

# iSeries. mySeries.

## Getting Started with WebSphere Express : Planning for i5/OS V5R3

Tracy Smith

Senior Consulting Certified I/T Specialist

Team Lead - iSeries Technical Sales Support, Americas

(507) 286-6707 tie line 456-6707

[tasmith@us.ibm.com](mailto:tasmith@us.ibm.com)

# i5/OS V5R3 = The next generation of OS/400

- i5/OS V5R3 is an integrated operating system that builds on and extends the capabilities of OS/400 V5R2
- i5/OS V5R3 runs on IBM eServer i5 servers, IBM eServer iSeries servers and IBM AS/400® models 170, 250, 720, 730, and 740
- Highlights include:
  - Integration of WebSphere – Express for iSeries
  - Automated backup for i5/OS hosted Windows, Linux, AIX 5L and Domino servers
  - Concurrent I/O tower and IXA add/remove
  - Cross Site Mirroring (XSM) and DB2 UDB performance optimization
  - Output architecture compatibility enhancements
  - Rapid checkpoint save while active
  - Enabling real-time file system virus protection scanning tools



# WebSphere Application Server

- WebSphere Application Server – Express now available with every @server i5 and upgrade to i5/OS V5R3
- Integrated with i5/OS V5R3
  - Includes new IBM Survey application, in addition to IBM Telephone Directory
- Over 200 iSeries ISV's currently enabled for WAS V5
  - Plan for WAS V6 in 2H2004\*

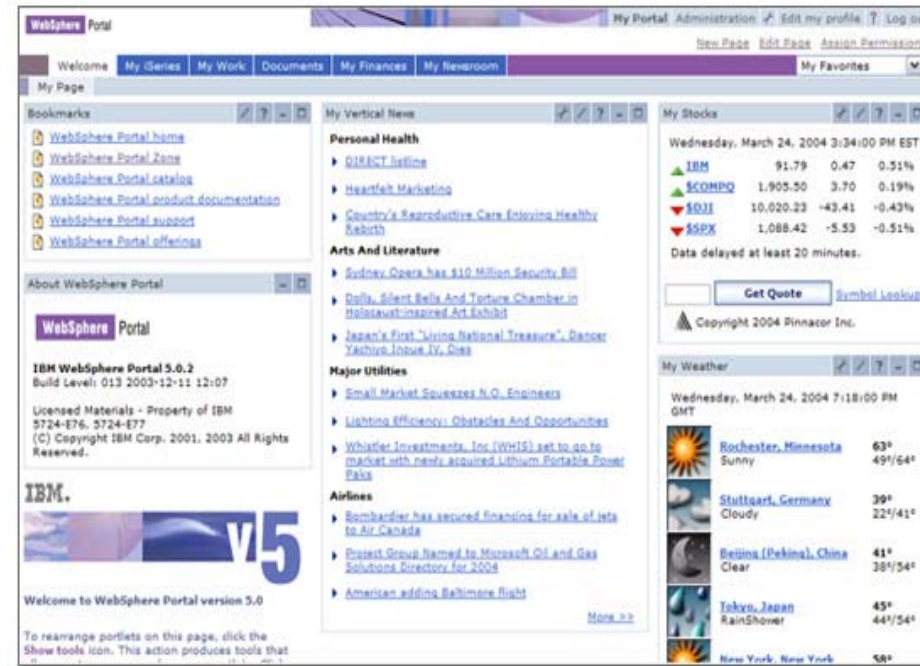


**WebSphere** software

# WebSphere Portal Express & Express Plus



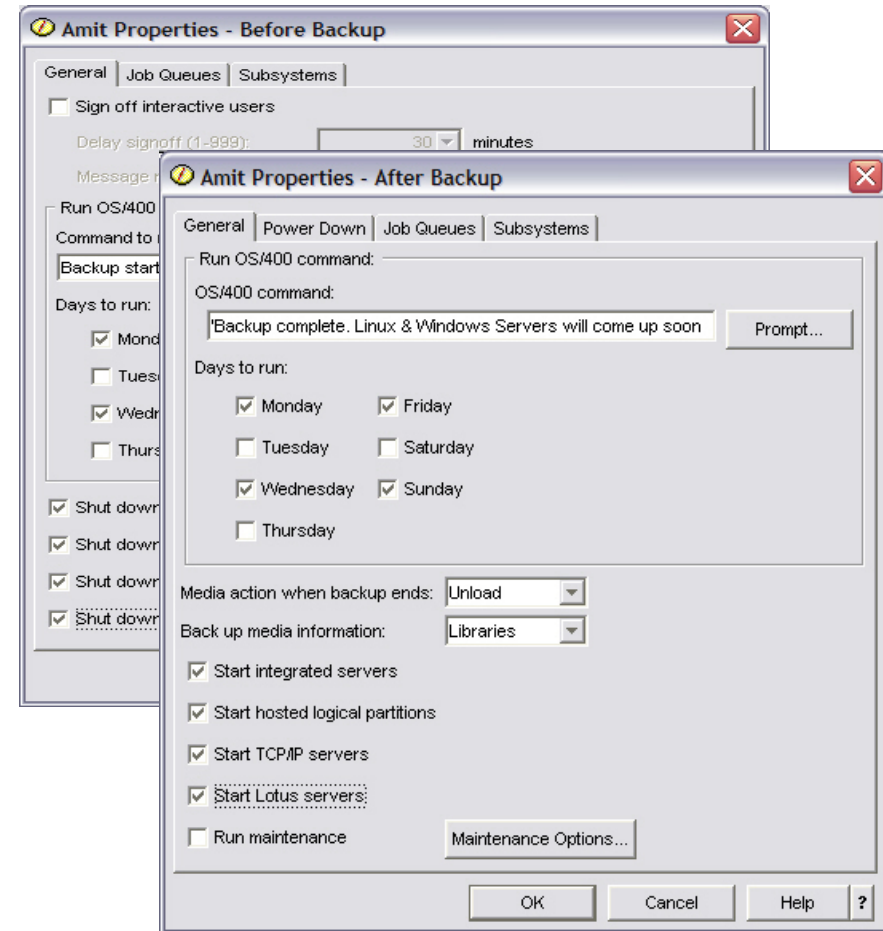
- New integrated, easy-to-use portal server
  - Express includes document management and productivity components
  - Express Plus adds collaboration center
- Simplified portal administration and installation
  - Easy-to-use iSeries setup wizards deliver a ready-to-use portal server
- Flexible per-user or per-CPU licensing
- Packaged with Enterprise Edition\*
- Integrates iSeries portlet enabled applications
  - IBM WebFacing applications are portal Enabled
  - 100% 5250 applications are now portal enabled with iSeries Access for the Web



\* Number of user licenses will vary based on iSeries system model and Enterprise Edition entitlements

# BRMS - Backup Recovery Media Services

- **Centralized Backup Automation**
  - Policies for i5/OS, Domino, Integrated xSeries Servers extended to Linux partitions with virtual storage
    - Support planned for AIX 5L
  
- **Simple Backup Policy Creation**
  - Before: Shut down Hosted Partitions
  - During: What, When, Where
  - After: Start Hosted Partitions
  
- **Included in eServer i5 Enterprise Edition**

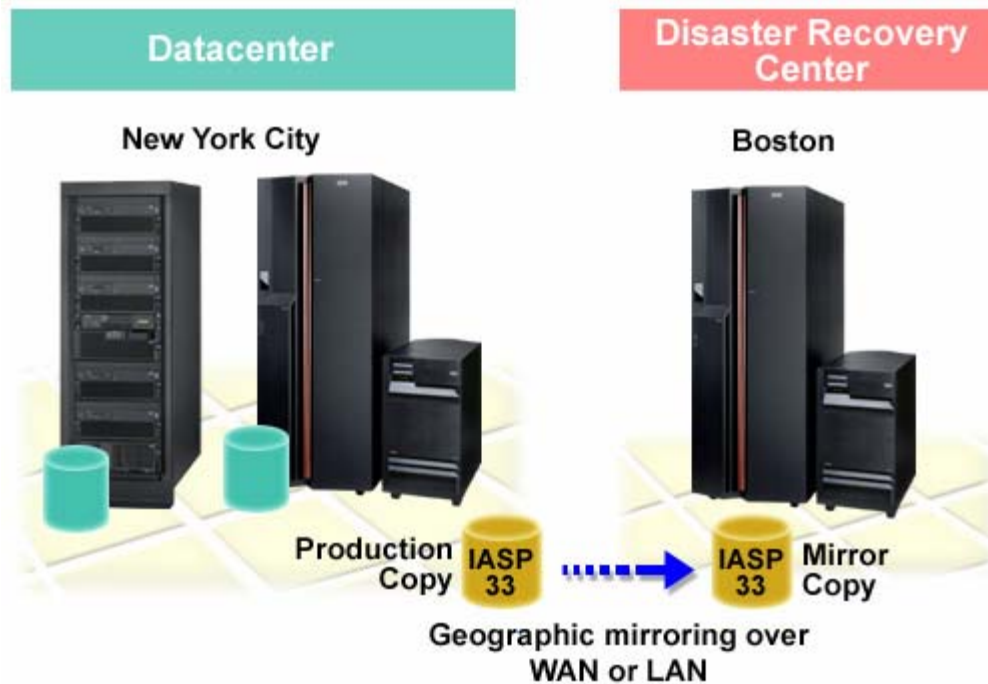


# New POWER5 Flexibility – “Hot Add” xSeries IXA

- xSeries with Integrated xSeries Adapters may be added concurrently to an eServer i5 HSL loop without an IPL
- Planned Availability 3Q 2004

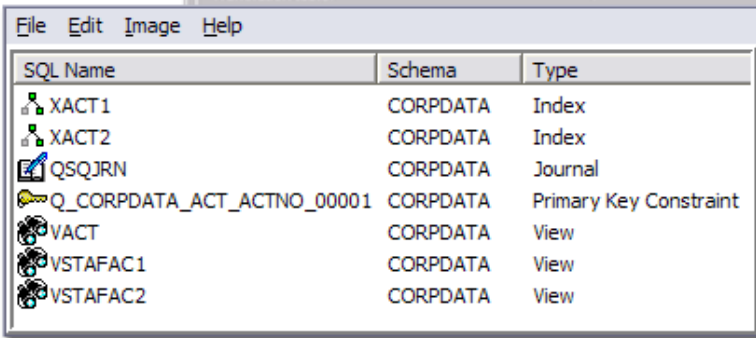
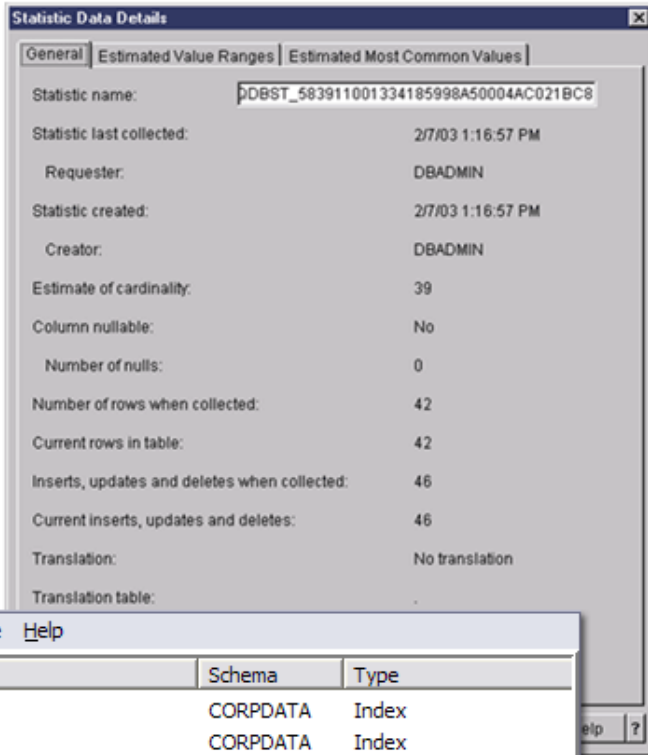


# Cross Site Mirroring (XSM)



- Create a simpler disaster recovery or high availability (HA) solution
  - Should be combined with an HA solution in the datacenter
- Mirrors all objects in an Independent Auxiliary Storage Pool (IASP)
- New support for spool files in IASP

# DB2® UDB for iSeries

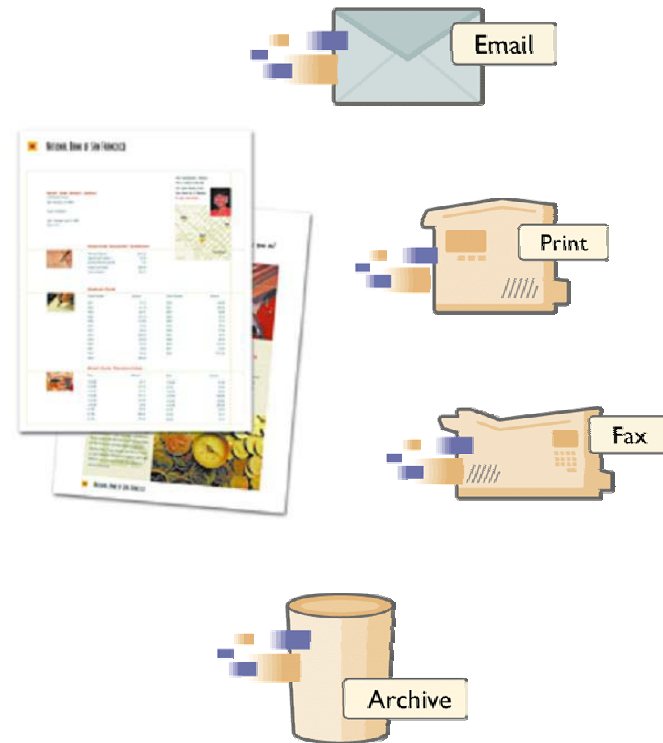


- Deliver enhanced functionality with improved performance and ease of use for data warehouse and queries
  - Star Join Recognition
  - Result set caching for re-run of same queries
  - Preview Materialized Query Table
  
- Extend development interfaces
  - Enhance SQL standards leadership and DB2 family compatibility
  - Support Rational XDE Modeler
  - Deliver Unicode enhancements
  - Enable .NET Managed Provider
  
- Single table size increased to 1.7 TB

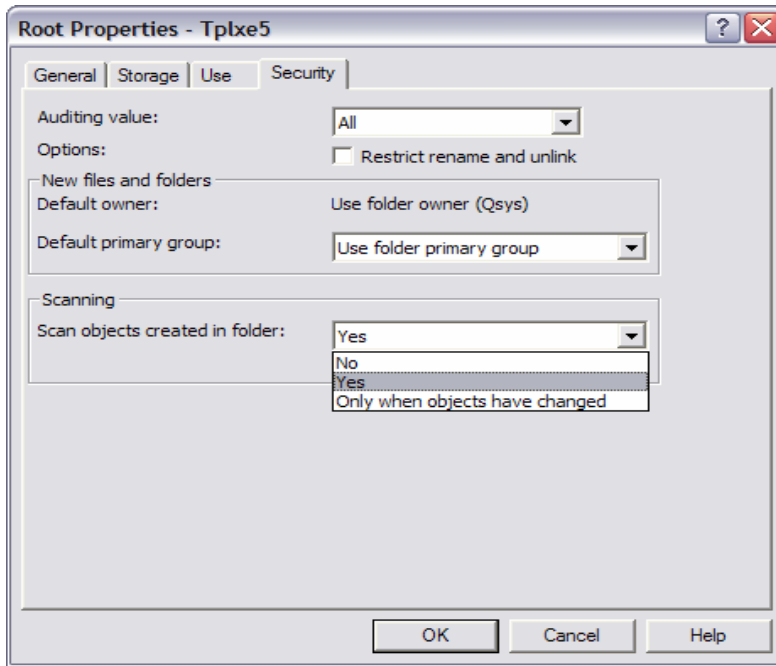


# Business Communications and Printing

- Infoprint Server delivers intelligent routing of documents
- PDF files now include full color and encryption
- Integrating the power of i5/OS applications with the versatility of open font types and color Web image formats (JPEG etc)



# Enhancing Security with Integrated File System



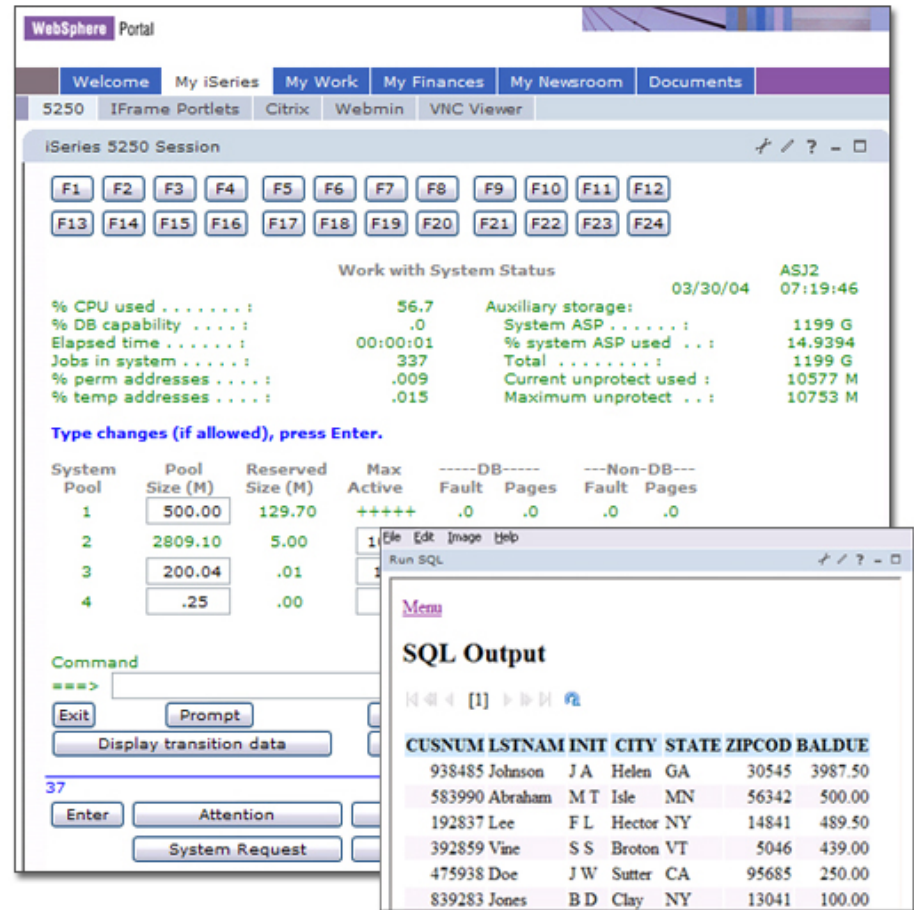
- PC file systems (including i5/OS Integrated File System) should be scanned to ensure they do not host viruses
- i5/OS V5R3 now enables native *real-time* virus protection scanning tools on the Integrated File System
- i5/OS V5R3 virus scanning enablement is exploited by BytWare StandGuard™ AntiVirus



# Additional V5R3 Enhancements

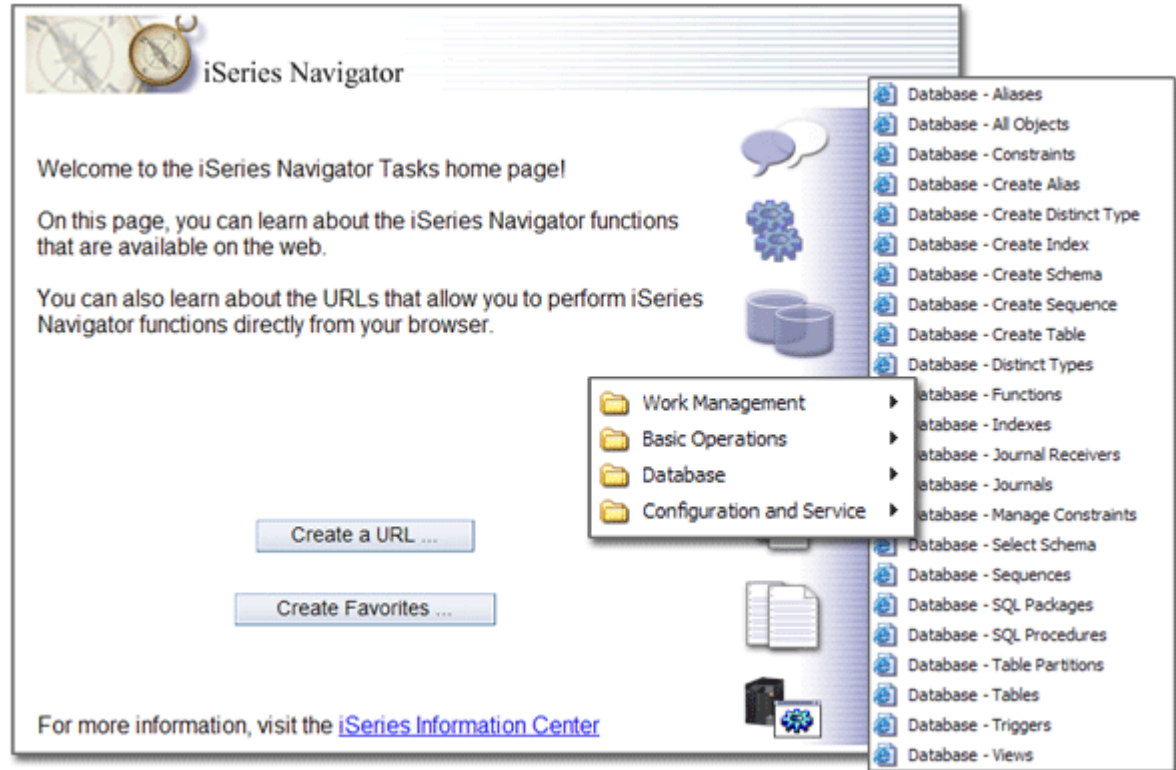
# iSeries Access Family

- iSeries Access for Web
  - Now can be deployed as portlets, presented via WebSphere Portal Express and Express Plus
  - Lotus Instant Messaging integration
- iSeries Access for Windows
  - Microsoft .Net data provider enables access to DB2 UDB
- iSeries Access for Linux
  - New ODBC to access DB2 UDB and full-function 5250 emulator



# Browser-Based iSeries Navigator Tasks

- Enable access to a subset of management tasks from a Web browser
- Creating a URL enables direct access to a specific system task
- Enables tasks to be embedded into Web applications

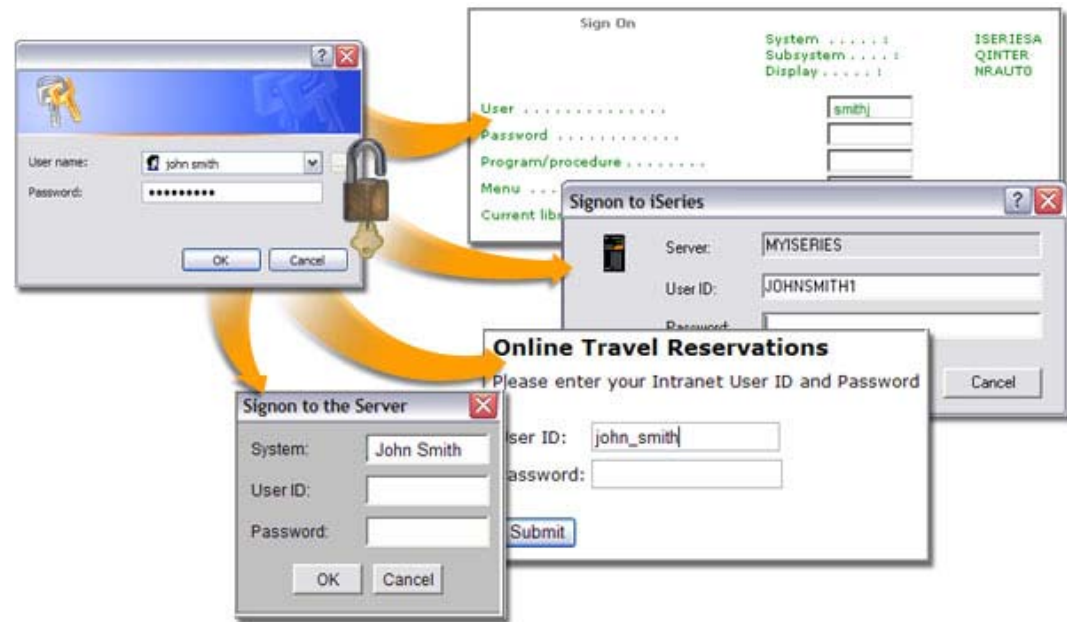


# Lower Cost, More Secure Single Signon

- i5/OS V5R3 has native Kerberos Server & KDC (Key Distribution Center)
  - Enables single signon deployment without requiring a Windows KDC
  - Eliminates password caching in Windows servers



- i5/OS single sign on (SSO) now extended to
  - Portlets, Servlets
  - WebFaced applications
  - WebSphere Development Studio Advanced



# V5R3 CL Programming Language

- **i5/OS V5R3 provides significant enhancements to CL programming**
  - Multiple display and/or database files per program
  - New DOFOR, DOUNTIL, DOWHILE
  - New SELECT, SELECT Group
  - New ITERATE, LEAVE
  - More ...



# OS/400 Upgrades

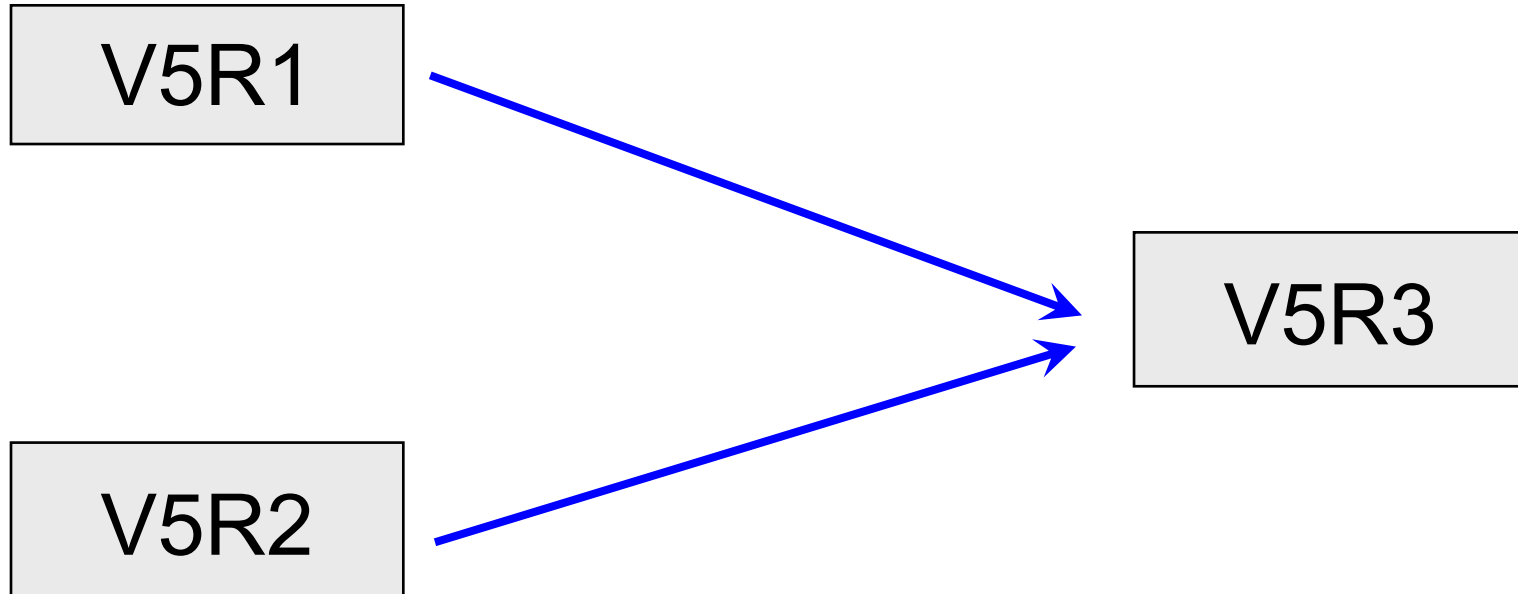
to

# i5/OS V5R3





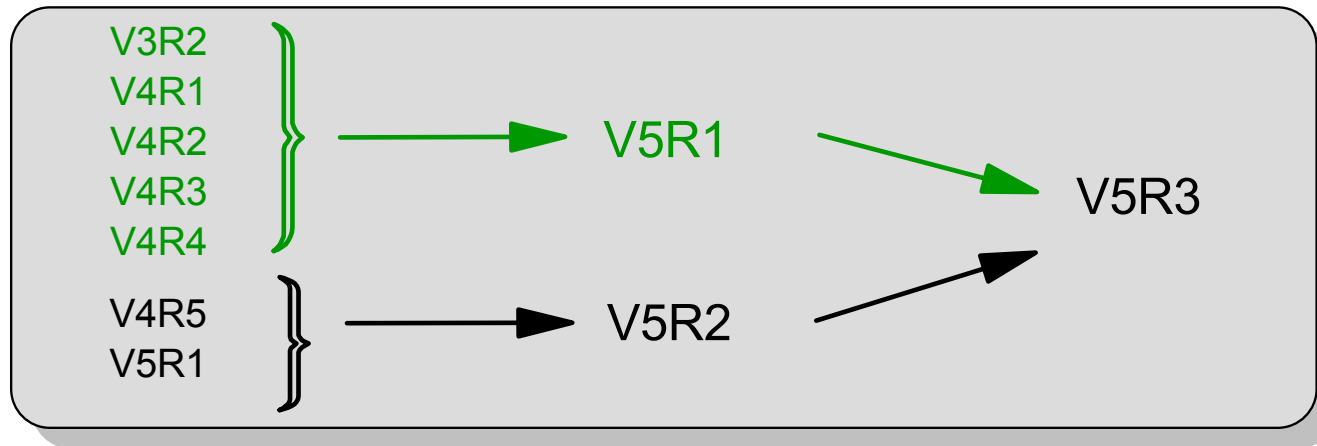
# One step software upgrades



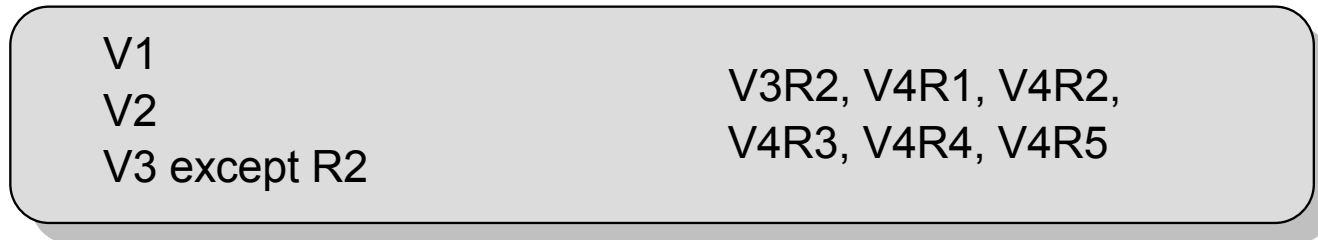
Note: All OS/400 partitions on a POWER5 server must be at V5R3  
 Note: All Linux partitions on a POWER5 server must use POWER5 kernel

# OS/400 Upgrades - Earlier Releases

- OS/400 Supported Two-Step Upgrade Paths to V5R3

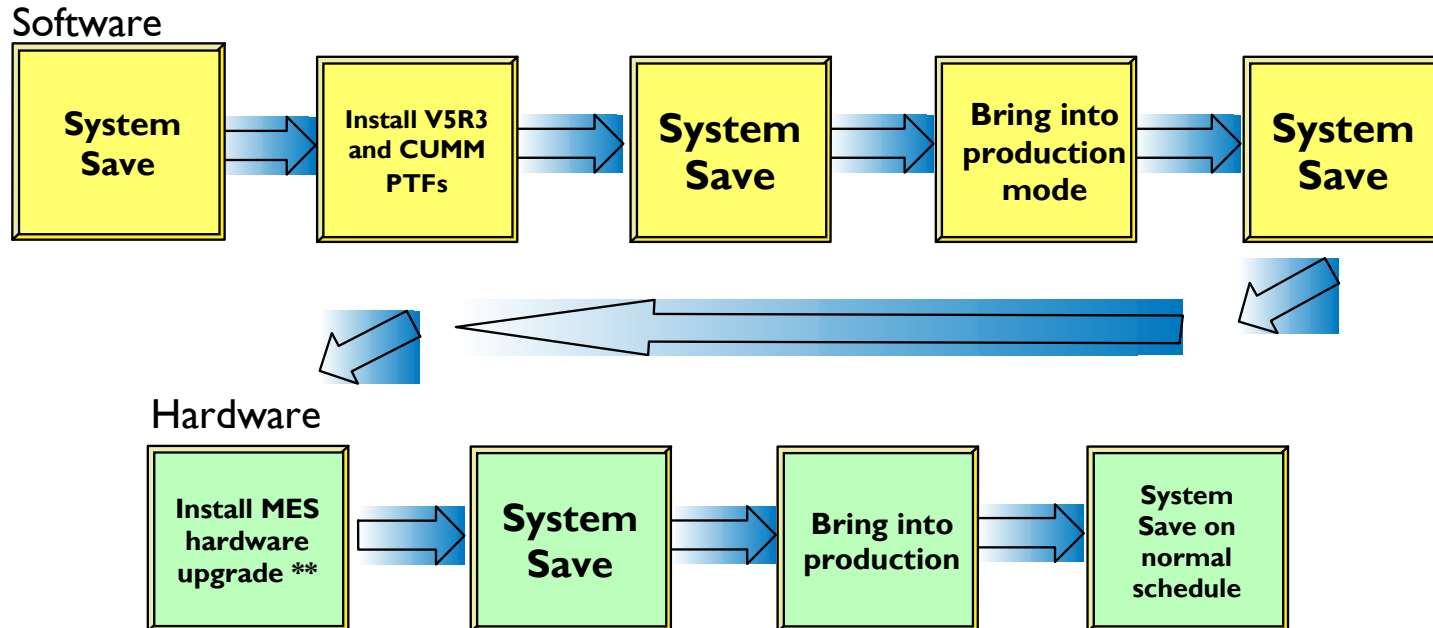


- NO OS/400 Supported Upgrade Path to V5R3



# iSeries Upgrade Process - MES Hardware, eServer iSeries Standard Upgrade Process

## Plan, Upgrade Software, Upgrade Hardware



# i5/OS and OS/400 Release support

## IBM @server iSeries Support



### i5/OS™ and OS/400® Release support

Every release of i5/OS and OS/400 software has a finite support period. The End of support date for each software release is announced either with the initial release announcement or twelve months prior to becoming effective. When a software release reaches the End of support date, direct upgrades to subsequent releases are only available for a limited time.

Monitor the End of support dates in the table below to avoid the following, potentially costly, situations.

- If a direct upgrade to the latest software release is not available, you need to conduct a multiple-step upgrade. This requires upgrading to an interim release to enable upgrading to the latest release.
- If all direct upgrades to subsequent software releases have been withdrawn, there is no supported way to upgrade the system. The only alternative is to perform a labor-intensive manual upgrade, which typically requires hiring custom services.

#### Upgrade and support information

The following table provides information on supported releases and subsequent upgrades to newer releases. A dash (-) in the column indicates a direct upgrade to the specified release is not available.

Release*	End of support	Upgrade to V5R1	Upgrade to V5R2	Upgrade to V5R3
V4R5	31 Dec 2002	Withdrawal date 21 Nov 2003	Withdrawal date to be announced	-
V5R1	30 Sep 2005	-	Withdrawal date to be announced	Withdrawal date to be announced
V5R2	To be announced	-	-	Withdrawal date to be announced
i5/OS V5R3	To be announced	-	-	-

\* Upgrades from previous software releases not shown in this table are no longer available.

<http://www-912.ibm.com/supporthome.nsf/document/29853352>

# IBM OS/400 and Middleware Considerations

- Software Planning for New OS/400 Releases
  - Memo to Users
    - Located in the info Center -  
<http://publib.boulder.ibm.com/infocenter/iseriess/v5r3/ic2924/index.htm>
  - Software No Longer Supported
    - Located in the Upgrade Planning site –  
<http://www-1.ibm.com/servers/eserver/iseriess/support/planning/nav.html>
  - Lotus Supported Product Releases
    - Located in the Domino planning site –  
<http://www-1.ibm.com/servers/eserver/iseriess/domino/domino6/releasesupport.pdf>
  - See Announcement Letters
    - Located on the announcement site - <https://isource.ibm.com/world/index.shtml>

<http://www-912.ibm.com/supporthome.nsf/document/29853352>

# Information Center

**iSeries Information Center - Microsoft Internet Explorer**

Address: <http://publib.boulder.ibm.com/infocenter/iseries/v5r3/ic2924/index.htm>

**IBM**

Home | Products & services | Support & downloads | My account

View: All V5R3 information

Search [ ] Go Advanced search Search tips

**IBM @server iSeries Information Center**  
Version 5 Release 3 (V5R3)

Welcome to the iSeries<sup>™</sup> Information Center, your source for iSeries technical information.

- [Overview and what's new](#)
- [Printable PDFs and manuals](#)
- [FAQ about information center](#)
- [Information center updates](#)
- [Site map](#)
- [Memo to users](#)

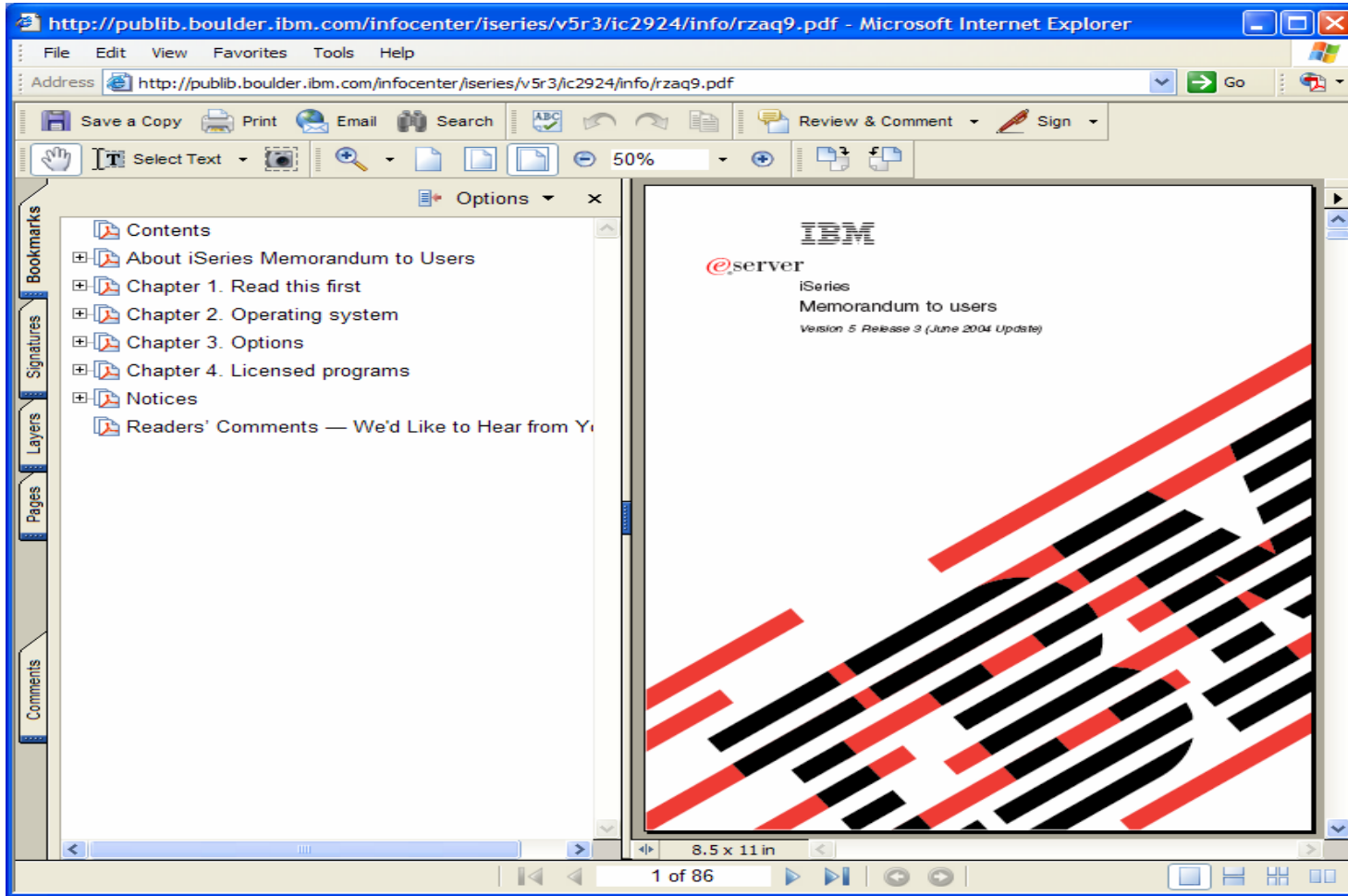
**Did you know?**  
A "Before you call service" topic can help you solve database problems or determine whether you need to call for service.

- Database
- See all the tips

About IBM | Privacy | Terms of use | Contact

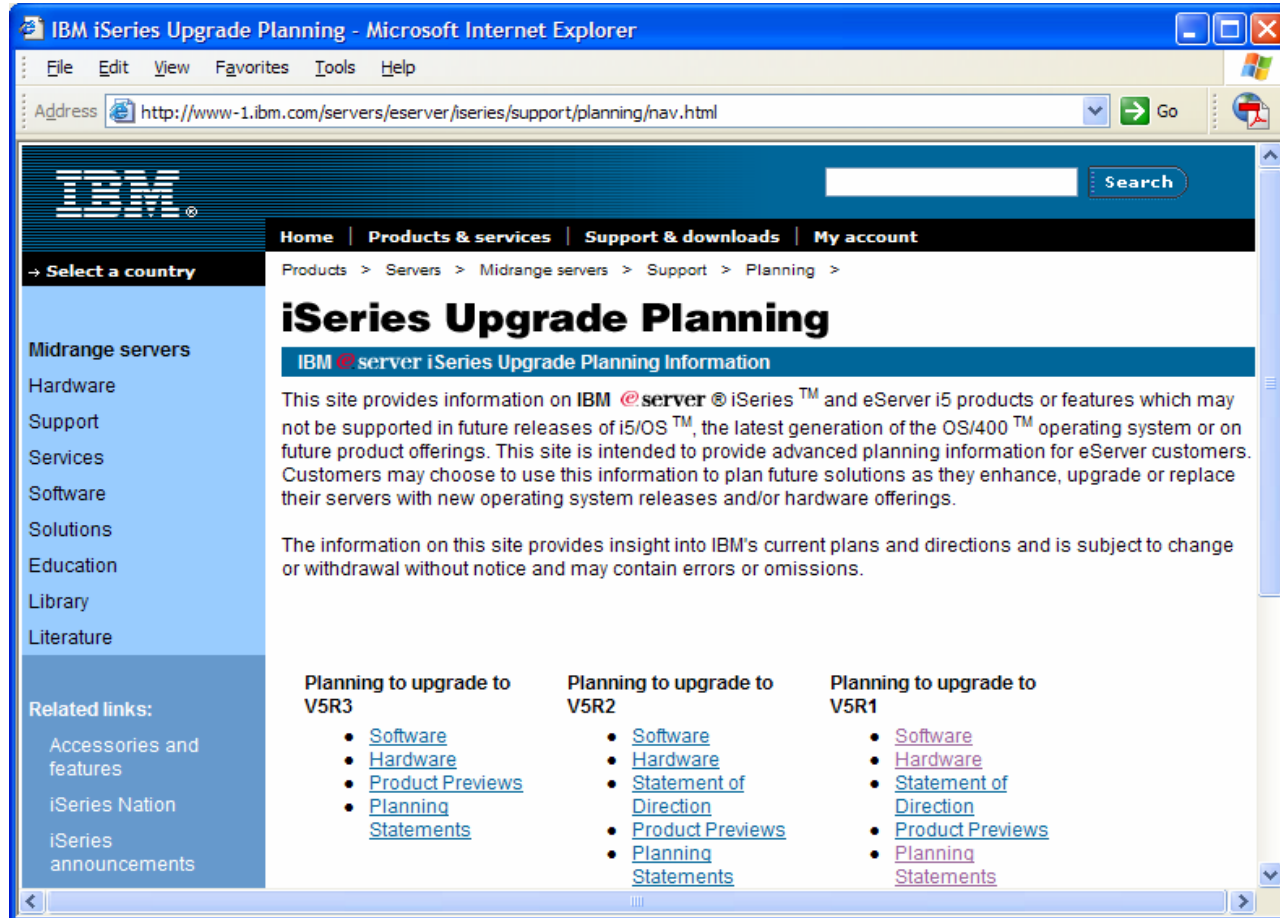
<http://publib.boulder.ibm.com/infocenter/iseries/v5r3/ic2924/index.htm>

# Information Center – Memo to Users



<http://publib.boulder.ibm.com/infocenter/iseries/v5r3/ic2924/info/rzaq9.pdf>

# iSeries Upgrade Planning



<http://www-1.ibm.com/servers/eserver/iseries/support/planning/nav.html>



# iSeries Upgrade Planning - Software

**V5R3 Software Upgrade Planning**

The following products which were supported on V5R2 will not be supported on V5R3. Plans should be made to replace or discontinue use of the product prior to upgrading to V5R3.

Software	Suggested Replacement
5697-G24 QMF for Windows for iSeries	Changed to a part number product available via Passport Advantage - <a href="#">DB2 QMF Distributed Edition V8.1 for Multiplatforms</a>
5733-XT1 XML Toolkit options 1 & 2 (version 4.0)	Users of options 1 & 2 are encouraged to upgrade to a newer version XML Toolkit Options 3 & 4 (version 5.0 of the XML parser) or Options 5 & 6 (version 5.2 of the XML parser).
5697-G84 DB2 Table Editor for iSeries Version 4.3 <i>Effective September 30, 2005, IBM will withdraw support for this program.</i>	None
5697-G85 DB2 Web Query Tool for iSeries Version 1.3 <i>Effective September 30, 2005, IBM will withdraw support for this program.</i>	None
5733-IM3 DB2 Intelligent Miner for Data for iSeries	None

# Lotus Supported Product Releases

http://www-1.ibm.com/servers/eserver/series/domino/domino6/releasesupport.pdf - Microsoft Internet Explorer

Address: http://www-1.ibm.com/servers/eserver/series/domino/domino6/releasesupport.pdf

	i5/OS V5R3	OS/400 V5R2	OS/400 V5R1	OS/400 V4R5 (1)
<a href="#">Domino 6.5.2</a>	X	X	X	not supported
<a href="#">Domino 6.5.1</a>	X	X	X	not supported
<a href="#">Domino 6.5</a>	X	X	X	not supported
<a href="#">Domino 6.0.4</a>	X	X	X	not supported
<a href="#">Domino 6.0.3</a>	X	X	X	not supported
<a href="#">Domino 6.0.2</a>	not supported	X	X	not supported
<a href="#">Domino 6.0.1</a>	not supported	X	X	not supported
<a href="#">Domino 6.0</a>	not supported	X	X	not supported
<a href="#">Domino 5.0.13a</a>	not supported	X (2)	X	not supported
<a href="#">Domino 5.0.12</a>	not supported	X (2)	X	not supported
<a href="#">Domino 5.0.11</a>	not supported	X (2)	X	X (1)
<a href="#">Domino 5.0.10</a>	not supported	X (2)	X	X (1)
<a href="#">Domino 5.0.9a</a>	not supported	X (2)	X	X (1)
<a href="#">Domino 5.0.9</a>	not supported	X (2)	X	X (1)
<a href="#">Domino 5.0.8</a>	not supported	X (2,3)	X	X (1)
<a href="#">Domino 5.0.7</a>	not supported	not supported	X	X (1)
<a href="#">Domino 5.0.6</a>	not supported	not supported	(5.0.6a.01)	X (1)
<a href="#">Domino 5.0.5</a>	not supported	not supported	(5.0.5.02)	X (1)

Notes:  
 (1) OS/400 V4R5 is no longer supported. Customers should make plans to move to a currently supported release of OS/400

http://www-1.ibm.com/servers/eserver/series/domino/domino6/releasesupport.pdf

# Lotus Supported Product Releases

http://www-1.ibm.com/servers/eserver/iseries/domino/domino6/releasesupport.pdf - Microsoft Internet Explorer

Address: http://www-1.ibm.com/servers/eserver/iseries/domino/domino6/releasesupport.pdf

	i5/OS V5R3	OS/400 V5R2	OS/400 V5R1	OS/400 V4R5 (1)
IM & Web Conferencing 6.5.x	X	X	X (2)	No
Sametime 3.1	X	X	X (2)	No
Sametime 3.0a	not supported	X	X (2)	No
Sametime 3.0	not supported	X	X (2)	No
Team Workplace 6.5.x	X	X	X	No
QuickPlace 3.0.1	not supported	X	X	No
QuickPlace 3.0	not supported	X	X	No
Domino Fax for iSeries	X	X	X	X (1)
Lotus Enterprise Integrator 6.5.2	X	X	X	No
LEI 6.5.1	not supported	X	X	No
LEI 6.5	not supported	X	X	No
LEI 3.1a	not supported	X	X	X (1)
Workflow 6.5.x	X	X	X	No
Workflow 3.0.1	not supported	X	X	No
Document Manager 6.5.x	X	X	X	No
Domino.Doc 3.1 with 3.5 client	not supported	X	X	X (1)

Notes:

11 x 8.5 in

3 of 5

<http://www-1.ibm.com/servers/eserver/iseries/domino/domino6/releasesupport.pdf>

# Future Planning Considerations

- V5R3 is the last release to support the model 170, 250, 720, 730, 740
- V5R3 is the last release to support SPD I/O. This impacts any 820, 830 or 840 still using SPD I/O towers attached to their migration tower and the migration tower itself. SPD adapters should be replaced by PCI adapters. I/O devices only supported by SPD adapters will need to be replaced. SPD-attached PCI I/O towers #5065 / 5066 can still be converted to a 5074 / 5079, but the customer should compare the upgrade cost to purchasing a newer HSL-2 PCI-X I/O tower which can support 15k rpm disk drives. (The 800, 810, 825, 870 or 890 never supported SPD I/O.)
- V5R1 End of Programming Support planned for September, 2005
- For more information:  
<http://www.ibm.com/servers/eserver/series/support/planning/nav.html>

# Q and A



## Trademarks and Disclaimers

© IBM Corporation 1994-2004. All rights reserved.

References in this document to IBM products or services do not imply that IBM intends to make them available in every country.

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

AIX	DB2 Universal	eServer	Lotus	Power Architecture	RS/6000	z/OS
AIX/L	DB2 OLAP Server	Enterprise Storage Server	MQSeries	Power Everywhere	S/390	zSeries
AIX 5L	DataPropagator	Hipersockets	Notes	POWER Hypervisor	ThinkPad	400
AIX 5L (logo)	Domino	IBM	OS/400	POWER6	Tivoli	i5/OS
AS/400	e business (logo)	IBM Virtualization Engine	POWER	pSeries	TotalStorage	
AS/400e	e (logo) business	IBM (logo)	POWER4	Quickplace	WebSphere	
DB2	e (logo) server	iSeries	POWER5	Rational	xSeries	

Lotus, Freelance Graphics, and Word Pro are registered trademarks of Lotus Development Corporation and/or IBM Corporation.

Domino is a trademark of Lotus Development Corporation and/or IBM Corporation.

C-bus is a trademark of Corollary, Inc. in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

SET and the SET Logo are trademarks owned by SET Secure Electronic Transaction LLC.

Other company, product and service names may be trademarks or service marks of others.

Information is provided "AS IS" without warranty of any kind.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

Information in this presentation concerning non-IBM products was obtained from a supplier of these products, published announcement material, or other publicly available sources and does not constitute an endorsement of such products by IBM. Sources for non-IBM list prices and performance numbers are taken from publicly available information, including vendor announcements and vendor worldwide homepages. IBM has not tested these products and cannot confirm the accuracy of performance, capability, or any other claims related to non-IBM products. Questions on the capability of non-IBM products should be addressed to the supplier of those products.

All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. Contact your local IBM office or IBM authorized reseller for the full text of the specific Statement of Direction.

Some information in this presentation addresses anticipated future capabilities. Such information is not intended as a definitive statement of a commitment to specific levels of performance, function or delivery schedules with respect to any future products. Such commitments are only made in IBM product announcements. The information is presented here to communicate IBM's current investment and development activities as a good faith effort to help with our customers' future planning.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

Photographs shown are of engineering prototypes. Changes may be incorporated in production models.