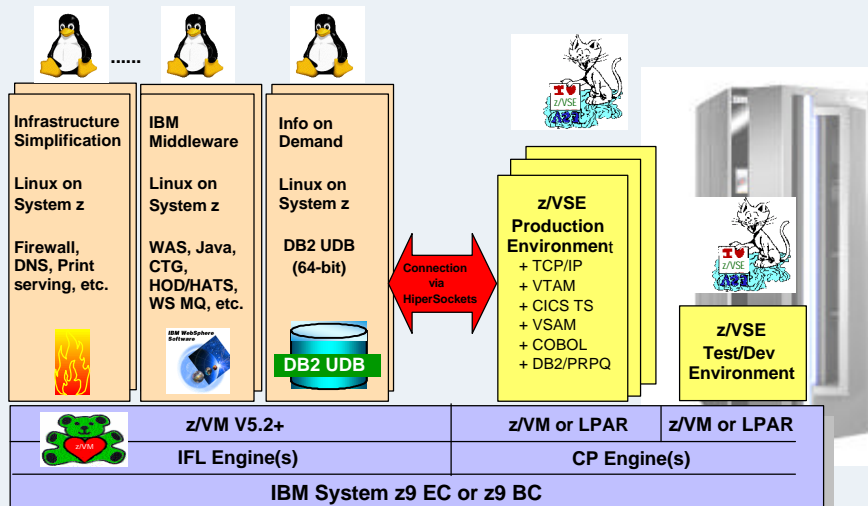
VSE can integrate with IBM WebSphere Software Platform



VSE can integrate with the IBM WebSphere Software Platform



z/VSE V4 and Linux on System z



z/VSE Learning Opportunities

- **z/VSE V4.1 Live Virtual Classes**
 - z/VSE and MWLC Announcement Overview
 - Midrange Workload Licence Charges (MWLC)
 - z/VSE V4.1 Solutions based on SOA and DB2
 - z/VSE Security
 - z/VSE V4.1 User Experience
 - IBM System z Hardware
 - New VSAM Tools
 - **more planned**
- **z/VSE-related Events**
 - **US IBM 2007 System z Expo -** featuring z/OS, z/VM, z/VSE, and Linux on System z
 - September 17 – 21
 - San Antonio, TX
 - **2008 WAVV Conference -** featuring z/VM, z/VSE, and Linux on System z
 - April 18 - 22
 - Chattanooga, TN
 - **2007 Guide Share Events (Europe)** featuring z/VM, z/VSE, and Linux on System z
 - October 15 – 17
 - Boeblingen, Germany
 - **Web Casts/Briefings/Workshops**

Note: Charts available on the z/VSE web site the day following each call. Replay available approximately one week later. For more information, please see the z/VSE web site at:

<http://www-03.ibm.com/servers/eserver/zseries/zvse/>

z/VSE web site



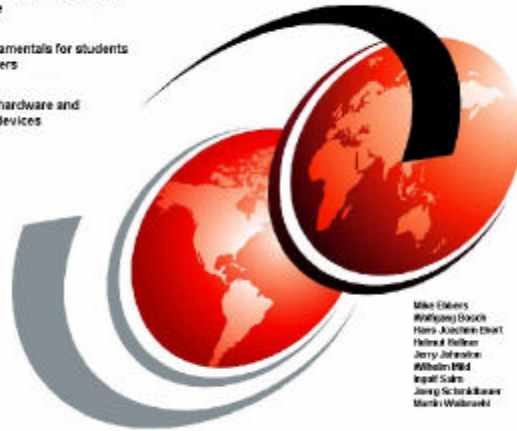
New Redbook SG24-7436-00

Introduction to the New Mainframe: z/VSE Basics

Basic mainframe concepts and architecture

z/VSE fundamentals for students and beginners

Mainframe hardware and peripheral devices



ibm.com/redbooks

Redbooks

Redbooks, Redbooks, and more Redbooks

If you have trouble sleeping at night, we may have a solution for you. Even if you don't have trouble sleeping, this group of recent IBM redbooks can help you learn about z/VSE and related topics.

- [Introduction to the new mainframe: z/VSE Basics](#) (SG24-7436-00)
This redbook packs lots of introductory concepts and information about the mainframe and z/VSE. If you are a new comer, this is the place to begin your mainframe journey. If you are a seasoned veteran, this is a great resource to brush up on some of those things you may have forgotten.
- [Introduction to the new mainframe: Security](#) (SG24-6776-00)
This redbook includes information on basic security concepts and implementation, plus specific sections covering security for z/OS, z/VSE, z/VM, and Linux on System z.
- [IBM Systems Storage TS1120 Tape Encryption Planning, Implementation, and Usage Guide](#) (SG24-7320-00)
This redbook was created before z/VSE support became available. Even if you bypass the z/OS information, this redbook contains lots of useful information about encryption, the TS1120, Encryption Key Manager, planning, and more.
- [IBM System z Strengths and Values](#) (SG24-7333-00)
Although this redbook was created with z/OS in mind, it nevertheless contains a lot of good, generic information on System z architecture and design, plus interesting insights into the features of the System z platform that may help you optimize your Total Cost of Ownership (TCO).
- [IBM Systems Storage Business Continuity Solutions Overview](#) (SG24-6684-01)
While this book wasn't created with z/VSE in mind, it nevertheless contains many useful concepts and definitions. It describes how copy services (for example, Flashcopy and Metro Mirroring) can be useful in an overall business continuity strategy and infrastructure.
- [z/VSE Connectivity to Linux for IBM System z](#) (PDF, 2.3MB)
This 'red piece' covers various connectivity options including OSA Express and HiperSockets that have been tested in a lab environment.
- [WebSphere V5 for Linux on zSeries Connectivity Handbook](#) (SG24-7042-00)
Produced in June 2004, this is the old man of this group of redbooks. Nevertheless it remains an excellent source of information on connectivity between z/VSE and Linux on System z.

Tools available in the VSE download area

- z/VSE/ESA Home Page – downloads for **FREE**
<http://www.ibm.com/servers/eserver/zseries/zvse/downloads>
- System management:
 - VSE CPU Monitoring tool
 - VSE Installed Software Report tool
 - TCP/IP Configuration
 - IP Trace tool
 - Keyman/VSE (SSL)
 - VSE Health Checker
 - Multi Instant Logic analyser for VSAM
 - JCalc, JLink, JRun (/LE VSE)
- Connector tools
 - *VSE Connector Client*
 - *VSE Navigator*
 - *VSE Maptool*
 - *VSEPrint*
 - *CICS2WS (SOA, WebServices)*
- Connector Components
 - *VSE Connector Client*
 - *VSE Redirector server*
 - *VSE Virtual Tape server*
 - *VSE Script server*

We appreciate your comments at : zvse@de.ibm.com