

# Deep Dive Into System i Access for Web Session 1:

### Overview

November 2008

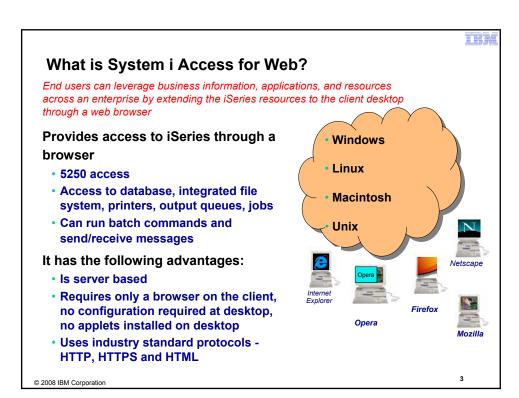
Linda Hirsch
LLHIRSCH@us.ibm.com
http://www.ibm.com/systems/i/software/access/web

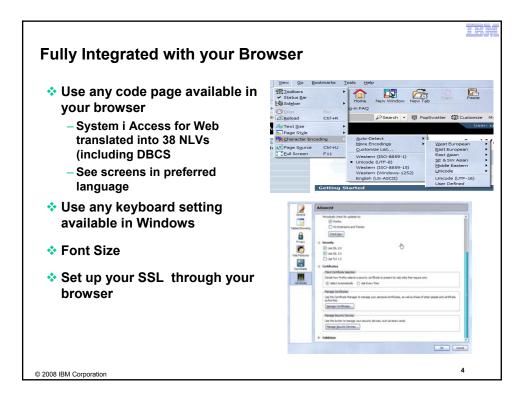
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### **Table of Contents**

- What is System i Access for Web?
- Getting started
- Ways to roll out to end users
- Control access to functions

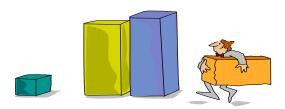








# **Packaging and Ordering**



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# System i Access Family - Packaging

V6R1 5761-XW1 System i Access Family	V5R4 5722-XW1 iSeries Access Family	
System i Access for Windows, 5761-XE1, V6R1	iSeries Access for Windows, 5722-XE1, V5R4	
System i Access for Web, 5761-XH2, V6R1	iSeries Access for Web, 5722-XH2, V5R4	
System i Access for Linux, 5761-XL1, Vx.x (V6R1)	iSeries Access for Linux, 5722-XL1, V1.10 (V5R4)	
System i Access for Wireless, 5722-XP1, V5R3	iSeries Access for Wireless, 5722-XP1, V5R3	
V5R4 i5/OS customers not wanting to upgrade to V6R1 i5/OS but want the new V6R1 System i Access Family clients can order no-charge Feature No. 2649 of Product No. 5722-XW1		

 NOTE: iSeries Access for Web is available on V5R1 and later. This chart summarizes the releases that can currently be ordered.

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### **Products - Focus**

Product	Product Number	Need 57xx-XW1* to use?
➤ System i Access Family	57xx-XW1	
>System i Access for Windows	57xx-XE1	Yes (for 5250 and Data Transfer)
System i Access for Linux	57xx-XL1	Yes (for 5250)
➤System i Access for Web	57xx-XH2	Yes
➤ System i Access for Wireless ➤ iSeries Toolbox for Java ME	57xx-XP1	No
>System i Navigator >Operations Console	Packaged in 57xx-XE1	No
	> System i Access Family > System i Access for Windows > System i Access for Linux > System i Access for Web > System i Access for Wireless > iSeries Toolbox for Java ME > System i Navigator	Product Number  System i Access Family  System i Access for Windows  57xx-XE1  System i Access for Linux  57xx-XL1  System i Access for Web  57xx-XL2  System i Access for Wireless iSeries Toolbox for Java ME  System i Navigator  Packaged in

<sup>\* 57</sup>xx = 5761 or 5722

### Flexible Purchase Options

- Processor-Based = purchase price based on software tier, connect unlimited numbers of users
- User-Based = purchase only number of users who will be concurrently connected.
- Can upgrade from User-Based to Processor-Based, but cannot go back to User-Based after purchasing Processor-Based
- Software maintenance included in base i5/OS software subscription

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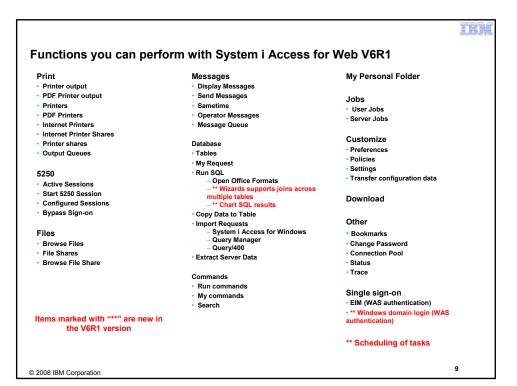
### IBH

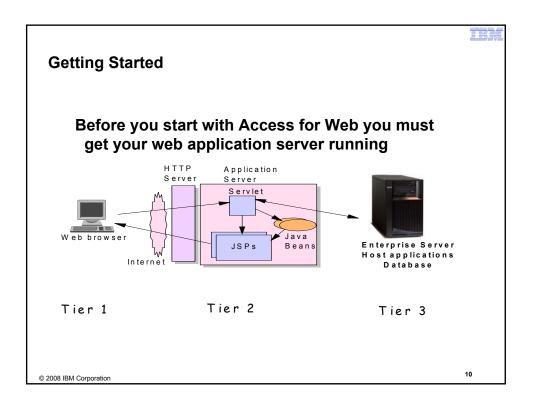
# System i Access Family included with new hardware

- System i Access Family (5722-XW1 or 5761-XW1) unlimited user feature included with the following System i hardware
  - System i Model 515 Express configurations
    - See Announcement Letter 107-181 dated 4/1/07 for more details
  - System i Model 525 Express and CBU configurations
    - See Announcement Letter 107-182 dated 4/1/07 for more details
  - System i Model 570 with POWER6 technology
    - See Announcement Letter 107-448 dated 7/31/07 for more details
  - The new Power Systems Models 570 and 595 announced April 2008
- Any i5/OS user connecting to the above System i models is entitled to use any of the System i Access Family products at no additional charge. This includes:
  - · System i Access for Windows
  - System i Access for Web
  - System i Access for Linux



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### **Supported Web Application Servers**

- The System i Access for Web servlet code can be used with any of the following web application servers:
  - Integrated web application server
  - WebSphere® Application Server V6.1 and V6.0 – Express for i5/OS
  - WebSphere Application Server V6.1 and 6.0 Base and Network Deployment
  - WebSphere Application Server V5.1 -Express for iSeries
  - WebSphere Application Server V5.0 -Express
  - WebSphere Application Server V5.1 and 5.0 Base and Network Deployment Editions
  - ASF Tomcat (V5R4 and earlier releases)

- The System i Access for Web portlet code can be used with any of the following portal servers.
  - IBM Workplace Services Express V2.6
  - WebSphere Portal for Multiplatforms V6.0
  - WebSphere Portal for Multiplatforms V5.1.0.1
  - WebSphere Portal Express for Multiplatforms V5.0.2
  - WebSphere Portal Express Plus for Multiplatforms V5.0

PTFs required for latest web app server and portal support: http://www.ibm.com/systems/i/software/access/web/servicepacks.html

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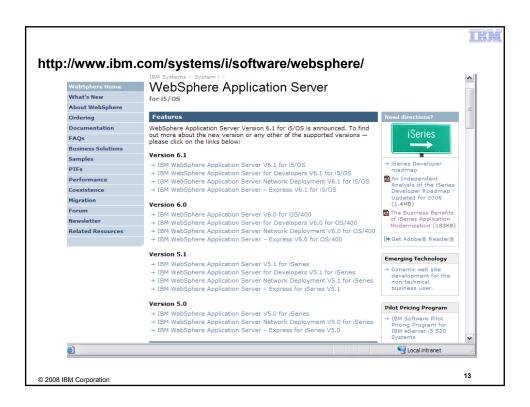
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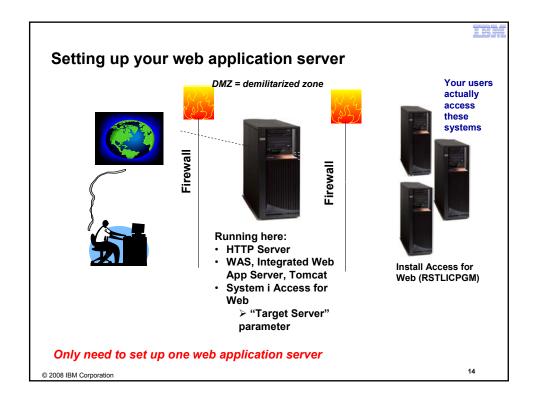


### Integrated Web application server

What is it? Does System i Access for Web support it?

- What is the i5/OS integrated Web application server?
  - A web application engine much like ASF Tomcat
  - Uses minimal system resources, similar to ASF Tomcat
  - Minimal effort by an Administrator to maintain
  - V5R4 is the last release i5/OS will contain ASF Tomcat
- · How is it packaged?
  - 5761-DG1 and 5722-DG1 IBM HTTP Server for i5/OS
  - Integrated Web application server 7.1 is available in the DG1 group PTF
    - V5R4 SF99114 level 13 or later
    - · V6R1 SF99115 level 1 or later
- · System i Access for Web support
  - V5R4 and V6R1 System i Access for Web support the i5/OS integrated Web application server
  - V5R4 iSeries Access for Web can be installed and is supported on V5R4 and V5R3 i5/OS
  - V6R1 System i Access for Web can be installed and is supported on V6R1 and V5R4 i5/OS

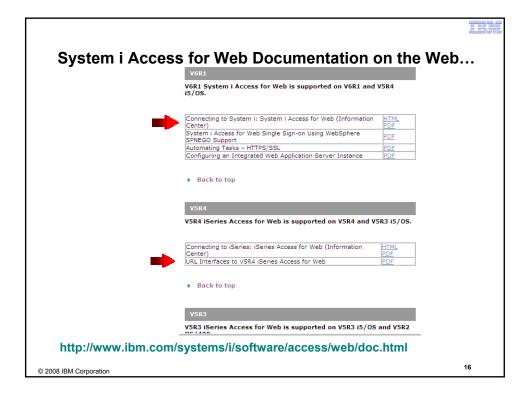






### **Get System i Access for Web running**

- Get a copy of the System i Access for Web Install & Users Guide
  - http://www.ibm.com/systems/i/software/access/web/doc.html
- Install System i Access for Web from your i5/OS stacked media.
  - RSTLICPGM Install Access for Web, 5722-XH2, into QIBM directory
- Configure and start System i Access for Web.
  - CFGACCWEB2 Configure the System i Access for Web application server
  - STRACCWEB2 Start the System i Access for Web application server.
- Set some policies to enable or limit access to various functions of Access for Web



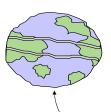
# 4 CL Commands in System i Access for Web

- Configure Command example when using WebSphere Application Server V5.1 - Express for iSeries
  - CFGACCWEB2 -appsvrtype \*WAS51EXP -wasinst iwa51exp -appsvr iwa51exp
- Start Command example when using WebSphere Application Server V5.1 - Express for iSeries
  - STRACCWEB2 APPSVRTYPE(\*WAS51EXP) WASINST(MYINST) APPSVR(\*DEFAULT)
- End Command example when using WebSphere Application Server V5.1 for iSeries
  - ENDACCWEB2 APPSVRTYPE(\*WAS51) WASINST(DEPTXYZ) APPSVR(\*DEFAULT)
  - Sometimes you may need to end Access for Web so you can make changes, then start it again.
- Remove Command
  - The Remove System i Access for Web (RMVACCWEB2) command is used to remove the System i Access for Web configuration from a web application server

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### **Users can now Connect!**







- Open browser
- Key in System i url
- Prompted for i5/OS user id and password



### Different Ways to Roll Out System i Access for Web

- Use 'out of the box'
  - Set some policies to limit what functions are accessible to your users, and give them the URL address to System i Access for Web
- Use 'out of the box', but set up predefined functions
  - You can set up preconfigured 5250 sessions that users (or groups of users) can run, can create predefined database requests for users to run, set up commands users can run, etc.
- Create your own 'window' to your system through Access for Web
  - Add company banners to screens, set up 'click and link' tasks that users can perform, set up macros to simplify user access.
- Use Access for Web with the IBM WebSphere Portal solution
  - A single unified workspace in which your employees, trading partners, and customers can easily find and use the applications and information that they need

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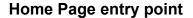
# Different Ways to Roll Out System i Access for Web

- Use 'out of the box'
- Use 'out of the box', but set up predefined functions



- Create your own 'window' to your system through System i Access for Web
- Use the WebSphere Portal solution





Home Page = http://<myiseries>:<port>/webaccess/iWAHome

- System i Access for Web 'Home Page' out-of-the-box view
- This page is totally customizable



New 'look' in V5R4...

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# Your Window to your System i

http://<myiseries>/webaccess/iWAHome

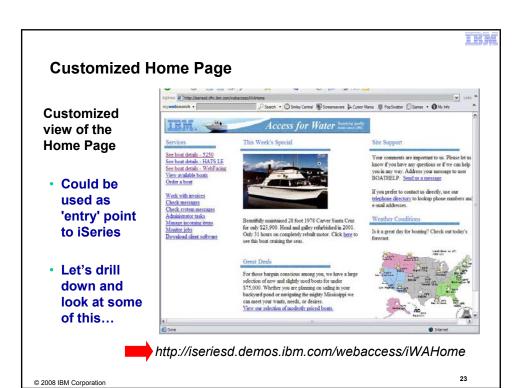
Customized 'window' to i5/OS

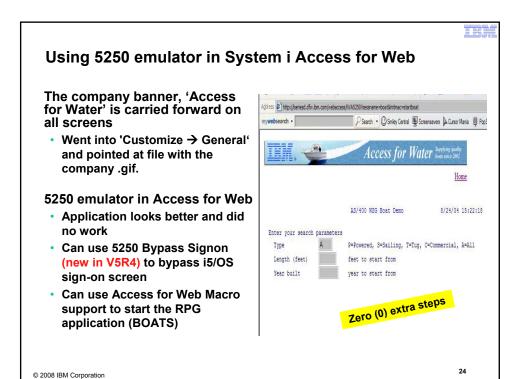
# Window is associated with i5/OS user profiles

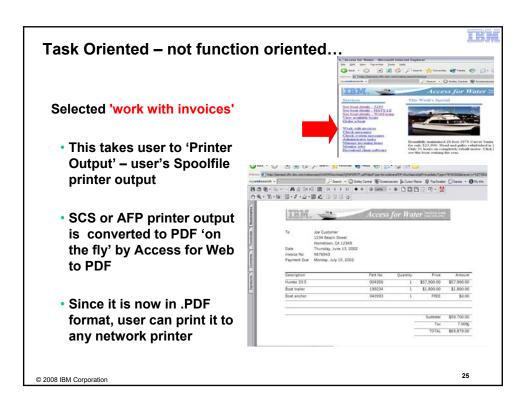
- An administrator can create multiple different 'windows' based on user profile / group profile for different types of users.
- Can tightly control what functions a user can perform on your iSeries
- Tie in with other web applications (such as WebFacing and HATS) from here as well
- Link to other systems, not just System i



- One view and set of functions for the Accounting department
- Another view and set of functions for the Warehouse staff







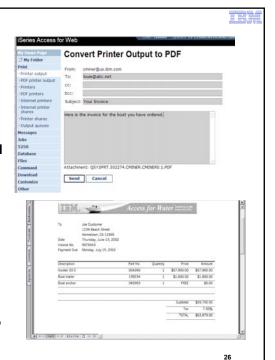


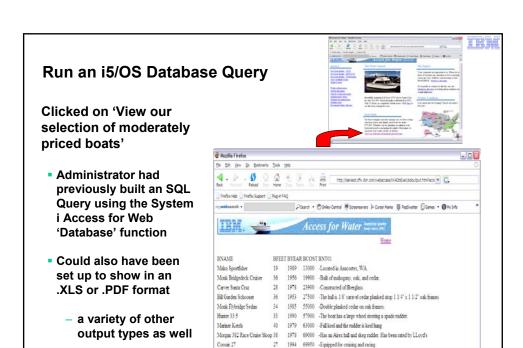
E-mail is integrated with System i Access for Web

- Your mail server can be anywhere in your network
- Users receiving your e-mail need only an e-mail address

User selects an option in the Printer Output screen to 'e-mail PDF output'

- The PDF document is then included in the e-mail
- Sender's e-mail address filled in; user only needs to address it.





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Try out System i Access for Web on a demo server!

Start your browser and connect to the following web site: http://iseriesd.demos.ibm.com/webaccess/iWAHome (case sensitive)

User ID = WACUST  Password = demo2pwd	This shows the basic look of System i Access for Web as we ship it. You can try various functions including working with printer output, creating database requests, etc. Click on the 5250 tab, sign onto the iSeries, then start an RPG application called BOATS and run it.
User ID = BOATADMIN	This is an example of how a customer might design a web page for their use. You will see that an end user could start the same BOATS application by clicking on
Password = demo2pwd	the 5250 session, or they could have used HATS to run the application. You will also see other links that would let a user work with spooled file information, work with IFS, run database requests, etc

Send email to: LLHIRSCH@us.ibm.com to reset the user profiles if either gets disabled.

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### More Documentation...

Article describing how 'Access for Water' web page was built

Go to the System i Access Family web page at:

www.ibm.com/systems/i/software/access/web/articles.html

- Find article written Jan/Feb 2003 entitled 'Build a Quick and Easy Web Site with iSeries Access for Web' (PDF version)
- Updated Oct 2006 in <u>System i News</u> 'Tailor iSeries Access for Web'



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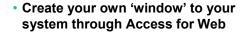
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# **Different Ways to Rollout Access for Web**

Use 'out of the box'



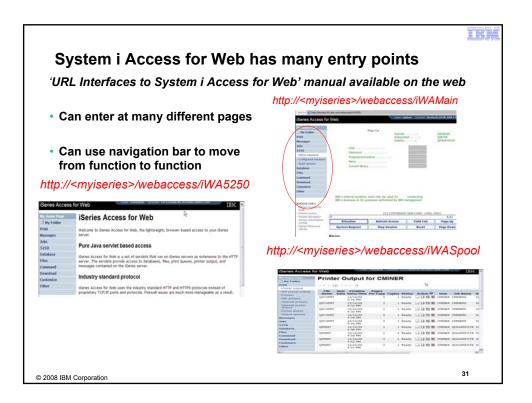
Use 'out of the box', but set up predefined functions

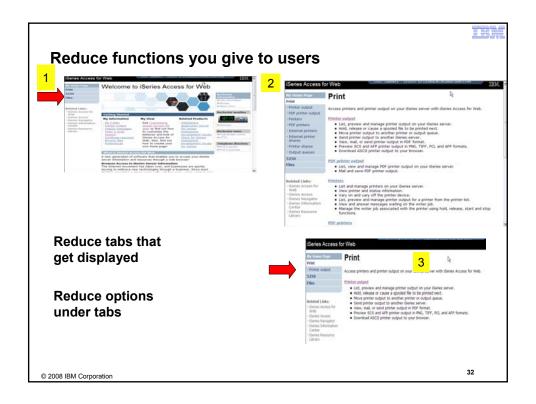


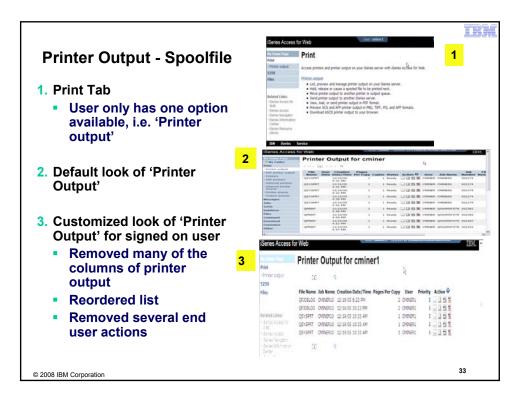
Use the WebSphere Portal solution

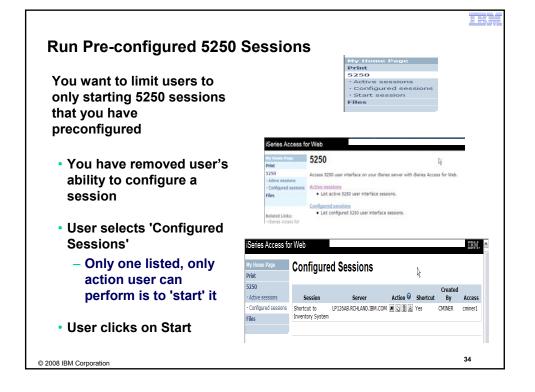


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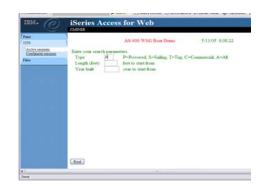




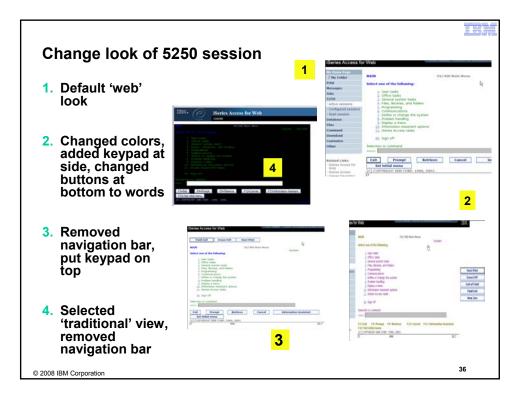
# User can run 5250 application

User is placed in this application

- The session could be configured to include a macro to put the user directly into a specific application on the System i
  - Or on a menu screen
- Use CHGUSRPRF, LMTCPB=Yes to remove command line from user's screen



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### Work with Files in the IFS

- Navigate and browse the directories located on your iSeries server integrated file system
  - Don't need to map drives
  - Don't need to know directory structures



- View, upload, and download files
- Copy and mail files
- Rename and delete files and directories
- · Zip and unzip files and directories
- Edit authorities and change ownership of objects in the integrated file system

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### Browse Files - 'Filtered View'

When I click on 'Browse Files', I see only a directory called 'cminer1' and its content

 Because the administrator set a 'Default Directory' policy for me

### **Actions I can perform:**

- Subdirectories: Create new ones, Rename, Work with
- Files: Copy, Rename, Delete, Mail, Work with (ie, Zip, Unzip, etc)



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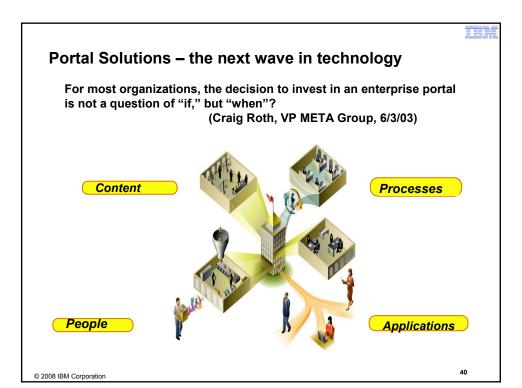
# Different Ways to Rollout System i Access for Web

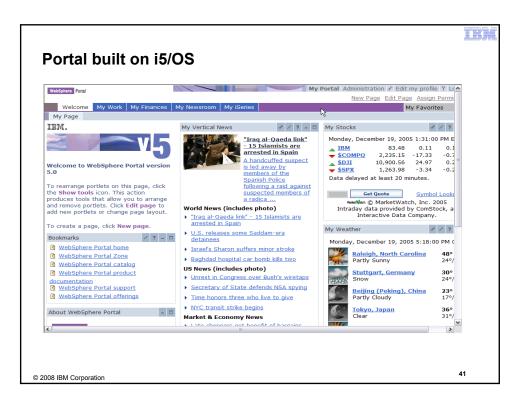
- Use 'out of the box'
- Use 'out of the box', but set up predefined functions
- Create your own 'window' to your system through Access for Web

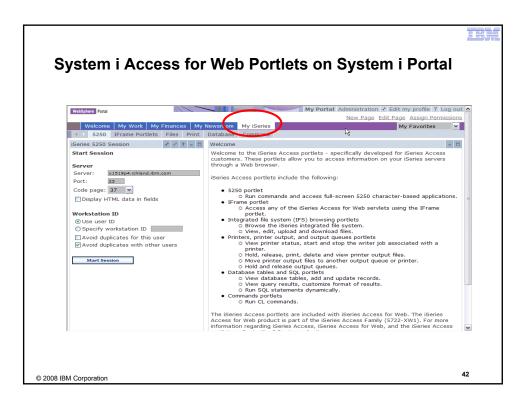




Use the WebSphere Portal solution







### THE W

# Portlet Support added to System i Access for Web

V6R1	V5R4	V5R3 PTF SI11914 (May 2004)	V5R3 (Jan 2004)
New portal application: "Standard portal application"  Written to the Java Specification Requests (JSR) 168 Portlet Specification  Strategic System i Access for Web portal offering  Original portlets, "IBM portal application," are still available	Single Sign-on (SSO)     Via WAS Security model     5250 Bypass signon option      Database     OpenOffice spreadsheet format (.ods)     iSeries SQL Requests     Viewer to look at iSeries SQL results      Files     Zip function to zip files in IFS      iSeries Credentials     Users can change i5/OS password via System i Access for Web, and it will additionally update currently defined credentials with the new password value.	<ul> <li>File</li> <li>Print</li> <li>Database</li> <li>Command</li> <li>Credentials</li> <li>Related Links</li> </ul>	• 5250 • iFrame • Welcome

# **Different Ways to Rollout Access for Web**



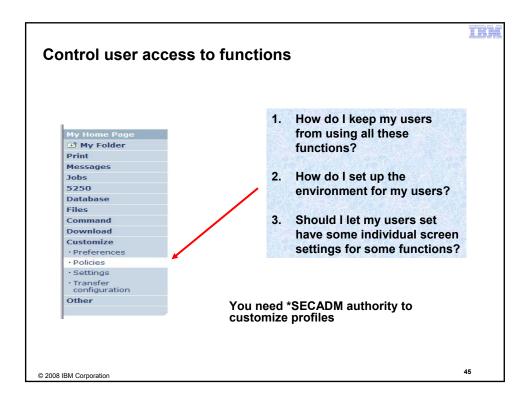
- Use 'out of the box'
- Use 'out of the box', but set up predefined functions



 Create your own 'window' to your system through Access for Web



Use the WebSphere Portal solution



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# System i Access for Web uses i5/OS User Profiles

When an System i Access for Web user attempts to access any function on the iSeries, the following sequence of checks are made to authenticate user access:

- User profile
- Group profile(s)
- \*PUBLIC profile

\*PUBLIC profile is the set of default policy settings shipped with Access for Web

The defaults allow most functions to be available to all users

The settings in these policies indicate what functions within System i Access for Web, a user can attempt to use.

- For Example: Let's say you give users full access to the 'Database' tab.
- You have Object Level authority set up on your data
- When a user attempts to use one of the System i Access for Web Database GUIs to get at the database information, the user will get an i5/OS message indicating they are not authorized to access data

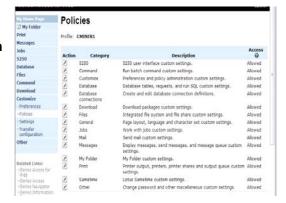


### Customize → Policies

Policies are used to control access to System i Access for Web functions

### For example:

- A Files access policy can be set to Deny or restrict a user or group from accessing the file function.
- Policies are saved and associated with the appropriate iSeries user or group profile.
- Each 'Category' expands for granular control



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# Policies - customize for all users at once

One alternative...



- 'Deny' functions for all users in a single step
- Then 'Allow' specific users access to functions via their User or Group profiles

### Problem:

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You're locked out too, until you go in and "Allow" functions to yourself





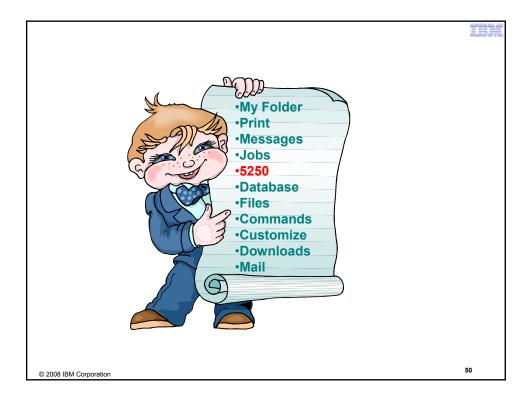
# **Example: Set Policy to Default to Specific Directory in IFS**

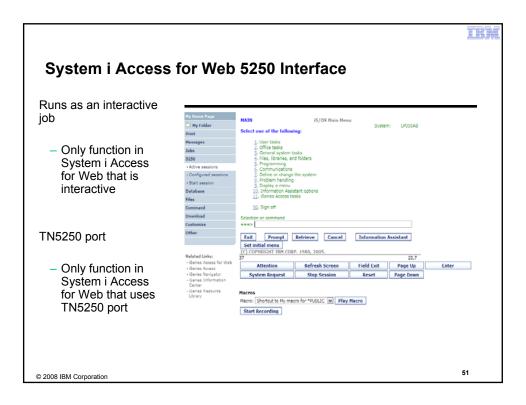
# Set a 'Default Directory' for:

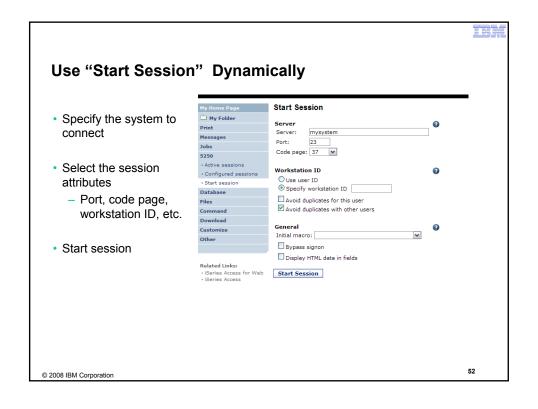
- \*PUBLIC
- Groups of users
- Specific user



In this example, I went into CMINER1 profile, and set policy to show only the 'CMINER1' directory to this user...









### **Start a Configured Session**

- Configured sessions list shows the list of sessions for the logged in user
- Select the "Start" icon for the session to start



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# **Run Pre-Configured 5250 Sessions**

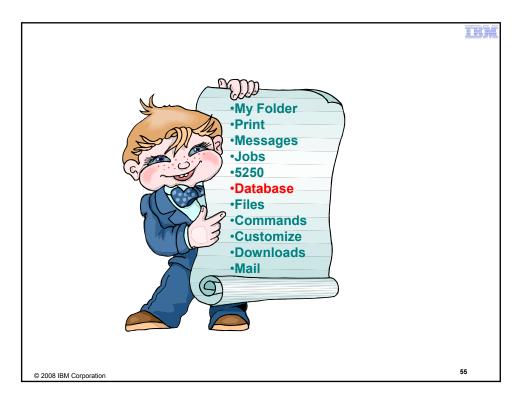
You can limit users to connecting to only specific systems or running only specific applications.

- Create preconfigured 5250 sessions
- Then set policies to restrict users to only preconfigured sessions
- User selects 'Configured Sessions'
  - Only link provided
  - User has only one action → to start a session

http://<systemi>:<port>/webaccess/iWAMain



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# System i Access for Web - Database Functions

Access database tables on your iSeries server with iSeries Access for Web.

### <u>Tables</u>

- View a list of database tables on your iSeries server.
- Perform actions on these tables without having knowledge of SQL and its syntax.
- View the contents of a table in a paged list, using the Quick view action.
- Add and update records in a table using the Insert and Update actions.
- Create your own customized SQL request for a table using the Run SQL action.
- Create your own customized copy data request for a table using the Copy data to table action.

### My requests

- View a list of previously saved requests.
- $\bullet\,$  Run or Edit requests from this list.
- Manage lists using the Copy, Delete, and Rename actions
- Create and manage shortcuts to requests

### Run SQ

- Run SQL statements dynamically.
- View output as a paged list or in a popular file format, like Microsoft Excel or Lotus 1-2-3. (Outpur
  format depends on how you have your browser configured and whether the browser can locate a
  plug-in for the output type you choose.)
- Customize how data is returned by setting options specific to the output type.
- Build SELECT statements using an SQL Wizard.
- Save requests for repeated use.

### Copy data to table

- Copy existing data files from your PC to a database table on your iSeries server.
- These data files can be in many popular file formats, including Microsoft Excel and Lotus 1-2-3.
- Replace the contents of a table or add data to an existing table.
- Create a new database table based on the contents of a workstation file.
   Save requests for repeated use.

### Import request

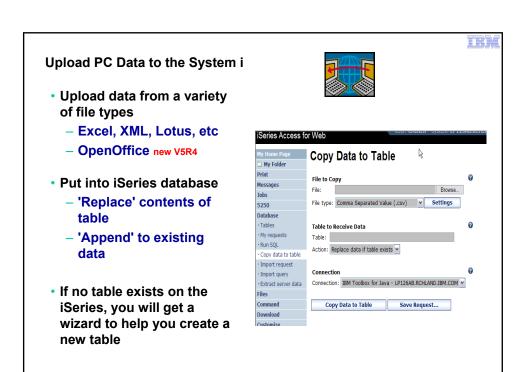
- Import Client Access Data Transfer upload and download requests into iSeries Access for Web copy data and SQL requests.
- Imported requests are automatically converted to iSeries Access for Web format.
- Run and edit converted requests on your iSeries server just like other copy data and SQL requests.

### Import query

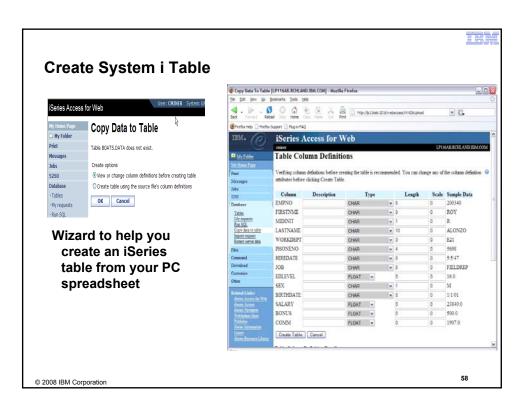
- Import queries generated by Query for iSeries and DB2 UDB for iSeries Query Manager.
- Imported queries can be saved into iSeries Access for Web database requests.
- Run and edit converted queries on your iSeries server just like iSeries Access for Web SQL requests.

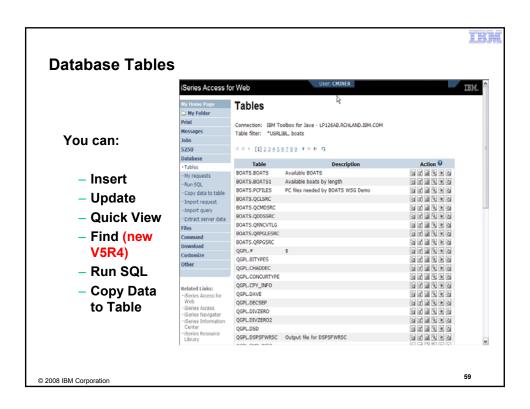
### Extract server data

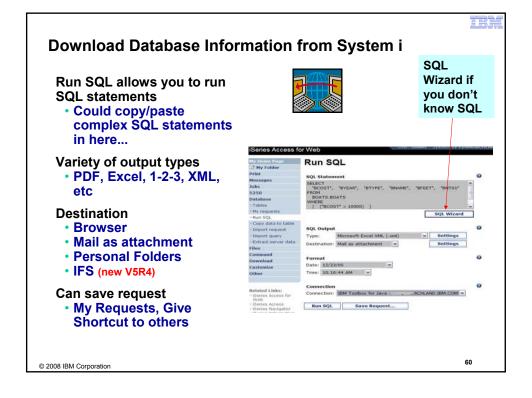
Extract server object information into a database table.

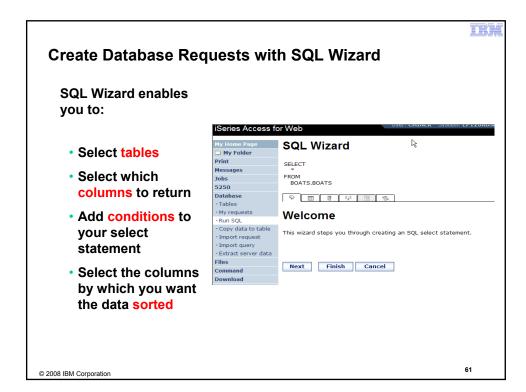


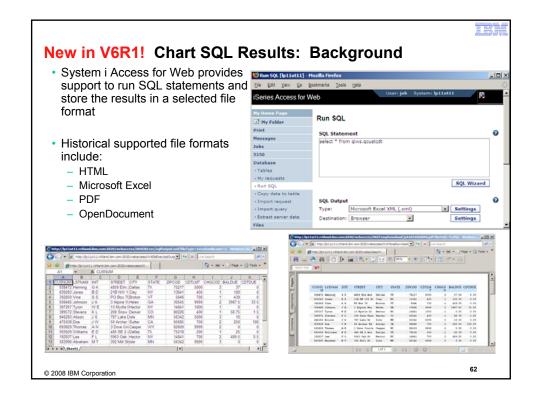
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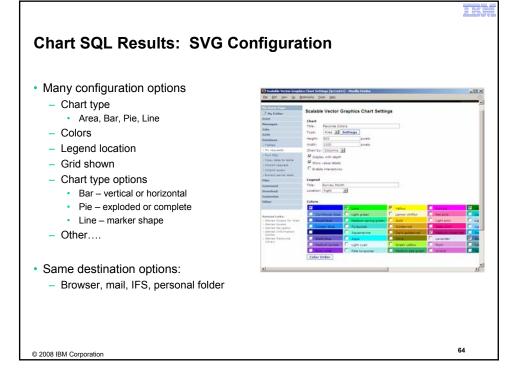








# Chart SQL results: SVG File Format Support for new output file type in V6R1 Scalable Vector Graphics Chart (\*.svg) Language for describing 2D graphics in XML W3C standard Users can store SQL results in a chart Comparison of the comparison of the chart of the



# **Database - Run Requests**



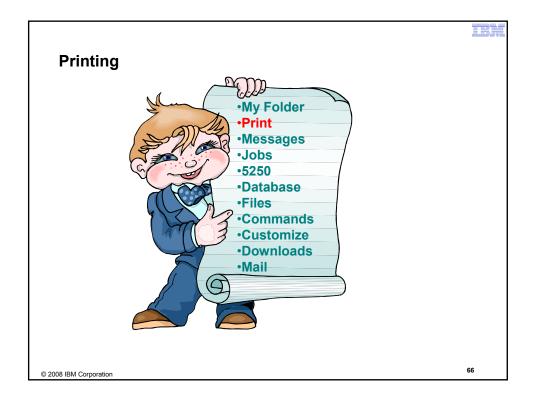
### Administrator could:

- Give users or groups of users some database requests that were created for them.
- Users can run only these specific requests
- No other database options offered

iSeries Access for Web My Requests 5250 Database Request Description Shortcut to Boats For Sale View all available boats CMINER Download Shortcut to Find Boat To Buy Select type and price CMINER \*PUBLIC Shortcut to My Customers Mailing Mail Customer List CMINER Related Links: Related Links:

· iSeries Access for Web

· iSeries Access
· iSeries Navigator
· iSeries Information Center Shortcut to My Customers Mailing Mail Customer List cminer Shortcut to Put My Customer List in Store Customer List Folder CMINER Shortcut to request sql Yes secyesi \*PUBLIC Shortcut to request upload secyesi · iSeries Resource Library |( «( + [1] + » + Q



### TEL

### Work with Printer Output, Printers, Queues

### Typical end user printer tasks

- Printer Output
- PDF Printer Output



Tasks more oriented toward system operators, administrators, programmers, etc

- Printers
- PDF Printers
- Internet Printers
- Internet Printer Shares
- Printer Shares
- Output Queues



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# **Work with Printer Output**

http://<myiseries>/webaccess/iWASpool

### My 'printer output'

### **Actions include:**

- Work with
- View
- View As
- View PDF

Easy-to-use GUI for working with my printer output

 Don't need to sign onto a 5250 session, and run commands to get to spool file

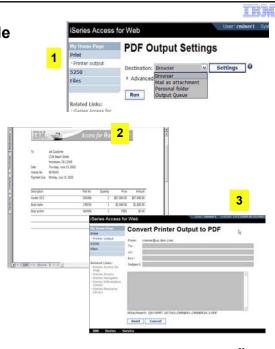


Note: IBM Infoprint Server (57xx-IP1) is NOT needed to use "View PDF"

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# **Printer Output - Spoolfile**

- 1. Requested 'View PDF'
  - Can select any option on pulldown for my printer output
- 2. View in Browser
  - Shows overlays, etc
  - Can print on any printer in network
- 3. Send .PDF document in an email
  - Mail server does not have to be installed on **iSeries**



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# **PDF Printer Output**

http://<myiseries>/webaccess/iWAPDFPrinterOutput

### **Printer output** automatically

converted to PDF and placed in PDF Printer Output Queue at spool time

### Actions include:

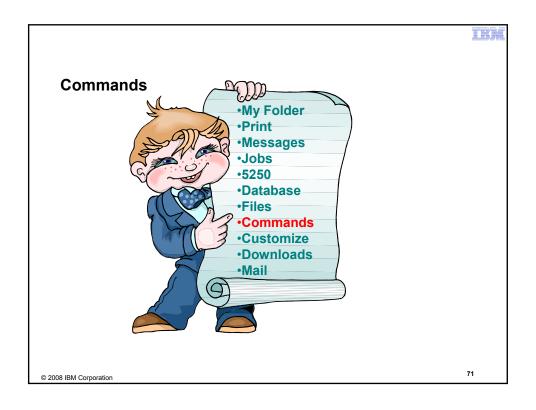
- -View
- -Copy to File
- -Copy to Folder; **Delete**

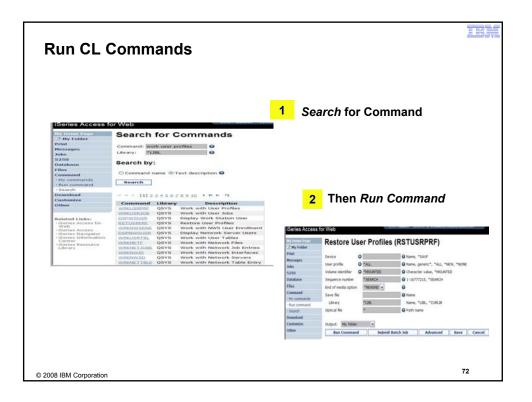
**PDF Printer Output** --- [1] 2 2 4 + + + n

Note: IBM Infoprint Server (57xx-IP1) needed to use "PDF Printer Output" and "PDF Printers"

 Mail
 Actual host application could additionally send spooled file to another output queue (in
 SCS or AFP mode)

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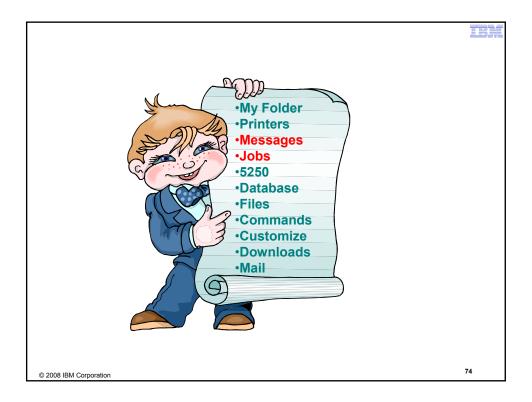
# **My Commands**

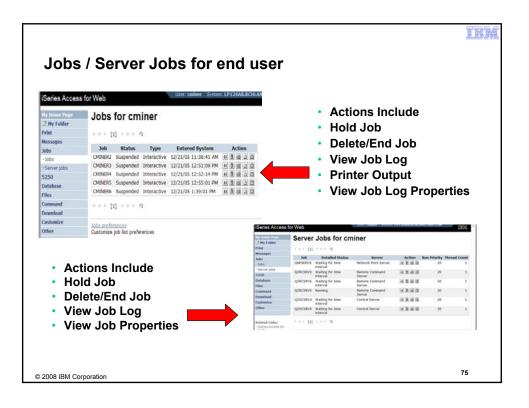
User can run a command, then Save it

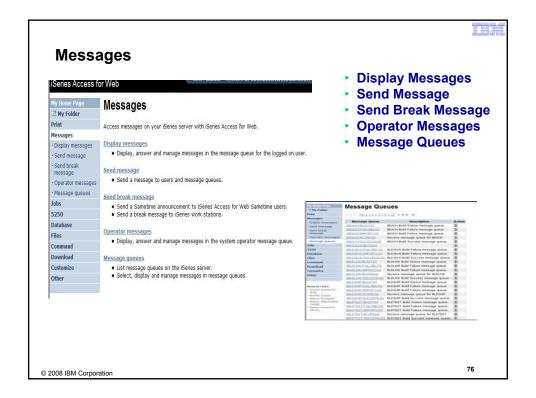
 Commands can be saved by running the Save action for a command that was run in the current browser session.

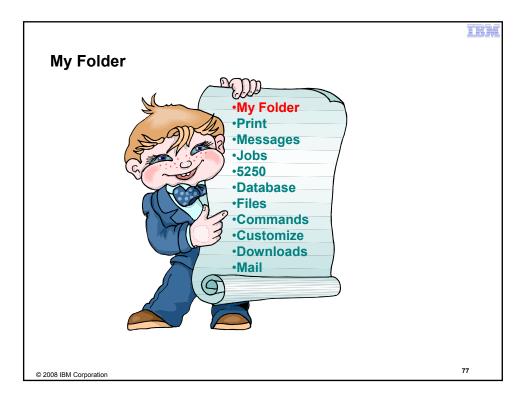
Then next time they could simply select My Commands and run the previously saved commands











# My Folder

### Folder resides in the IFS

- Folder does not show up in IFS directory listing
- Administrator can control size of Folders (new in V5R3)

### Folder can only be accessed by owner

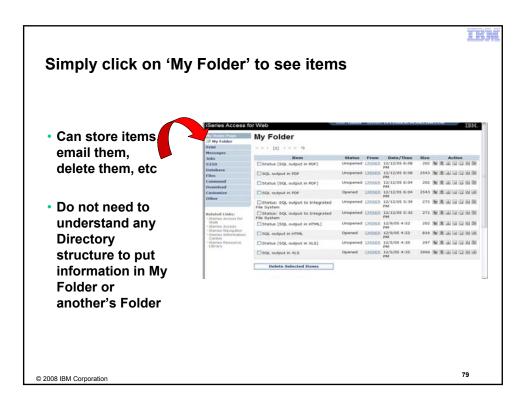
- Good for long-running requests (ie, actions performed asynchronously so the browser is not tied up)
- An easy way to avoid large attachments (ie, a large query result)

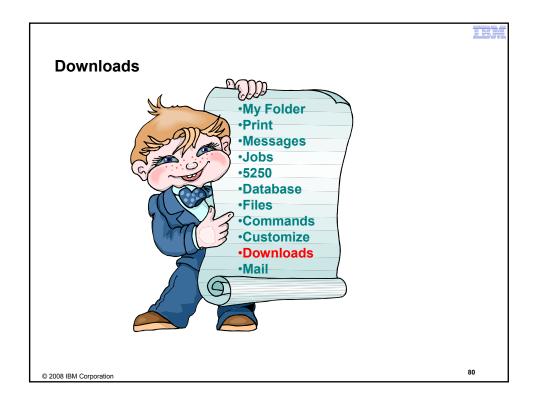
# Can place information in other users' Folders

- -Performing requests for someone else
- -Mechanism for workflow.

# Combine e-mail and My Folder functions to:

- Perform requests for someone else
- Distribute results to a group of users
- Send e-mail to others when you place information in their Folder
- Be notified when new items are placed in your Folder





# Downloads - for file/program distribution

http://<myiseries>/webaccess/iWAPackages

- Mechanism to distribute files / programs to users
- Administrator can create downloads
- Management functions included for updating downloads and for controlling access to them



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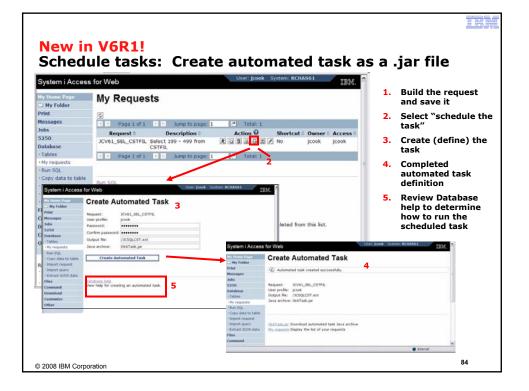




### New in V6R1!

# Single sign-on via Windows domain login - V6R1

- WAS 6.1 provides a trust association interceptor (TAI) that uses the Simple and Protected GSS-API Negotiation Mechanism (SPNEGO) to securely negotiate and authenticate HTTP requires for secured resources in WAS.
  - · This uses kerberbos authentication.
  - The SPNEGO TAI enables Windows domain login to be used when granting access to secure resources in WAS.
- When V6R1 System i Access for Web is configured in a SPNEGO TAI environment, the Windows workstation user can login to the Windows domain and have Access for Web use those credentials to authenticate to i5/OS







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# System i Access for Web V6R1 Enhancements



- Single sign-on: support authentication using Windows domain login
- Chart SQL results in bar, area, line, or pie chart
- SQL wizard supports joins of multiple tables
- Automation and scheduling of tasks
- JSR 168 Portlets



Functional enhancements can be submitted via the FITS system. The url is: <a href="http://www.ibm.com/systems/i/software/access/">http://www.ibm.com/systems/i/software/access/</a>

And click on link "Request for Design Change"

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# Why use System i Access for Web? Start simple, grow fast...

- Any System i customer -- with any hardware model can quickly get started working in a Web environment
  - ► If their system is not capable to running WAS, they can easily install the ASF Tomcat web application server. ASF Tomcat runs on hardware with 70 CPW and 256 MB memory
- Any System i customer -- with little Web experience can easily get started working with e-business
  - System i Access for Web is simple to install and configure
  - No programming skills required to set it up
- Any System i customer -- without training or setup on users' desktops can extend the reach of their resources to end users
  - Use customize facility to set up view ('window') to System i and to control access to various i5/OS resources
    - all built around i5/OS user profiles

A great first step to get System i into ebusiness



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# **Additional Information**

- System i Access Home page:
  - http://www.ibm.com/systems/i/software/access
- System i Access for Web Home page:
  - http://www.ibm.com/systems/i/software/access/web/
- Demo of System i Access for Web:
  - http://iseriesd.demos.ibm.com/webaccess/iWAHome



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