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Sizing WebSphere Workload on iSeries Servers

January 7-9, 2003 | Ash Ishak and Anna Sue Parker

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Session Objectives

- Learn how Workload Estimator supports WebSphere workload
- Learn how to answer the WebSphere workload questions
- Demonstrate and review case studies for sizing WebSphere workloads
- Cover the available WebSphere sales and technical resources

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Workload Estimator for iSeries

- Why use WLE?
  - Current application growth
  - Emerging application sizing
- How do I use WLE?
  - Internet:http://www-912.ibm.com/servlet/EstimatorServlet
  - Techline provides WebSphere sizing assistance
- Who can use the WLE?
  - Customers
  - Business Partners
  - IBMers

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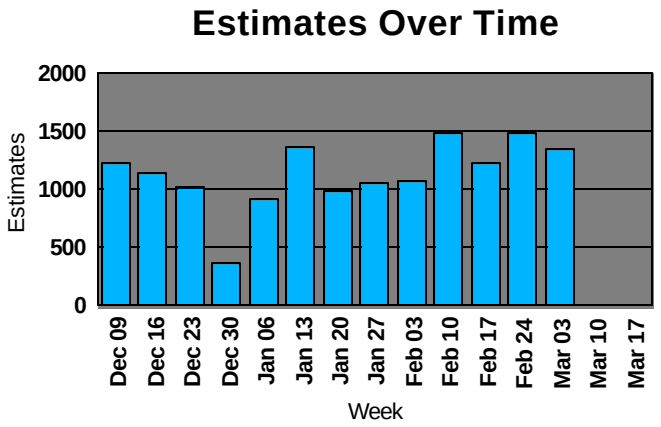
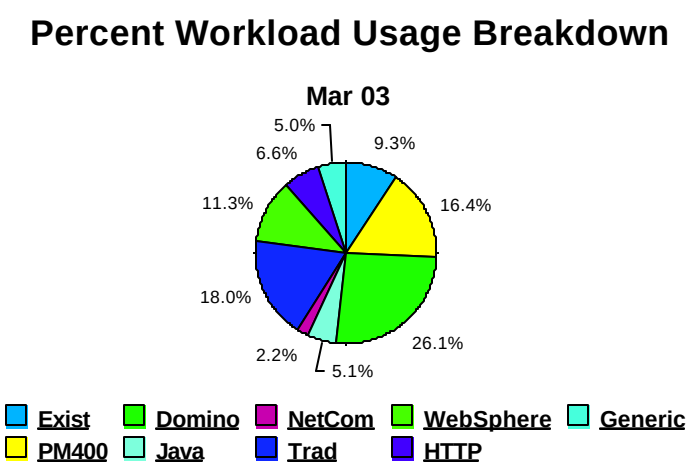
The workloads supported by WLE

- The Supported workloads
  - Exists
  - Traditional
  - Generic
  - PM/400
  - Domino
  - WebSphere Workload V5
  - Web Serving Workload (HTTP)
  - WebSphere Commerce Workload
  - Java™ Workload
  - WebFacing Workload
  - WebSphere Portal Server
  - File Serving Workload (Linux)





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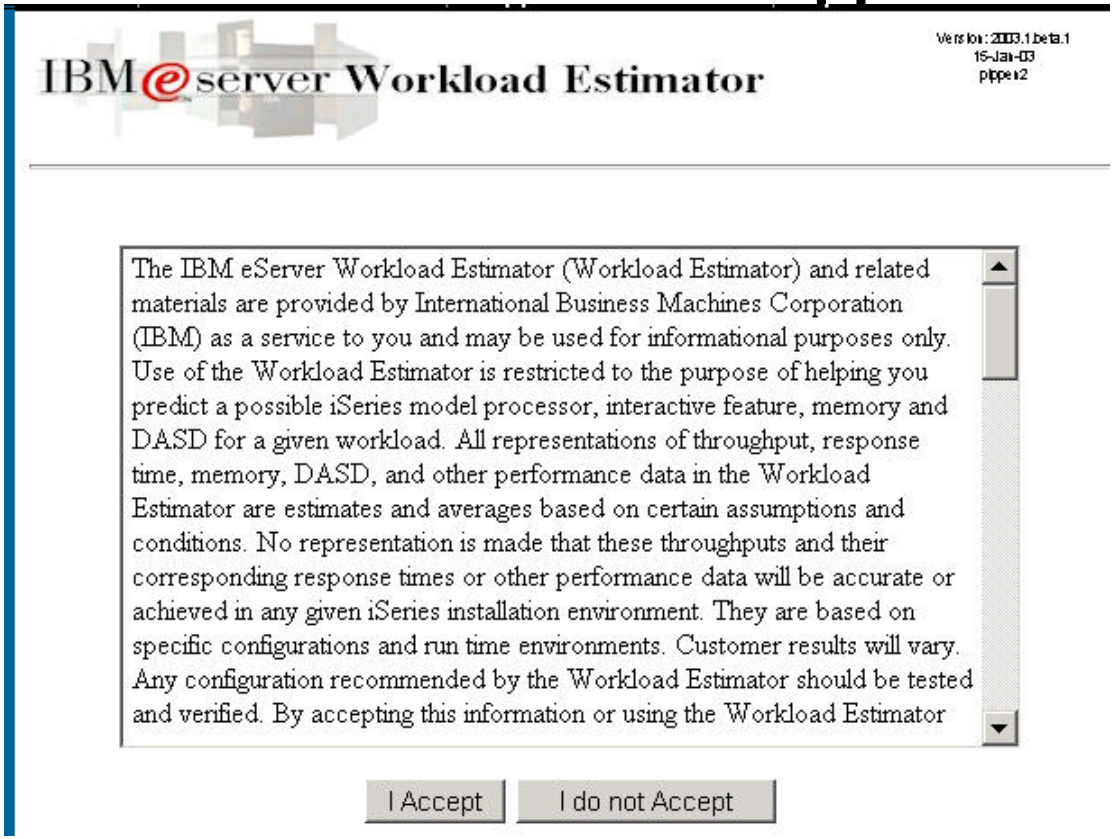
Getting Started... (new version available Jan. 28, 03)

www.ibm.com/eserver/iseries/support/estimator

New Name



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Always check this!

- **Enhancements to the workloads supported, and new workloads is ongoing.**

IBM @server Workload Estimator

What's New!

We are providing a new version of the IBM eServer Workload Estimator 3 to 4 times a year. In the **2003.1** version (released Jan 2003), we have responded to your requests for various improvements, including the following new improvements and features:

Contents

Support for the new iSeries Systems
WebSphere Application Server V5 for iSeries
WebSphere Application Server - Express V5 for iSeries
WebSphere Portal Server
WebFacing
Linux workloads for web serving and file serving
HTTP workload becomes the Web Serving workload
Web Commerce workload becomes the WebSphere Commerce workload
New Name for this Tool

- **Support for the new iSeries Systems** - The Estimator has been updated to include the new iSeries systems that were recently announced. With this version of the Estimator, the new 800, i810, i825, i870 and new i890 models will be the systems that will by default considered during the recommendation phase of the Estimator. The previous systems are still available by changing your options.
- **WebSphere Application Server V5 for iSeries** - The

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Navigation

- Save/Restore a Workload
- Save as PDF
- Print Recommendation
- Help

PM data used to build WLE workload profile
LPAR Options: No, partial, full proc

- **File**
  - Add Workload
  - Restore
  - Save all
  - Print
  - PDF
- **Edit**
  - Refresh
  - Reset
  - Estimation Identification
  - Options
- **Navigation**
  - Workload Selection
  - Selected System
- **Contact IBM**
- **Tutorials**
  - Basic Walk-through
  - Detailed Walk-through
  - Save and Reuse
  - Consolidation
  - PM eServer iSeries
  - Logical Partitioning
- **HELP**
  - Detail descriptions of all the workloads

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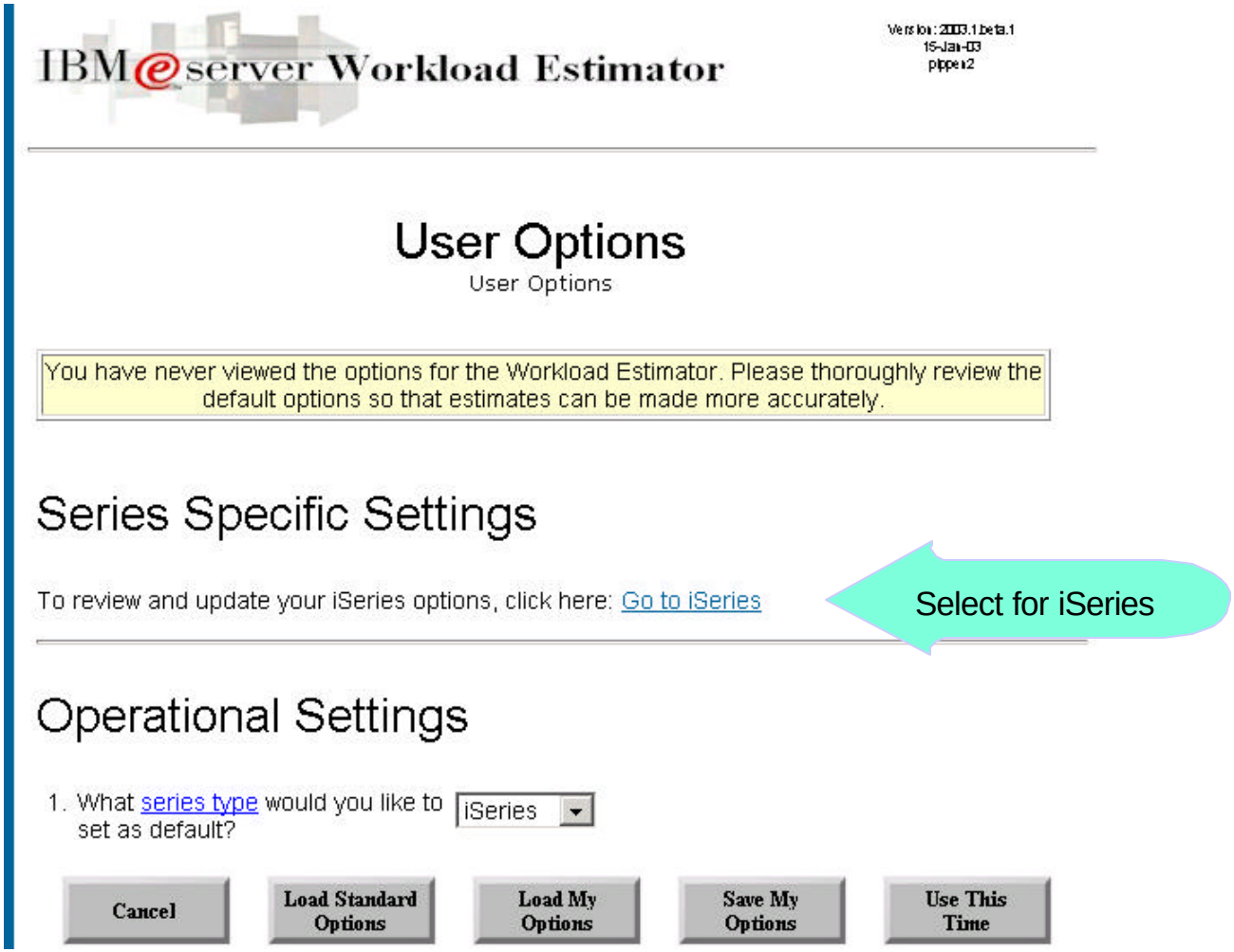
Options



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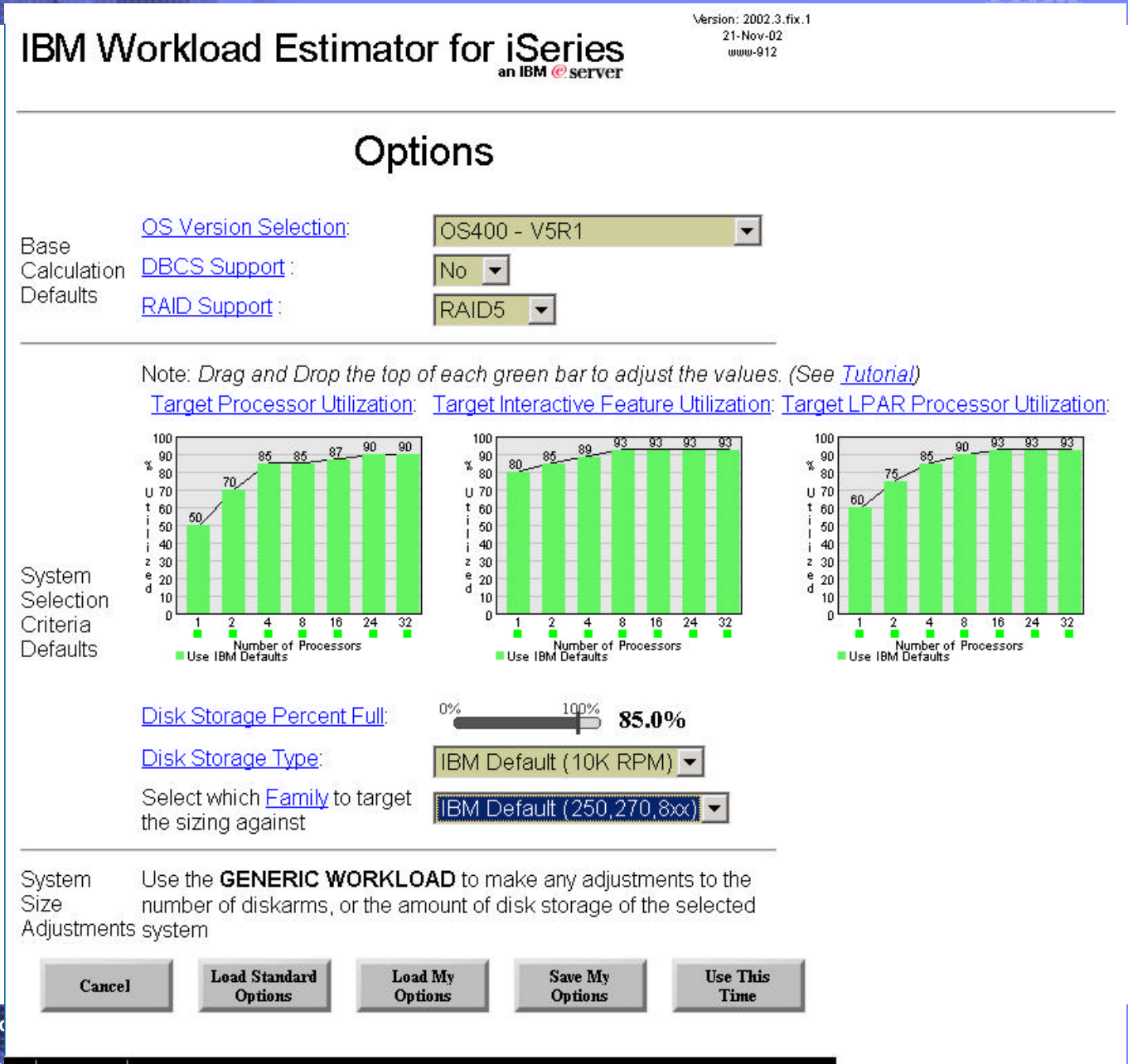
Options

- Set assumptions
  - Gather from customer
- Options effect the size of the projected workload
  - Processor Utilization
  - Disk Storage
  - Family of servers
- Recommendation is the minimum system for adequate performance
- **The Estimator is not a configuration**



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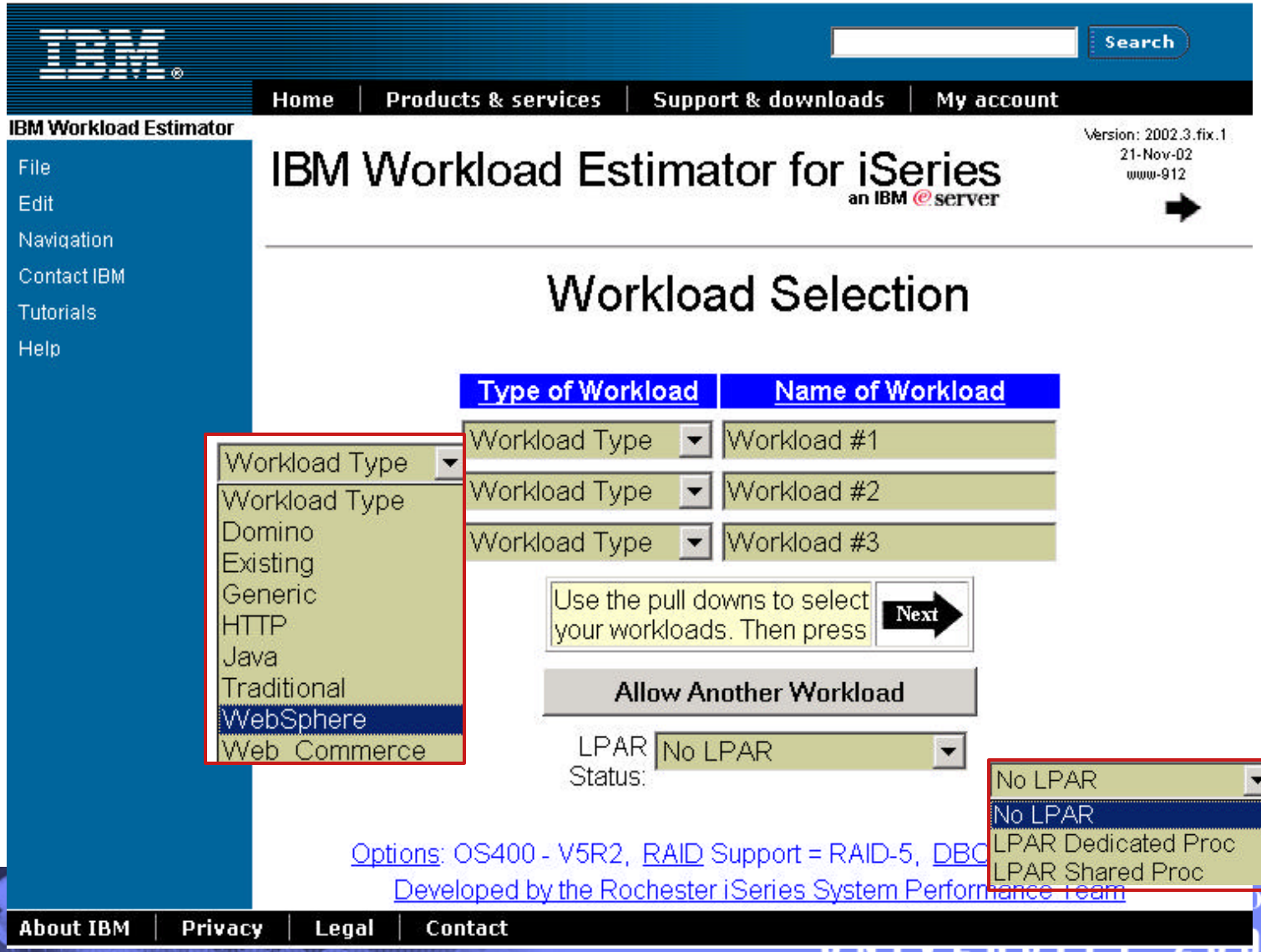
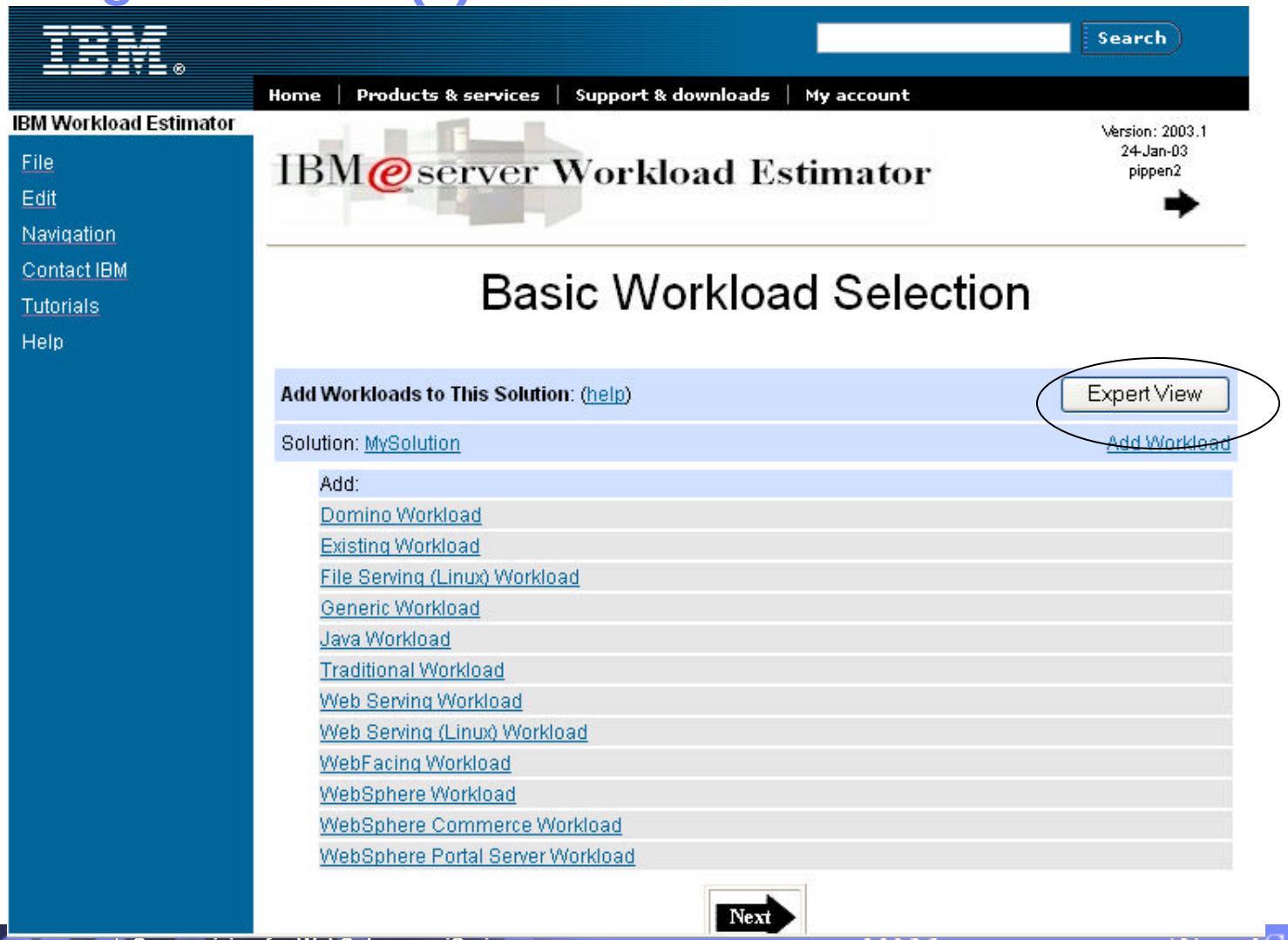
Selecting Workload(s) and LPAR



Selecting Workload(s) - the new look



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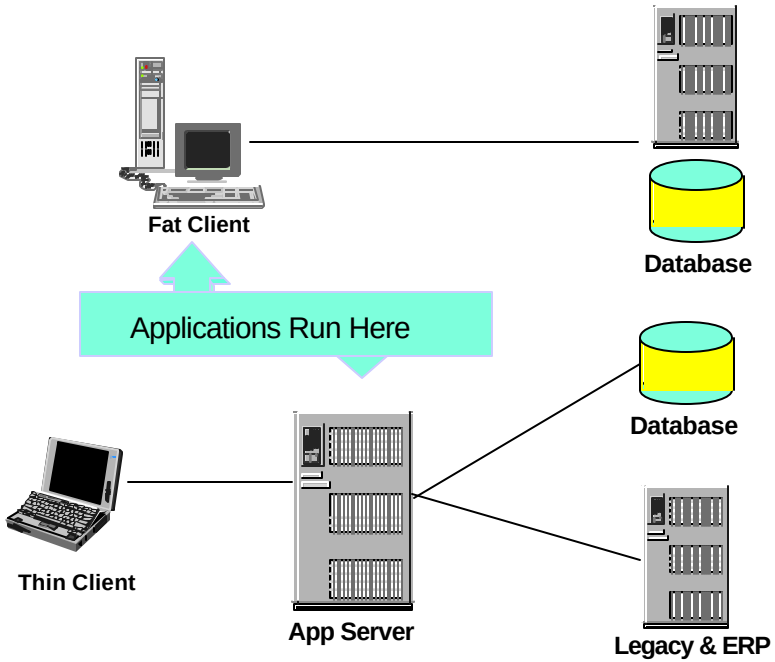
The WebSphere Application Server

- Host Centric
  - Basic text on terminal
  - Host system does all the work
- Fat Client
  - Application code on client
  - Update client code
  - Multiple Versions
  - Connects to DB Server
- Application Server
  - User management
  - Connection management
  - Database and system resources
  - Integration to back-end systems
  - Application code on Server
  - WAS run Java code



WebSphere App. Server Runs Here

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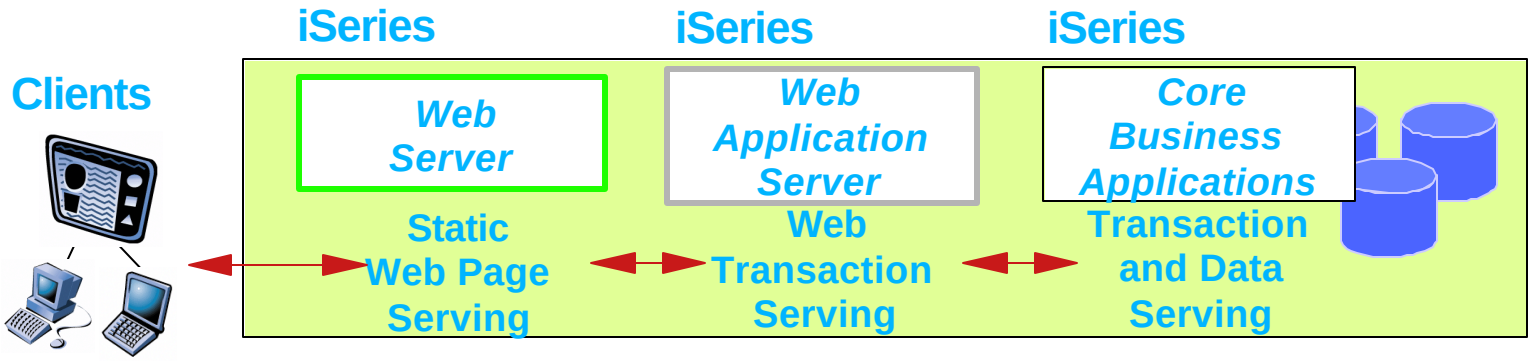
The Web Workloads supported by WLE

- The Supported WebSphere workloads
  - WebSphere Workload
    - WAS Workload
  - HTTP Workload
    - Web Serving
  - Web Commerce Workload
  - Java Workload
  - WebFacing Workload
  - Portal Workload



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Scenario #1 - Insurance Company

- Current Environment
  - The Claims application is a 5250 "green screen" RPG application
    - Claims application is "home grown"
    - 50 Adjusters use this application
    - They typically add 400 claims per hour
    - Runs today on a 170-2183 512MB RAM
- Opportunity
  - Modernize by web enabling the legacy claims application
  - Future: Customers can file the claim on the Web
- What to propose?
  - WebFacing solution to their 5250 application
  - Web browser access to Claims application (internet/intranet)

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Scenario #1 - Insurance Company - Review

- What do I need to size the application?
  - Number of transactions per hour
  - Number of users
  - Average number of fields per screen
  - Number of unique screens
  - Will the new system continue to handle the "old" workload

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Scenario #1 - Insurance Company - Review

- What do I need to size the application?
  - Number of transactions (cliams) per hour
    - 400 transactions per hour
  - Number of users
    - 50 users - Not needed
  - Average number of fields per screen
    - # of fields per screen - 100 is the default
  - Number of unique screens
    - DDS record formats
  - Will the new system continue to handle the "old" workload
    - Would WAS run on a separate server or the same system?

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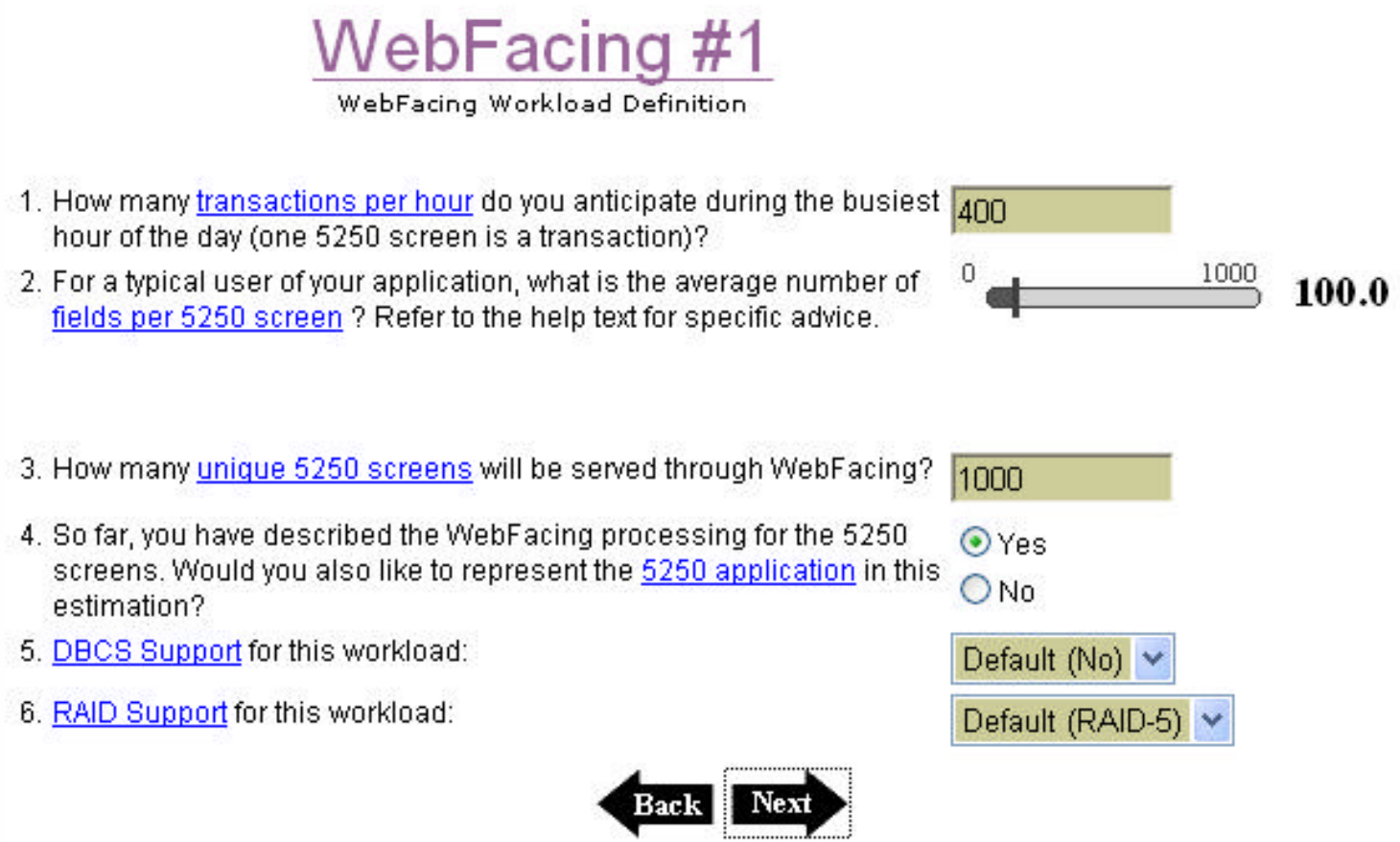
WebFacing Workload Screen - Workload Definition



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Existing WebFaced Workload Definition

Web-Faced Existing #1

Existing System Workload Definition

Please note: The information requested for an Existing System is information about the workload on an **existing** iSeries or AS/400e that you would like to have added to a new iSeries.

	Model	Interactive Feature	Processor Feature Code	Processor CPW	Interactive CPW
1. Processor Model	170-2183	N/A	2183	319	65

2. Total CPU Utilization	50
3. Interactive Utilization	50
4. Processors Activated *(For Processor on Demand models only)*	1
5. Memory (MB)	512

6. Disk Arms Distribution:

	Unprotected	Mirrored	RAID-5
7,200 RPM:	0.00	0.00	4.00
10K RPM:	0.00	0.00	0.00

7. Storage Used (GB):

	Unprotected	Mirrored	RAID-5
7,200 RPM:	0.00	0.00	32.00
10K RPM:	0.00	0.00	0.00

8. Additional Characteristics:	None
9. Will this workload be changed to use WebFacing Support?	Yes

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Selected System Screen

Selected System

Choose Base System

An existing system has been chosen as one of the workloads. Please make a selection below.

If you chose one of the existing systems, then after all the processing requirements of the various workloads have been calculated, the system selection algorithms will attempt to give preference to the selected system or a system on its upgrade path.

	Workload Name	Model	Type	Feature	Hardware Feature
Select *	Web-Faced Existing #1	170	2183		2183

Select — Do not limit selection based on upgrade path information from any existing system. Size to any possible system.

* -- These systems do not have any systems in their upgrade path. Please choose another system, or choose to not limit the selection to an upgrade path.

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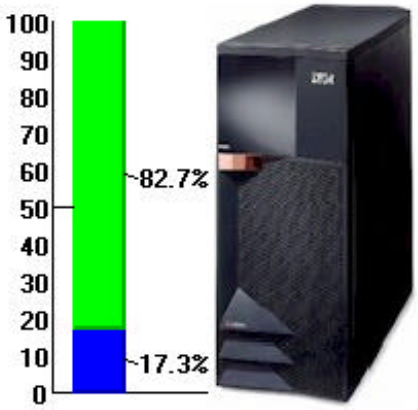
System Recommendation

Immediate Solution

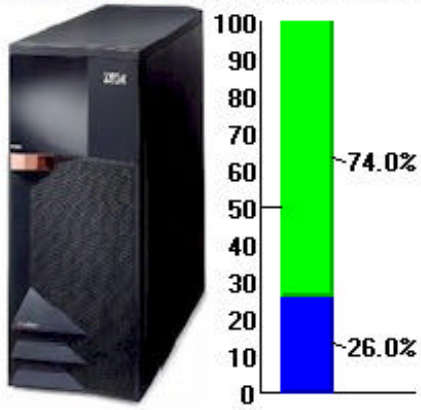
Available
WebFacing #1



The 800-2464/7408 can handle the defined workloads **NOW**.

Growth Solution

Growth Trends can be changed here.



It can also handle the specified growth.

	Immediate Solution	Growth Solution
Model/Feature:	800-2464/7408 950/50	800-2464/7408 950/50
Processor CPW:	950	950
Interactive CPW:	50 (0% utilized)	50 (0% utilized)
CIW Rating:	350	350
Database Capacity:	N/A	N/A
N-Way:	Uni	Uni
CPU Utilization:	17.3 %	26.0 %
Software Pricing Tier:	P10	P10
Memory (MB):	926 of 8,192	1,355 of 8,192
Disk Drives (arms):	6 of 63	9 of 63
Capacity (GB):	40 of 4,445	58 of 4,445
LPAR-able:	Shared	Shared

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Scenario #2 - Manufacturing Company

- **Current Environment**
  - **Customer wrote a Java application using WebSphere Application Server running on 8-Way NT Server. The customer is not happy with the NT because of management challenges and wants to select a more stable platform. Customer already has an iSeries system running LOB application.**
- **Opportunity**
  - **Migrate the WebSphere application from NT to iSeries**
- **What to propose?**
  - **Propose a new iSeries and LPAR**
  - **CUoD models - 825 and higher**

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Answering sizing questions.... WebSphere Workload

- Version of WAS? 4.0, Express, 5.0 and Network Deployment
- Which best describe the plans for web serving?
  - Serving web pages, Web-enabling legacy apps., Web appl w/DB access
- Describe a web site visit ?
  - Display a screen, process order, mouse click, etc.
- How many visits per hour at peak times?
- How many concurrent users?
- How many of the following will be accessed per web site visit? Are any complex doing calculations, etc. or more basic queries?
  - Static web pages - Basic Webpage - Dynamic pages or JSPs
  - Servlets - Runs on the server - EJBs - Usually one EJB/entity
- How large are the web pages being served?
  - Average number of files/page
  - Average size of file served

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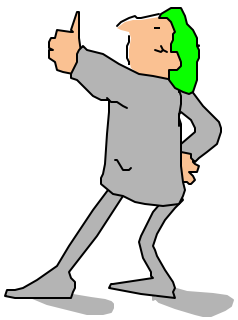
Planning questions for Sizing WebSphere workload...

- Is the solution a tiered approach? How many tiers?
- Using SSL (Secure Sockets Layer)?
- What percentage of processor will be utilized by WAS?
- What type of transactions will be built in the application business logic?
  - Query with pre-build SQL, Lightweight Transactions, Medium Transactions and Complex Transactions
- How much disk storage is required for image files and sound files? (MB)
- Database utilization by servlets or EJB Session Beans? low, med, or high
- Describe back-end interaction that occurs during each web transaction
  - Read-only data - small (100 bytes), medium (1K), large (10+K)
  - Update data- small (5 columns), large (500 columns)
  - OLTP - size of COMM AREA - small (100 bytes), medium (1K)



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Scenario #2 - Manufacturing Company - Review

- What do I need to size the application?
  - Transactions
    - Number of transactions
    - Number of JSPs
    - Number of Servlets
    - Number of static Web Pages
  - EJB
    - Entity EJB
    - Session EJB
  - Complexity
    - Database
    - EJBs
  - DBCS and RAID

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WebSphere Workload Screen #1 - Workload Definition

WebSphere #1

WebSphere Workload Definition

1. Which WebSphere Version will be used?	○ v4.0 ◉ v5.0
2. Will WebSphere Express be used?	No
3. How many visits per hour do you anticipate during the **busiest** hour of the day?	1500
4. A visit is a group of transactions from a given user. In a typical visit, how many of the following operations will occur:	
a. Static web pages and files served:	100.0
b. Java Server Pages (JSPs) served:	500.0
c. Java Servlets executed:	200.0
d. EJB Session Beans accessed:	10
e. EJB Entity Beans accessed:	15.0
5. DBCS support for this workload:	Default (No)
6. RAID support for this workload:	Default (RAID-5)

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WebSphere Workload Questions... Screen #1 Notes

- **Java Server Pages Served**
  - Average number of JSPs used during a visit
- **Servlets**
  - Average number of servlets used during a visit
- **EJB Session Beans**
  - Average number of session beans used during a visit
  - Used in enterprise application to represent the logic in a transaction
- **EJB Entity Beans**
  - Average number of entity beans used during a visit
  - Used or accessing data in a database
  - ★ Entity beans can also be used to access data in legacy applications. In this case, you should size your legacy application separately (using, for example, the Traditional workload).
- **DBCS (Double Byte Character Set)**
  - Guidelines for DBCS provided by (and currently used by) Japanese Sales and Business Partners.
- **RAID**
  - The RAID-5 setting is usually the optimal solution.

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WebSphere Workload Screen #2 - ExpertWorkload

If EJB is needed, then questions 5, 6, and 7 are displayed.

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WebSphere Workload Questions... Screen #2 Notes

- **JSP Complexity**
  - Simple - JSP for formatting data from other sources
  - Moderate - some computation (in-line code or Java Bean) and formatting data
  - Complex - JSP doing most of the work, this is rare
  - ★ Use Simple for JSP complexity for WebFacing
- **Servlet Complexity**
  - Simple - Does not perform session management, and does not use SSL
  - Moderate - Includes more computation or logic, does session management, may use SSL for a small percentage of transactions, & some data formatting
  - Complex - Does session management and a significant amount of computational work, and may use SSL for some transactions
  - ★ Use Moderate for servlet complexity for WebFacing
- **Database Utilization of Servlets (local database)**
  - None- Servlet with no Database work
  - Light - Light database access (1/3 or less is db code)
  - Average - approx. half of servlet time is spent accessing a database
  - Heavy - more that half of servlet is used for accessing a database (adding/deleting rows, or complex queries)
  - ★ Usually assume the database is being used at an Average usage

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WebSphere Workload Questions... Screen #2 Notes

- **Servlet Chaining (yes/no)**
  - Use of multiple Servlets or JSPs to processes a single HTTP request
  - ★ Usually assume NO, don't configure unless the developer knows it is used
- **Session Bean Complexity**
  - Simple - stateless with 5-6 bean operations during a call
  - Moderate - stateful bean with minimal processing, and may access entity beans
  - Complex- stateful bean with complex processing and may access entity beans
- **Session Bean Database Usage**
  - None - Session Bean has no database access
  - Light - Light database access, usually accessing existing data
  - Average - More complex queries
  - Heavy - Session Bean that resides in an application, and does not use entity beans for database operations
- **Pass-by-reference (yes/no)**
  - WebSphere includes a "Pass-By-Reference" option for EJB calls
  - Could improve performance, but test the application carefully
  - ★ Usually assume "no", not using Pass-By-Reference

Only use EJB when the application is developed by customer or ISV...

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Scenario #2- Workload Estimator Results...

- The results...
  - iSeries model 810 2-way
  - 2700 CPW
  - 2G RAM
  - 120GB Disk
  - Handles workloads NOW
- or
  - iSeries model 825 3-way
  - 3600 CPW
  - 3-4 GB
  - 200 GB Disk
  - Has room for growth
  - supports CUoD

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Scenario #2 Result

Selected System

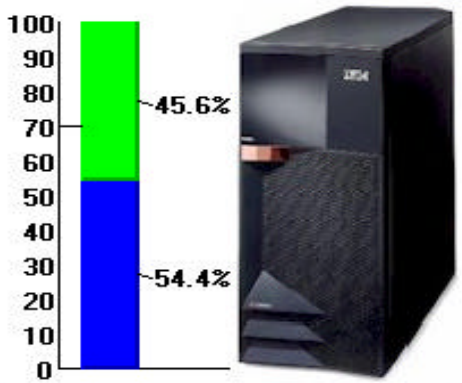
Consider Growth

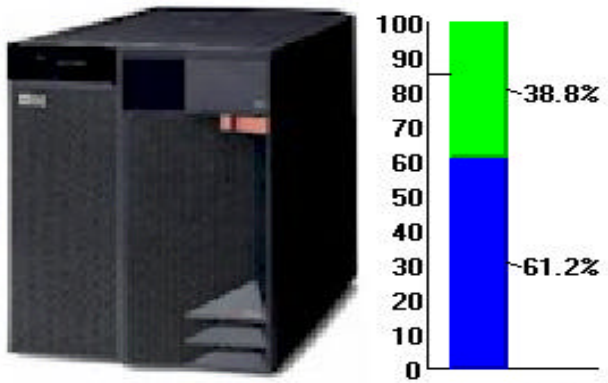
Immediate Solution

Growth Solution

Growth Trends can be changed here.

Available
WebSphere #1





	Immediate Solution	Growth Solution
Model/Feature:	810-2469/7428 2700/0	825-2473/7416 3600/0
Processor CPW:	2700	3600 (for 3 processors)
Interactive CPW:	0 (0% utilized)	0 (0% utilized)
CIW Rating:	975	1570 (for 3 processors)
Database Capacity:	N/A	N/A
N-Way:	2-way	3-way
CPU Utilization:	54.4 %	61.2 %
Software Pricing Tier:	P20	P30
Memory (MB):	1,591 of 16,384	2,354 of 16,384
Disk Drives (arms):	7 of 198	11 of 825
Capacity (GB):	41 of 13,971	58 of 58,216
LPAR-able:	Shared	Shared

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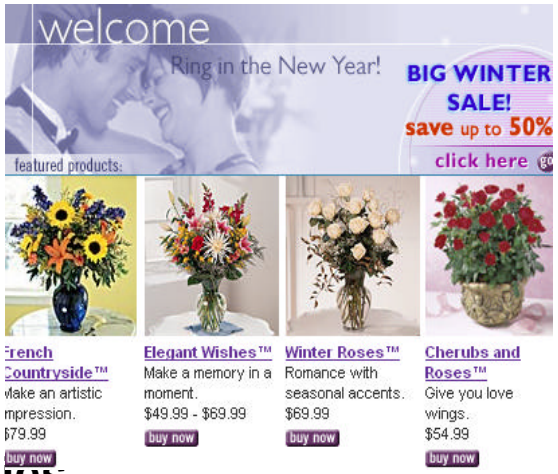
Scenario #3 - Florist

- Current Environment
  - Typical Florist - Has a call Center - Order Entry Application
    - 3rd party COBOL, 5250 application
    - 60 people who process Orders
    - AS/400 720 model 2062 (CPW 420), 30% utilized
    - 600 orders/hour



- Opportunity
  - Become an on-line florist - sell items on the web
  - Create new way for Order entry with web technologies
  - Increase customer base
  - Enhance advertising, promotions, personalization and target marketing
  - Electronic communication with suppliers

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Scenario #3 - Florist

- Challenge
  - Use Web Technologies which will add new workload
  - Customer question, "purchase new system or upgrade?"

- What to propose?
  - WebSphere Commerce
    - Product Catalog
    - Customer Registration
    - Cross Selling
  - Rich function software
  - Electronic payment needed
    - WebSphere Payment Server

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Commerce Workload Questions...

- Visits per hour
  - This is the primary measure of the amount of work being done with your application
  - A visit represents a unique shopper entering your storefront to browse and/or order during the busiest hour
- Visit Complexity
  - Simple, Moderate, or Complex
- Embedded Static Files
  - Images, thumbnail images, navigation buttons, advertisement banners, and text... small in size, but in aggregate can be significant
- Database and Directory Size
  - Predict how much total disk space is required that hold the catalog, orders, logs, and customer information
- WebSphere Commerce Payments
- WebSphere Commerce Pro Entry Edition - 1-way Server

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WebSphere Commerce Considerations

- **WebSphere Commerce Entry will only recommend 1-way iSeries systems**
- **Consider Firewall issues**
  - Contact Techline or ATS for architectural issues
  - Consider Linux for Firewall (portion of a processor)
- **Number of hits is important**
  - What is the percentage that purchase (10-50%) - varies by industry
  - People do not come back to a slow website
- **Consider Capacity Upgrade on-demand**
  - Workload comes from the Internet no in-house - Unpredictable
  - Plan for peak hours and seasons
- **Prevent one of the bottleneck of poor disk I/O rate**
  - Low degree of db activity, 6 disk arms allocated for commerce db
  - Medium degree of db activity, 12 disk arms allocated for commerce db
  - High degree of db activity, 18 disk arms allocated for commerce db

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Commerce Workload Screen - Workload Definition

WebSphere Commerce #1

WebSphere Commerce Workload Definition

1. How many total visits per hour do you anticipate for WebSphere Commerce during the **busiest** hour of the day? *(To do a standalone sizing for WebSphere Commerce Payments, enter 0 (zero) here and then skip down to question #4)*	1500
2. How would you characterize the complexity of the visits?	Moderate
3. For an average WebSphere Commerce user transaction, how many embedded static files (gifs, images, buttons, banners, etc.) are there?	15
4. Will WebSphere Commerce Payments be used to process payment transactions?	No
5. What is the total size of the database and directories that will hold inventory, orders, logs, and customer information (GB) ?	10 GB
6. Will WebSphere Commerce Professional Entry Edition be used?	No
7. DBCS support for this workload:	Default (No)
8. RAID support for this workload:	Default (RAID-5)

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Scenario #3 - Florist

- Input Data into WLE for new system
  - 1500 hits / hour
  - Plan for 3x growth
  - Moderate Complexity
  - 10 GB for a database
  - Use Payment Server

- Recommended Result
  - iSeries 810 with 2700 CPW
  - 4-6 GB of RAM
  - 10 Arms - Commerce is sensitive to the number of disk arms
  - Always consider models with CUod for WebSphere Commerce

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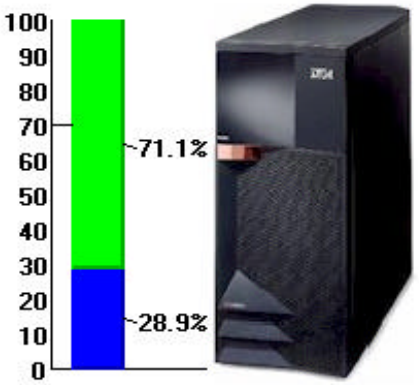
Scenario #3 Result

Immediate Solution

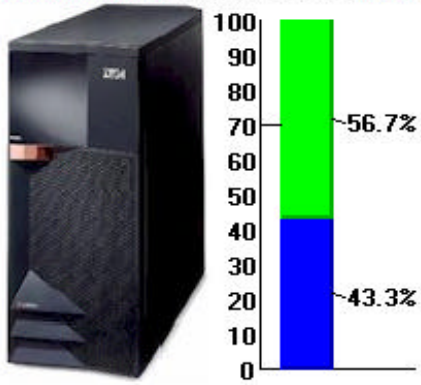
Available
WebSphere Commerce #1



The 810-2469/7428 can handle the defined workloads **NOW**.

Growth Solution

Growth Trends can be changed here.



It can also handle the specified growth.

Model/Feature:	810-2469/7428 2700/0	810-2469/7428 2700/0
Processor CPW:	2700	2700
Interactive CPW:	0 (0% utilized)	0 (0% utilized)
CIW Rating:	975	975
Database Capacity:	N/A	N/A
N-Way:	2-way	2-way
CPU Utilization:	28.9 %	43.3 %
Software Pricing Tier:	P20	P20
Memory (MB):	4,398 of 16,384	6,563 of 16,384
Disk Drives (arms):	5 of 198	7 of 198
Capacity (GB):	35 of 13,971	50 of 13,971
LPAR-able:	Shared	Shared

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Scenario #4 - Distribution Company

- Current Environment
  - Company wants to improve their employee awareness of corporate activities, direction, HR changes and state of business
    - 600 employees in 30 departments
    - 7-9 windows of information are planned

- Opportunity
  - Leverage the corporate Internet and a thin client (browser)
  - Facilitate employee interaction with HR processes
    - such as 401K, vacations, etc.
  - Track weekly sales revenue for sales managers
  - Customized windows for local events and activities
  - Workload: 6-8 refreshes / hour - (Total is 8 x 600 = 4800 pages / hour)

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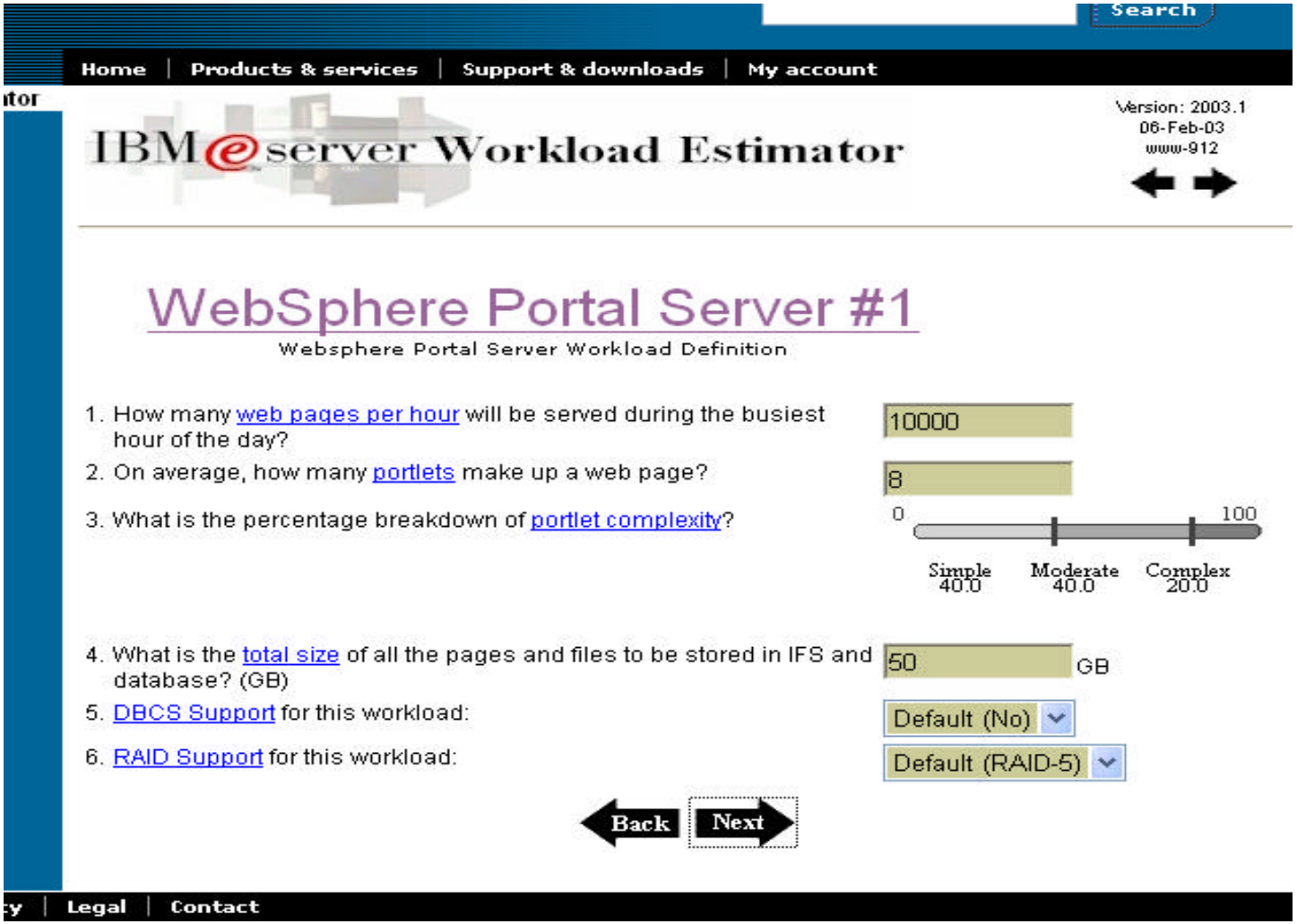
WebSphere Portal Server



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Scenario #4 - Distribution Company

- **Input Data into WLE for new system**
  - **10,000 hits / hour (4800 x 2 = 9600 pages/hour... aprox)**
  - **Plan for 2X Growth**
  - **Moderate Complexity**
  - **20 GB for a database**

- **Recommended Result**
  - **iSeries 810 with 2700 CPW**
  - **2-4 GB of RAM**
  - **4 Arms - Portal Server is sensitive to CPW and memory**

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Basic WebSphere on iSeries Sizing Guidelines

Product Name	Main Memory	Processor CPW
WebSphere Application Server v4.0, Advanced Single Server Edition for iSeries	750 MB	500
WebSphere Application Server v4.0, Advanced Edition for iSeries	750 MB	500
WebSphere Application Server - Express, V5.0 for iSeries	500 MB	300
WebSphere Application Server v5.0 for iSeries	750 MB	500
WebSphere Application Server Network Deployment v5.0 for iSeries	750 MB	450
WebSphere Commerce Professional Entry Edition for iSeries, v5.4	2 GB	950
WebSphere Commerce Professional Edition for iSeries, v5.4	2 GB	950
WebSphere Commerce Business Edition for iSeries, v5.4	2 GB	950
WebSphere Portal Enable for iSeries v4.1	750 MB	450

Notes:

- The above recommendations are minimum iSeries configurations. It is recommended to run a pilot workload to correctly size the system.
- The number of users, transactions, and type of application are major factors in driving the configuration.

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Sizing of WebSphere workloads Factors

- **A Pilot workload running in a test environment would provide a more accurate sizing estimate -- *ideally*.**
- **WLE allows multiple workloads, but can also size separate workloads**
- **Recommendation**
  - iSeries configured with L2 Cache for better perf. & WAS startup performance
  - iSeries server be at least 300 CPW, and 400 CPW if using EJB
- **Be aware ! WLE uses Minimum configuration rules for ...**
  - Number of disks arms and Amount of memory
- **WebFacing Considerations...**
  - Will require someone familiar with application to use
  - Always use the pre-touch tool; number of fields and screens are key

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Where do I get support.... Techline and Partnerline

Americas

- Web access
  - w3.ibm.com/support/americas/techline
- Techline Phone List
  - US and Canada -- 1-888-426-5525
    - Option 1 = Software Solutions
    - Option 2 = e(logo)Server Hardware and Systems Software
    - Option 3 = Storage and Networking
    - Option 4 = Competeline
    - Option 5 = Printing Systems
    - Option 6 = ISV Solutions
  - Business Partners (US and Canada) -- 1-800-426-9990
  - ISV Solution Sizing (US and Canada)-- 1-800-426-0222
  - Latin America --
    - For Techline, CompeteLine, and ISV Sizing requests, call tie-line 445-9700 or 770-835-9700
    - Business Partners call their in-country PartnerLine

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Where to get support?

Asia/Pacific

- Techline
  - http://w3-6.ibm.com/support/ap/ap_techline.html
- AP Technical Sales Support (ATS)
  - http://w3-6.ibm.com/support/ap/

EMEA

- http://w3-1.ibm.com/support/emea/econtact.html

Global Technical Sales and Support (for IBM)

- http://w3.ibm.com/support/index.html

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iSeries WebSphere Technical Certification

- **Objective**
  - Ability to develop an e-business strategy utilizing WebSphere offerings on iSeries
  - Translate customer requirements into e-Business opportunities on iSeries
- **Prerequisites**
  - iSeries Solution Design OR iSeries Solution Implementation Certification
- **Availability and Requirements**
  - iSeries WebSphere Technical Certification available May 31, 03
  - Certification will count toward number of technical certification required for channels
  - Each Field Technical Sales Support will be asked to certify in at least one tech.
- **Education**
  - New 4-day course with hands-on labs is being developed by iTC that discusses:
    - WebSphere product offerings, Express, WebFacing, network and security,
    - solutions architectures, HTTP, scalability, integration, etc. - - May 03
- **Key Websites**
  - www-1.ibm.com/certify/certs/a4_index.shtml and www.ibm.com/certify

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iSeries WebSphere Sales Certification

- **- Objectives**
  - Discuss and position the WebSphere product offerings on iSeries
  - Identify WebSphere and eBusiness opportunities on iSeries
  - Leverage the different resources available when selling WebSphere on iSeries
- **Prerequisites**
  - iSeries Sales Certification
- **Availability and Requirements**
  - iSeries WebSphere Sales Certification available by March 31, 03
  - iSeries Sales Specialists to be certified by June 30, 03
  - Channels sales to be certified by December 31, 03
- **Education**
  - Update SW272/AS049 to reflect new iSeries and WebSphere offerings - March 03
  - Offer a distance learning version of SW272 course - April 03
- **Key Websites**
  - www-1.ibm.com/certify/certs/a4_index.shtml and www.ibm.com/certify

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Now that we've sized the system...
what about skills?

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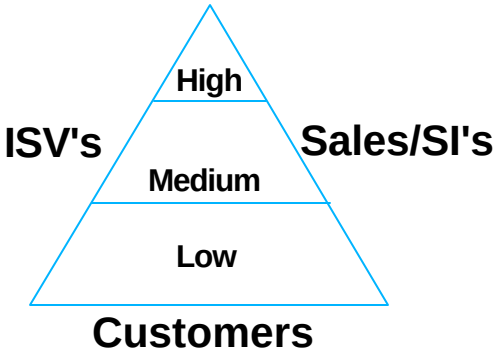
Sophistication & Job Role Roadmaps



Pyramid of Sophistication

- High: WAS 5.0, Java Deployment, New Apps, EJB, Integration, MQ Series, workload balancing
- Medium: WebFacing, some integration, Admin
- Low: WAS Express, WebFacing, Basic Admin

Job Role	Description
WebSphere Solution Sales	- Articulate WAS offerings, understand eBusiness strategy and available offerings - Identify customer issues & propose solutions to address
WebSphere Solution Advisor	▸ Consult on all WebSphere offerings, positioning, sizing, etc. ▸ Consult on iSeries application architecture and design, Web Infrastructure, WebSphere Development, Java, EJBs, etc. ▸ Develop Web based solutions utilizing WebSphere technology to address customer requirements and needs
WebSphere Administrator	▸ Install & Configure the application server and other products ▸ Manage WebSphere Environment; apply fixes; manage workload ▸ Manage hardware configuration and WAS instances
WebSphere Developer	▸ Understand WDSc and Eclipse offerings; Leverage WebFacing technology to enable 5250 application to the Web ▸ Knowledgeable of OO concepts, Java, Servlets, EJBs ▸ Knowledgeable of DB2, application performance, issues

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WebSphere on iSeries Skills Roadmaps

- **WebSphere on iSeries Sales Skills**
- **WebSphere on iSeries Technical Solutions Advisor - Consultant**
- **WebSphere on iSeries Administration**
- **Developers**
  - **WebFacing and Eclipse**
  - **WAS Developer - RPG to Java Developers**
  - **Advanced WAS Developer - EJB and MQ Series**

Skill development roadmaps are in the appendix

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Thank you!

Questions...

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Appendix

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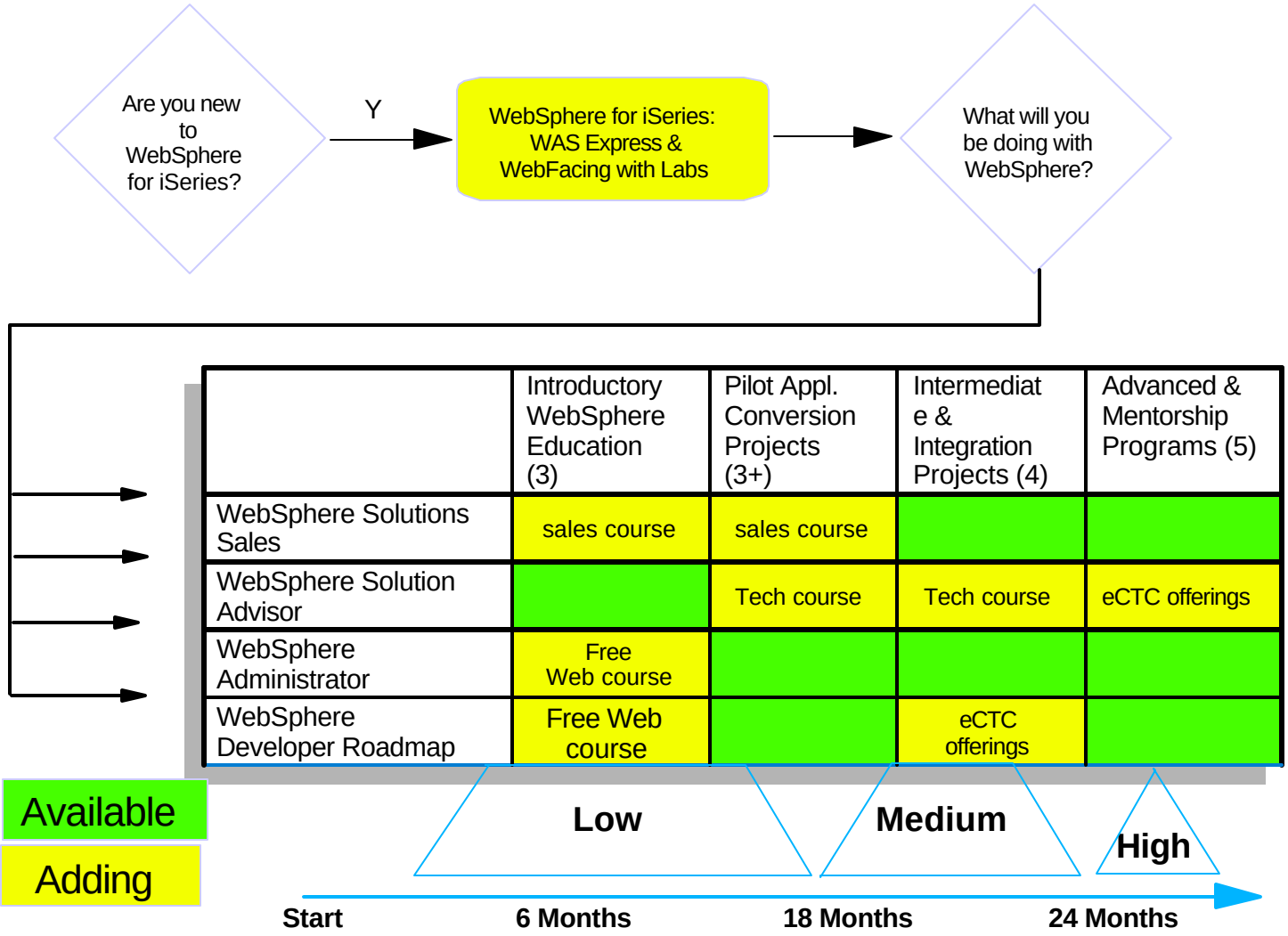
WebSphere for iSeries - Enablement Roadmaps



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Solutions Sales Enablement Roadmap

Available

Adding

	Introductory WebSphere Education (3)	Pilot Appl. Conversion Projects (3+)	Intermediate & Integration Projects (4)	Advanced & Mentorship Programs (5)
WebSphere Solutions Sales	sales course	sales course		

Available

Redbooks
SG24-5694: iSeries eBusiness Handbook
iSeries WebSphere Sales Guide

Online courses
iSeries Campus
- **e-infrastructure whitepaper**
- **Connect for iSeries overview**
- **iSeries WebSphere Commerce**
- **B2B Primer**
- **e-business 101 (TECH IBP)**
- **e-business 201 (TECH IBP)**
- **App. Globalization on AS/400**

Key Weblinks
w3.ibm.com/sales - eServer Sales

Service Offerings
WebSphere FICA for iSeries

Available

Education
AS039-iSeries Sales School - 3 d
AS040-iSeries Sales School - 1 d
AS045-iSeries Sales School - 2 d
iTC12 - Web Enablement

Certification
- www.IBM.com/certify
- iSeries certifications
- WebSphere certifications

Collateral
S6213-New user Sales Kit
S6215-Advanced User Sales Kit
Start Simple Grow Fact Sales Kit
Executive Briefing Demos
WebSphere Portal Demo

Tools
Workload Estimator
iSeries Quicksizer

Available

Support Centers
IBM Design Centers
Executive Briefing Center
VAD WICs (3 in the US)

Assistance
Geo Advanced Tech Support
Field Tech Support (FTSS)
Techline/PartnerLine
WW - WSSC

2003

Education
eSTSU (4 cities, 3 topics), 1Q
Video Tape eSTSU WS sessions
Geo Roadshow (AP, EMEA, AG)
iSeries Sales School - Update
SW272-Selling WS on iSeries-1Q
Monthly Product Telecon

Certification
iSeries Sales Certification- 1Q
Selling WebSphere iSeries-1Q

Other Activities
Monthly iSeries WS Telecons

Tools
Workload Estimator - Upd - 1Q

http://www-919.ibm.com/developer/education/ibo/curr.html?bldg
http://www-919.ibm.com/developer/ebiz/webfacing/index.html

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Solution Advisor Enablement Roadmap

Available

Adding

	Introductory WebSphere Education (3)	Pilot Appl. Conversion Projects (3+)	Intermediate & Integration Projects (4)	Advanced & Mentorship Programs (5)
WebSphere Solution Advisor		Tech course	Tech course	eCTC offerings

Available

Redbooks

SG24-5755: Servlets and JSP
SG24-6559: WS J2EE Appl. Dev.
SG24-6804: iSeries Access& Host
REDP0516: WSD Tools
REDP0414: Intro to WDSc iSeries
REDP0503: WDS tools iSeries
** same as developer

Online courses

iSeries Campus Site

- **OS/400 VPN Overview**
- **Intro. to MQSeries for AS/400**
- **XML Introduction**
- **AS/400 Security (TECH IBP)**
- **Internet Security (TECH IBP)**
- **IBM Payment Server**
- **AS/400 Networking**
- **iSeries 101 (TECH IBP)**
- **Web Appl. Dev. Strategies**
- **Application Models for WS**
- **TCP/IP Overview & Config.**
- **Net.Data Advanced Topics**

Available

Education

AS041-iSeries Tech Sol. Dsgn - 3 d
AS042-iSeries Tech Sol. Impl. - 3 d
AS046-iSeries Tech Sol. Dsgn - 2 d
iTC12 - Web Enablement

Collateral

iSeries Campus

- **e-infrastructure whitepaper**
- **Connect for iSeries overview**
- **iSeries WebSphere Commerce**
- **B2B Primer**
- **e-business 101 (TECH IBP)**
- **e-business 201 (TECH IBP)**
- **App. Globalization on AS/400**

Key Weblinks

www.iseries.ibm.com/websphere

Service Offerings

SI Services - WS iSeries BPs

Available

Redbooks

List goes here...., Date Avail...

Online courses

List goes Here

Collateral

List goes here

Key Weblinks

List gies here...

Service Offerings

List Goes here...

Labs/Forums

List Goes here...

Tools

Workload Estimator

2003

Education

eSTSU (2 cities, 3 topics), 1Q
Video Tape eSTSU Tech WS - 2Q
WebSphere Impl class-4 days-1Q
Geo Roadshow (AP, EMEA, AG)
ITSO Forum (3 cities, WW)
iSeries WebSphere Tech Impl-1Q
Monthly WebSphere Tech Calls

Certification

iSeries Tech Design Cert. Upd-1Q
iSeries Tech Impl Cert. - upd - 2Q
iSeries WS Tech Cert. - new -2Q

Service Offering

WebSphere end-to-end Proj Mgt

Key Websites

Review:
www.iseries.ibm.com/websphere
http://www-919.ibm.com/developer/ebiz/webfacing/index.html
http://www-1.ibm.com/servers/eserver/iseries/education/

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Administrator Enablement Roadmap

Available

Adding

	Introductory WebSphere Education (3)	Pilot Appl. Conversion Projects (3+)	Intermediate & Integration Projects (4)	Advanced & Mentorship Programs (5)
WebSphere Administrator	Free Web course			

Available

Redbooks
- SG24-6588: WAS 5.0 install & Cfg
- SG24-6815: WAS Install & Config
- SG24-6256: Java & WAS Perf.
- TIPS0076: Tips for WAS Config

Online courses
- WS Commerce 5.4 Prog Config
- WS Commerce 5.4 Prog Impl
- The New iSeries Access Family
- Integrating XML & DB2 LAB
- XML Technology & iSeries
- WebSphere Commerce 5.4
- Connect for iSeries deployment
- IBM HTTP Server for AS/400
- Web Env. on iSeries using WAS
- iSeries V5R1 Network Security
- OS/400 V5R1 VPN Update
- WebServing w/ HTTP Server
- TCP/IP Comm. & Support
- AS/400 VPN Series 4 sessions

Available

Education
- SW246 - Intro to WAS Admin
- SW270 - Basic WAS Admin
- SW271 - Advanced WAS Admin
- SW222 - Advanced Multiplatform
- SW6233 - WAS Performance
- WF381 - WAS 4.0 AE Admin
- SW242 - WAS Perf & methods
- ITS75 - WAS install & Config
- iSeries 400 Perf. Workshop
- iSeries 400 Perf. Explorer

Collateral
- VPN for iSeries Impl.
- WebSphere: Implementing
- HTTP Server Config Tips
- Get Net.Data Up and Running

Key Weblinks

www.iSeries.ibm.com/WebSphere

Available

Service Offerings
- FICA for WAS on iSeries
- First Engagement for Commerce

Labs/Forums
- COMMON Labs
- Tech Conference

Tools
- WAS Performance

2003

Redbooks
- WDSc and WebFacing - upd
- WebSphere Portal Server
- Migrating WAS 3.5 to 5.0
- Turing WAS Performance -upd

Collateral
- Presentation/Labs for WAS 5.0
- Tuning WAS Perf workshop - upd

Education
- SW270 - WAS Admin - update
- SW271 - WAS Adv Admin - Upd

Service Offerings
- Support IBM Telephone Dir
- First Engagment for WAS

http://www-919.ibm.com/developer/education/ibo/curr.html?bldg

http://www-1.ibm.com/servers/eserver/iseries/education/

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Developer Enablement Roadmap

Available

Adding

	Introductory WebSphere Education (3)	Pilot Appl. Conversion Projects (3+)	Intermediate & Integration Projects (4)	Advanced & Mentorship Programs (5)
WebSphere Developer Roadmap	Free Web course		eCTC offerings	

Available

Redbooks

SG24-5755: Servlets and JSP

SG24-6559: WS J2EE Appl. Dev.

SG24-6804: iSeries Access& Host

REDP0516: WSD Tools

REDP0414: Intro to WDSc iSeries

REDP0503: WDS tools iSeries

Online courses

iSeries campus

- WS Commerce 5.4 prog
- WS Commerce 5.4 Impl.
- XML and DB2 Integration
- WS Commerce 5.4
- iSeries Access & WS Host Pub.
- AS/400 Toolbox for Java
- Extending iSeries Host Apps
- JVM V5R1 Update
- VisualAge for Java
- Web business with Servlets
- Java for RPG Programmers
- Introduction to Java on iSeries
- WS MQ and Java MS Intro
- Integrating Your Existing Apps.

Available

Education courses

SW273 - Intro to WDSc
SW274 - Into to Eclipse
SW275 - WebFacing Workshop
SW276 - iSeries WebSphere Pgm
SW232 - Into to Java
SW6185 - Java for RPG Pgmr
N4410-WAS Development
S6288-WebServices
S6234-iSeries Web **Deployment**
S6191-iSeries Java Tool Box
S6183-iSeries Java/WebSphere
SW242-WAS Perf. workshop

Collateral

iSeries Campus
- iSeries AD Trend & Directions
- Get started wi/Java on iSeries
- iSeries WebFacing Tools
- Servlets & JSP for iSeries
- Hands On XML Lab
- WebFace iSeries Applications
- WebSphere: Servlet Support
- Enterprise Java Beans
- Introduction to XML
Server sizing for WebSphere on iSeries

Available

Service Offerings

WebFacing Conversion Workshop
- www.eserversoftwarenet.com
Commerce 1st Engagement-eCTC
Managing end-to-end WAS-eCTC

Labs/Forums

WAS Track in COMMON
WAS Track at Tech Conf

Tools

WAS Perf. Tool
WAS Perf. Tool

2003

Redbooks

WDSc and WebFacing - upd
WebSphere Portal Server
Migrating WAS 3.5 to 5.0

Collateral

Presentation/Labs for WAS 5.0
Tuning WAS Perf workshop - upd

Education

SW273 - Intro to WDSc - Update
SW274 - Intro to Eclipse - Update
SW275 - Intro to WebFacing
SW276 - iSeries WAS Pgm - Upd

Service Offering

WebSphere end-to-end Proj Mgt

Support

Support IBM Telephone Dir.

http://www-919.ibm.com/developer/education/iborcurr.html?bldg
http://www-919.ibm.com/developer/ebiz/webfacing/index.html

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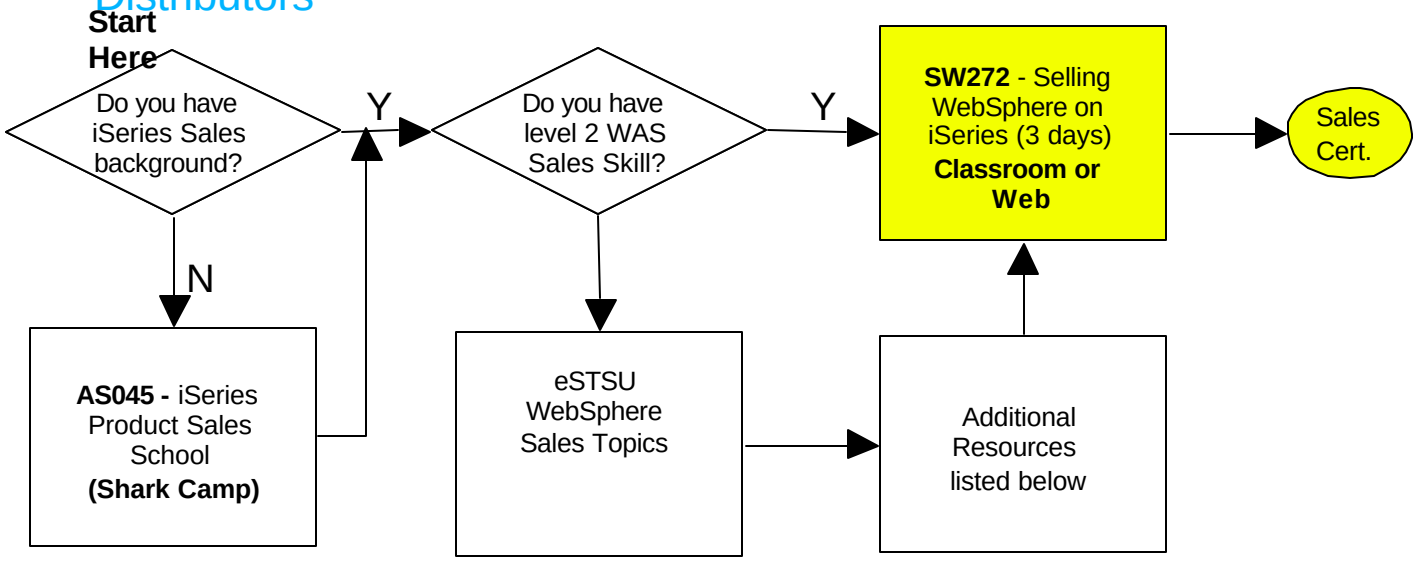
Sales Education Roadmap

Audience: iSeries Sales Specialist, SP1s, SP2s & Distributors



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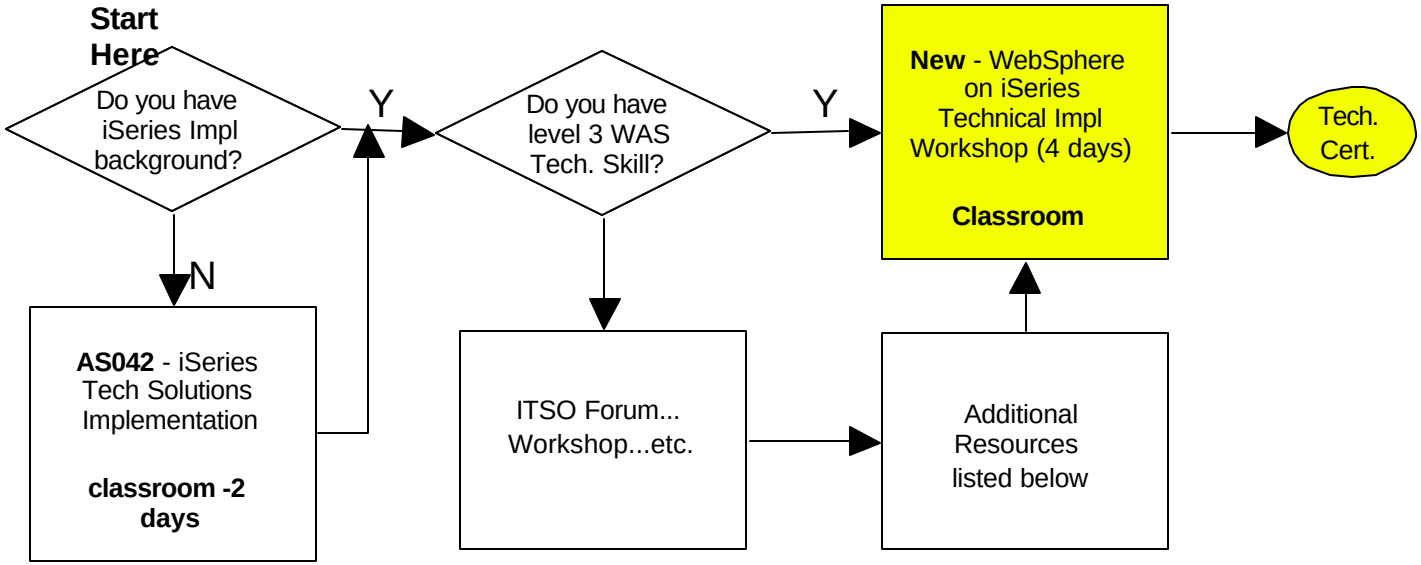
Solution Advisor Education Roadmap

Audience: FTSS, ATS, SP1s, SP2s, SIs & Distributors



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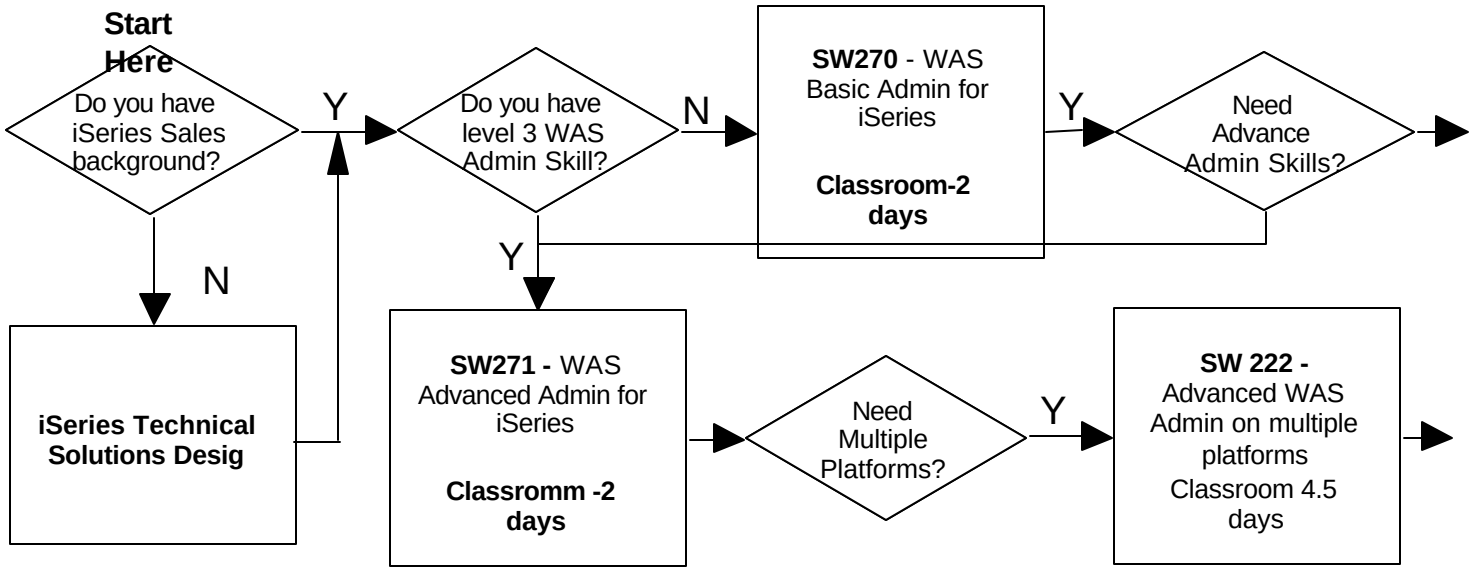
Adminstrator Education Roadmap

Audience: Customers



Additional Resources

Redbooks:

SG24-6815 WebSphere Installation
SG24-6256 WebSphere Performance

Weblinks:

http://www-919.ibm.com/developer/education/ibo/curr.html?bldg

Services:

- FICA for WebSphere -
http://www-919.ibm.com/developer/websphere/assistance.html
Server sizing for WebSphere on iSeries

Other Courses
SW246 - 4 days
SW242- 4 days
WF381 - 4 days

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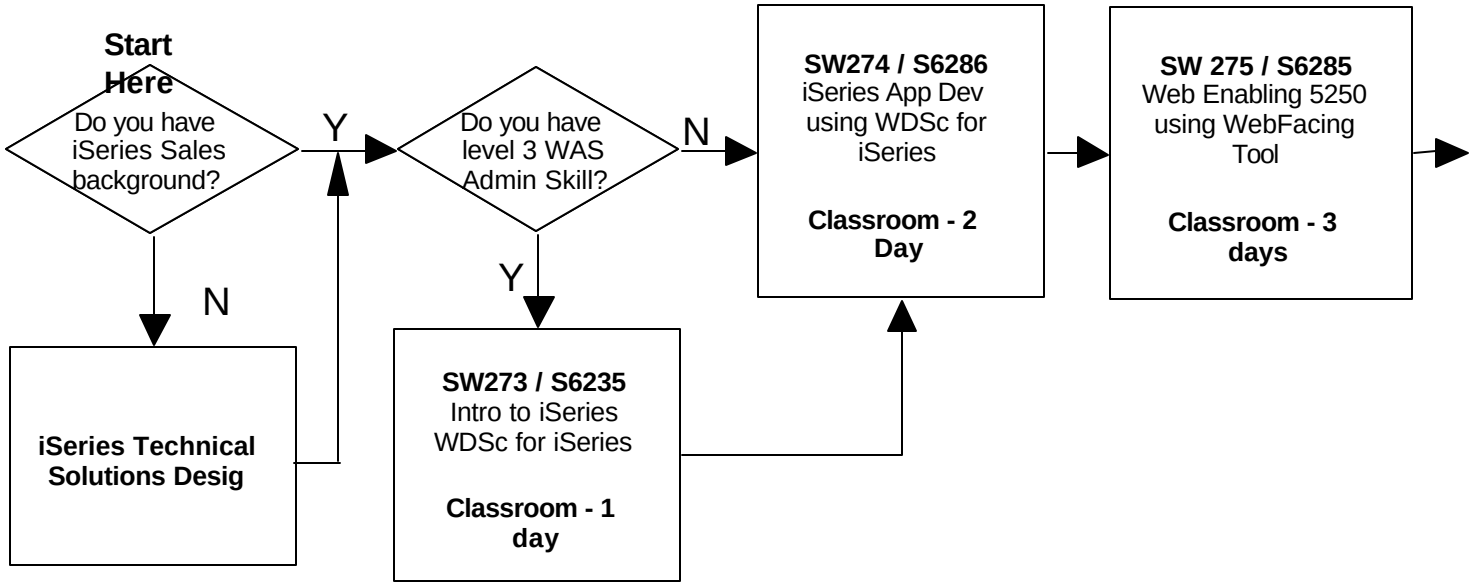
Developers Roadmap - Eclipse & WebFacing

Audience: Customers, Services and ISVs



Additional Resources

Redbooks:

SG24-6600 Moderizing your existing iSeries Applications

Weblinks:

http://www-919.ibm.com/developer/education/ibo/curr.html?bldg

http://www-919.ibm.com/developer/ebiz/webfacing/index.html - WebFacing resources

Service Offerings

- WebFacing Conversion Services Offering by selected Partners
- "Free" Web based Education for WAS Express and WebFacing (Avail 02/03)

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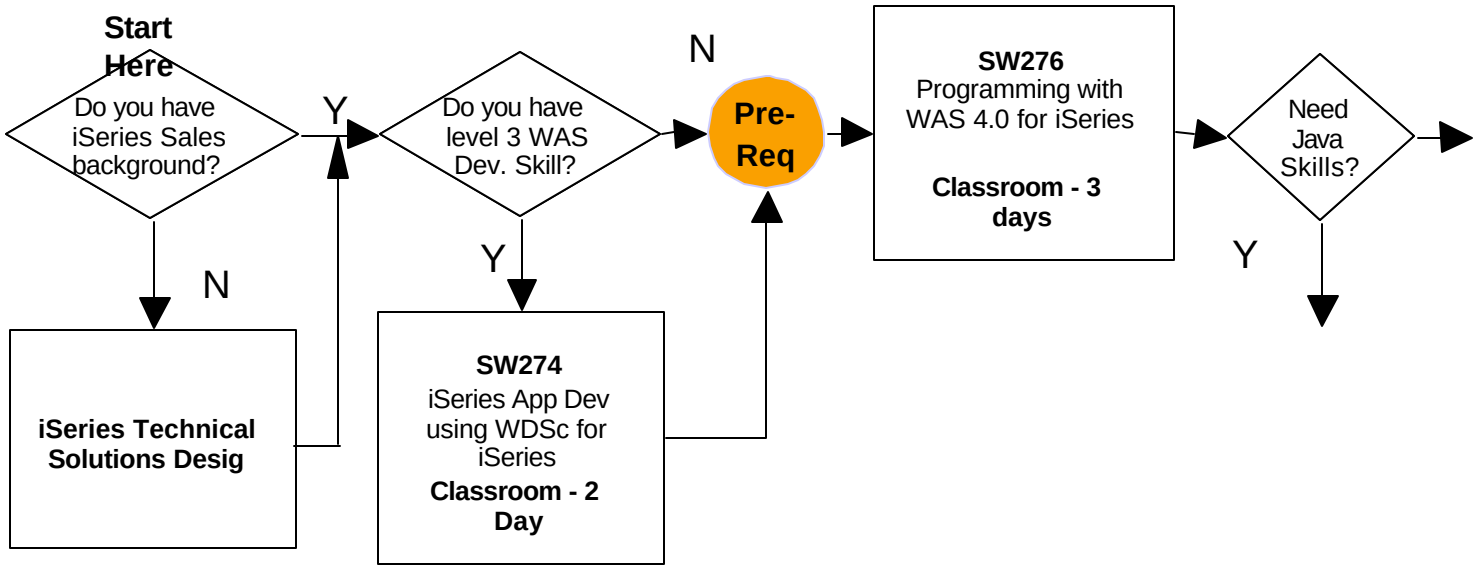
Developer Roadmap - WAS Dev & Java

Audience: Customers, ISVs and Services



Additional Resources

Websites

http://www-919.ibm.com/developer/education/ibo/curr.html?bldg - IBE (free)

Service Offering

- Create "1st Engagement for WAS" offering similar to Commerce Suite - eCTC
- Create new offering for managing end-to-end WebSphere project through eCTC

Pre-Reqs

OB720 -OO Pgm Java
N1980E - Java Pgm
Java Experience

Other Courses

S6184-No Update
S6191-Java Tool Box
S6183-Java/ WebSphere

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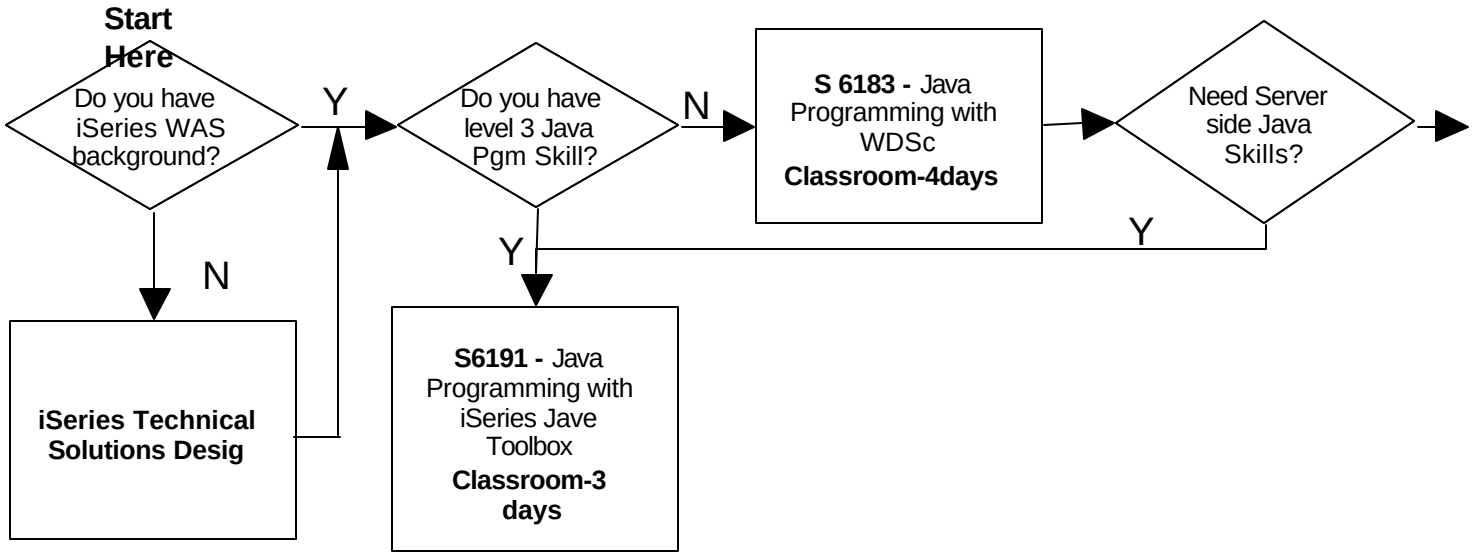
Developer Roadmap - Advanced & Integration

Audience: Customers, ISVs and Services



Additional Resources

Weblinks:

http://www-919.ibm.com/developer/education/ibo/view.html?ebz - eBus IBE/IBP

Service Offerings:

- Working on Create "1st Engagement for WAS" offering similar to Commerce - eCTC
- Create new offering for managing end-to-end WebSphere projects through eCTC

Other Courses
S6184-No Update
S6164 or SW276

MQ Series/XML
MQ83C
XM341 or M1905

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Summary

- Familair with the WLE questions...
  - WAS workload
  - Commerce
  - HTTP and Java
- Planned Workloads
  - WebFacing and Portal
- Skills Roadmaps
  - Sales
  - Solution Advisor
  - Administrator
  - Developer
- Where to get support...

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WLE - Old Screen

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