



IBM i Access for Web

<http://www.ibm.com/systems/i/software/access/web>

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THE NEW POWER EQUATION

Introducing IBM Power Systems

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- **Getting started**
 - Take a look at popular functions
- **Environment Security Consideration**



What is IBM i Access for Web?

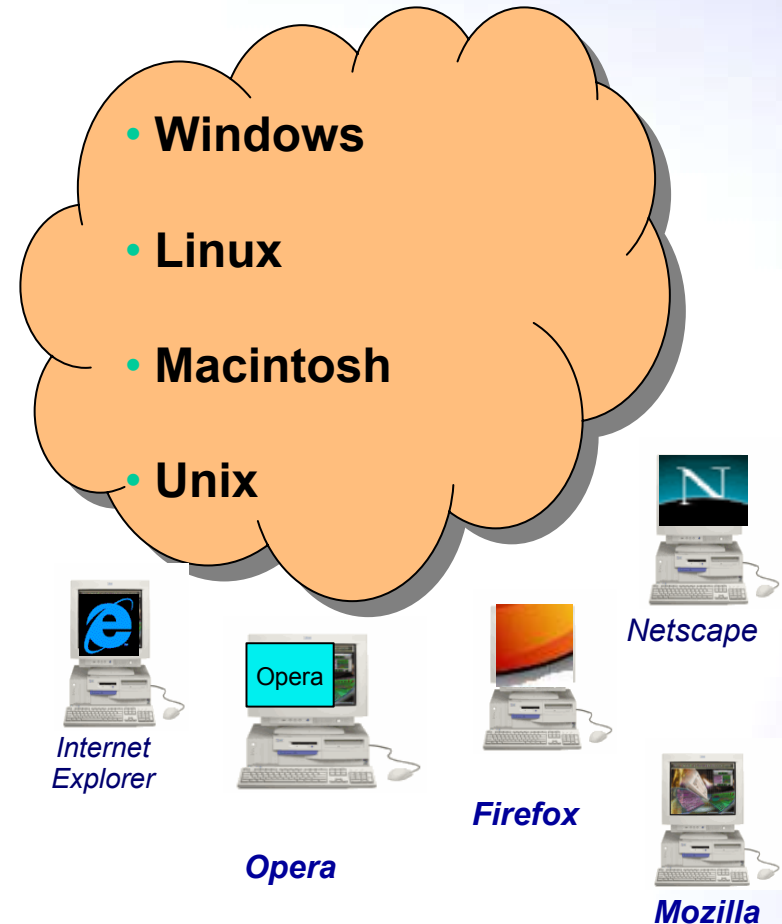
End users can leverage business information, applications, and resources across an enterprise by extending the IBM i resources to the client desktop through a web browser

Provides access to IBM i through a browser

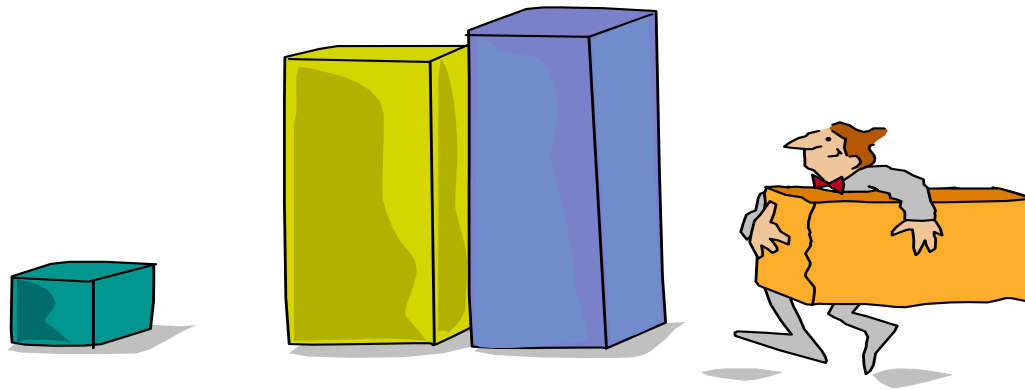
- **5250 access**
- **Access to database, integrated file system, printers, output queues, jobs**
- **Can run batch commands and send/receive messages**

It has the following advantages:

- **Is server based**
- **Requires only a browser on the client, no configuration required at desktop, no applets installed on desktop**
- **Uses industry standard protocols - HTTP, HTTPS and HTML**



Packaging and Ordering



IBM 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 their operating system to V6R1 but want the new V6R1 System i Access Family clients can order no-charge Feature No. 2649 of Product No. 5722-XW1	

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

Products - Focus

Description	Product	Product Number	Need 57xx-XW1* to use?
Family Name	➤ IBM i Access Family	57xx-XW1	
Windows client	➤ IBM i Access for Windows	57xx-XE1	Yes (for 5250 and Data Transfer)
Linux client	➤ IBM i Access for Linux	57xx-XL1	Yes (for 5250)
Browser Access	➤ IBM i Access for Web	57xx-XH2	Yes
Handheld / Wireless offering	➤ System i Access for Wireless ➤ IBM i Toolbox for Java ME	57xx-XP1	No
IBM i systems management	➤ System i Navigator ➤ Operations Console	Packaged in 57xx-XE1	No

* 57xx = 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

Notes:

- Can upgrade from User-Based to Processor-Based, but cannot go back to User-Based after purchasing Processor-Based
- Software maintenance included in base IBM i software subscription

Functions you can perform with IBM i Access for Web V6R1

Print

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

5250

- Active Sessions
- Start 5250 Session
- Configured Sessions
- Bypass Sign-on

Files

- Browse Files
- File Shares
- Browse File Share

Messages

- Display Messages
- Send Messages
- Sametime
- Operator Messages
- Message Queue

Database

- Tables
- My Request
- Run SQL
 - Open Office Formats
 - **** Wizards supports joins across multiple tables**
 - **** Chart SQL results**
- Copy Data to Table
- Import Requests
 - IBM i Access for Windows
 - Query Manager
 - Query/400
- Extract Server Data

Commands

- Run commands
- My commands
- Search

My Personal Folder

Jobs

- User Jobs
- Server Jobs

Customize

- Preferences
- Policies
- Settings
- Transfer configuration data

Download

Other

- Bookmarks
- Change Password
- Connection Pool
- Status
- Trace

Single sign-on

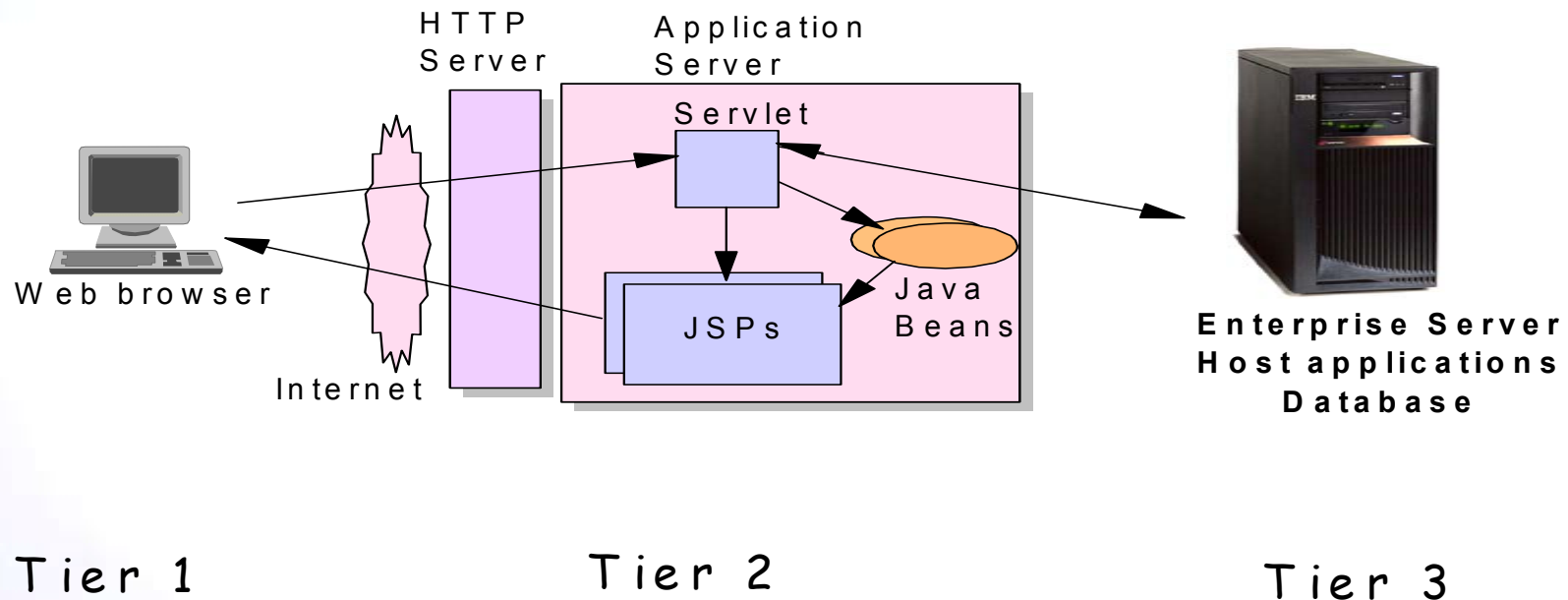
- EIM (WAS authentication)
- **** Windows domain login (WAS authentication)**

**** Scheduling of tasks**

Items marked with “**” are new in the V6R1 version

Getting Started

Before you start with Access for Web you must get your web application server running



Supported Web Application Servers

- The IBM i Access for Web servlet code can be used with any of the following web application servers:
 - **Integrated web application server**
 - **WebSphere® Application Server V7.0, V6.1 and V6.0 – Express for i**
 - WebSphere Application Server V7.0, V6.1 and 6.0 Base and Network Deployment
 - **WebSphere Application Server V5.1 - Express**
 - 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 IBM 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>

Integrated Web application server

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

- **What is the IBM i 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 IBM i will contain ASF Tomcat

- **How is it packaged?**
 - 5761-DG1 and 5722-DG1 IBM HTTP Server for i
 - 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

- **IBM i Access for Web support**
 - V5R4 and V6R1 IBM i Access for Web support the IBM i integrated Web application server
 - V5R4 IBM i Access for Web can be installed and is supported on V5R4 and V5R3 IBM i
 - V6R1 IBM i Access for Web can be installed and is supported on V6R1 and V5R4 IBM i

Integrated Web application server – V6R1 or V5R4 IBM i



User-created instance (requires use of V6R1 IBM i Access for Web with V6R1 or V5R4 IBM i)

1. Load/apply latest PTFs (review cover letters for any additional information)
 - V6R1 GA cumulative PTF package
 - V5R4 SF99114 group for product 5722-DG1
2. Load/apply latest V6R1 IBM i Access for Web PTF
 - V6R1 SI29664 or later
3. Start the Web Administration for i
 - STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
4. Use the Web Administration for i wizard to create an instance of the integrated Web application server and an HTTP web server.
 - http://<system_name>:2001/HTTPAdmin
Follow the instructions in the doc on this page:
<http://www.ibm.com/systems/i/software/access/web/servicepacks.html>

Link: “*Configuring an Integrated Web Application Server Instance*”

4. Configure IBM i Access for Web
 - QSH
 - `cd /QIBM/ProdData/Access/Web2/install`
 - `cfgaccweb2 –appsvrtype *INTAPPSVR –instance <instance_name>`
6. Start integrated Web application server and HTTP web server using the Web Administration for i interface.
 - http://<system_name>:2001/HTTPAdmin
7. Open a browser to IBM i Access for Web using preconfigured HTTP:port
 - http://<system_name>:<port>/webaccess/iWAMain
8. Done!

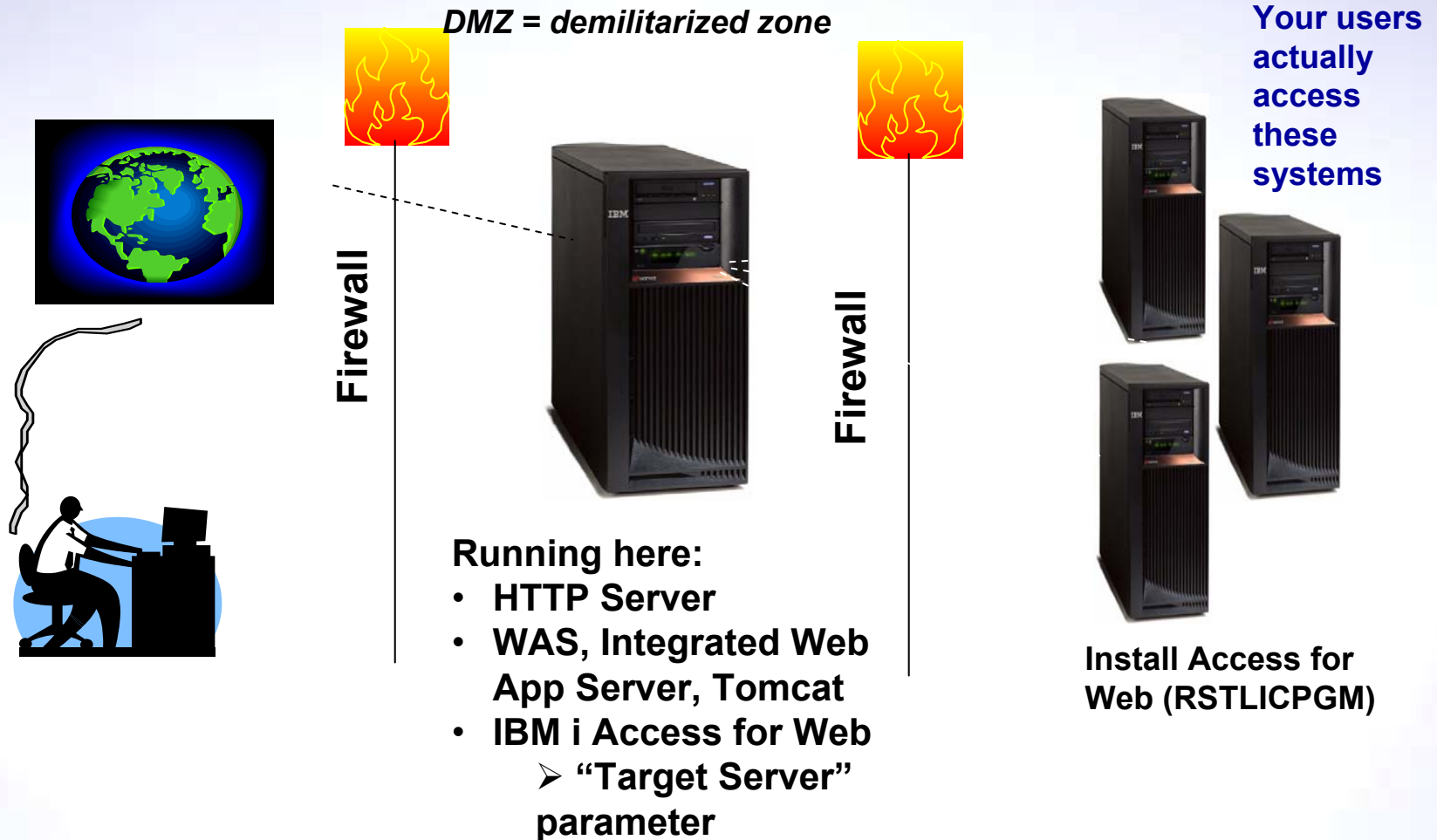
Integrated Web application server – V5R3 or later IBM i

Administrative instance and preconfigured HTTP web server

(use V5R4 or V6R1 IBM i Access for Web with V5R3 or later IBM i)

1. Stop the Web Administration for i5/OS
 - ENDTCPSPVR SERVER(*HTTP) HTTPSPVR(ADMIN)
2. Load/apply latest PTFs (review cover letters for any additional information)
 - V6R1 GA cumulative PTF package
 - V5R4 SF99114 group for product 5722-DG1
 - V5R3 SF99099 group for product 5722-DG1
3. Load/apply latest IBM i Access for Web PTF
 - V6R1 SI29664 or later
 - V5R4 SI29607 or later
4. Configure IBM i Access for Web
 - QSH
 - cd /QIBM/ProdData/Access/Web2/install
 - cfgaccweb2 -appsvrtype *INTAPPSVR
5. Start the Web Administration for i5/OS
 - STRTCPSVR SERVER(*HTTP) HTTPSPVR(*ADMIN)
6. Start preconfigured HTTP web server
 - STRTCPSVR SERVER(*HTTP) HTTPSPVR(IWADFT)
7. Open a browser to IBM i Access for Web using preconfigured HTTP:port
 - http://<system_name>:2020/webaccess/iWAMain
8. Done!

Setting up your web application server



Only need to set up one web application server

Port Requirements Comparison

IBM i Access for Windows (5722-XE1)*

- Port 449 for Port Mapper
- Port 8476 (9476) for Sign-on
- Port 8470 (9470) for Central
- Port 8472 (9472) for Data Queues
- Port 8471 (9471) for Database
- Port 8475 (9475) for Remote Commands
- Port 8473 (9493) for Print
- Port 2001 (2010) for Web Admin
- Port 446 (448) for DDM
- Port 23 (992) for Telnet
- Port 137, 138 for NetServer
- Port 389 (636) for LDAP
- Port 5555 (5566) for Mgmt Central
- Port 53 if using DNS Server

IBM i Access for Web (5722-XH2)

- Port 80 (or any other port) for HTTP Server
- Port 443 (or any other port) for HTTPS Server

*See Information APAR
II12227 for detailed
information

Get IBM i Access for Web running

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

Home Page entry point

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...

Customized Home Page

Customized view of the Home Page

- Could be used as 'entry' point to IBM i
- Let's drill down and look at some of this...

The screenshot shows a web browser window displaying a customized home page for IBM i. The address bar shows the URL: <http://iseriesd.dfw.ibm.com/webaccess/iWAHome>. The page features a blue header with the IBM logo and the text "Access for Water" and "Supplying quality boats since 2002". Below the header, there are three main sections: "Services", "This Week's Special", and "Site Support".


Services

- [See boat details - 5250](#)
- [See boat details - HATS LE](#)
- [See boat details - WebFacing](#)
- [View available boats](#)
- [Order a boat](#)

Work with invoices

- [Check messages](#)
- [Check system messages](#)
- [Administrator tasks](#)
- [Manage incoming items](#)
- [Monitor jobs](#)
- [Download client software](#)

This Week's Special



Beautifully maintained 28 foot 1978 Carver Santa Cruz for only \$23,900. Head and galley refurbished in 2001. Only 31 hours on completely rebuilt motor. Click [here](#) to see this boat cruising the seas.

Great Deals

For those bargain conscious among you, we have a large selection of new and slightly used boats for under \$75,000. Whether you are planning on sailing in your backyard pond or navigating the mighty Mississippi we can meet your wants, needs, or desires. [View our selection of modestly priced boats.](#)


Site Support

Your comments are important to us. Please let us know if you have any questions or if we can help you in any way. Address your message to user BOATHELP. [Send us a message](#)

If you prefer to contact us directly, use our [telephone directory](#) to lookup phone numbers and e-mail addresses.

Weather Conditions

Is it a great day for boating? Check out today's forecast.



 <http://iseriesd.demos.ibm.com/webaccess/iWAHome>

Try out IBM 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)

<p>User ID = WACUST</p> <p>Password = demo2pwd</p>	<p>This shows the basic look of IBM 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 IBM i, then start an RPG application called BOATS and run it.</p>
<p>User ID = BOATADMIN</p> <p>Password = demo2pwd</p>	<p>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 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..</p>

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

System i Access for Web has many entry points

'URL Interfaces to System i Access for Web' manual available on the web

<http://<myiseries>/webaccess/iWAMain>

- Can enter at many different pages
- Can use navigation bar to move from function to function

<http://<myiseries>/webaccess/iWA5250>

The screenshot shows the main interface of iSeries Access for Web. On the left is a navigation menu with options like 'My Home Page', 'My Folder', 'Print', 'Messages', 'Jobs', '5250', 'Database', 'Files', 'Command', 'Download', 'Customize', and 'Other'. The main area features a 'Sign On' section with fields for 'User', 'Password', 'Program/procedure', 'Menu', and 'Current library'. Below this is a copyright notice '(C) COPYRIGHT IBM CORP. 1980, 2003.' and a grid of buttons including 'Attention', 'Refresh Screen', 'Field Exit', 'Page Up', 'System Request', 'Stop Session', 'Reset', and 'Page Down'. At the bottom left, there is a 'Macros' section.

This screenshot is similar to the previous one but has a red circle drawn around the navigation menu on the left side, highlighting the various entry points available to the user.

<http://<myiseries>/webaccess/iWASpool>

The screenshot displays the 'Printer Output for CMINER' page. It features a table with columns for File Name, User Data, Creation Date/Time, Pages Per Copy, Copies, Status, Action, User, and Job Name. The table lists several print jobs for user CMINER, all with a status of 'Ready'. Below the table is a navigation bar with arrows and a page number '1'.

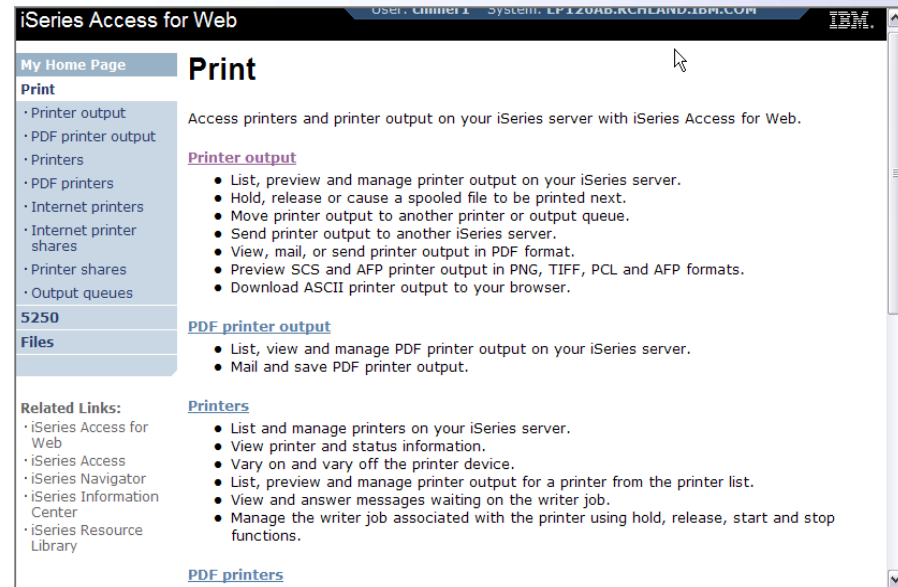
File Name	User Data	Creation Date/Time	Pages Per Copy	Copies	Status	Action	User	Job Name	N
QSYSVRT		12/15/05 4:31 PM	1	1	Ready	[...]	CMINER	CMINERO	50
QSYSVRT		12/15/05 4:31 PM	1	1	Ready	[...]	CMINER	CMINERO	50
QSYSVRT		12/15/05 4:32 PM	1	1	Ready	[...]	CMINER	CMINERO	50
QSYSVRT		12/15/05 4:39 PM	1	1	Ready	[...]	CMINER	CMINERO	50
QSYSVRT		12/15/05 4:41 PM	1	1	Ready	[...]	CMINER	CMINERO	50
QPRINT		12/15/05 4:48 PM	1	1	Ready	[...]	CMINER	QIWAPDFSTR	50
QPRINT		12/15/05 4:50 PM	1	1	Ready	[...]	CMINER	QIWAPDFSTR	50
QPRINT		12/15/05 4:52 PM	1	1	Ready	[...]	CMINER	QIWAPDFSTR	50
QPRINT		12/15/05 4:57 PM	1	1	Ready	[...]	CMINER	QIWAPDFSTR	50

Reduce functions you give to users

1

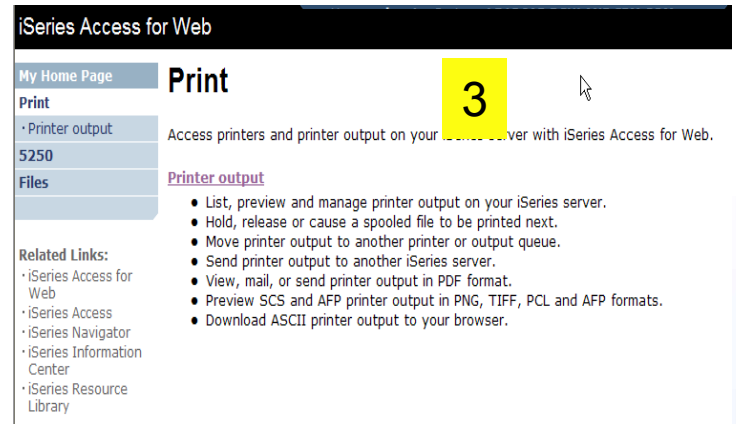


2

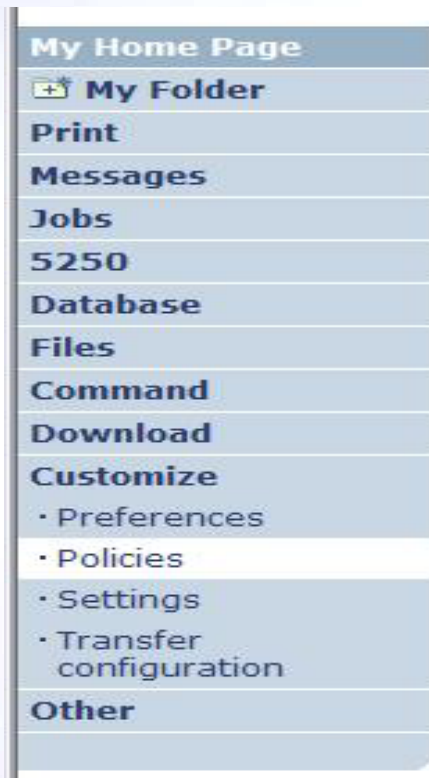


Reduce tabs that get displayed

Reduce options under tabs



Control user access to functions



1. How do I keep my users from using all these functions?
2. How do I set up the environment for my users?
3. Should I let my users set have some individual screen settings for some functions?

You need *SECADM authority to customize profiles

System i Access for Web uses IBM i User Profiles

When an System i Access for Web user attempts to access any function on the IBM i, 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 IBM i 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 IBM i user or group profile.**
- **Each 'Category' expands for granular control**

Policies
Profile: **CMINER1**

Action	Category	Description	Access
	5250	5250 user interface custom settings.	Allowed
	Command	Run batch command custom settings.	Allowed
	Customize	Preferences and policy administration custom settings.	Allowed
	Database	Database tables, requests, and run SQL custom settings.	Allowed
	Database connections	Create and edit database connection definitions.	Allowed
	Download	Download packages custom settings.	Allowed
	Files	Integrated file system and file share custom settings.	Allowed
	General	Page layout, language and character set custom settings.	Allowed
	Jobs	Work with jobs custom settings.	Allowed
	Mail	Send mail custom settings.	Allowed
	Messages	Display messages, send messages, and message queue custom settings.	Allowed
	My Folder	My Folder custom settings.	Allowed
	Print	Printer output, printers, printer shares and output queue custom settings.	Allowed
	Sametime	Lotus Sametime custom settings.	Allowed
	Other	Change password and other miscellaneous custom settings.	Allowed

Policies - customize for all users at once

One alternative...



Use the ***PUBLIC** group profile and set policies for all users

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

Problem:

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

iSeries Access for Web User: cminer System: RCHLAND.IBM.COM

My Home Page

My Folder

Print

Messages

Jobs

5250

Database

Files

Command

Download

Customize

• Preferences

• Policies

• Settings

• Transfer configuration

Other

Related Links:

- iSeries Access for Web
- iSeries Access
- iSeries Navigator
- iSeries Information

Policies

Profile: ***PUBLIC**

Action	Category	Description	Access
	5250	5250 user interface custom settings.	Allowed
	Command	Run batch command custom settings.	Allowed
	Customize	Preferences and policy administration custom settings.	Allowed
	Database	Database tables, requests, and run SQL custom settings.	Allowed
	Database connections	Create and edit database connection definitions.	Allowed
	Download	Download packages custom settings.	Allowed
	Files	Integrated file system and file share custom settings.	Allowed
	General	Page layout, language and character set custom settings.	Allowed
	Jobs	Work with jobs custom settings.	Allowed
	Mail	Send mail custom settings.	Allowed
	Messages	Display messages, send messages, and message queue custom settings.	Allowed
	My Folder	My Folder custom settings.	Allowed
	Print	Printer output, printers, printer shares and output queue custom settings.	Allowed
	Sametime	Lotus Sametime custom settings.	Allowed
	Other	Change password and other miscellaneous custom settings.	Allowed



System i Access for Web 5250 Interface

Runs as an interactive job

- Only function in System i Access for Web that is interactive

TN5250 port

- Only function in System i Access for Web that uses TN5250 port

The screenshot displays the System i Access for Web 5250 interface. On the left is a navigation sidebar with categories like 'My Home Page', 'My Folder', 'Print', 'Messages', 'Jobs', '5250', 'Database', 'Files', 'Command', 'Download', 'Customize', and 'Other'. The main content area is titled 'MAIN i5/OS Main Menu' and shows 'System: LP016AB'. It prompts the user to 'Select one of the following:' and lists 11 numbered options: 1. User tasks, 2. Office tasks, 3. General system tasks, 4. Files, libraries, and folders, 5. Programming, 6. Communications, 7. Define or change the system, 8. Problem handling, 9. Display a menu, 10. Information Assistant options, 11. iSeries Access tasks, and 90. Sign off. Below the list is a 'Selection or command' input field with '===>' and a row of buttons: Exit, Prompt, Retrieve, Cancel, and Information Assistant. A 'Set initial menu' button is also present. At the bottom, there is a 'Macros' section with a dropdown menu set to 'Shortcut to My macro for *PUBLIC' and a 'Play Macro' button, along with a 'Start Recording' button. Copyright information '(C) COPYRIGHT IBM CORP. 1980, 2005.' and page numbers '37' and '20,7' are also visible.

Use “Start Session” Dynamically

- Specify the system to connect
- Select the session attributes
 - Port, code page, workstation ID, etc.
- Start session

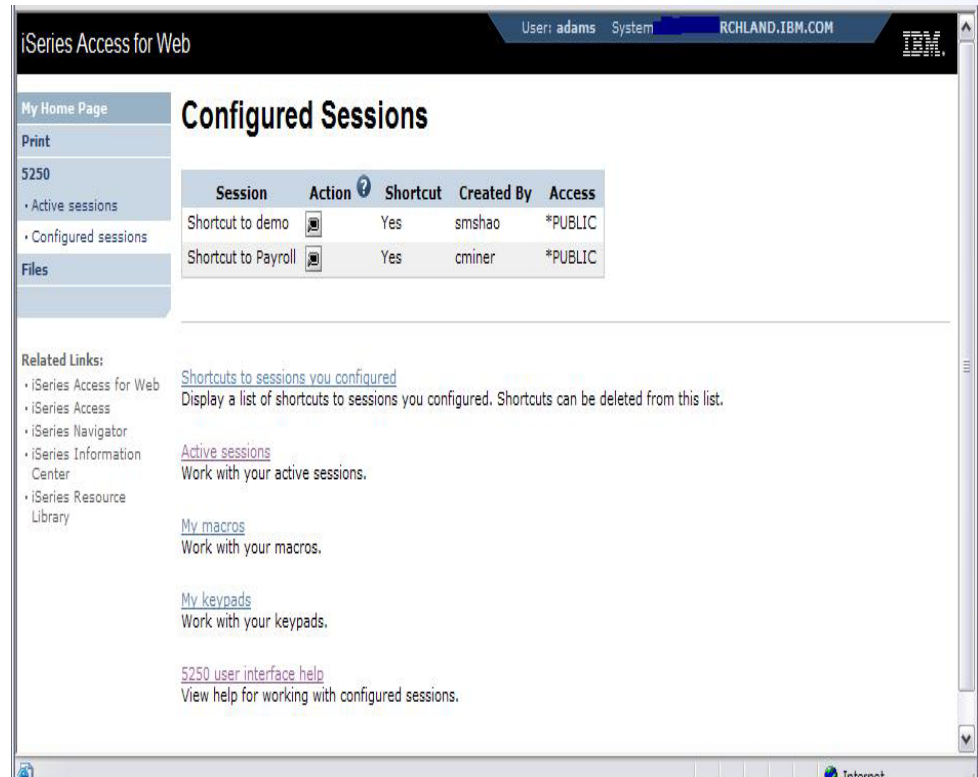
The screenshot displays a web interface for starting a session. On the left is a navigation menu with categories: My Home Page, My Folder, Print, Messages, Jobs, 5250 (with sub-items: Active sessions, Configured sessions, Start session), Database, Files, Command, Download, Customize, and Other. The main content area is titled 'Start Session' and includes three sections: 'Server' with fields for Server (mysystem), Port (23), and Code page (37); 'Workstation ID' with radio buttons for 'Use user ID' and 'Specify workstation ID' (selected), and checkboxes for 'Avoid duplicates for this user' and 'Avoid duplicates with other users' (checked); and 'General' with a dropdown for 'Initial macro' and checkboxes for 'Bypass signon' and 'Display HTML data in fields'. A 'Start Session' button is at the bottom. A 'Related Links' section at the bottom left lists 'iSeries Access for Web' and 'iSeries Access'. Question mark icons are present next to the 'Server', 'Workstation ID', and 'General' sections.

Run Pre-Configured 5250 Sessions

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

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

- 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



The screenshot shows the 'iSeries Access for Web' interface. The user is logged in as 'adams' on the 'System' for 'RCHLAND.IBM.COM'. The main content area is titled 'Configured Sessions' and contains a table with the following data:

Session	Action	Shortcut	Created By	Access
Shortcut to demo		Yes	smshao	*PUBLIC
Shortcut to Payroll		Yes	cminer	*PUBLIC

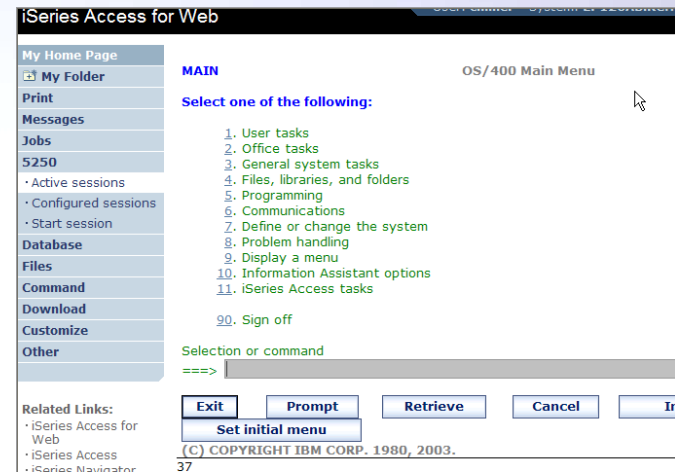
Below the table, there are several related links and descriptions:

- [Shortcuts to sessions you configured](#): Display a list of shortcuts to sessions you configured. Shortcuts can be deleted from this list.
- [Active sessions](#): Work with your active sessions.
- [My macros](#): Work with your macros.
- [My keypads](#): Work with your keypads.
- [5250 user interface help](#): View help for working with configured sessions.

Change look of 5250 session

1. Default 'web' look

1



2. Changed colors, added keypad at side, changed buttons at bottom to words

4

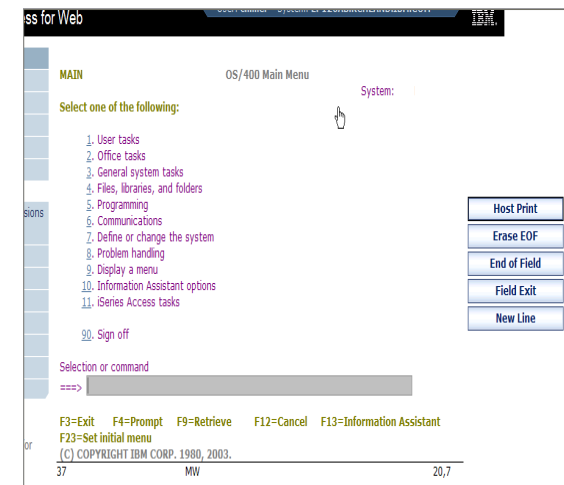
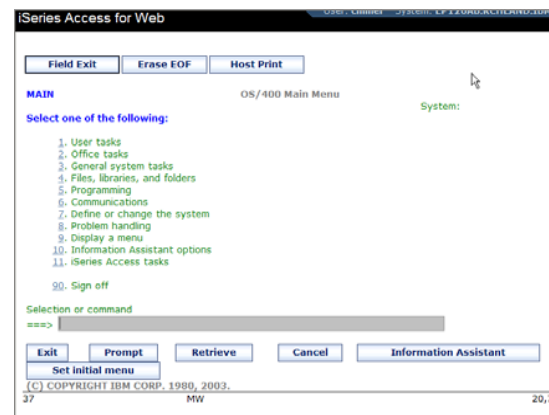


2

3. Removed navigation bar, put keypad on top

4. Selected 'traditional' view, removed navigation bar

3



Use IPP Printing instead of PC5250 Printer Emulation

Traditional PC5250 Printer emulation is not supported with IBM i Access for Web 5250.

Instead, consider using IPP printing as a remote print strategy:

- Internet Printing Protocol (IPP) printing allows you to send print information over the Internet or intranet. IPP is a versatile printing method, and is supported by a variety of printers and network adapters.
- You can also send print information using IPP to any i5/OS printer (even if the printer does not support IPP) by using the IBM IPP server for i5/OS.

Go to the Info Center <http://publib.boulder.ibm.com/series/> and search on “Internet Printing Protocol”



Download Database Information from IBM i

Run SQL allows you to run SQL statements

- Could copy/paste complex SQL statements in here...



SQL Wizard if you don't know SQL

Variety of output types

- PDF, Excel, 1-2-3, XML, etc

Destination

- Browser
- Mail as attachment
- Personal Folders
- IFS (new V5R4)

Can save request

- My Requests, Give Shortcut to others

Create Database Requests with SQL Wizard

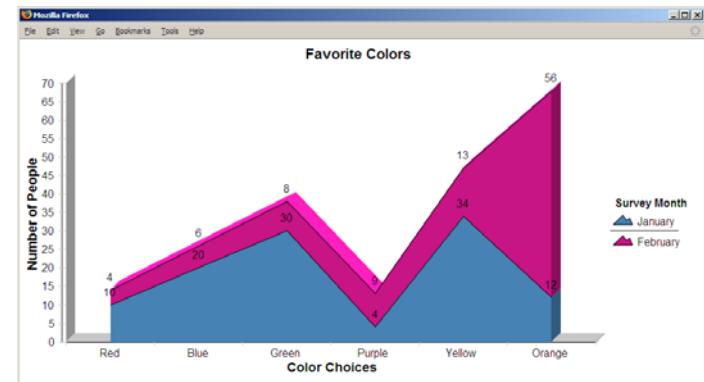
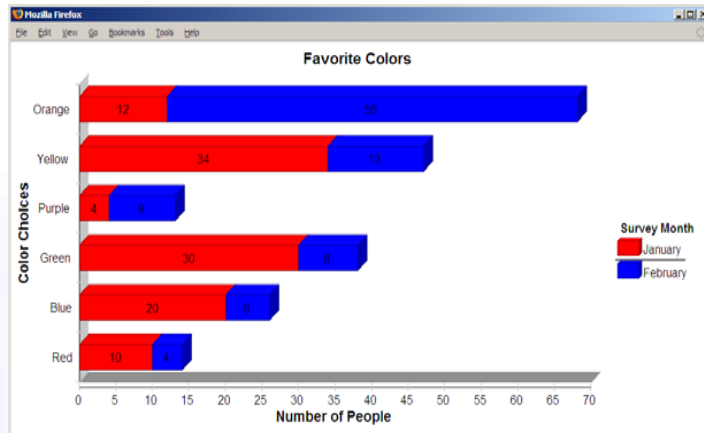
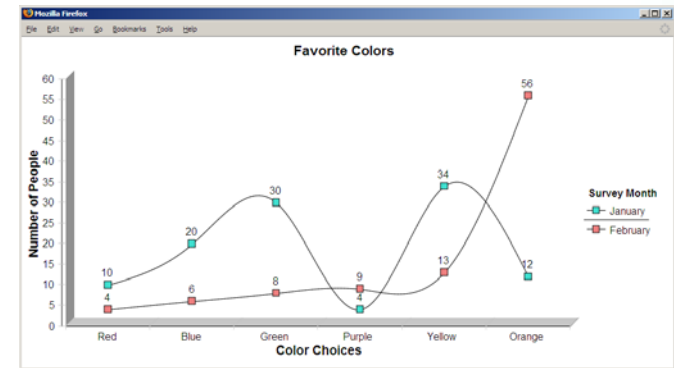
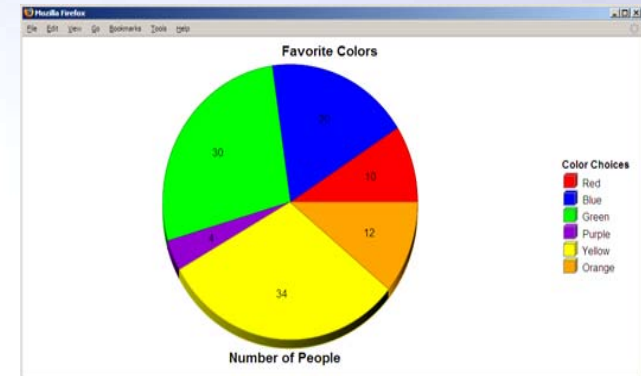
SQL Wizard enables you to:

- Select **tables**
- Select which **columns** to return
- Add **conditions** to your select statement
- Select the columns by which you want the data **sorted**

The screenshot shows the 'iSeries Access for Web' interface. The top navigation bar includes 'User: CPINER' and 'System: LP120AD.R'. The left sidebar contains a menu with the following items: 'My Home Page', 'My Folder', 'Print', 'Messages', 'Jobs', '5250', 'Database' (with sub-items: 'Tables', 'My requests', 'Run SQL', 'Copy data to table', 'Import request', 'Import query', 'Extract server data'), 'Files', 'Command', and 'Download'. The main content area is titled 'SQL Wizard' and displays the following SQL statement: 'SELECT * FROM BOATS.BOATS'. Below the SQL statement is a toolbar with icons for help, table view, delete, sort, refresh, and undo. The 'Welcome' section below the SQL statement reads: 'This wizard steps you through creating an SQL select statement.' At the bottom of the wizard are three buttons: 'Next', 'Finish', and 'Cancel'.

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



Printing



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**



Work with Printer Output

<http://<myseries>/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

The screenshot shows the 'Printer Output for cminer' page in the iSeries Access for Web interface. The left-hand navigation menu includes options like 'My Home Page', 'My Folder', 'Print', 'Messages', 'Jobs', 'Database', 'Files', 'Command', 'Download', 'Customize', and 'Other'. The main content area displays a table of printer jobs.

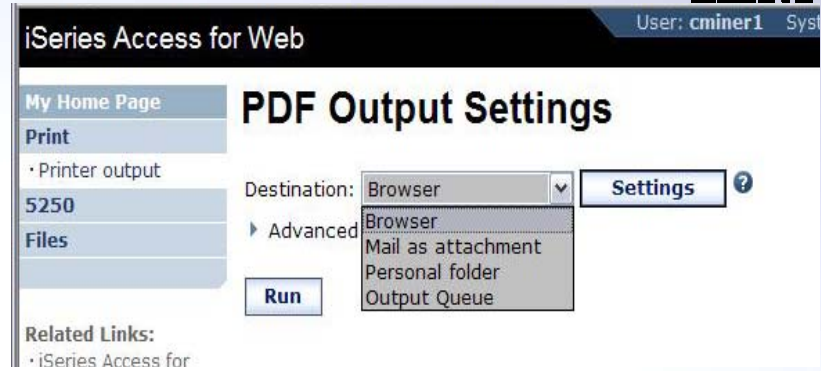
File Name	User	Creation Date/Time	Pages Per Copy	Copies	Status	Action	User	Job Name	Job Number
QSYSPRT	CMINER	12/15/05 4:31 PM	1	1	Ready	[Icons]	CMINER	CMINER0	502274
QSYSPRT	CMINER	12/15/05 4:31 PM	1	1	Ready	[Icons]	CMINER	CMINER0	502274
QSYSPRT	CMINER	12/15/05 4:32 PM	1	1	Ready	[Icons]	CMINER	CMINER0	502274
QSYSPRT	CMINER	12/15/05 4:39 PM	1	1	Ready	[Icons]	CMINER	CMINER0	502274
QSYSPRT	CMINER	12/15/05 4:41 PM	1	1	Ready	[Icons]	CMINER	CMINER0	502274
QPRINT	CMINER	12/15/05 4:48 PM	1	1	Ready	[Icons]	CMINER	QIWAPDFSTR	502281
QPRINT	CMINER	12/15/05 4:50 PM	1	1	Ready	[Icons]	CMINER	QIWAPDFSTR	502285
QPRINT	CMINER	12/15/05 4:52 PM	1	1	Ready	[Icons]	CMINER	QIWAPDFSTR	502287
QPRINT	CMINER	12/15/05 4:57 PM	1	1	Ready	[Icons]	CMINER	QIWAPDFSTR	502291

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

Printer Output - Spoolfile

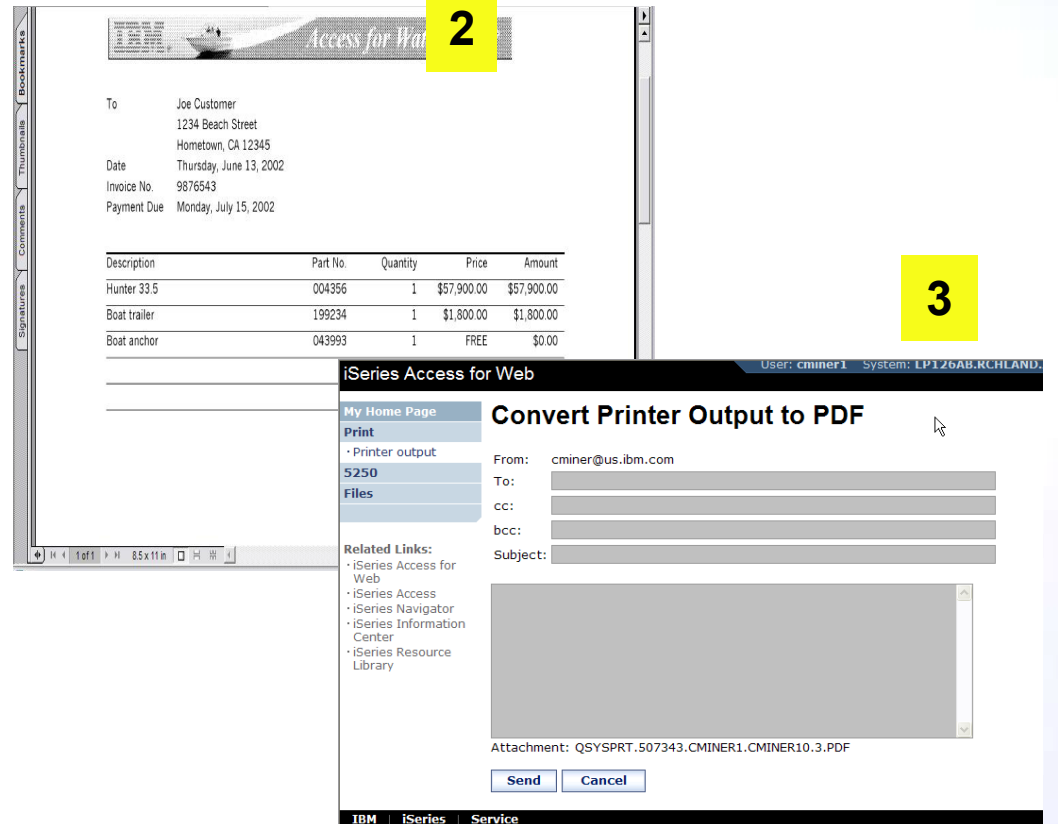
1. Requested 'View PDF'

- Can select any option on pulldown for my printer output



2. View in Browser

- Shows overlays, etc
- Can print on any printer in network

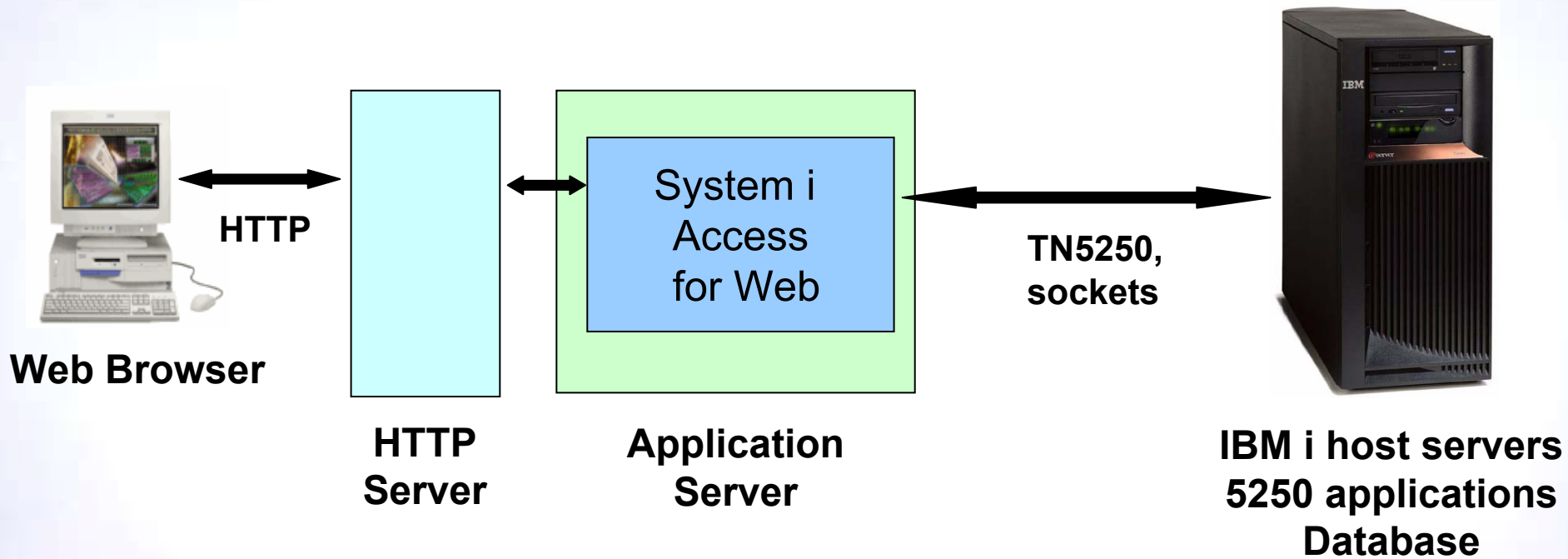


3. Send .PDF document in an email

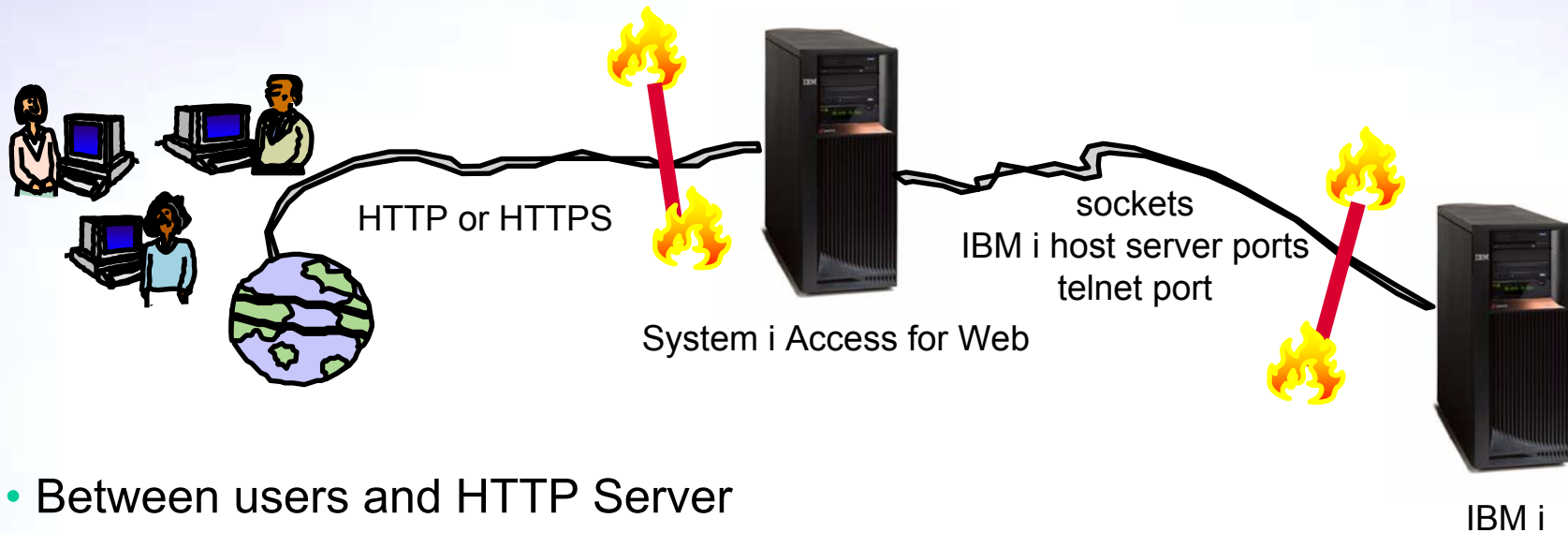
- Mail server does not have to be installed on IBM i

Environment Security Considerations

System i Access for Web Environment



System i Access for Web Environment (continued)



- Between users and HTTP Server
 - Secure Socket Layer (SSL)
 - Virtual Private Networking (VPN)
 - Firewalls
- Between System i Access for Web and IBM i
 - VPN
 - Firewalls

Secure Sockets Layer

- Used for data confidentiality between Web browser and HTTP server
 - Digital certificates used to determine trust relationships
 - Point to Point encryption for all data (PC App to Server App)
 - Part of the standard HTTPS protocol
- See Info Center for specific details on Configuration and Setup.
 - See the “Configure WebSphere Security” topic
- Levels of SSL
 - TLSv1, SSLv3 recommended, use 128-bit or higher
 - SSLv2 should not be used anymore. Disable in clients and server (APAR SE25734)

Virtual Private Networking

- Used for data confidentiality between Web browser and HTTP server
 - Digital certificates and User authorization used establish tunnel
 - End to End encryption for all data (PC to Server tunnel)
 - Allows any protocol, including standard HTTP
- See Info Center for specific details on Configuration and Setup.
 - See the “Virtual Private Networking” topic
- Redbooks
 - IBM System i Security Guide for IBM i5/OS® Version 5 Release 4 (SG24-6668-01)
 - OS/400 V5R2 Virtual Private Networks (REDP-0153-01)

Security Options: Authorization and Authentication

- How does the user authenticate to System i Access for Web?
- How does System i Access for Web authenticate with IBM i?
- System i Access for Web in a WebSphere Single Signon (SSO) environment
- Special considerations for 5250

Authorization

- Authorization is verifying that authenticated users have permission to access requested resources
- System i Access for Web uses the IBM i user profile and object level security to authorize access to IBM i resources
- System i Access for Web provides application level control of access to functions through policies
 - Policies can be administered at the IBM i user and group profile levels

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
Files
Command
Download
Customize
• Preferences
• Policies
• Settings
• Transfer configuration
Other

Policies

Profile: JHANSEN

Action	Category	Description	Access ?
	5250	5250 user interface custom settings.	Allowed
	Command	Run batch command custom settings.	Allowed
	Customize	Preferences and policy administration custom settings.	Allowed
	Database	Database tables, requests, and run SQL custom settings.	Allowed
	Database connections	Create and edit database connection definitions.	Allowed
	Download	Download packages custom settings.	Allowed
	Files	Integrated file system and file share custom settings.	Allowed
	General	Page layout, language and character set custom settings.	Allowed
	Jobs	Work with jobs custom settings.	Allowed
	Mail	Send mail custom settings.	Allowed
	Messages	Display messages, send messages, and message queue custom settings.	Allowed

Authentication

- Authentication is verifying the identity of the user
- System i Access for Web supports two types of authentication
 - Application
 - System i Access for Web handles the authentication
 - Application Server
 - WebSphere Application Server handles the authentication
- Specified by the AUTHTYPE parameter on the CFGACCWEB2 command
 - Application: AUTHTYPE(*APP)
 - Application Server: AUTHTYPE(*APPSVR)

Application Authentication

- System i Access for Web handles authentication
- IBM i user profile and password
 - Hostname specified by the TGTSVR parameter on the CFGACCWEB2 command
- Method: HTTP basic authentication
 - RFC2617
 - User profile and password are encoded (not encrypted) in the HTTP headers and should be protected



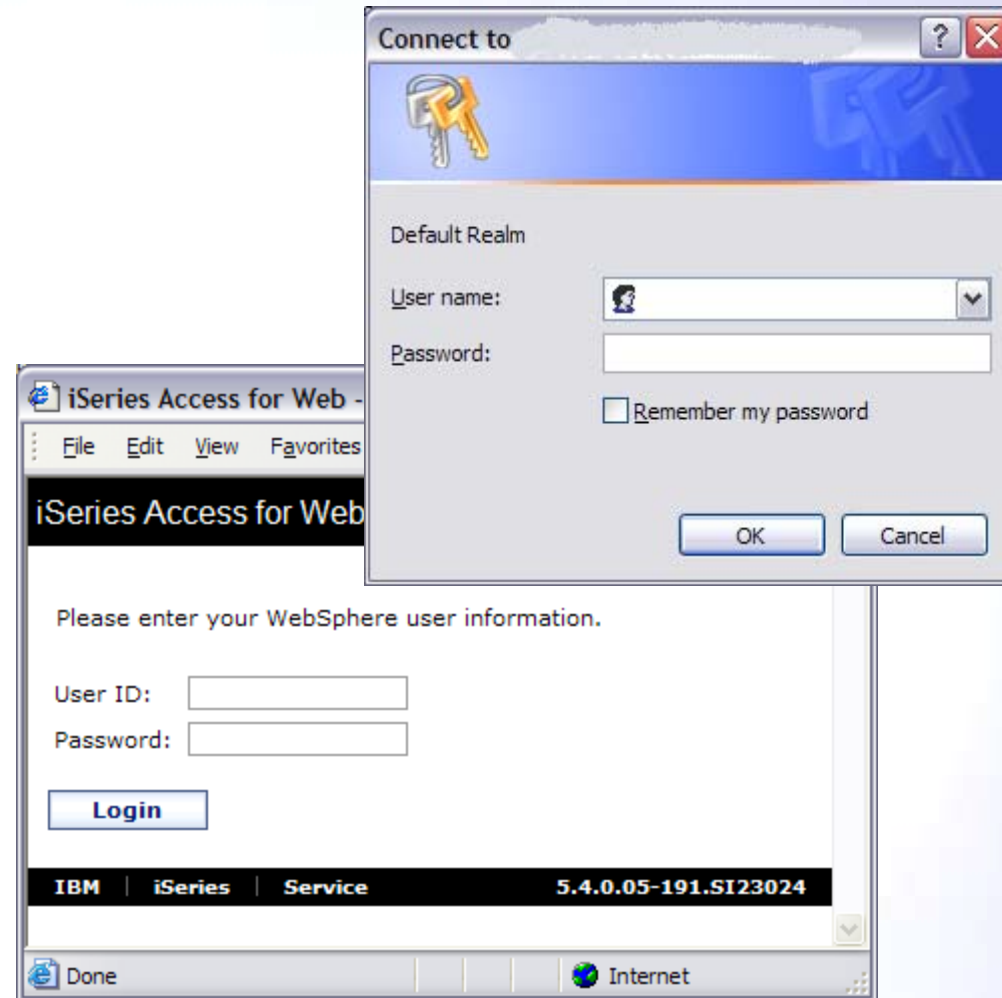
Application Server Authentication

- WebSphere handles authentication
- WebSphere credentials
 - Typically a user ID and password
 - Can be Windows domain login information (new in V6R1)
 - Kerberos-based
 - Requires WebSphere Application Server V6.1 or later
 - Authenticated with the active WebSphere user registry
- Specified by the AUTHTYPE parameter on the CFGACCWEB2 command
 - Application Server Authentication: AUTHTYPE(*APPSVR)
- WebSphere provides different methods of gathering credentials
 - Applications can choose which methods to support

Application Server Authentication (continued)

- System i Access for Web supports three methods of gathering credentials
 - HTTP basic authentication
 - User ID and password are encoded (not encrypted) in the HTTP headers and should be protected
 - Form-based authentication
 - User ID and password are clear text and should be protected
 - Kerberos-based authentication (V6R1)
 - Windows domain login information sent via Simple and Protected GSS-API Negotiation Mechanism (SPNEGO)
 - No additional prompt for user credentials

- Specified by the AUTHMETHOD parameter on the CFGACCWEB2 command
 - HTTP basic authentication: AUTHMETHOD(*BASIC)
 - Form-based authentication: AUTHMETHOD(*FORM)
 - Kerberos-based authentication: AUTHMETHOD(*KERBEROS)

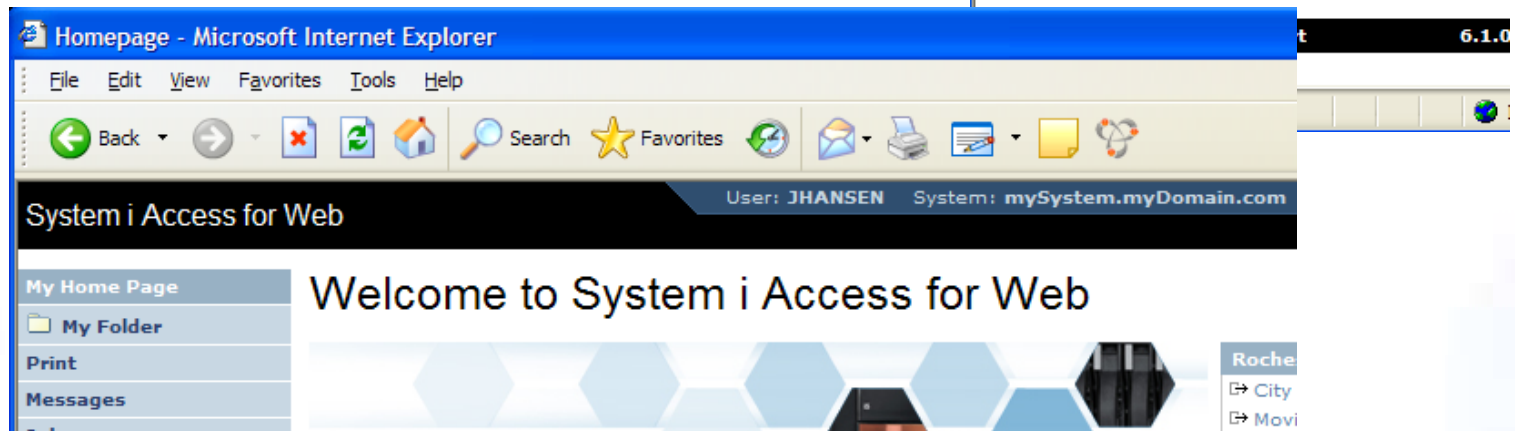
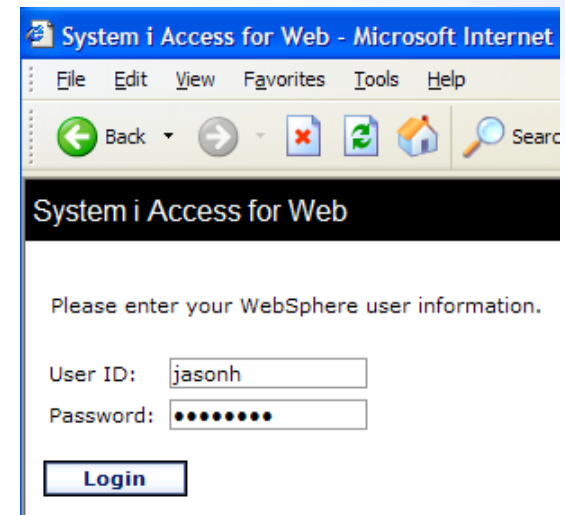


Application Server Authentication Authorization

- HTTP basic authentication and form-based authentication
 - System i Access for Web uses Enterprise Identity Mapping (EIM) to map the authenticated WebSphere user identity to an IBM i user profile
 - System i Access for Web identifies the user by the mapped IBM i user profile
 - IBM i user profile is used to authorize access to IBM i resources using object level security
- Kerberos-based authentication
 - System i Access for Web uses Kerberos-based credentials to authenticate with IBM i
 - IBM i uses Network Authentication Service (NAS) and EIM to map the Kerberos-based identity to an IBM i user profile
 - System i Access for Web identifies the user by the mapped IBM i user profile
 - IBM i user profile is used to authorize access to IBM i resources using object level security

Application Server Authentication Configure System i Access for Web

- Configure System i Access for Web
 - CFGACCWEB2 AUTHTYPE(*APPSVR)
AUTHMETHOD(*FORM) ...
 - CFGACCWEB2 AUTHTYPE(*APPSVR)
AUTHMETHOD(*KERBEROS) ...



5250 Sessions

- 5250 sessions can be started to any system running IBM i
- Must provide user profile and password on IBM i Sign On screen

The screenshot displays the IBM i Sign On interface. The top section is titled "Start Session" and contains three main sections: "Server", "Workstation ID", and "General".

- Server:** Includes fields for "Server:" (empty), "Port:" (23), and "Code page:" (37).
- Workstation ID:** Includes radio buttons for "Use user ID" (selected) and "Specify workstation ID" (empty), and checkboxes for "Avoid duplicates for this user" (unchecked) and "Avoid duplicates with other users" (checked).
- General:** Includes a dropdown for "Initial macro:" and checkboxes for "Bypass signon" (unchecked) and "Display HTML data in fields" (unchecked).

A blue "Start Session" button is located below the "General" section. To the right, the "Sign On" screen is visible, showing the following fields:

- System : QINTER
- Subsystem : QPADEV0006
- Display :
- User
- Password
- Program/procedure
- Menu
- Current library

At the bottom of the screen, the following text is displayed:

RELEASE: V05R03M00
DRIVER: 2600722

USE OF THIS SYSTEM IS FOR IBM MANAGEMENT APPROVED PURPOSES ONLY.
USE IS SUBJECT TO AUDIT AT ANY TIME BY IBM MANAGEMENT.

5250 Session Bypass Signon

- QRMTSIGN system value must be *VERIFY
- Select bypass signon when starting or configuring a session

Start Session

System ?

System:

Port:

Code page:

Workstation ID ?

Use user ID

Specify workstation ID

Avoid duplicates for this user

Avoid duplicates with other users

General ?

Initial macro:

Bypass signon

Display HTML data in fields

Configure New Session

General ?

Session: * required

Default view:

Initial macro:

Bypass signon

Display HTML data in fields

Enable advanced JavaScript functions

System ?

System:

Port:

- System i Access for Web must be configured for application authentication or application server authentication with Kerberos for bypass signon to be available
 - CFGACCWEB2 AUTHTYPE(*APP) ...
 - CFGACCWEB2 AUTHTYPE(*APPSVR) AUTHMETHOD(*KERBEROS) ... (V6R1 Access for Web and WAS 6.1 or later)

5250 Session Signon Macro

- Select as initial macro when configuring a session
- System i Access for Web must be configured for application authentication or application server authentication with Kerberos for bypass signon to be available
 - CFGACCWEB2 AUTHTYPE(*APP) ...
 - CFGACCWEB2 AUTHTYPE(*APPSVR) AUTHMETHOD(*KERBEROS) ...
- Signon macro advantageous for V5R3 Access for Web, since Bypass signon was provided in V5R4

Configure New Session

General ?

Session: * required

Default view: ▼

Initial macro: ▼

Bypass signon

Display HTML data in fields

Enable advanced JavaScript functions

Server ?

Server:

Port:

Questions?

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