



IBM System z Technical Conference Dresden – Germany – May 5-9



## z/VSE 4.1 News and Views

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- Agenda
  - z/VSE Version 4 Release 1
  - The Role of Linux
  - VSE Modernization
  - Wrap-up
  - Q & A session

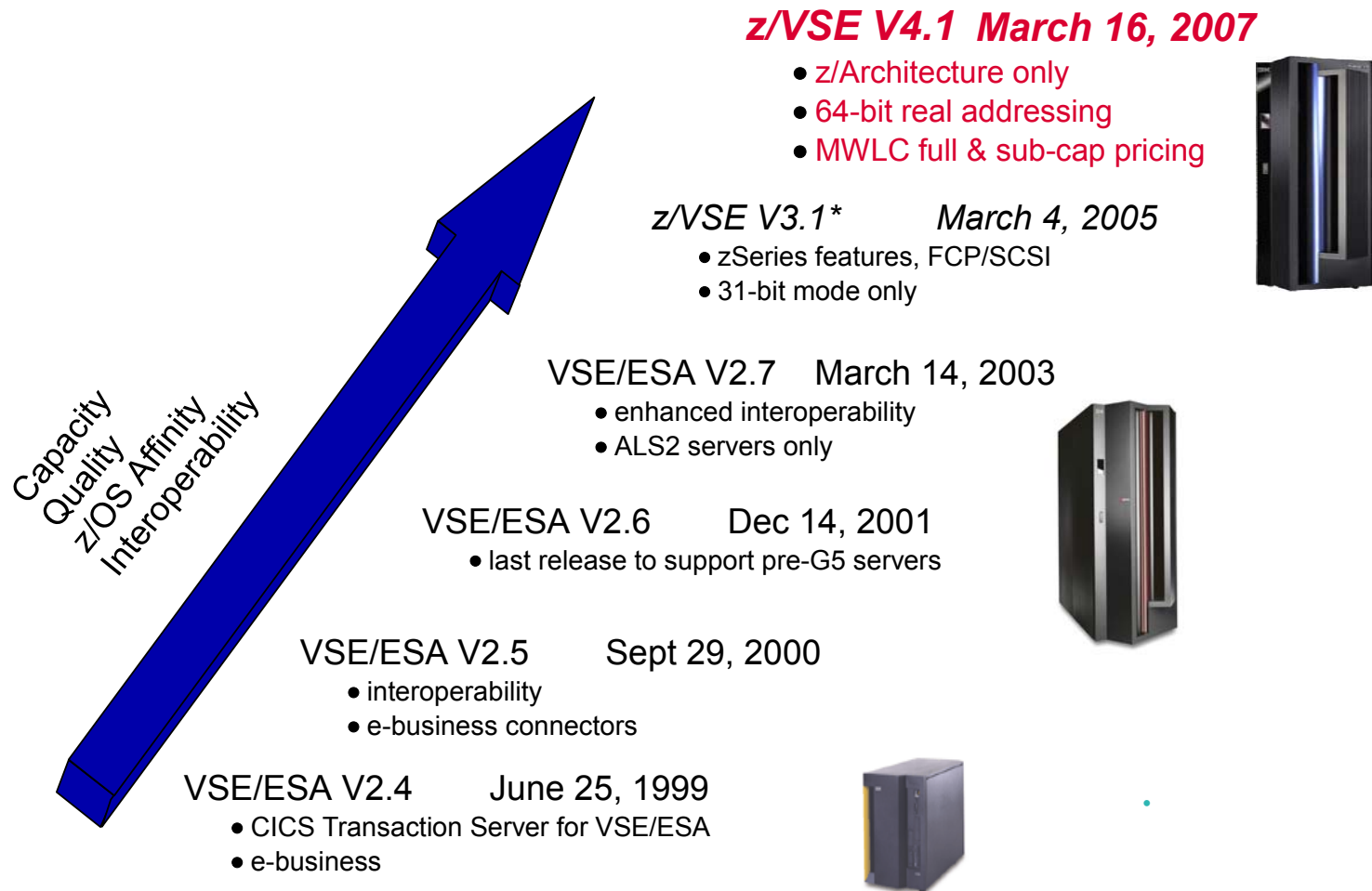




## z/VSE Version 4 Release 1



# z/VSE Roadmap



## z/VSE 4.1 – Announcements

- z/VSE 4.1 preannouncement:
  - April 2006
  
- z/VSE 4.1 announcement
  - January 9. 2007
  - Available since March 16. 2007
  
- New Pricing announcement for z/VSE 4.1
  - January 9. 2007
  
- Sub Capacity Pricing announcement for z/VSE 4.1
  - January 9. 2007



## z/VSE 4.1 – Base enhancements (1)

- z/Architecture mode only
- 64-bit real addressing for selected system functions
  - Designed to exploit up to 8GB of processor storage
- Up to 60 LPARS
  - 30 LPARS on z9 BC
  - 60 LPARS on z9 EC
- z/VSE 4.1 64-bit Enhancements
  - Power
  - IUI
  - Dump tools

## z/VSE 4.1 – Base enhancements (2)

- OSA-Express2 OSN (Open System Adapter for NCP) support
  - The IBM Communication controller for Linux on System z emulates 3745 devices
  
- N\_Port ID Virtualization (NPIV)
  - Designed to allow sharing of a single physical FCP channel among operating system images (in LPAR or VM)
  
- FCP point-to-point attachments
  - A FICON feature configured as CHIPID type FCP can directly attach to storage devices
  
- Program-directed re-IPL:
  - Operating systems running natively in an LPAR to trigger re-IPL
    - Exclusiv available to z9 EC and z9 BC



## z/VSE 4.1 - Interoperability

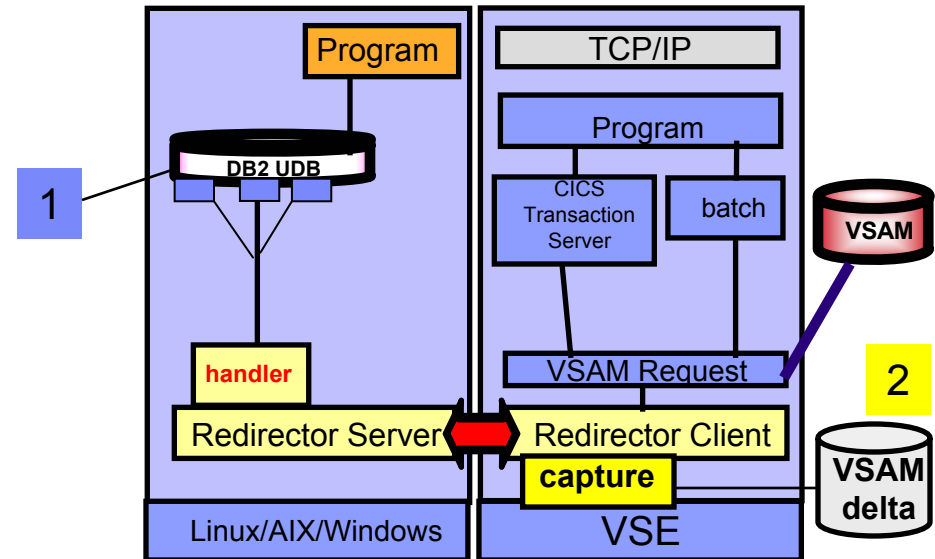
- VSAM FAT-BIG DASD support
  - Small DASD: (normal) **which has less than 64K tracks per volume**
    - reported on LISTCAT as 3390 device.
  
  - Large DASD: . **The "Large DASD" will now have two subtypes:**
    - Big DASD: **the capacity of more than 64K tracks per volume**
      - reported on LISTCAT as BIG-3390. VSAM can support up to 10017 cylinders on this device.
  
    - Fat DASD: **which has up to 64K cylinders. – breaking barriers**
      - VSAM is now breaking this barrier by introducing a new type of device
      - Reported on LISTCAT as FAT-3390
  
  - **All volumes of a volume list should have the same DASD type and should not be mixed.**

# 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



- 2 VSAM Capture Exit

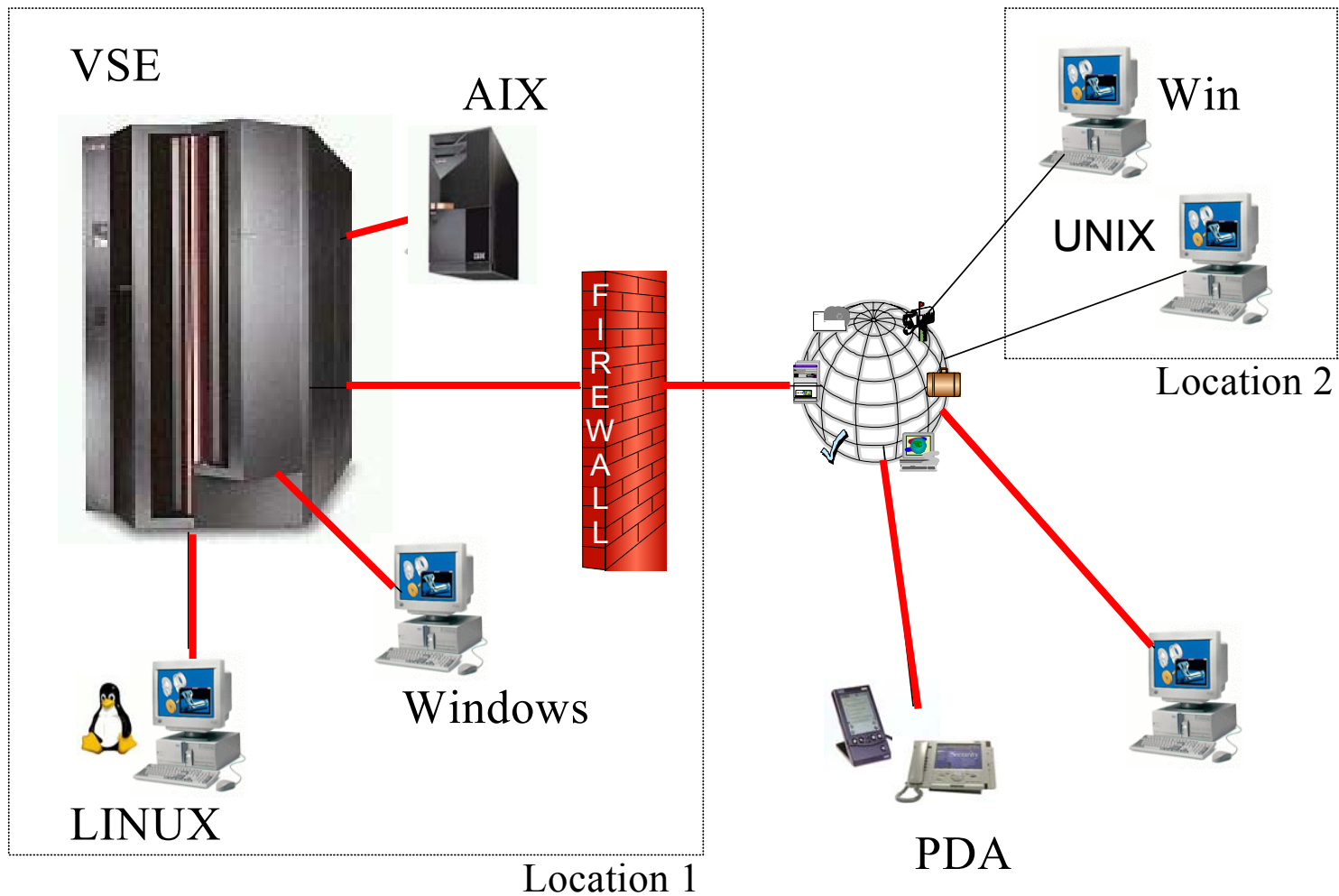
- part of the VSAM Redirector.
- It captures all changes done in a VSAM cluster.
- creates a delta record in another VSAM cluster (that is a “delta file”)
- the delta record/message contains the data of the changed record and information about when (timestamp) and by whom (partition, phase name, origin value, etc.) the record was changed.
- These data can be processed asynchronous 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

## z/VSE 4.1 - Interoperability

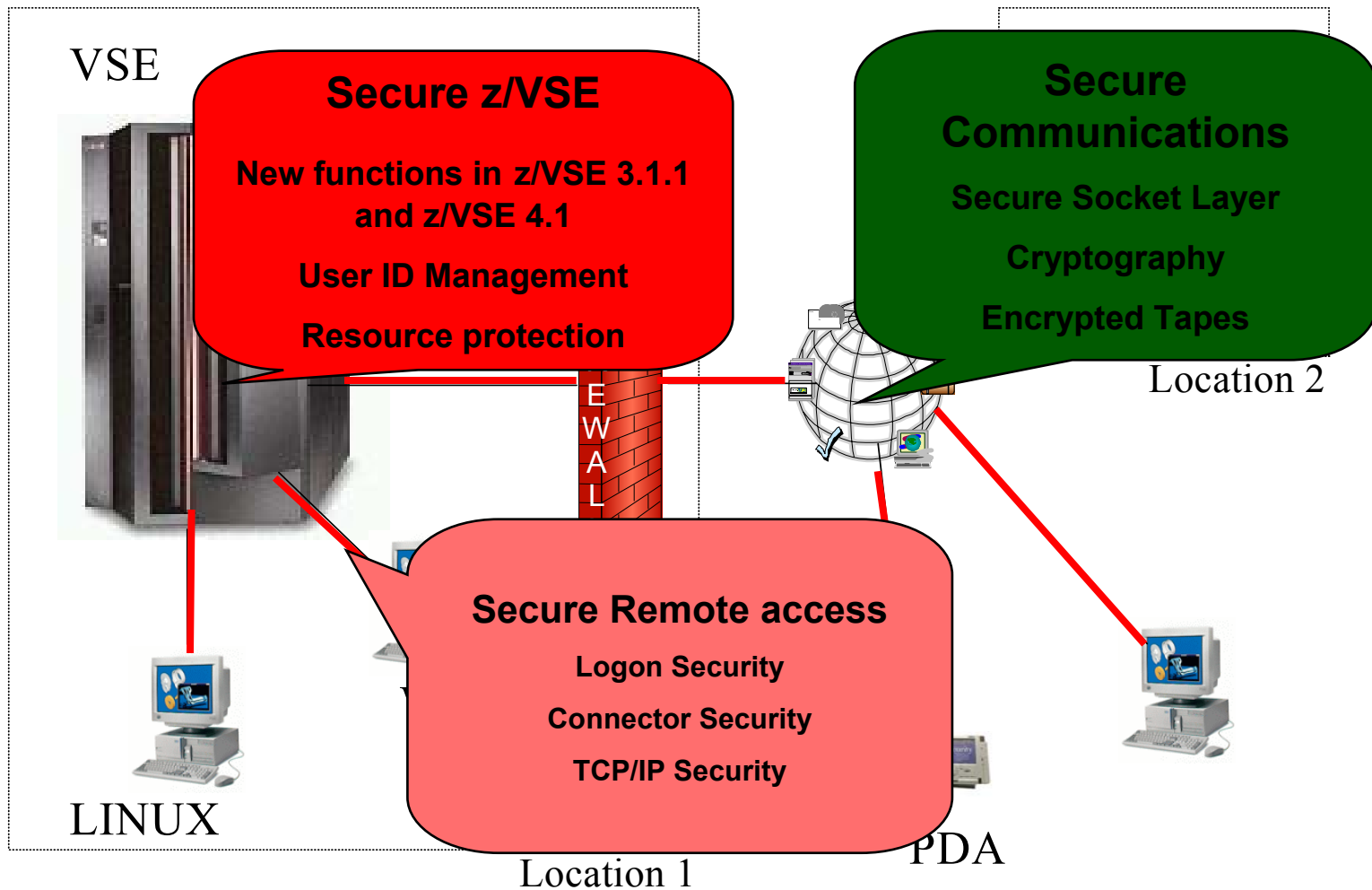
- WebSphere 6 compliant
  - Support for newest Java Version
  - Support for newest Java Connector Architecture (JCA)
  
- SOA
  - Graphical Configuration Tool
  - SOAP Proxy Code Generator
  - Copybook Parser (COBOL, HLASM, PLI)



# IT Security in a heterogeneous environment



# 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



### 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

- 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



## Secure data: IBM TS1120 Tape Drive Encryption

- IBM System Storage TS1120 - first encrypting tape drive
  - Standard feature on new TS1120 tape drives
  - Supports “traditional” and “encrypted” modes of operation
    - encryption “disabled” unless otherwise specified
  - Implements data encryption using AES-256 encryption
  - Data is automatically compressed *then* encrypted – no change in media utilization
  - Encryption performed with minimal (< 1% data rate performance impact)
  
- Systems Managed Encryption with z/VSE V4.1 & V3.1
  
- IBM Encryption Key Manager (EKM) for Java platform™
  - EKM stores and manages *labels* and *key encrypting keys*
    - runs on z/OS, AIX, Linux (incl System z), i5/OS, HP, Sun, & Windows
  - Secure TCP/IP connection between EKM and TS1120
  - ESM supplies data encrypting keys to TS1120 on request
  - TS1120 encrypts files using data encrypting key
  - TS1120 stores *encrypted* data encrypting key on cartridge
    - data encryption key can be encrypted using two different *key* encryption keys



**TS1120**  
500 GB  
100 MB/sec

**Encryption Key  
Manager**





## Release Status

VSE Version and Release	Marketed	Support ed	End of Support
z/VSE V4.1	YES	YES	tbd
z/VSE V3.1	Yes...until (5/31/2008)	Yes	tbd
VSE/ESA V2.7	No	No	02/2007
VSE/ESA V2.6	No	No	03/2006

## z/VSE Server Support

<b>IBM Servers</b>	<b>z/VSE V4.1 Preview (GA tbd)</b>	<b>z/VSE V3.1</b>	<b>VSE/ESA V2.7</b>
IBM System z9 Enterprise Class (formerly z9-109)	<b>Yes</b>	<b>Yes</b>	Yes
<b>IBM System z9 Business Class</b>	<b>Yes</b>	<b>Yes</b>	Yes
zSeries 990, 890, 900, 800	<b>Yes</b>	<b>Yes</b>	Yes
S/390® Parallel Enterprise Server™ G5/G6	<b>No</b>	Yes	Yes
S/390® Multiprise® 3000	<b>No</b>	Yes	Yes
S/390® Parallel Enterprise Server™ G1/2/3/4	<b>No</b>	<b>No</b>	<b>No</b>
S/390® Multiprise® 2000	<b>No</b>	<b>No</b>	<b>No</b>
S/390® Integrated Server	<b>No</b>	<b>No</b>	<b>No</b>
P/390 and R/390	<b>No</b>	<b>No</b>	<b>No</b>
ES/9000 – 9221, 9121, 9021	<b>No</b>	<b>No</b>	<b>No</b>

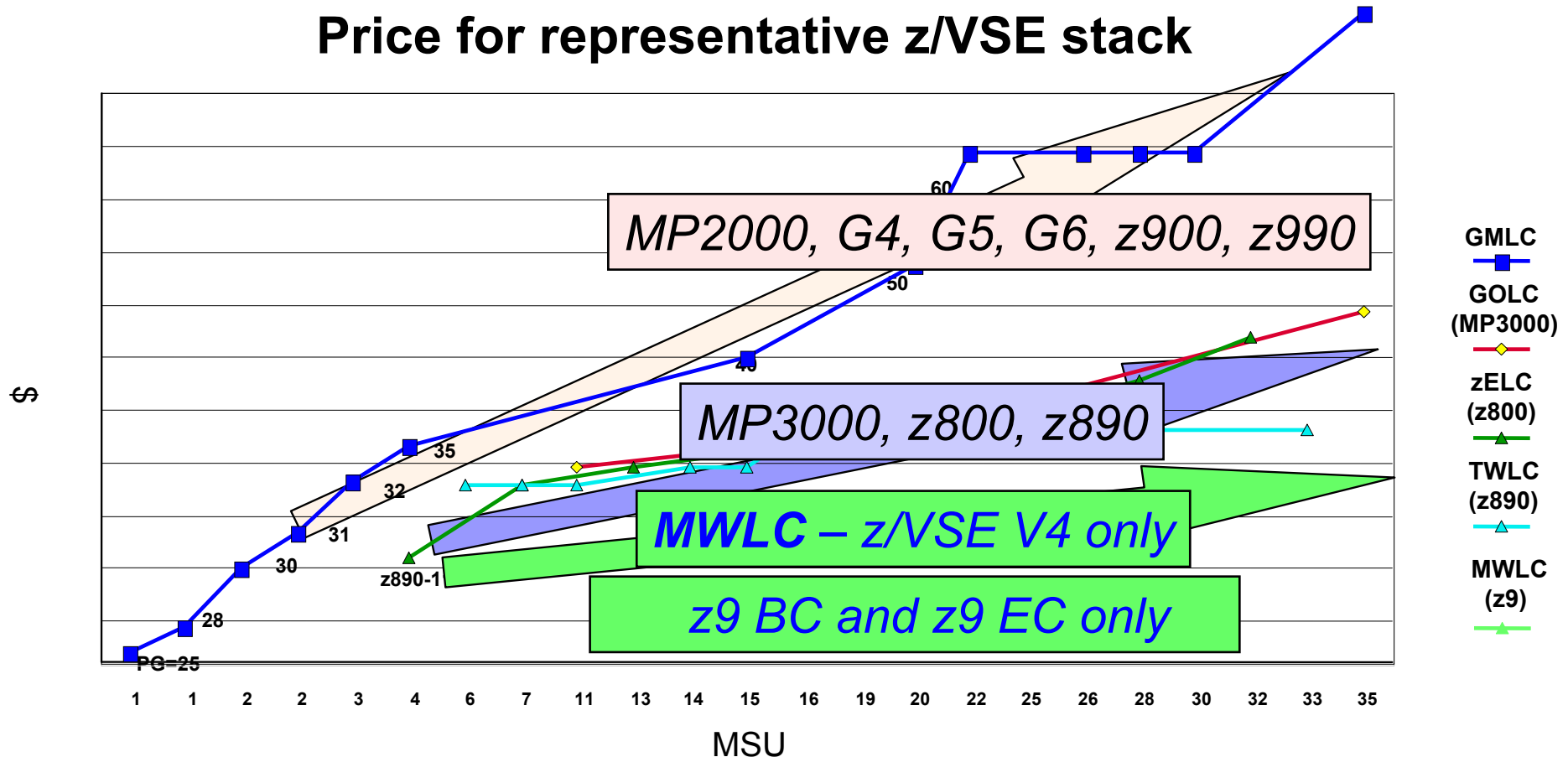


# System z Exploitation

Functions	z/VSE V4.1	z/VSE V3.1	VSE/ESA V2.7
z/Architecture mode only	Yes	No	No
64-bit <i>real</i> addressing (up to 8 GB proc storage)	Yes	No	No
Fibre Channel Protocol (FCP) for SCSI Disks	Yes	Yes	No
CP Assist for Cryptographic Function (CPACF)	Yes	Yes	No
Crypto Express2 ('PCICA' SSL encryption assist)	Yes	Yes	Yes
HiperSockets™ (including spanned HiperSockets)	Yes	Yes	Yes
FICON Express2™ & FICON Express4™	Yes	Yes	Yes
OSA Express2 (incl 10Gb and Gb ethernet)	Yes	Yes	Yes
OSA Integrated Console Controller (OSA-ICC)	Yes	Yes	Yes
Up to 60 LPARs	Yes	Yes	Yes
Up to 4 LCSSs	Yes	Yes	Yes

# A new price metric for z/VSE 4.1 – Midrange Workload License Charge (MWLC)

## Price for representative z/VSE stack



z/VSE stack used consists of z/VSE CF, CICS TS, VTAM, TCP/IP, DB2

In depth info in the next Live Web Cast on **August 16**: **Business Benefits of z/VSE V4**

## z/VSE Version 4 Release 1



- General Availability 3/16/2007 (**Announce 1/9/2007, Preview 4/27/2006**)
- z/Architecture mode only
  - 64-bit *real* addressing (31-bit *virtual* addressing)
    - up to 8 GB real processor storage
  - IBM System z9 EC and z9 BC servers
  - IBM eServer zSeries 990, 890, 900, and 800 servers
- Encryption enhancements
  - CPACF enhancements (AES-128)
  - Configurable Crypto Express2 (new accelerator option)
  - SecureFTP
  - IBM System Storage TS1120 encrypting tape
- FSU from z/VSE V3.1 and VSE/ESA V2.7
- Requires z/VM V5.2 (or later) if running as a VM guest
- Security and Auditability enhancements
- SOA and Interoperability
- New MWLC pricing metrics (z/VSE V4 on z9 EC and z9 BC only)
  - Improved price/performance with full-capacity MWLC price points
  - Sub-capacity MWLC option for added price/performance

## z/VSE 4.1 a new version for all needs

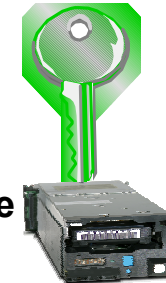
### z/VSE 4.1



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

### Security

- Crypto HW
- Secure FTP
- Encrypted Tape



### Hardware support

- z Architecture
- Scalability
- Total Storage
- Crypto Cards



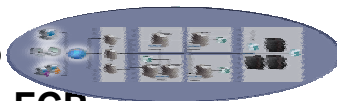
### Integration with others

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



### Network

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

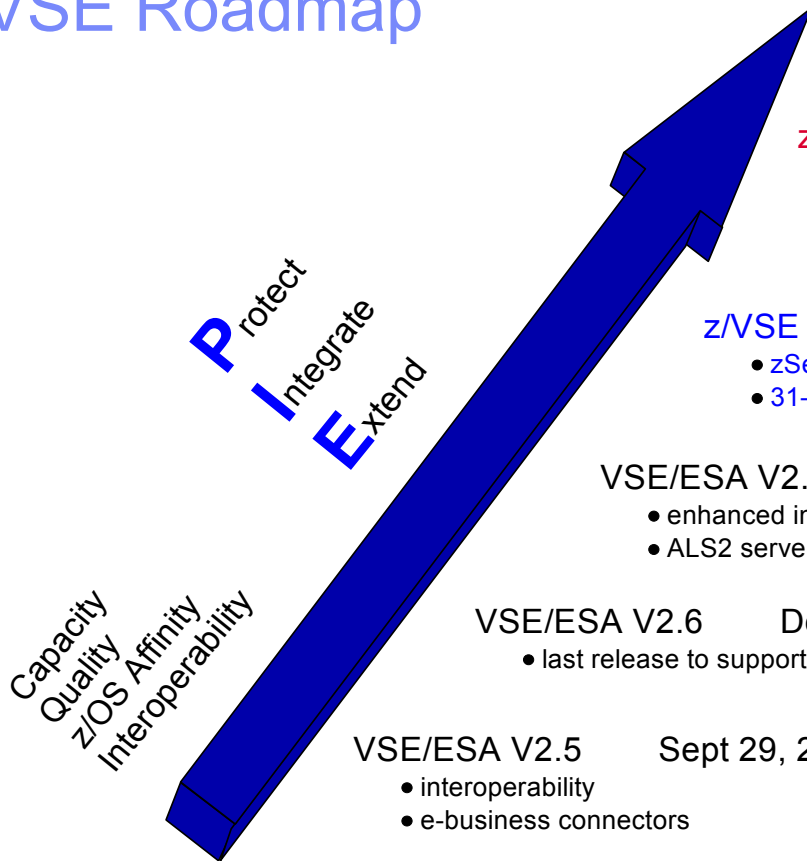


### Price



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

# z/VSE Roadmap



## z/VSE V4.2 - Preview Oct 9, 2007

- More tasks, more memory
- EF for z/VSE, SCRT on z/VSE
- SoD\*\* for CICS/VSE



## z/VSE V4.1 March 16, 2007

- z/Architecture only
- 64-bit real addressing
- MWLC full & sub-cap pricing



## z/VSE V3.1\* March 4, 2005

- zSeries features, FCP/SCSI
- 31-bit mode only

## VSE/ESA V2.7 March 14, 2003

- enhanced interoperability
- ALS2 servers only



## VSE/ESA V2.6 Dec 14, 2001

- last release to support pre-G5 servers

## VSE/ESA V2.5 Sept 29, 2000

- interoperability
- e-business connectors

## VSE/ESA V2.4 June 25, 1999

- CICS Transaction Server for VSE/ESA
- e-business



•Note: z/VSE V3 can operate in 31-bit mode only. It does not implement z/Architecture and specifically does not implement 64-bit mode capabilities. z/VSE V3 is designed to support selected features of IBM System z hardware.

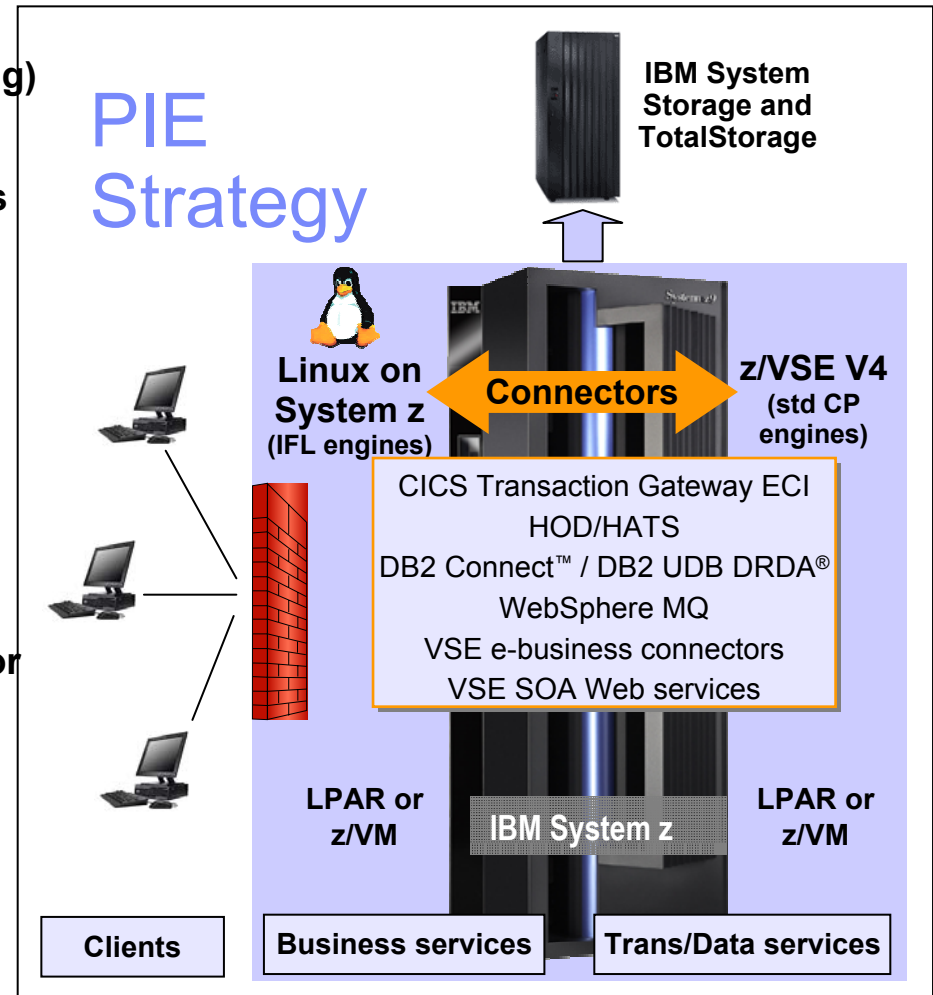
**\*\* All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.**

## Future

### z/VSE V4.1 Overview

- **Preview 4/27/2006, Announce 1/9/2007, General Availability 3/16/2007**
- z/Architecture mode only
  - **64-bit real addressing (31-bit virtual addressing)**
    - up to **8 GB** real processor storage
  - IBM System z9 EC, z9 BC, **z10 EC** servers
  - IBM eServer zSeries 990, 890, 900, 800 servers
- Capacity Measurement Tool (CMT)
  - **Fulfills SoD from July 2005**
- New MWLC pricing metrics (System z9/z10 only)
  - **Attractive full-capacity MWLC price points**
  - **Sub-capacity MWLC option for added price/performance**
- **Encryption enhancements**
  - **CPACF enhancements (AES-128)**
  - **Configurable Crypto Express2 (add accelerator option)**
  - **TS1120 encrypting tape**
  - **SecureFTP**
- SOA and interoperability improvements
- CICS TS & **CICS/VSE supported w/ z/VSE V4.1**
- FSU from z/VSE V3.1 and VSE/ESA V2.7
- Implemented 22 customer requirements

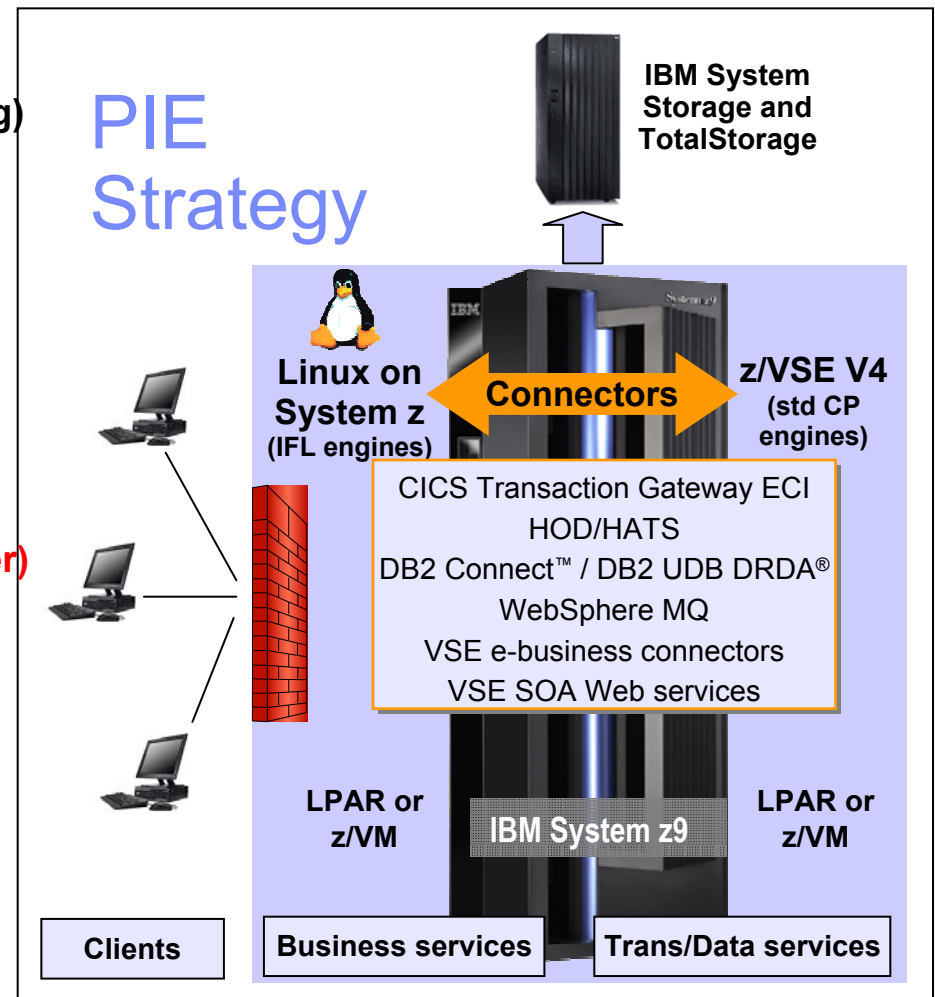
### z/VSE V4.2 Preview





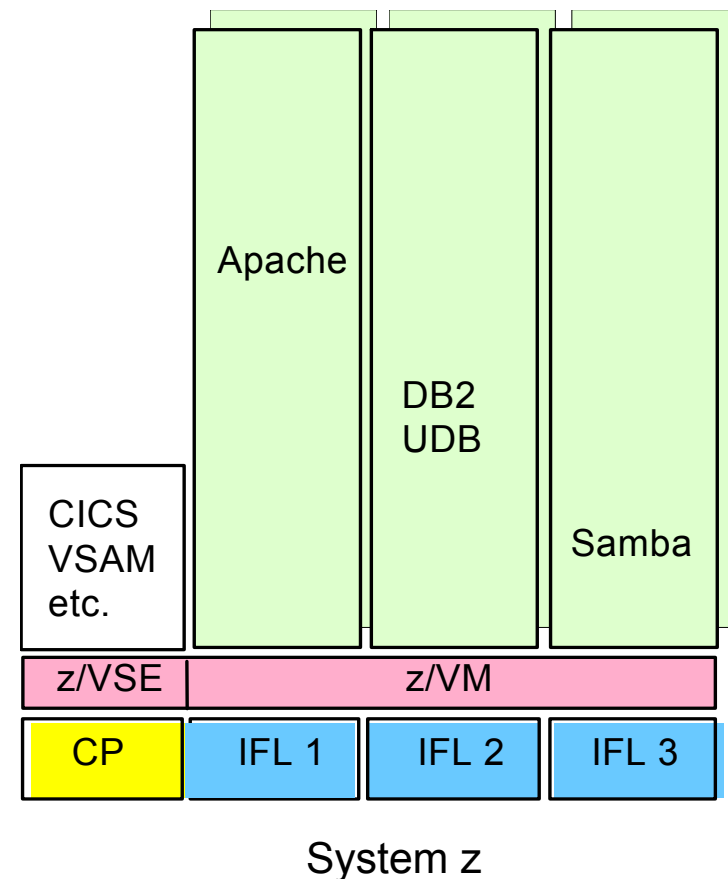
## z/VSE V4.2 – What's new ?

- Preview Oct 9, 2007; **planned availability 4Q2008**
- z/Architecture mode only
  - **64-bit real addressing (31-bit virtual addressing)**
    - **up to 32 GB real processor storage**
  - IBM System z9 EC, z9 BC, z10 EC servers
  - IBM eServer zSeries 990, 890, 900, 800 servers
- More than 255 VSE tasks
  - **Enable growth, ease migration to CICS TS**
- Sub-Capacity Reporting Tool (SCRT)
  - **Available now with z/VSE 4.1 (and later)**
- Encryption Facility for z/VSE V1.1
  - **Optional priced feature on z/VSE V4.1 (and later)**
  - **MWLC enabled**
- Added support for System Storage
  - **TS3400 Tape Library**
  - **TS7740 Virtualization Engine**
- CICS TS & CICS/VSE supported w/ z/VSE V4.2
  - **Statement of Direction (SoD) for CICS/VSE**
- FSU from z/VSE V3.1 and z/VSE V4.1



# Linux on System z – Advantages for VSE Customers

- Infrastructure simplification to help reduce cost
  - Possible TCO benefits of Linux, NO increase in VSE License
  - Consolidate existing distributed servers to Linux on System z
- New applications with Linux on System z based on IBM Middleware
  - WebSphere Application Server
  - DB2 UDB
  - Lotus® Domino™
  - Communications Server
  - Advanced application development tools
- New Linux-based open source and/or ISV applications
  - Linux on system z to exploit 64-bit capabilities
  - Complement 31-bit core VSE applications
- Integrate Linux and VSE solutions
  - Linux access to VSE applications and data

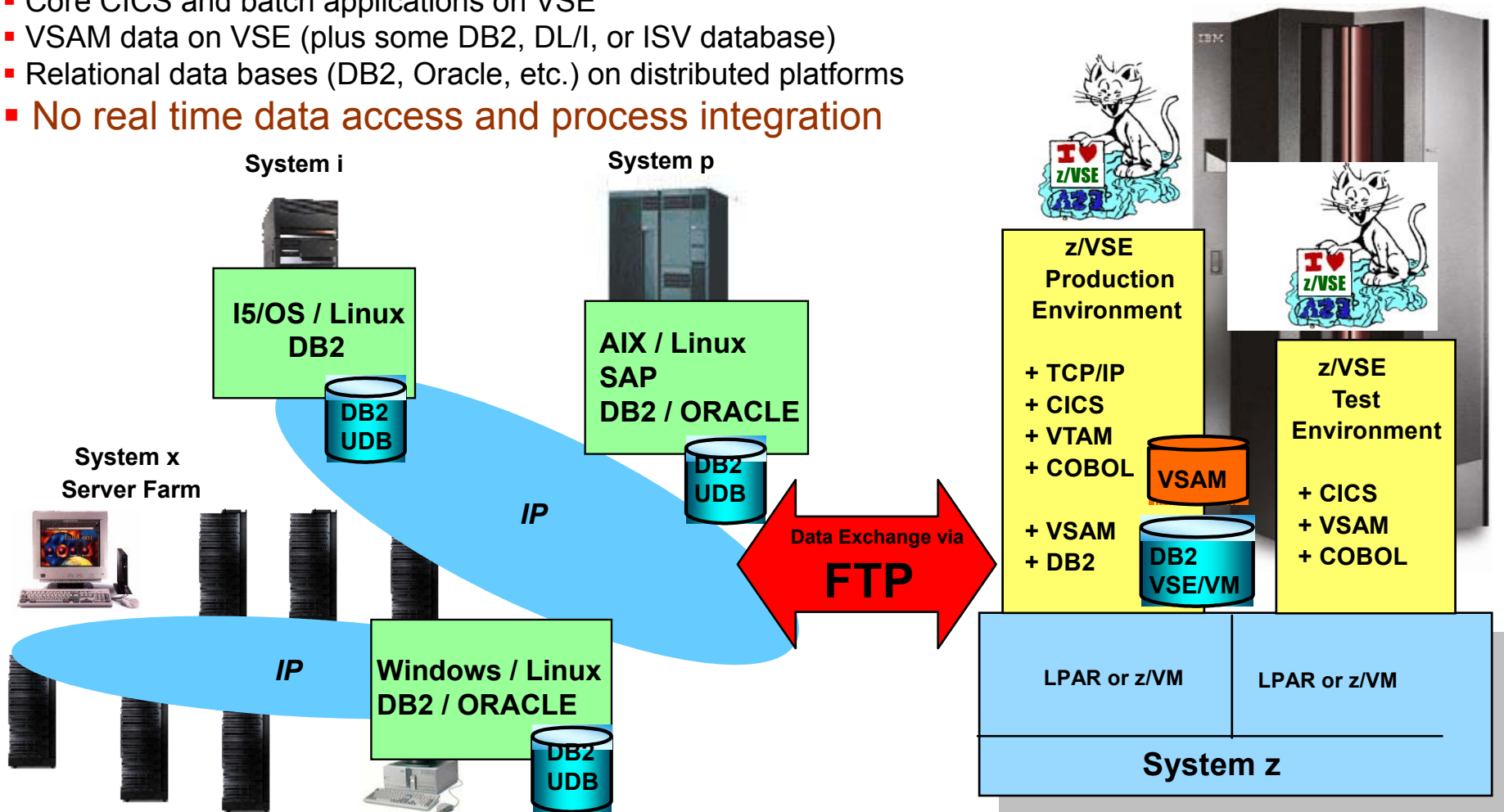




## VSE Modernization with z/VSE 4.1

# 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**



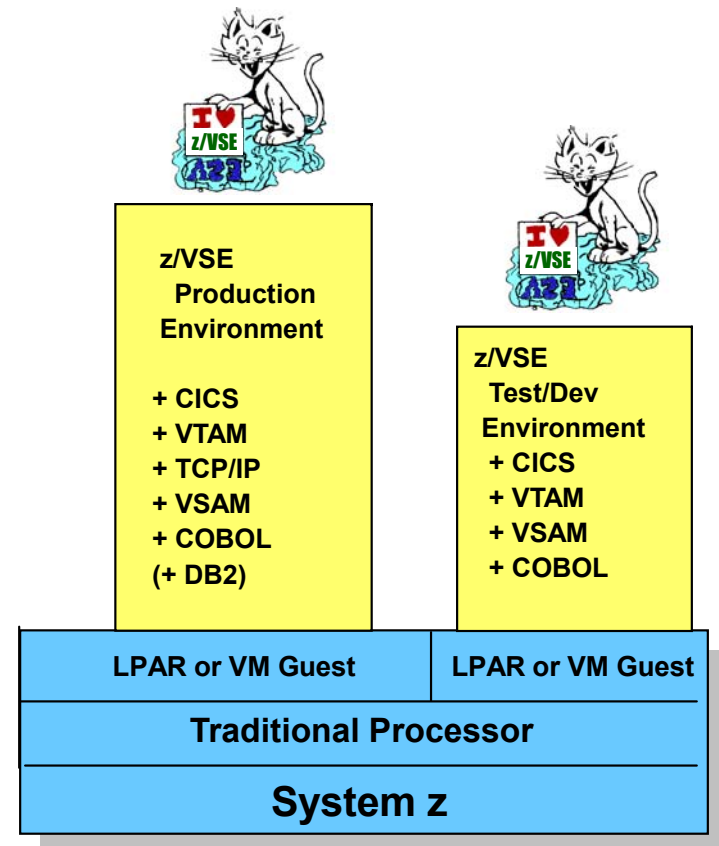
# Examples of VSE Modernization

## Enhance core VSE applications

- web access
- improve user interface
- simplify with a Portal solution
- extend core applications with distributed logic

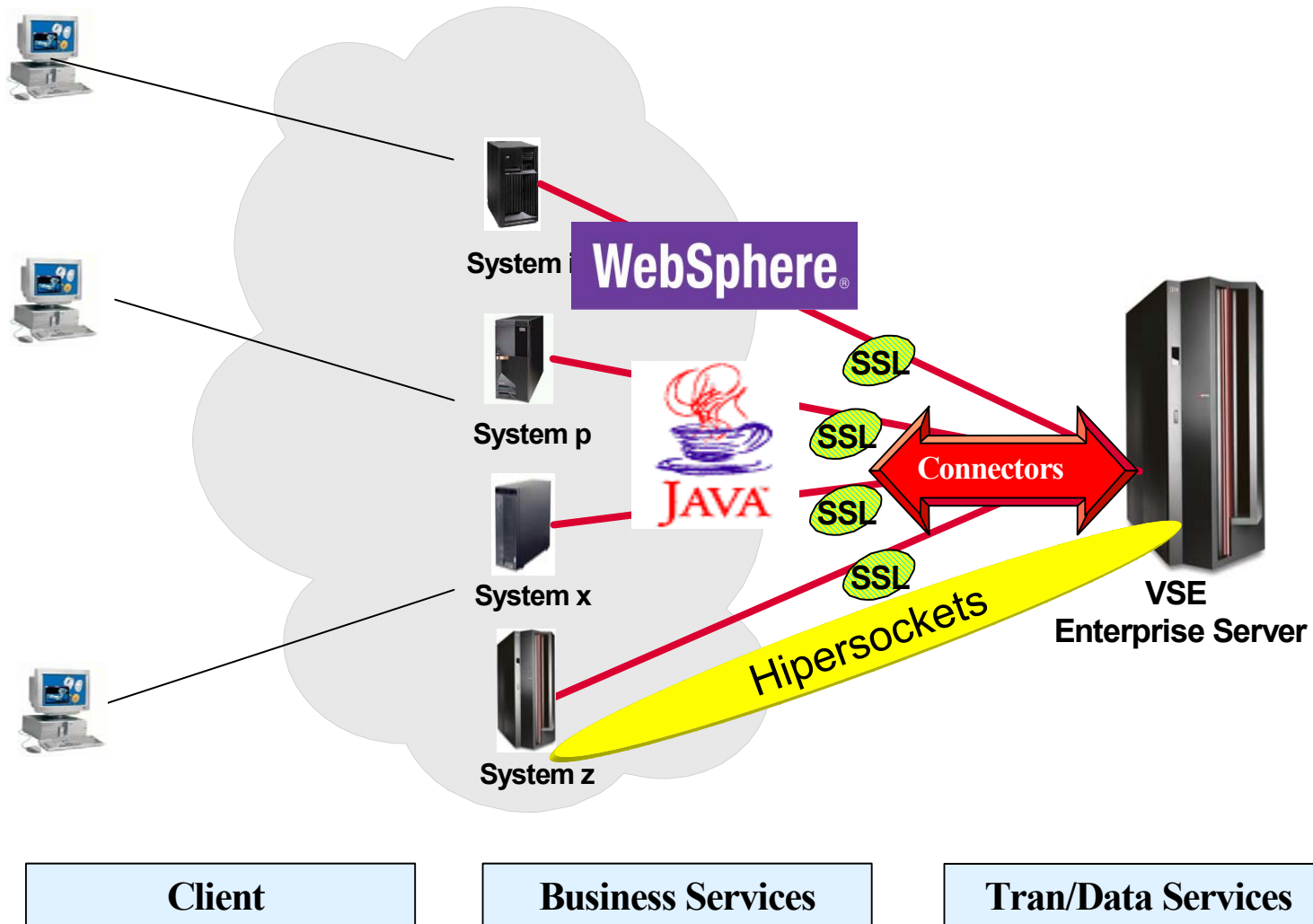
## Integrate new and existing VSE applications (regardless of platform)

- leverage VSE data – *replace FTP with real-time access to VSE data*
- create modern solutions with Data Warehousing
- leverage VSE logic – integrate it with connectors and a Service Oriented Architecture - SOA

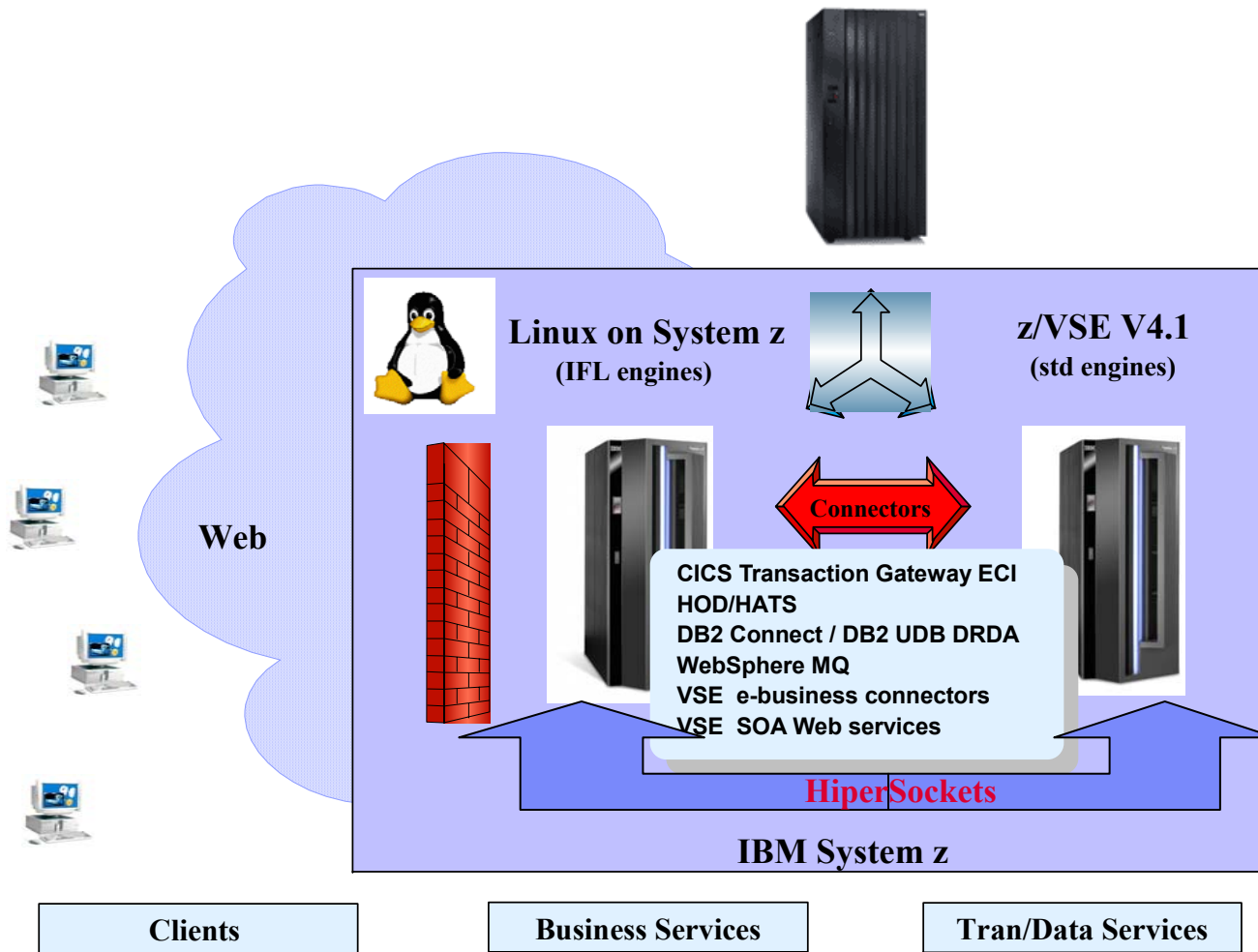


# VSE Interoperability

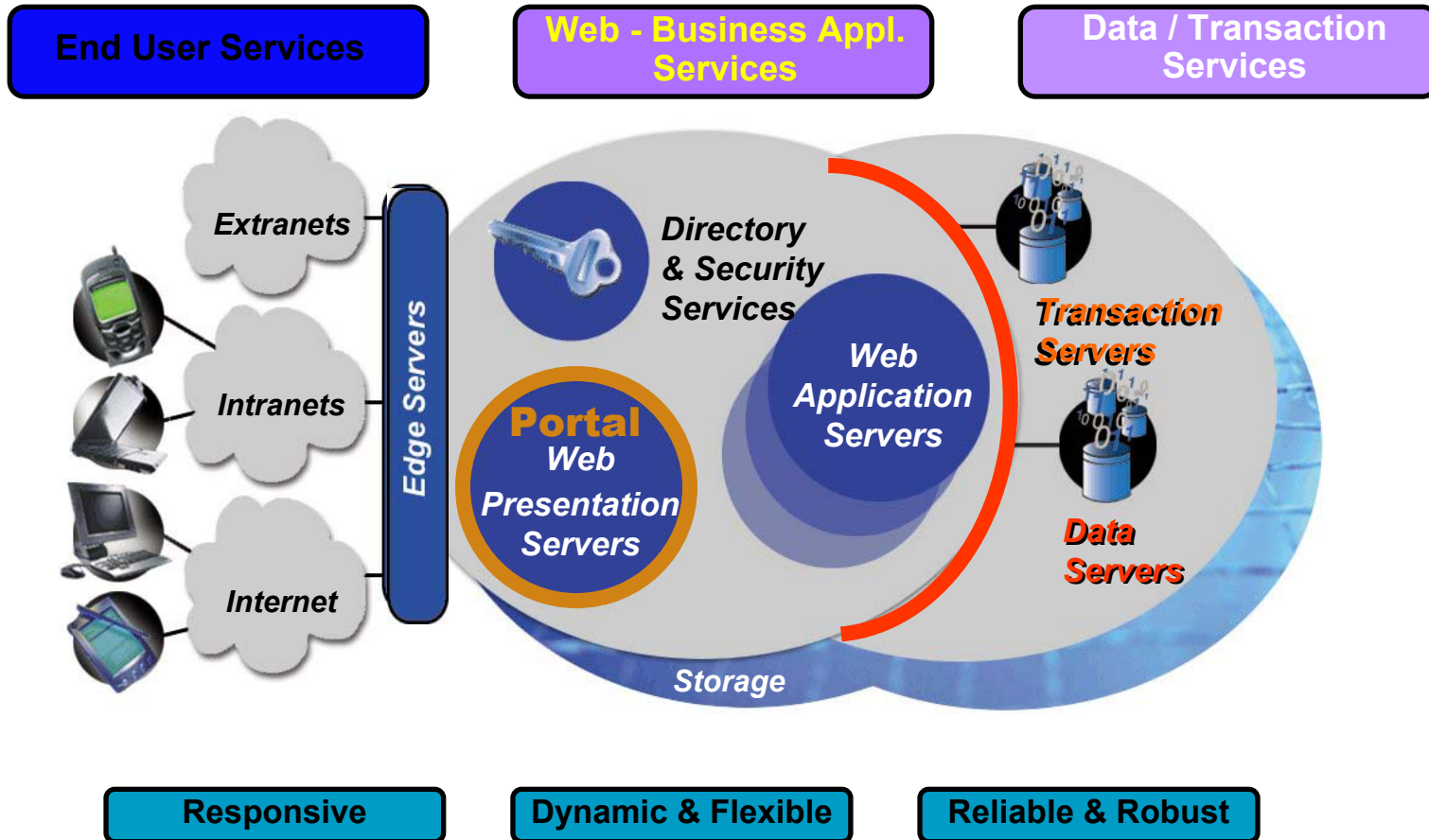
## integration with any Java Platform



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



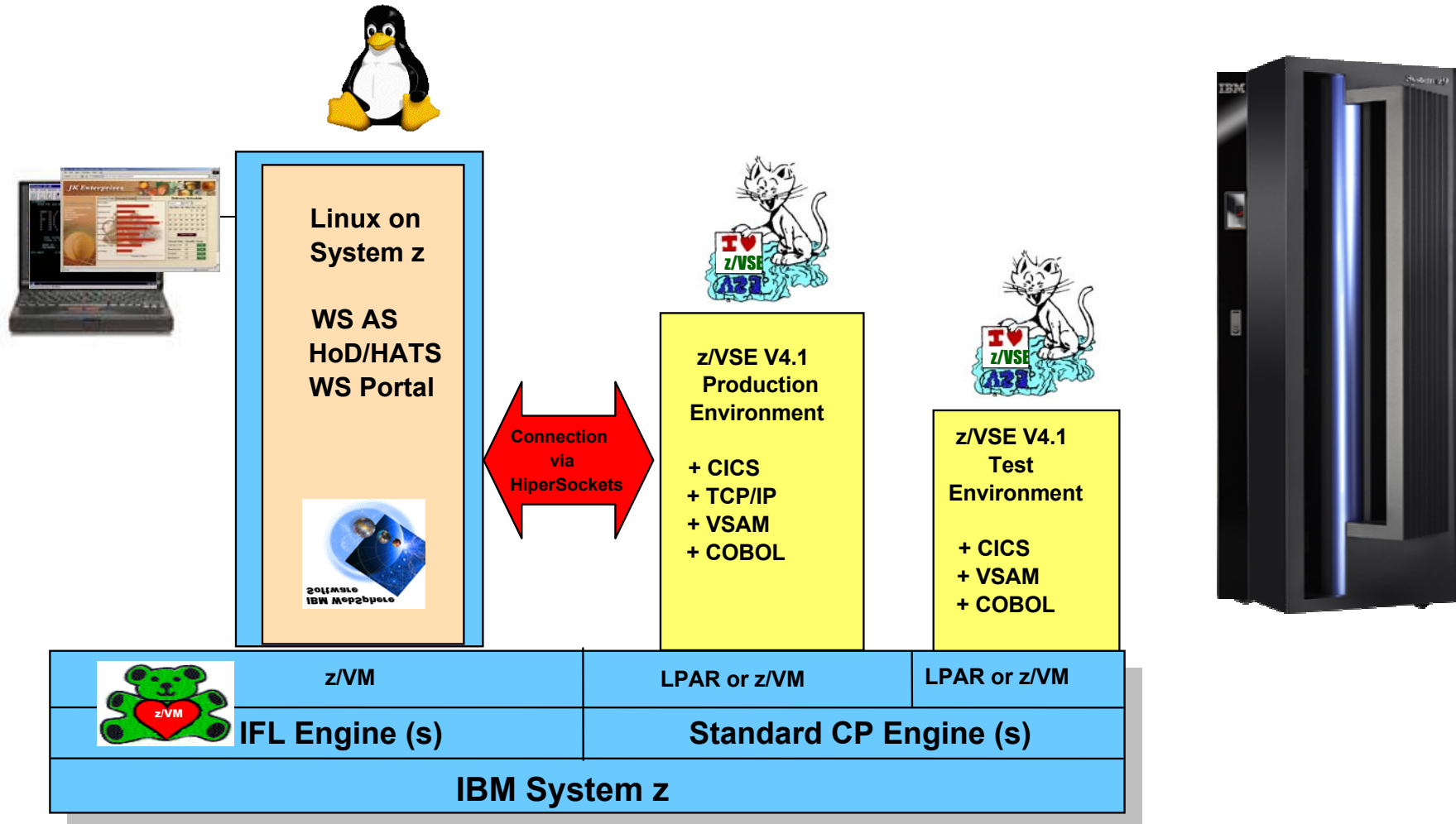
# Infrastructure





# Scenario 1: Enhance Core VSE Applications

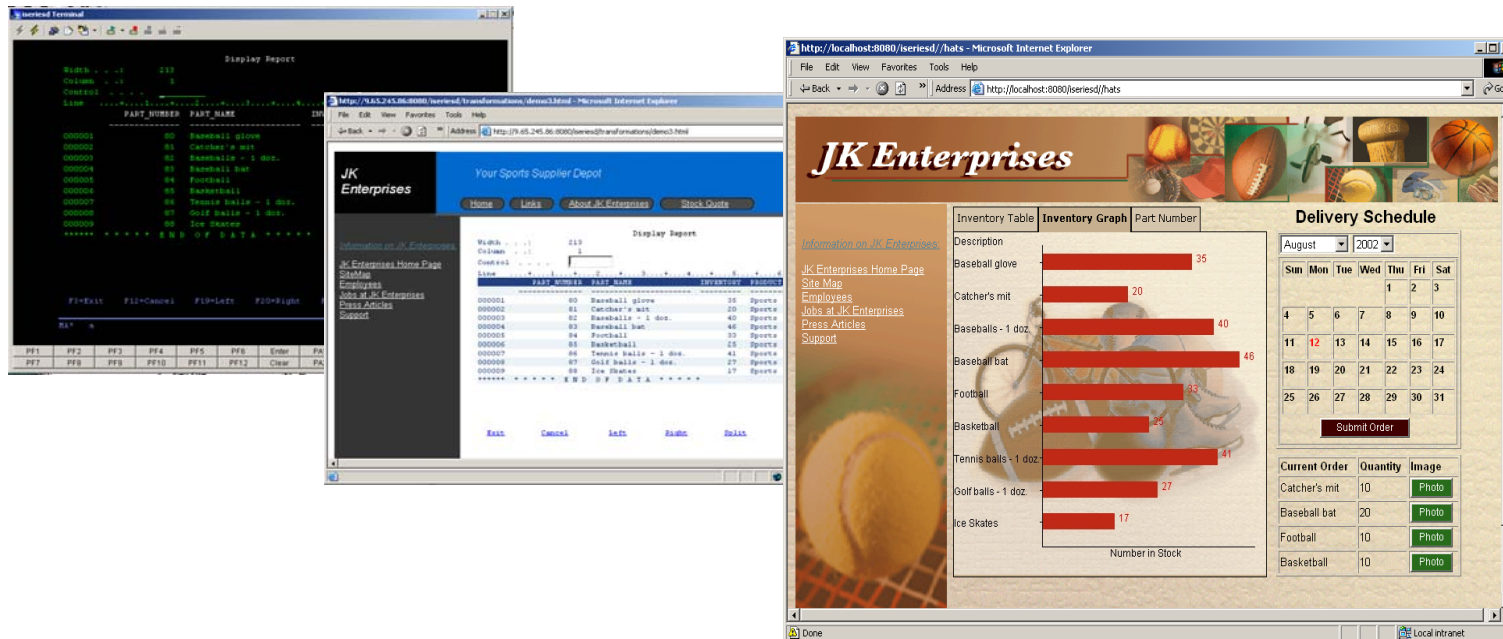
Web enable, improve interface, simplify, extend existing applications



# Host Access Transformation Server (HATS)

Develop

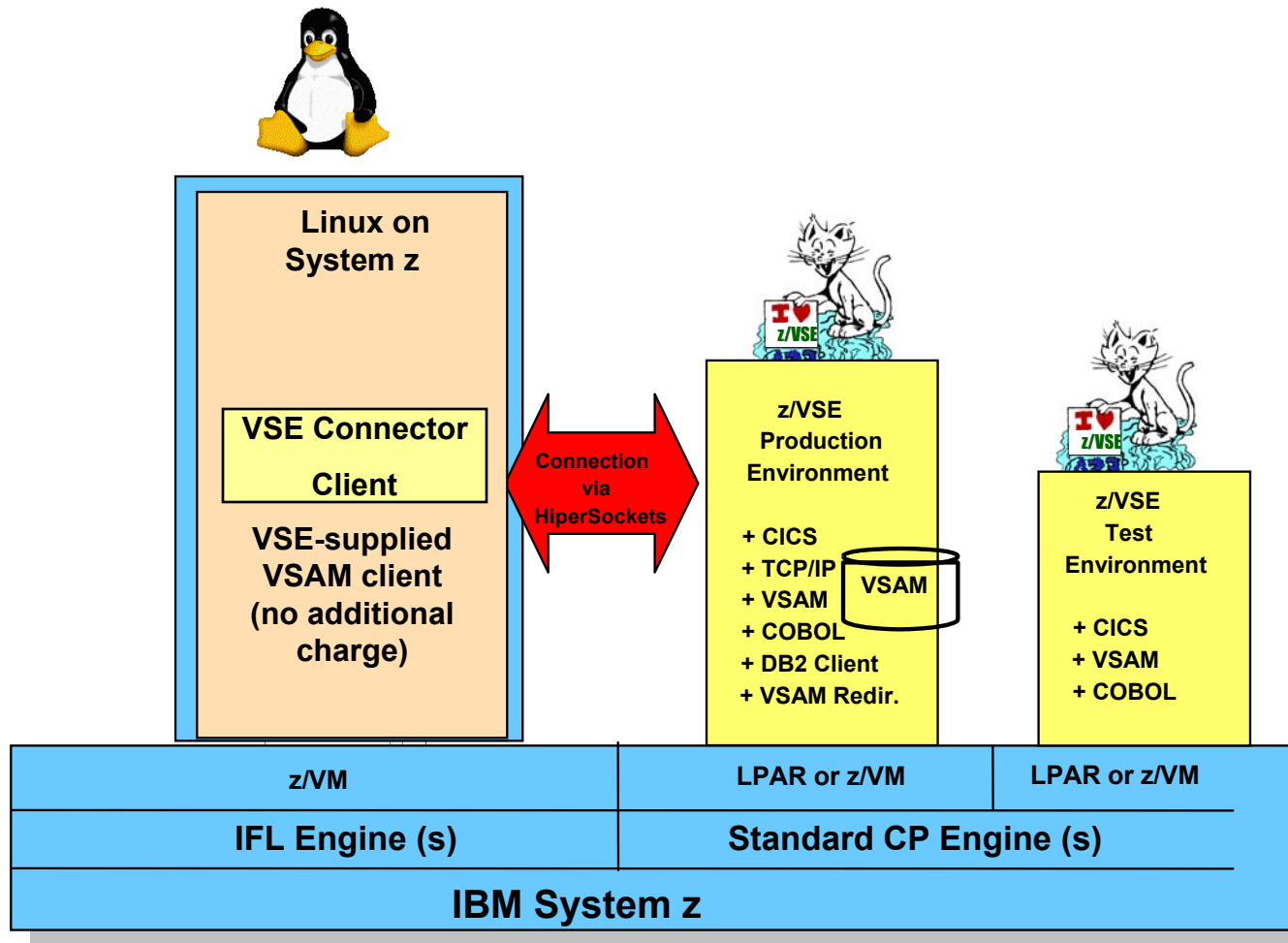
- A Web-to-host HTML emulator, with ...
- rules-based transformation engine, application integration hat...
- converts green screens to graphical user interfaces
- improves ease-of-use of host applications.



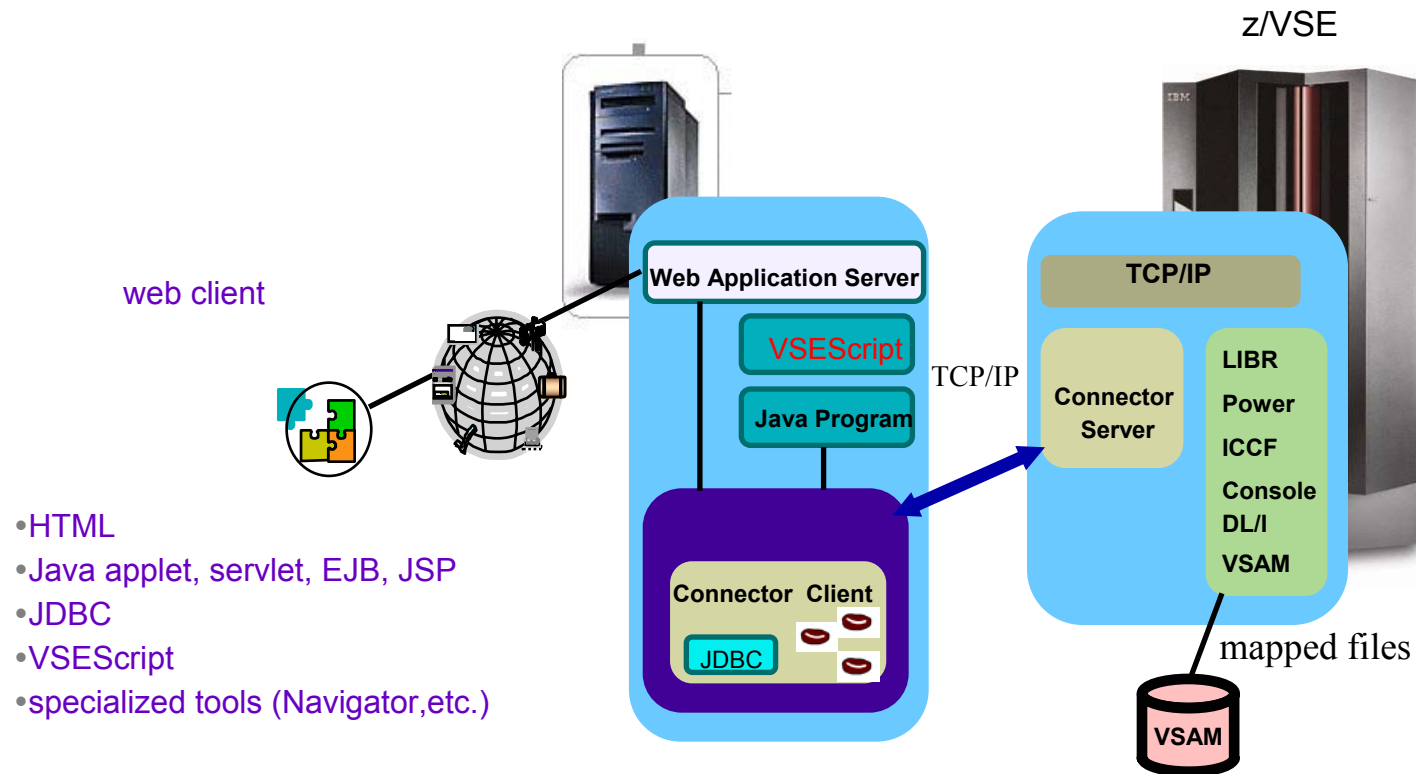
**Benefit: Easily extend existing applications to the web**

# 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

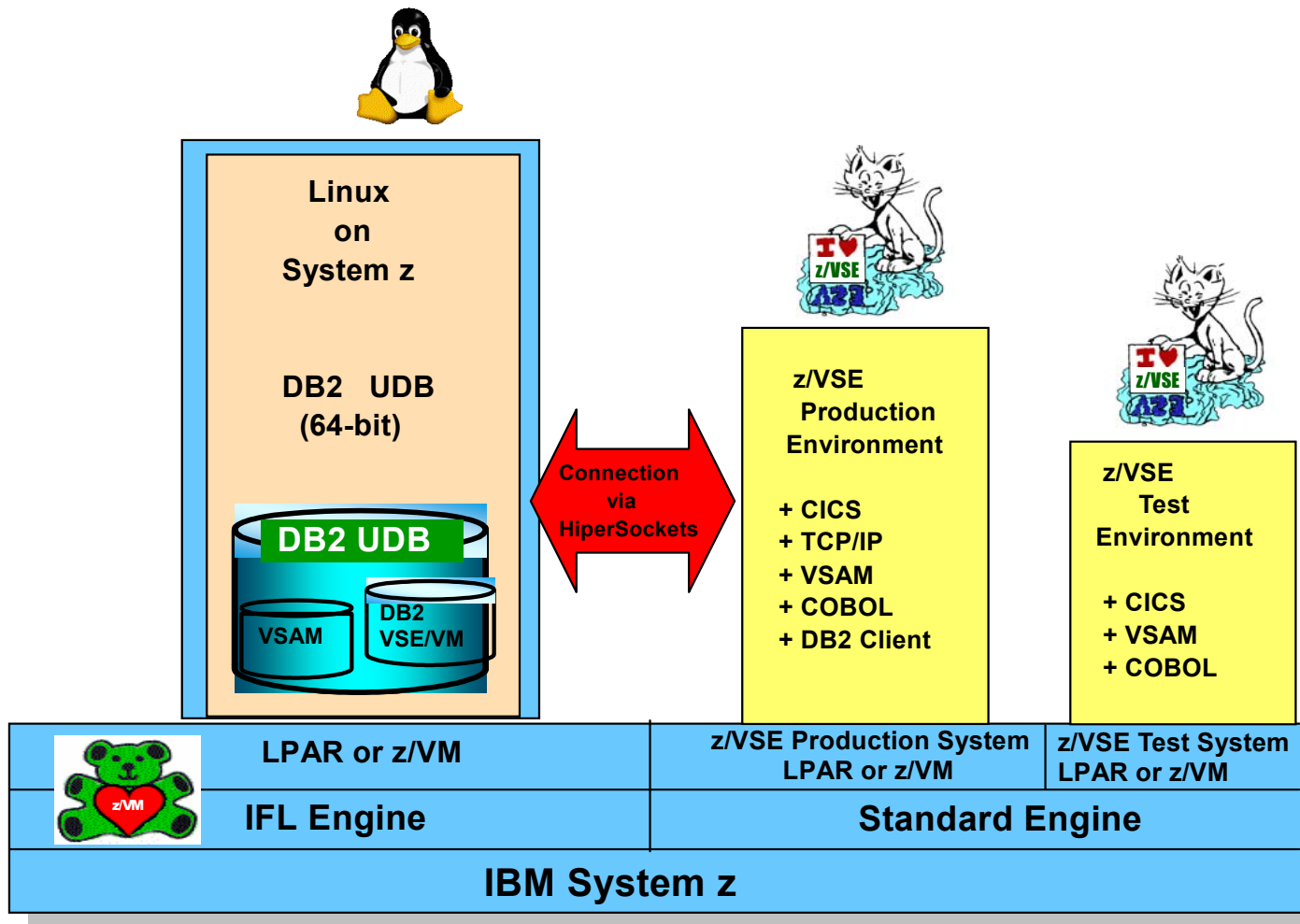


- HTML
- Java applet, servlet, EJB, JSP
- JDBC
- VSEScript
- specialized tools (Navigator,etc.)

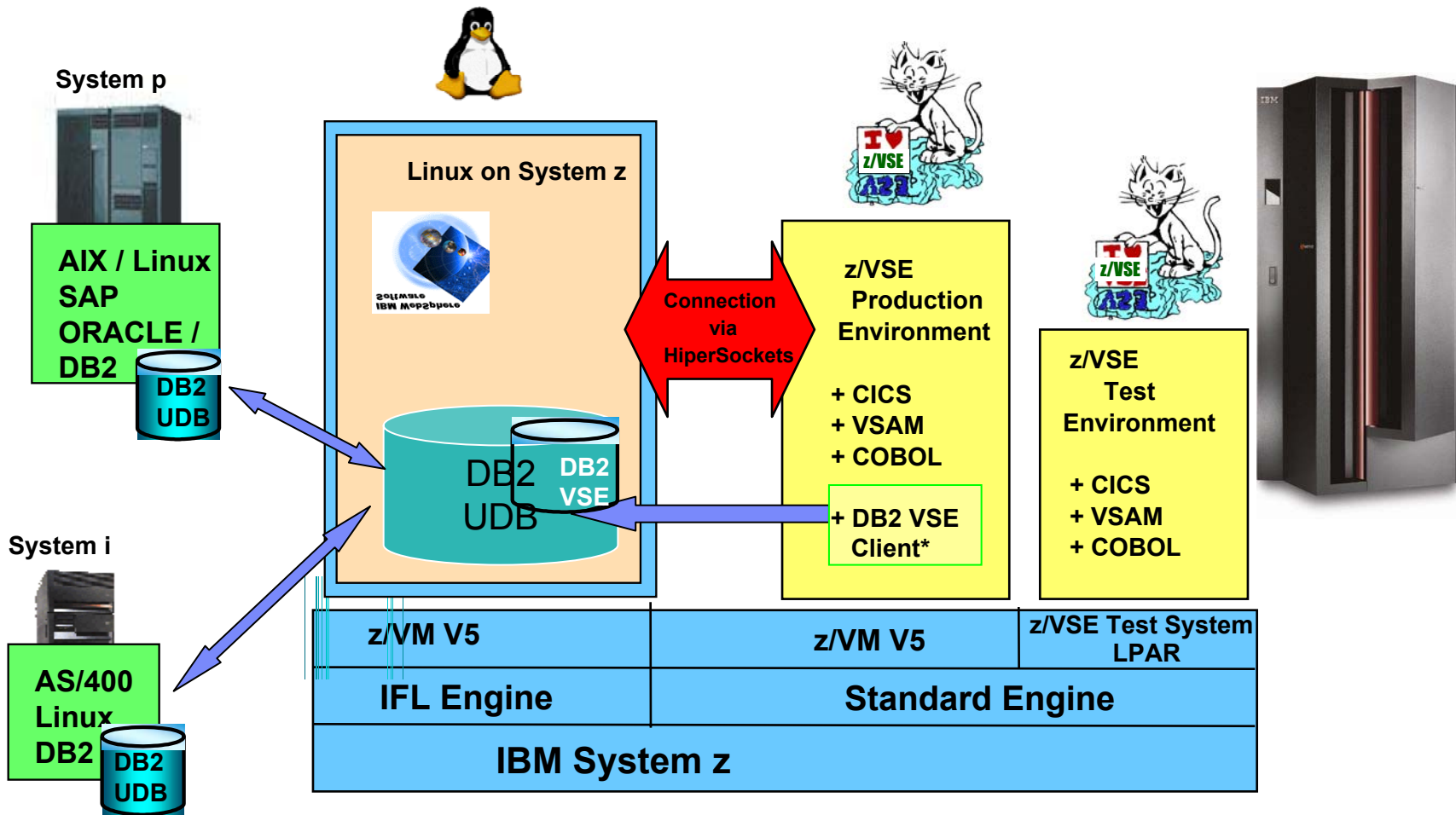
- ▶ real time access to VSE resources from remote systems
- ▶ new possibilities for leveraging the VSE investment

# Scenario 3: Common data Store

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

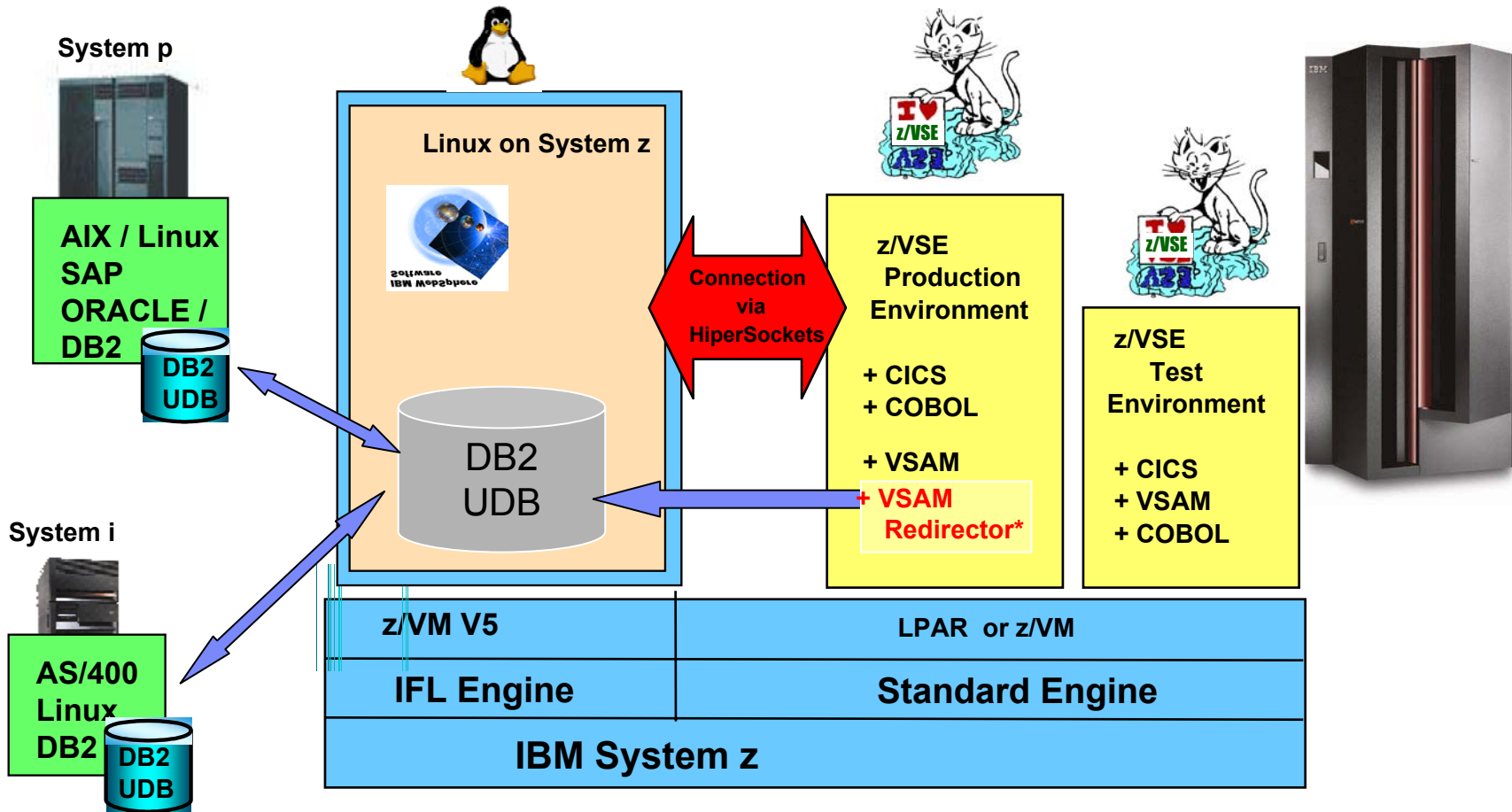


# From DB2 VSE to – DB2 UDB using Linux on System z



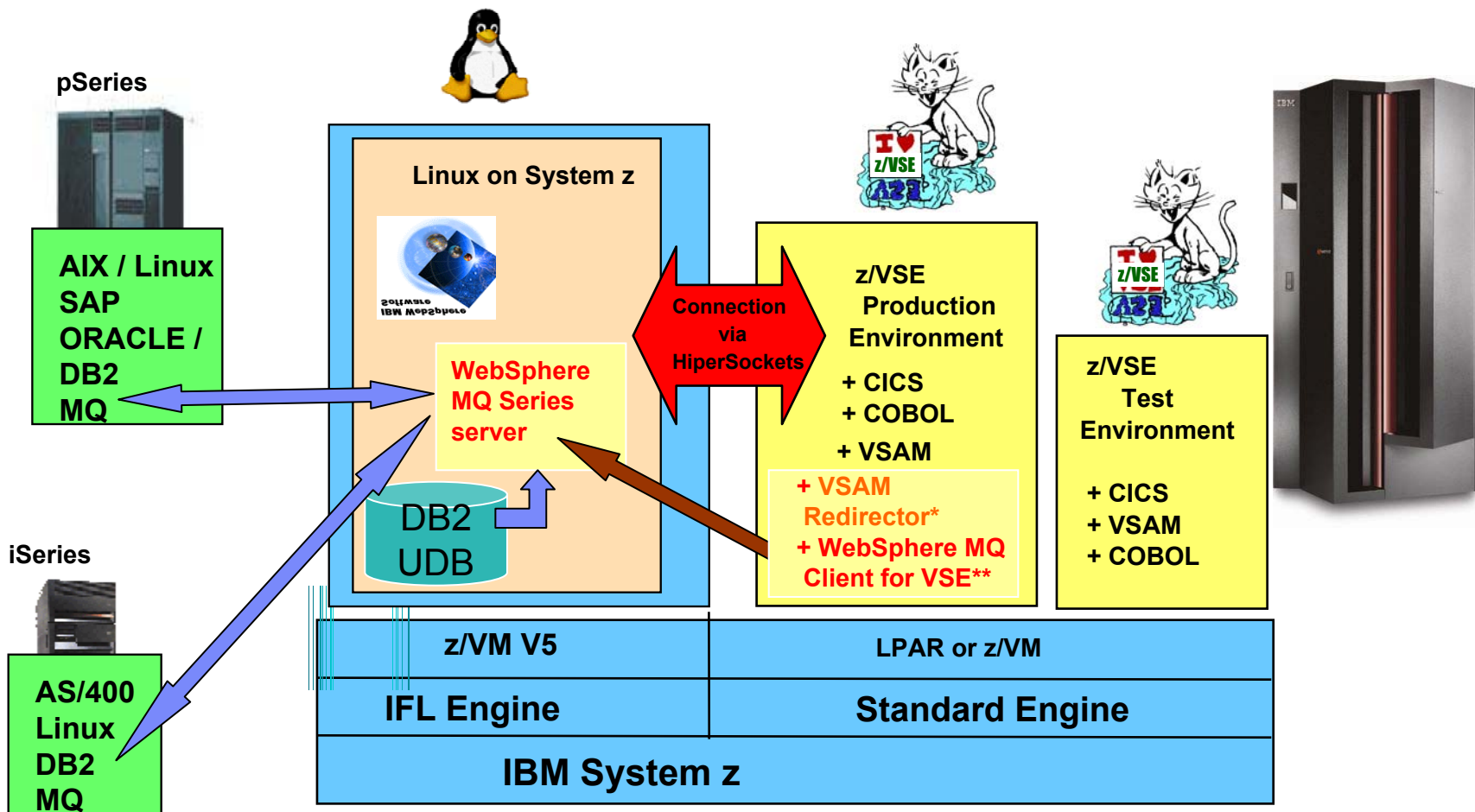
(\*) DB2 VSE Client – the client functionality only, can be obtained with [PRPQ P10154](#)

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



(\*) VSAM Redirector – Common data store solution – with DB2 on Linux on zSeries Solutions without changes to VSAM programs

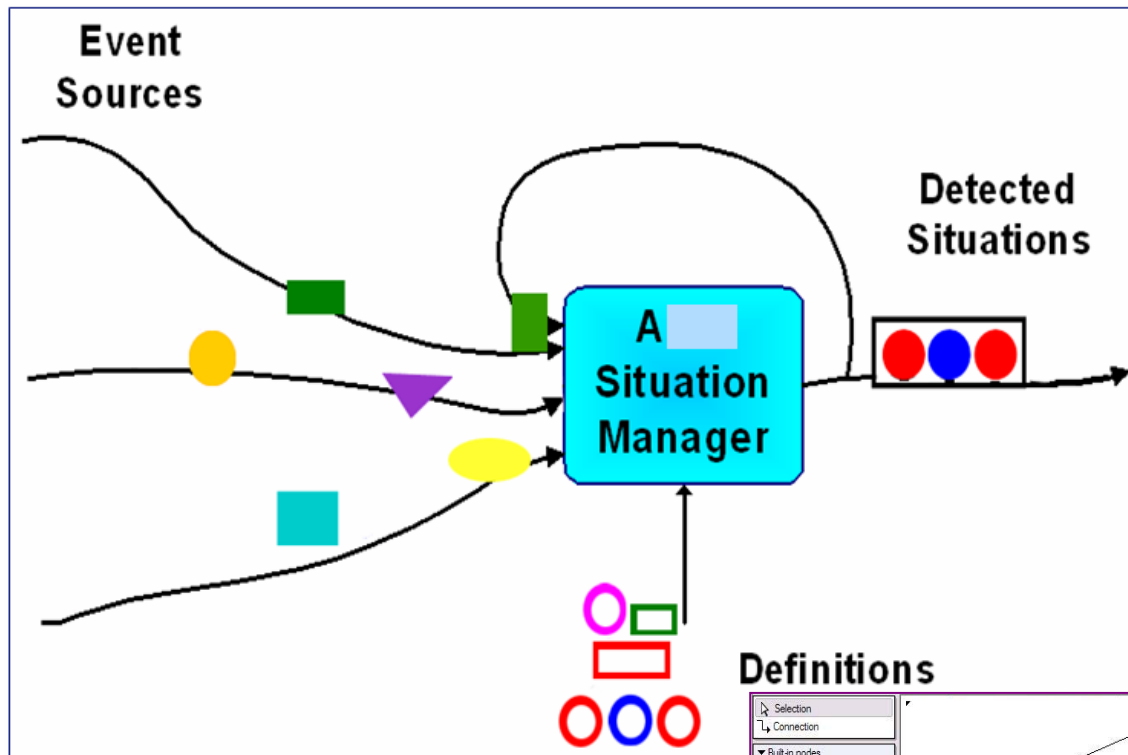
# Scenario 4: Solutions with MQ Messaging



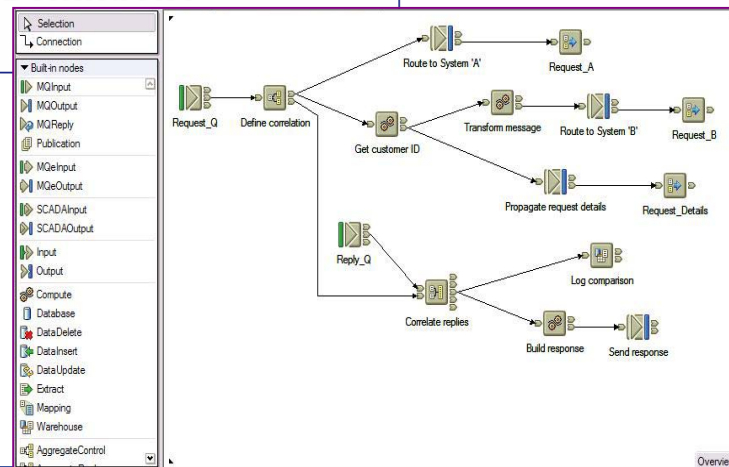
(\*) VSAM Redirector + Redirector MQ Exit allows MQ Solutions without changes to VSAM programs  
 (\*\*) WebSphere MQ Client for VSE is free of charge



## 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

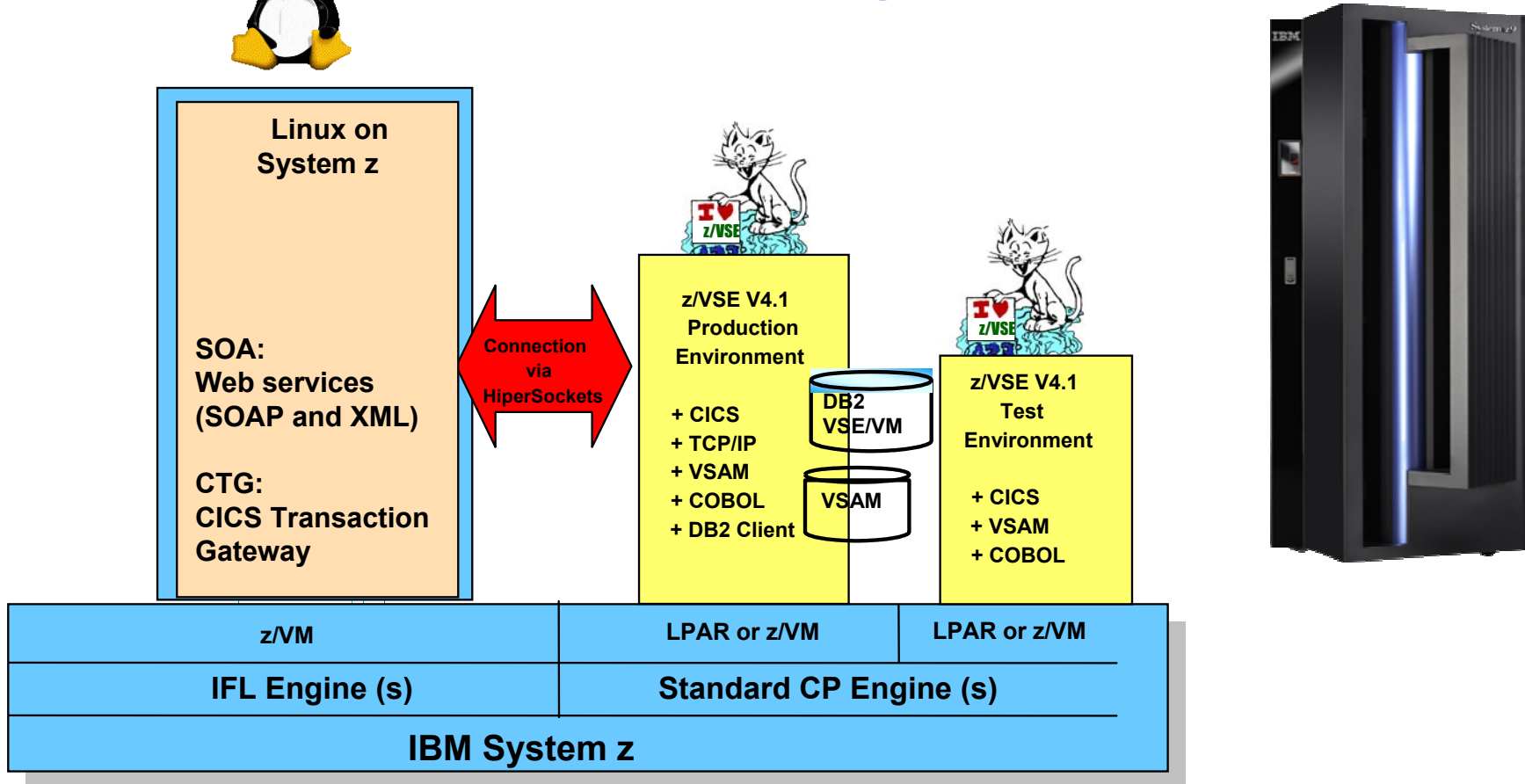


# Scenario 5: Integrate Applications

Leverage VSE application logic using SOA or CTG

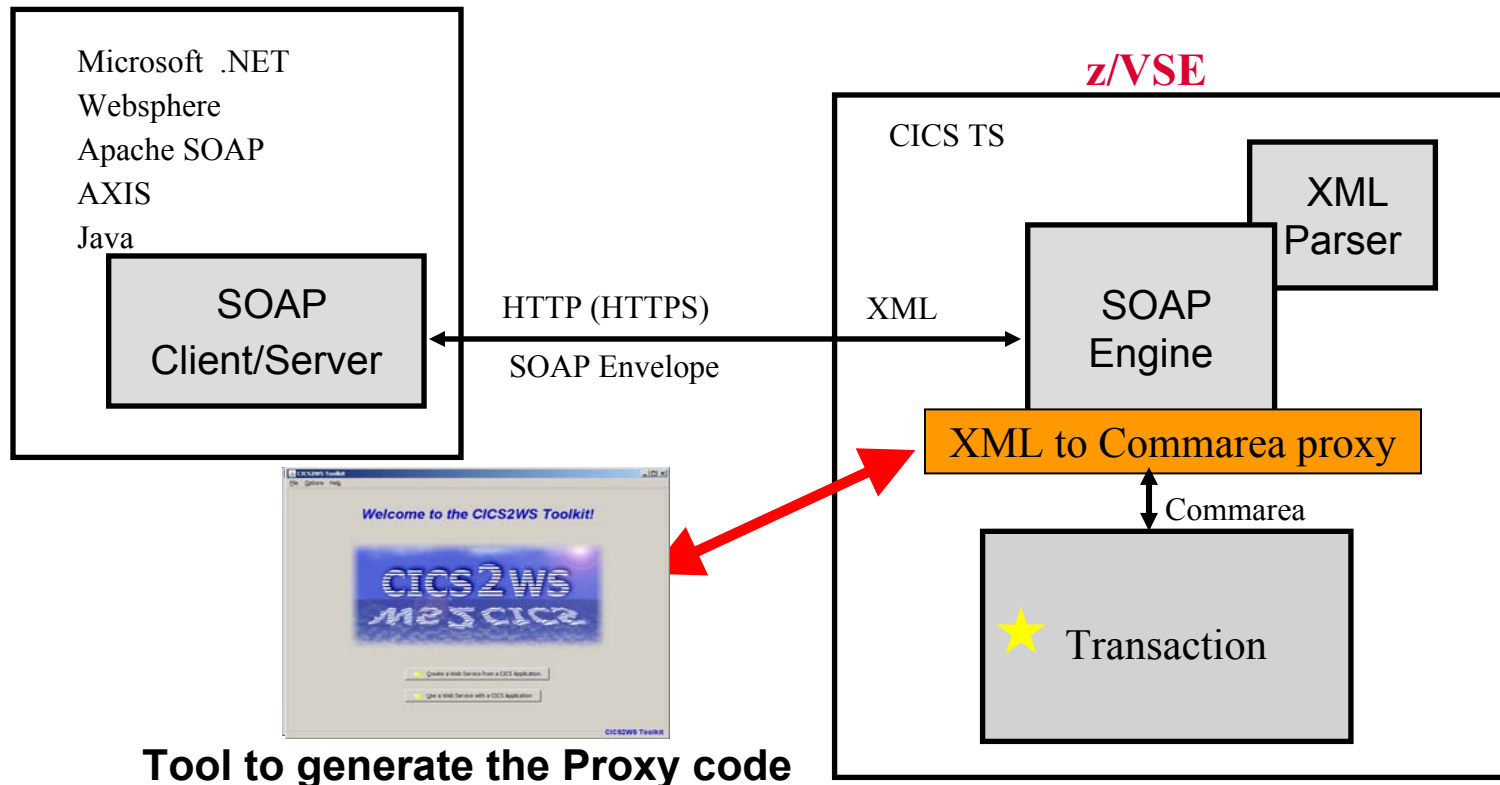
CTG: Access to CICS applications

SOA: Standard Integration of CICS applications



## Web Services with z/VSE

SOA and XML data interchange with CICS applications in VSE

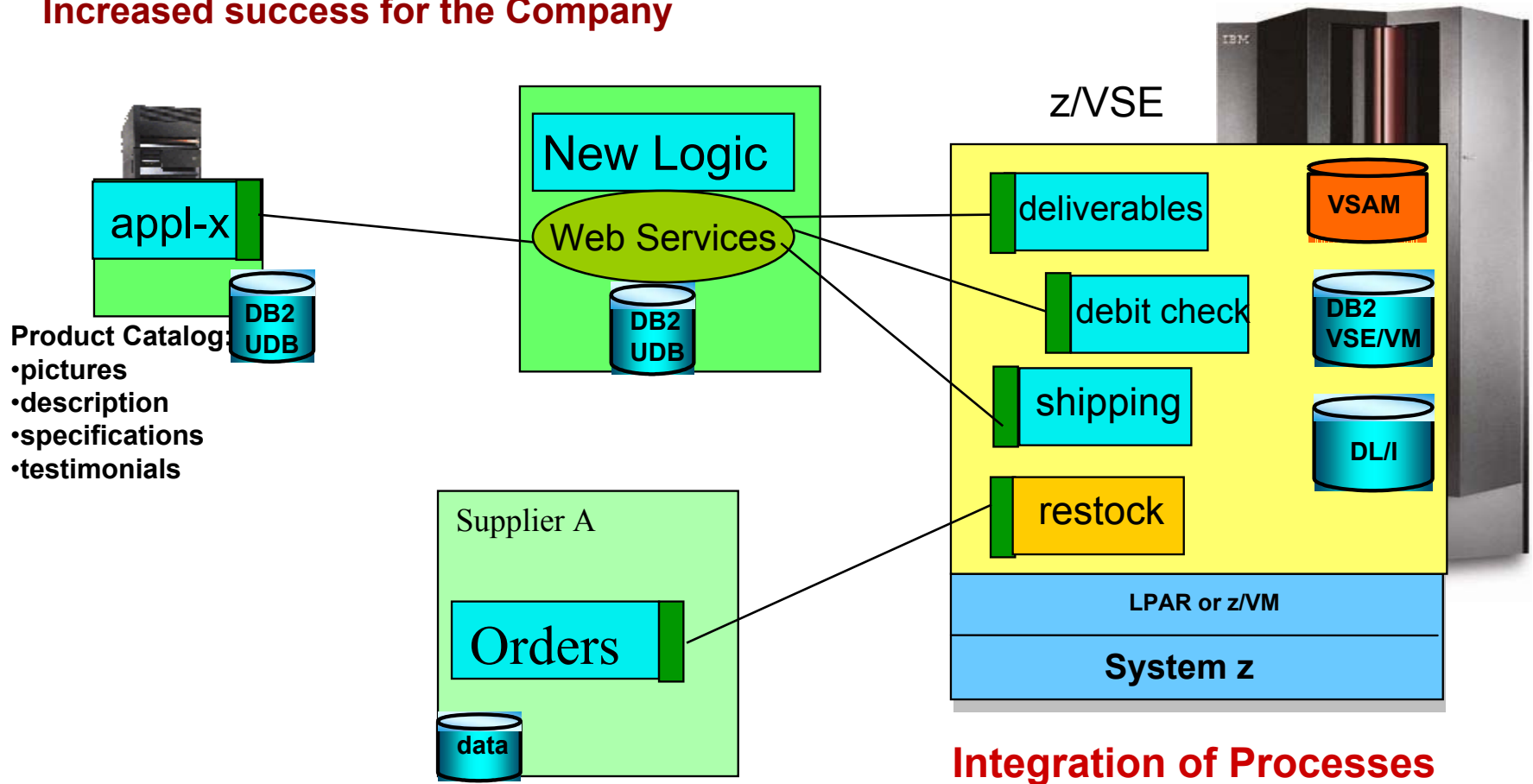


- ★ Existing VSE Transactions as Web Service
- ★ Existing Transactions can call a remote Web Service

# 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**



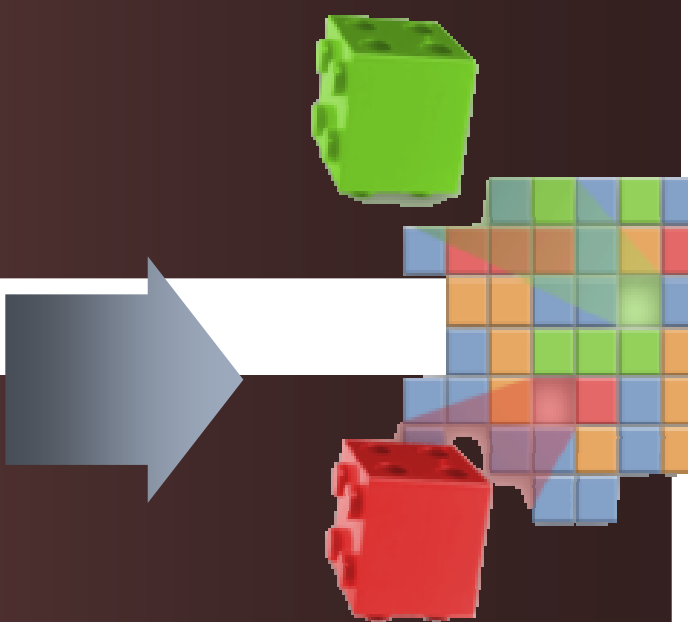
## z/VSE - Greater Value through SOA

### Value

- VSE looks the same to any other platform
- Any other platform looks the same to VSE
- Flexibility and integration with other platforms
- Expanded access to core applications
- Use of standard Internet protocols

### Start with

- What services are needed to run your business?
- Identify high-value existing IT assets
- Service-enable them for reuse
- Fill in gaps by creating new services for today's business needs and future reuse

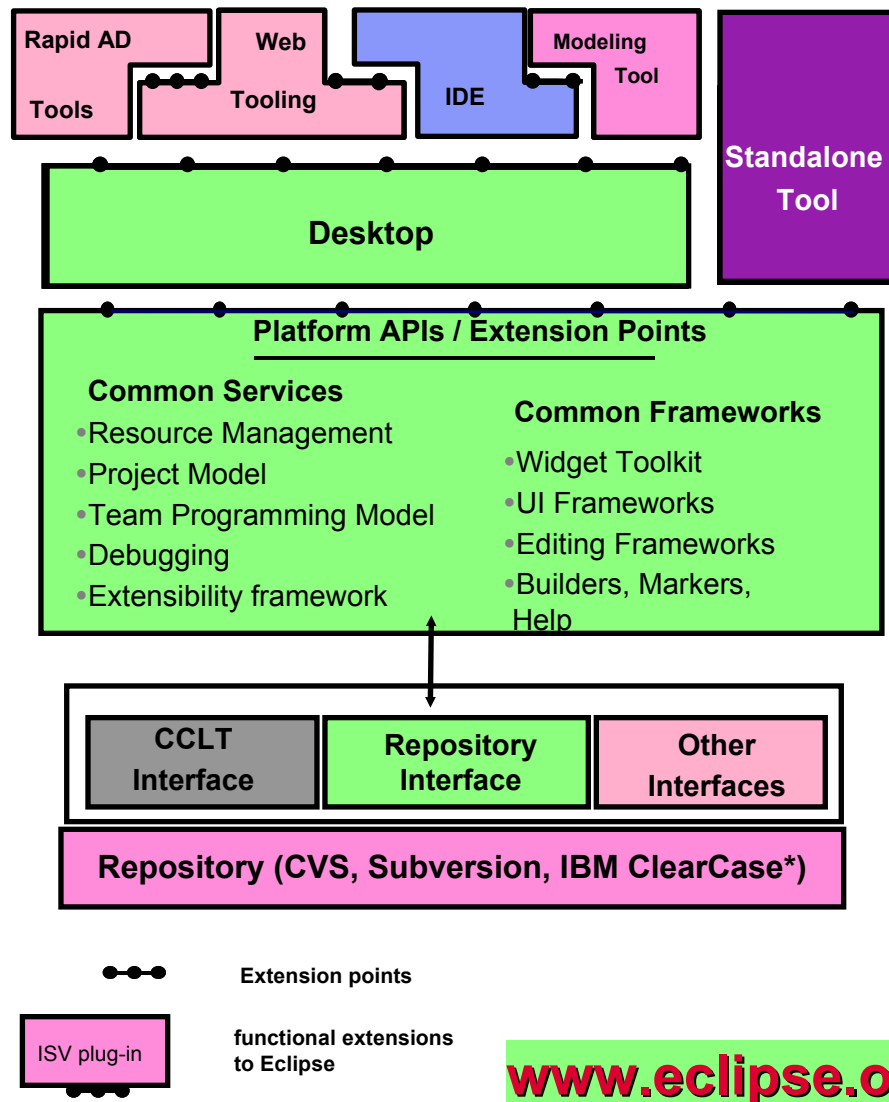


*“ With reuse, solving the next business problem can be done more quickly and efficiently.”*

- Amy Wohl

\* Software Productivity Research (SPR)

# Eclipse – the open Standard for application development



[www.eclipse.org](http://www.eclipse.org)

## What is Eclipse about:

- Open source development framework
  - with modern Editors
  - syntax help & check
  - semantic check
- Centralized source code maintenance
  - entire source code in central Repository
  - cross platform project administration
- Versioning software interface
  - CVS, Subversion, or IBM ClearCase
  - automatic Workgroup-control
    - i.e. development groups, system group
- Open for ISVs development Plug-Ins
  - Integrated Development Environments (IDE)
    - for System z (WDz, RDz)
    - for Java, COBOL, PL/I, ASM,C
  - Application analysis and optimization
    - Analyze the applications and workflows with graphical correlations
  - **IBM HATS Development Plug-In**
    - develop new front-ends to 3270 apps.
  - **IBM EGL development Plug-In for z/VSE**
    - follow-on to Visual Age Generator

# Rational Developer (RDz) in z/VSE perspective

The screenshot displays the IBM Rational Software Development Platform interface for z/VSE development. The main window shows a terminal session with a login prompt and a system view on the right. The interface is annotated with numbered callouts:

- 1. Perspective:** Points to the top menu bar and toolbar.
- 2. View:** Points to the VSE System View tree on the right side.
- 3. Projects:** Points to the z/OS Projects tree on the left side.
- 4. VSE Terminal:** Points to the central terminal window displaying the VSE/ESA ONLINE login screen.
- 5. Outline View:** Points to the Outline and Properties panels at the bottom left.
- 6. VSE Console:** Points to the VSE Console window at the bottom, showing a table of system resources.
- 7. VSE Terminal:** Points to the keyboard shortcuts bar below the terminal window.

The VSE Console window displays the following table:

MAP	SPACE	AREA	V-SIZE	GETVIS	V-ADDR	UNUSED	NAME
AR 0015	S	SUP	716K		0		\$\$\$SUPI
AR 0015	S	SVA-24	1888K	1748K	B3000	768K	
AR 0015	0	BG V	1280K	4864K	500000	45056K	
AR 0015	1	F1 V	1024K	4096K	500000	0K	POWSTART
AR 0015	2	F2 V	2048K	49152K	500000	0K	CICSICCF
AR 0015	3	F3 V	600K	14760K	500000	0K	VTAMSTRI
AR 0015	4	F4 V	2048K	18432K	500000	0K	
AR 0015	5	F5 V	768K	256K	500000	0K	
AR 0015	6	F6 V	256K	256K	500000	0K	
AR 0015	7	F7 V	1024K	19456K	500000	0K	TCPIP00
AR 0015	8	F8 V	2048K	49152K	500000	0K	
AR 0015	9	F9 V	256K	256K	500000	0K	
AR 0015	A	FA V	256K	256K	500000	0K	
AR 0015	B	FB V	256K	256K	500000	0K	SECSERV
AR 0015	S	SVA-31	7588K	6748K	3700000		

The screenshot displays the VSE IDE interface. The main editor window shows a COBOL program with the following code snippet:

```

Line 40      Column 81      Insert
--*A-1-B--+---2---+---3---+---4---+---5---+---6---+---7---+---8---
02 Condition-Token-Value.          00027000
COPY CEEIGZCT.
03 Case-1-Condition-ID.            00029000
04 Severity      PIC S9(4) BINARY. 00030000
04 Msg-No        PIC S9(4) BINARY. 00031000
03 Case-2-Condition-ID            00032000
                                00033000
                                REDEFINES Case-1-Condition-ID.
04 Class-Code    PIC S9(4) BINARY. 00034000
04 Cause-Code    PIC S9(4) BINARY. 00035000
Case-Sev-Ctl     PIC X.             00036000
Facility-ID      PIC XXX.           00037000
Info             PIC S9(9) BINARY. 00038000
                                00039000
                                VI SION.          00040000
                                .                  00041000
                                .                  00042000
                                .                  00043000
05 TO ARG1RS.          00044000
ESSLOG' USING ARG1RS, FC, RESLTRS. 00045000
*****
    
```

A context menu is open over the `REDEFINES Case-1-Condition-ID.` line. The menu items include:

- New
- Go Into
- Go To
- Open
- Open With
- Refresh
- Expand
- Collapse
- Rename...
- Copy
- Move...
- Delete...
- Search...
- Run
- Debug
- Team
- Compare With
- Replace With
- VSE
- Host Connection Emulator Support
- Local Syntax Check
- Nominate as Entry Point(B)
- Open Welcome Page(O)
- Properties(Z)

The 'VSE' menu item has a sub-menu open with the following options:

- RemoteCompile
- Info
- Upload

At the bottom, the 'Problems' window shows the following error:

Page	Se...	Line	Location	Host Name	Date
2		40	/DEMOVSE/IGZTMATH...	Local	Jan 26, 2007 4:39:27 PM

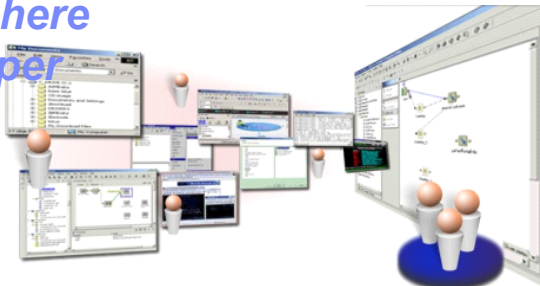
The system tray at the bottom right shows the time as 4:40 PM on Friday, 1/26/2007, and a battery level of 98%.



# VSE can integrates with the IBM WebSphere Software Platform



WebSphere Developer



WebSphere Application Server



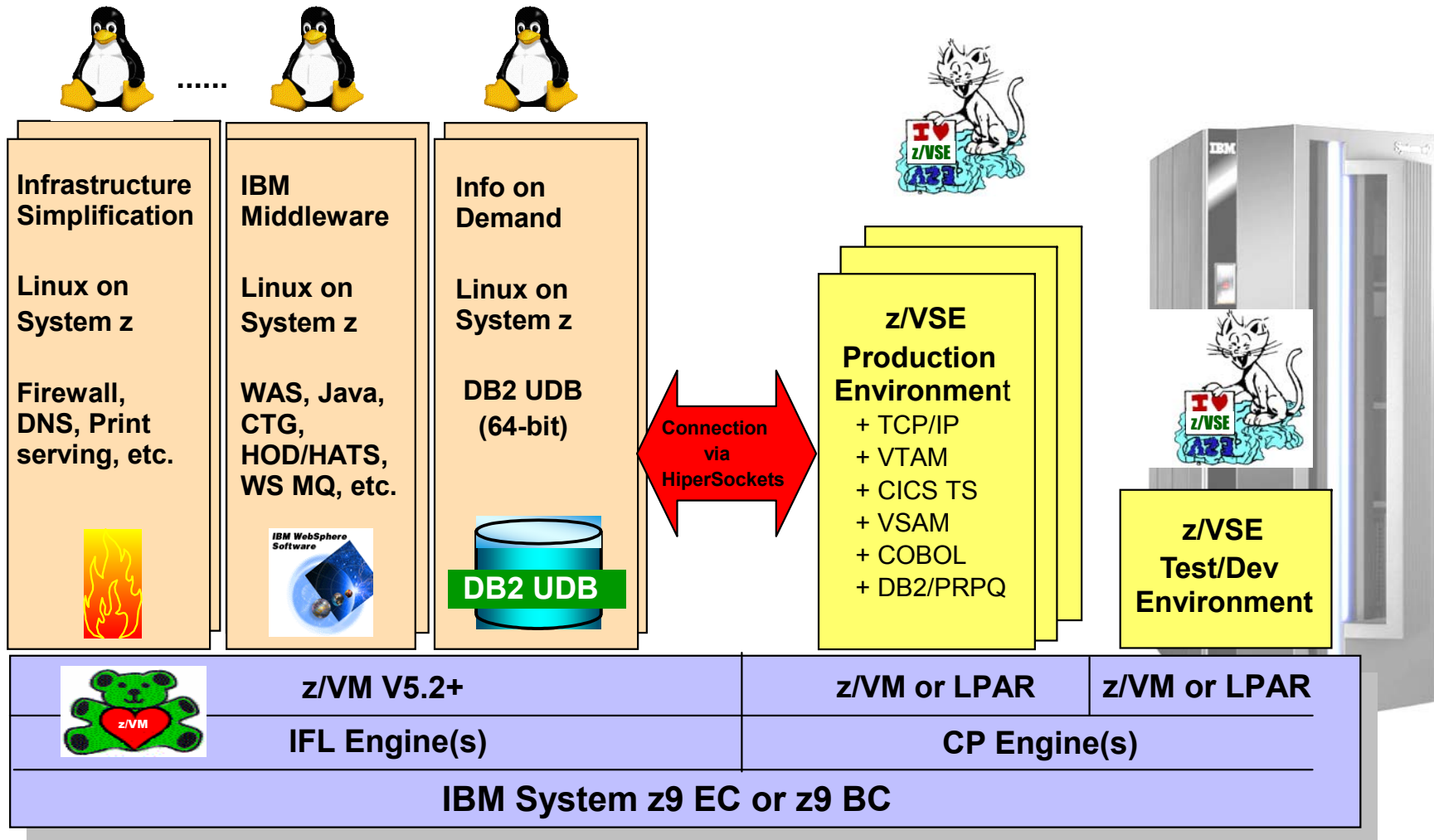
## Wrap-up

## z/VSE “PIE” Strategy

- **Help Protect existing customer investments in core z/VSE programs, data, equipment, business & IT skills, *plus* business processes, end user training**
  - Modernize, i.e. extend z/VSE resources to Web
  - Exploit IBM servers, storage, and software
  - z/OS affinity
- **Help Integrate z/VSE with the rest of IT, based on open and industry standards**
  - VSE connectors and SOA Web services
  - IBM middleware
- **Help Extend solutions on system z with Linux on System z**
  - Linux as a preferred platform for new workloads
    - leverage existing core VSE investments
    - low cost, low risk, fast time-to-market
  - New line-of-business applications
  - Low TCO and infrastructure simplification



# 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 (coming August 29)
  - 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

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/>

New **Redbook**:

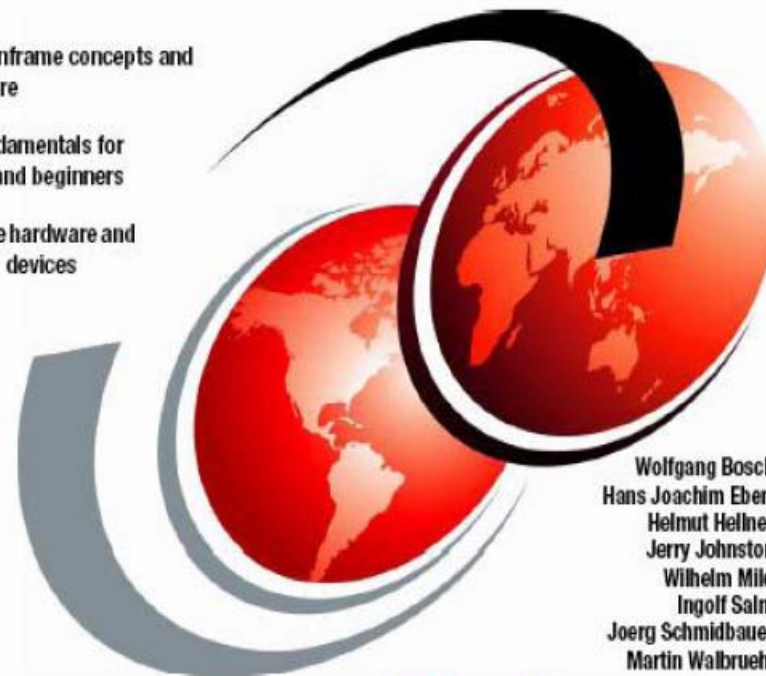
**SG24-7436-00**

# 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



Wolfgang Bosch  
Hans Joachim Ebert  
Helmut Hellner  
Jerry Johnston  
Wilhelm Mild  
Ingolf Salm  
Joerg Schmidbauer  
Martin Walbruehl

[ibm.com/redbooks](http://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](mailto:zvse@de.ibm.com)



