

Expanding e-business Options with VM/ESA®

*13 May 1999
Session 598041, 10:30am EST
and session 598044, 2:30pm EST*

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Today's Topics

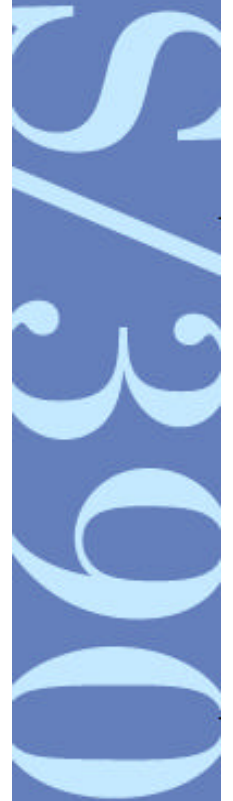
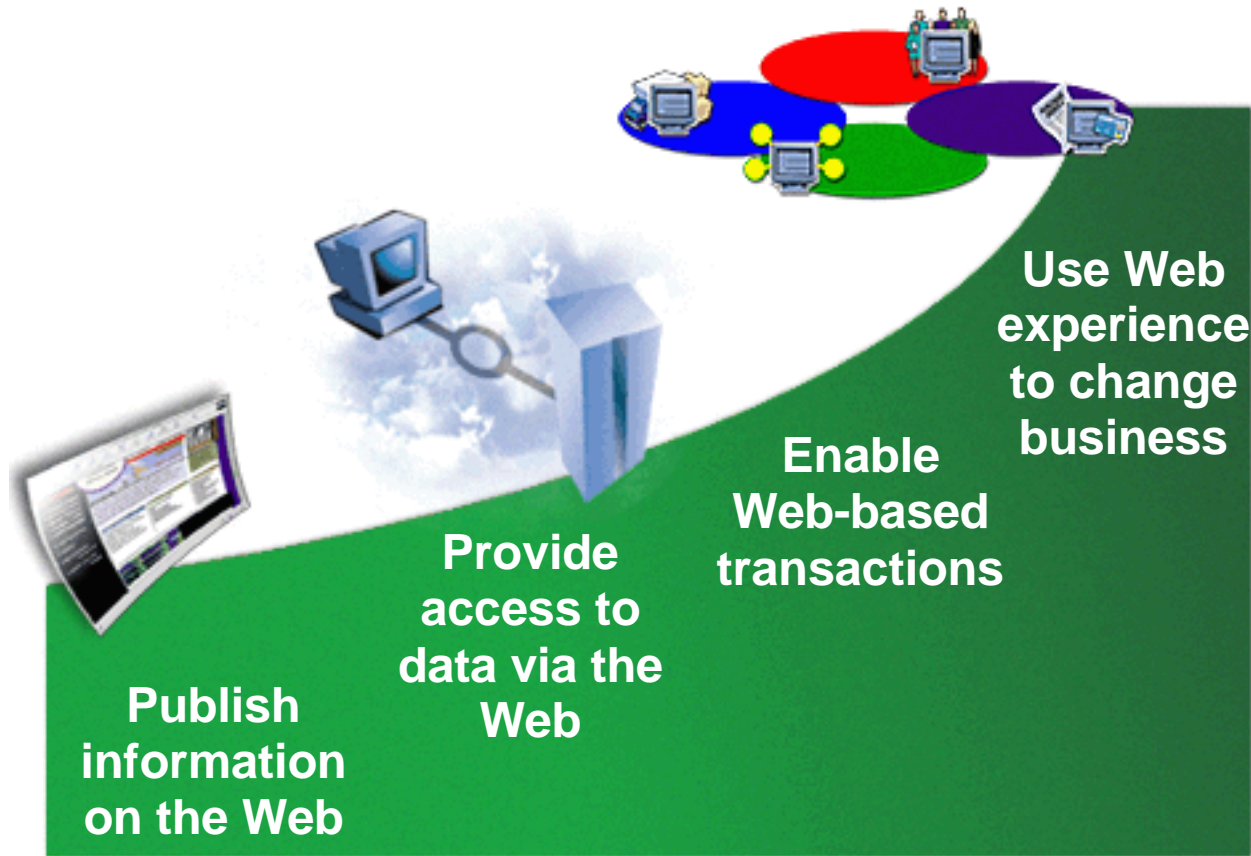
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- VM e-business Report
 - ▶ Cherie Barnes, VM e-business Segment Manager, IBM
- TCP/IP Development report
 - ▶ Romney White, TCP/IP Development Team, IBM
- Web Enabling and Enhancing your S/390® Applications
 - ▶ Nicole Baker, VM:Webgateway Product Manager, Sterling Software, Inc.
- Accessing DB2® Data from the Web
 - ▶ Paolo Cirone, DB2 for VSE and VM Development Team, IBM
- Transforming Legacy Applications
 - ▶ Ron Kohl, VP of Sales and Marketing, Beyond Software, Inc.
- Customer Perspective: VM as a centralized e-business server
 - ▶ Bob Kusche, Principle, VM Assist, Inc.
- Your Questions answered by the panel and our brief feedback survey

Your Host: Tom Mayer, IBM



The Move to e-business





e-business basics

IBM

- Building blocks
 - ▶ TCP/IP
 - ▶ Web Servers
 - ▶ Data
 - ▶ Application environment

- What is IBM VM Development doing now?
 - ▶ working with vendors and business partners
 - ▶ gathering customer input
 - ▶ selective investment



Resources You Can Use



- Redbooks - <http://www.redbooks.ibm.com>
 - ▶ Web Server Solutions for VM/ESA - SG24-4874
 - ▶ Web-Enabling VM Resources - SG24-5347

- Books
 - ▶ TCP/IP Tutorial and Technical Overview - GG24-3376
ISBN 0-13-460858-5

- URLs
 - ▶ VM home page - <http://www.ibm.com/s390/vm>
 - ▶ VM & VSE <http://www.ibm.com/s390/vmvse>
 - ▶ Partners in Development - <http://www.ibm.com/s390/s390da>
 - ▶ Customer Conference Call Series -
<http://www.ibm.com/s390/events>
 - ▶ Search for Business Partners - <http://www.ibm.com>



VM TCP/IP IMAP Server

IBM

- Internet Mail Access Protocol V4
 - ▶ Central mail store; Web browser client
 - ▶ Connected, disconnected, offline support
- Beta 1 (2Q99)
 - ▶ RFC 2060; multi-threaded; SFS-based mail store; basic user authentication
- Beta 2 (3Q99)
 - ▶ enhanced authentication; administration client; configuration file
- Beta 3 (4Q99)
 - ▶ improved administration; migration tools; accounting; instrumentation; user exits
- Delivered via VM TCP/IP home page



VM TCP/IP FL 320

IBM

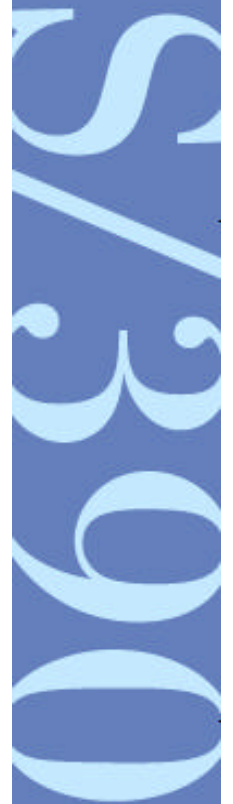
■ Function

- ▶ Native ATM support
- ▶ RouteD enhancements
- ▶ SMTP protocol upgrade
- ▶ FTP extensions
- ▶ Unattended File Transfer (UFT) completion
- ▶ NFS enhancements
- ▶ "LOGONBY" support for better authentication
- ▶ Resolver improvements
- ▶ Telnet Client firewall support



VM TCP/IP FL 320 (continued)

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- Performance
 - ▶ Header prediction
 - ▶ Monitor data extensions
 - ▶ Increase maximum large envelope size
- Infrastructure
 - ▶ Repel certain Denial of Service attacks
 - ▶ Increase size of 8K envelopes
 - ▶ More timely server restart
- Configuration
 - ▶ Customization improvements
 - ▶ Selective trace additions
 - ▶ Publication upgrades



Multi-Home Support vs Virtual IP Addressing (VIPA)

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■ Multi-Home Support

- ▶ Sometimes called "Virtual Hosting"
- ▶ VM has multiple real IP addresses on one network
- ▶ Associate applications with one or all IP addresses
- ▶ Simplifies delivering department-level services (e.g., Web serving)

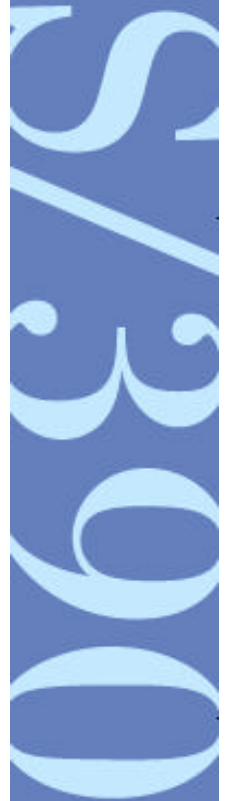
■ VIPA

- ▶ VM has multiple real IP addresses and network interfaces
- ▶ Also has another (virtual) IP address
- ▶ VIPA used instead of real IP addresses, providing fault-tolerance and improved recovery



Directions

IBM



- Security enhancements
- Routing extensions
- Improve FTP support for Web Browsers
- Socket library convergence
- Server docking layer
- NFS client
- ...



VM:Webgateway from Sterling Software, Inc.

IBM

- VM:Webgateway is a Web-to-Host solution that can help you bring VM, VSE or OS/390 (MVS) applications to a web browser while providing a modern user interface.
- The VM:Webgateway Web-server is hosted on VM, providing direct access to legacy applications and leveraging the powerful VM platform.





VM:Webgateway: Modern Interface

IBM

- Web browser interface provides modern functionality to legacy applications
 - To provide access to an application from the browser you can **Web-enable**:
 - Replace PF keys with Button Clicks
 - Convert 3270 data streams to HTML with no programming
 - To add functionality and leverage the advantages of graphics, hyperlinks and more you can **Web-enhance**:
 - Provide full use of Graphical User Interface (GUI)
 - Use CGI scripts to create a modernized Web interface

See our web site for a demo:
<http://www.vmd.sterling.com>





New Features

IBM

- VM:Webgateway 3.0 - Available 4/2/99
 - Security Enhancements
 - SSL support for digital certificates
 - Support for trillion message attack
 - Support of HTTP 1.1
 - Persistent Connection support
 - New VSE Tutorial
 - Performance Improvements (20% CPU reduction)
 - Many Enhancements



Speaker: Nicole Baker, Sterling Software, Inc.

Chart S3

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The road to e-business

IBM

- VM customers value their data and applications
- DB2 is the engine that can power your e-business
- e-business platforms and applications can further exploit your VM data in new ways
- You will be able to grow your business while further leveraging your data investment



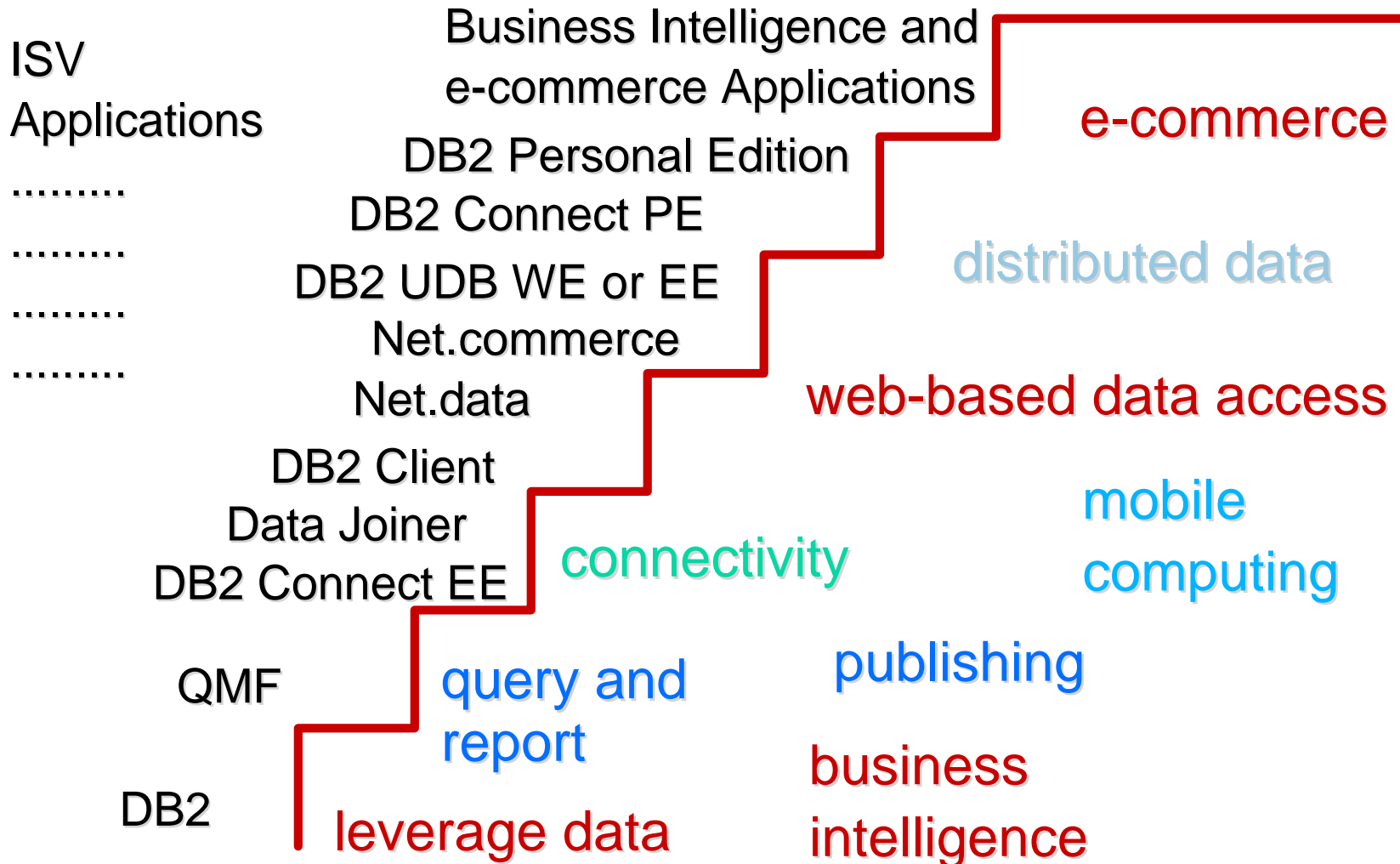
Speaker: Paolo Cirone, IBM

Chart DB1

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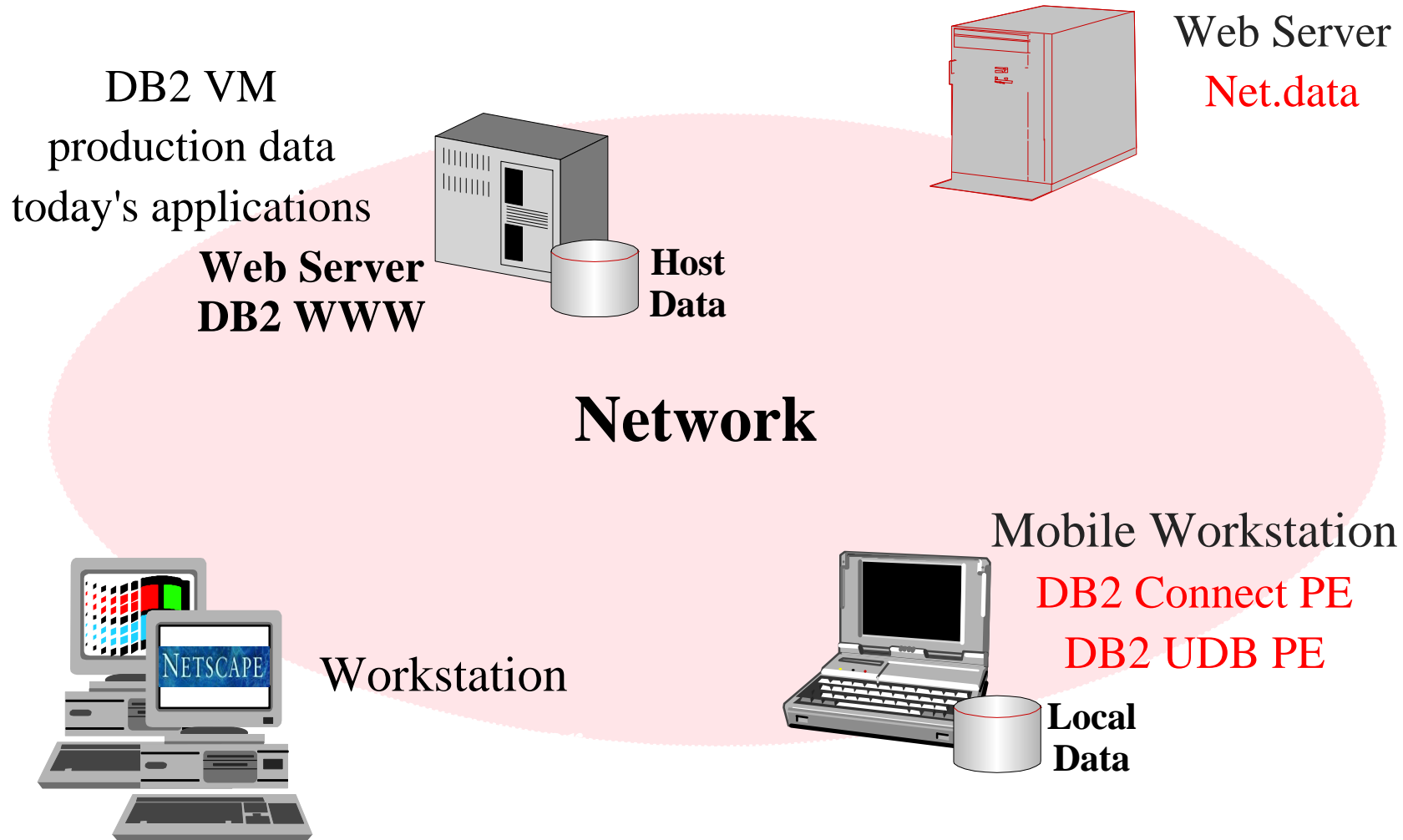


DB2 and the Steps to e-business





Web/Network Data Access





DB2 for VSE and VM V6.1.0 makes it easier

- New TCP/IP capability enables a simple connection path for users to further exploit their data
- Prior to DB2 V6.1.0, the ideal method to get at VM data from the web was DB2 WWW for VM
- Having the ability to connect via TCP/IP presents users with more options
- Overview manual can help you get started (GC09-2806-00)



Beyond Software, Inc.

IBM

- Founded in 1995, produced first commercial Mainframe Web Server
- Focus on Transforming Legacy Applications via our tools, services and products
- Provide end-to-end solutions (e.g., professional services)
- Hundreds of customers and Millions of users

Speaker: Ron Kohl, Beyond Software, Inc.

Chart B1

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Promises and Challenges

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- Internet and Java Technology
 - ▶ The Java Advantage
 - ▶ Write once - run anywhere
 - ▶ Standard Web browsers
 - ▶ Universally accepted interface
 - ▶ A new kind of computing
- It sounds good, but what about ...
 - ▶ Reliability
 - ▶ Resources
 - ▶ Integration of new and older systems
 - ▶ Cost of mistakes
 - ▶ Time pressures
 - ▶ Too much effort
 - ▶ Too hard to maintain
 - ▶ Training, ...



The Solution

IBM

- Keep Host Applications on the Mainframe
- Put a Web Based GUI on the front
 - ▶ Existing system remains unchanged
 - ▶ Transform the old into the new
 - ▶ Use internally and externally
 - ▶ Maximum benefit for minimum risk



EnterpriseWeb Connect for Application Access

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■ The Product

- ▶ GUI front end for host applications
- ▶ Runs out-of-the-box
- ▶ No need to define the GUI yourself
- ▶ 100% Java
- ▶ The Java Advantage
- ▶ The computer does the work

■ The Architecture

- ▶ 100% Java Applet
 - Signed CAB or JAR file
 - Downloads from EnterpriseWeb Server
 - Direct communication with host
 - Dynamic interpretation engine
 - Custom classes
- ▶ Client-based solution
 - Direct client-to-host communication
 - Scalable solution



EnterpriseWeb Connect Conclusions

IBM

- EWC for Application Access
 - ▶ Instant out-of-the-box re-screening
 - ▶ Very low implementation cost
 - ▶ Basis for further re-engineering
 - ▶ Scalable solution
 - ▶ Standard Internet technology
 - ▶ An interface users want to use

- EWC brings you GUI on Demand . . .

See our web site for more information:
<http://www.beyond-software.com>



LAN Costs: A Savings Opportunity !

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A Customer's Perspective
Bob Kusche, VM Assist, Inc.

■ Labor

- ▶ Novell system administrators
- ▶ Scheduled, unscheduled and Y2K LAN work

■ Software

- ▶ Netware
- ▶ Redundant LAN versions of PC software
- ▶ Communications software

■ Hardware

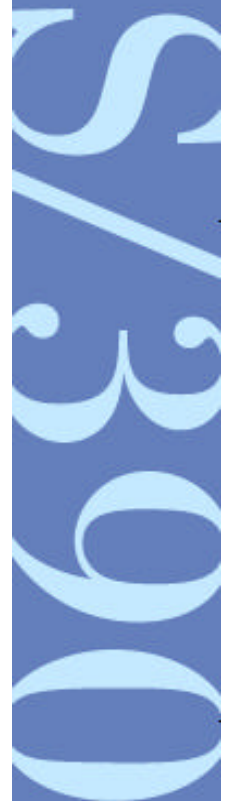
- ▶ LAN servers
- ▶ LAN-attached PCs
- ▶ Communications hardware

■ Outside vendors

- ▶ Internet Service Provider
- ▶ Backup vendor

■ Efficiency

- ▶ Virtual machines in place of real machines
- ▶ Weekly timesheet entry into web browser
- ▶ Less down time
- ▶ Better performance

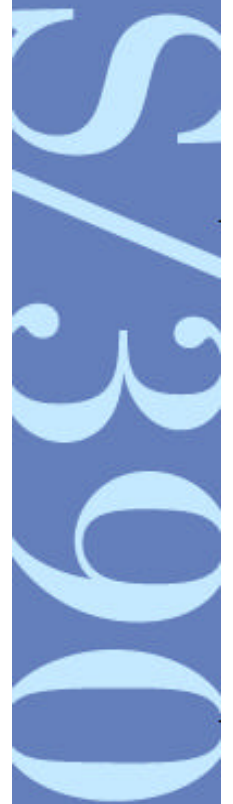




Server Functionality, Consolidated!

A Customer's Perspective

Netware Elements	VM/ESA Elements
Print Serving	LPR with RSCS and TCP/IP
File Management	NFS via TCP/IP
Communications	Telnet via TCP/IP
Web Hosting	VM-based Web server
e-mail	IMAP via TCP/IP
Backups	ADSM
Crucial MS-DOS in-house applications	Rewritten in NetRexx (Java), access over Internet





Presenting to Management

IBM

A Customer's Perspective

- Stress elements of today's VM/ESA
 - ▶ Web server
 - ▶ TCP/IP
 - ▶ Java / NetRexx
 - ▶ ADSM
 - ▶ and more...
- Money talks! Accentuate savings from:
 - ▶ Reduced labor for admin work
 - ▶ Reduced total number of machines
 - ▶ Thin clients (if applicable)
- Y2K readiness also enhances value



e-business

Contact Information

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- General information on VM/ESA and e-business
 - ▶ <http://www.ibm.com/s390/vm>
 - ▶ vmesa@vnet.ibm.com

- TCP/IP Feature of VM/ESA
 - ▶ <http://www.ibm.com/s390/vm/related/tcpip>
 - ▶ Feedback: <http://www.vm.ibm.com/forms/feedback.html> or email: vmesa@vnet.ibm.com

- VM:Webgateway from Sterling Software, Inc.
 - ▶ <http://www.vmd.sterling.com/>
 - ▶ Nicole Baker: nicole_baker@sterling.com

- EnterpriseWeb/VM and EnterpriseWeb Connect from Beyond Software, Inc.
 - ▶ <http://www.beyond-software.com>
 - ▶ e-mail: info@beyond-software.com
 - ▶ phone: 408-436-5900

- DB2 for VSE and VM (product number 5648-A70)
 - ▶ <http://www.software.ibm.com/data/db2>
 - ▶ Paolo Cirone: pcirone@ca.ibm.com

- Bob Kusche at VM Assist, Inc.
 - ▶ rkusche@vmassist.com
 - ▶ <http://www.vmassist.com>



VM/ESA and VSE/ESA Technical Conference

IBM

- Extend Your Existing VM/ESA and VSE/ESA Resources to Reach New Heights in Performance and Productivity
- This conference is your primary source for information on the latest releases of VM/ESA and VSE/ESA. You will have ample opportunity to explore a wide range of VM/ESA and VSE/ESA issues and interact with IBM product developers.
- May 24 - 27, 1999
Renaissance Orlando Resort
Orlando, Florida
\$129 per night
- Registration / Enrollment - \$1150
- See the VM home page for more information





Service Update Facility: VM/ESA functions

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To help you Order, Receive and Install service

- Allows for Corrective and Preventive Fixing service to be requested via the Internet, with recommended levels of Preventive service
- Provides Y2K PSP Buckets
- Provides Internet delivery of Corrective and Preventive service
- Generates service status reports
- Supports upload and installation of service packages received from the Internet
- Works synergistically with IBM ServiceLink and other S/390 Internet functions

SUF: Everyone Wins!



IBM

- Value for Customers...
 - Easier/faster way to order/receive/install service
 - Helps ensure Y2K readiness
 - Increase stability of VM/ESA operating system (less rediscovery)
 - Programming skills can be utilized to enhance, not maintain systems
- Value to IBM...
 - Improves Customer Satisfaction with service
 - Encourages customers to stay more current
 - Attractive to all size customers
- For additional information refer to our Internet homepage
 - <http://www.ibm.com/s390/suf/>



e-business

Survey Questions

- A. Please describe your level of satisfaction with today's program:
 - ▶ 1. Very Satisfied, found it very helpful
 - ▶ 2. Satisfied, found it valuable
 - ▶ 3. Not Satisfied

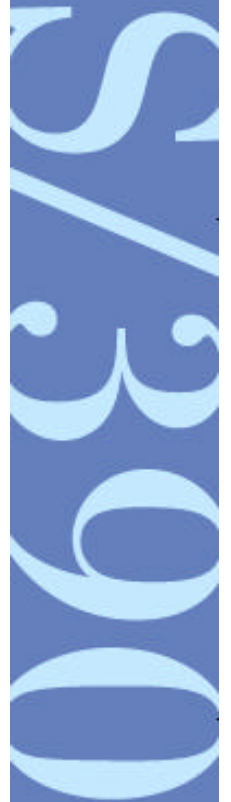
- B. What is your role in an IT purchase decision?
 - ▶ 1. Management decision maker
 - ▶ 2. Researcher or recommender
 - ▶ 3. Influencer
 - ▶ 4. Salesperson, vendor, solution developer or services provider
 - ▶ 5. Other

- C. What are your plans for the current release of VM/ESA, Version 2.3.0?
 - ▶ 1. We have it installed or have ordered it.
 - ▶ 2. We plan to order and/or install it sometime this year.
 - ▶ 3. We are interested in Version 2.3.0, but our Year 2000 policies prevent us from updating our systems.
 - ▶ 4. We are not interested in Version 2.3.0 at this time.

- D. What are your plans for using VM for e-business applications?
 - ▶ 1. We are currently using VM for the majority of our network computing or e-business work.
 - ▶ 2. We are currently using VM for some e-business applications.
 - ▶ 3. We are interested in using VM's support for e-business.
 - ▶ 4. We need to learn more about VM's e-business support before we can develop a plan to use it.
 - ▶ 5. We don't have a need for VM-based e-business.

- E. The next VM Customer Conference Call will be on Wednesday, June 23rd. We will be discussing, "VM Application Development Hints and Tips". If you would like to enroll, you may do so now by pressing:
 - ▶ 1. For 1st session: 10:30ET, 9:30CT, 8:30MT, 7:30PT
 - ▶ 2. For 2nd session: 2:30ET, 1:30CT, 12:30MT, 11:30PT

- F. Would you like to receive an information package about the latest VM release and related products?
 - ▶ 1. Yes, please send me an information package.
 - ▶ 2. No thanks, I'll check the web site if I need more information.





VM Enterprise Connection Conference Calls for 1999

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- Expanding e-business Options
 - ▶ Today, May 13th 1st (598041) 2nd (598044)
- VM Application Development Hints and Tips
 - ▶ Wednesday June 23, 1999 1st (598023) 2nd (598027)
- To enroll for: 1st-10:30AM ET, 2nd-2:30PM ET
 - ▶ 1. By Internet <http://www.ibm.com/s390/events>
 - ▶ 2. By Phone 1-800-289-0583

Click on **<http://www.ibm.com/s390/vm/events>** for more information on these and other VM-related events!