Deep Dive Into System i Access for Web
Session 2:

Configuration and Controlling Access

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Agenda

- Part 1: Installation and Configuration
  - Hardware and software requirements
  - Supported web serving environments
  - Configuration steps

- Part 2: Runtime Considerations
  - Use of policies
  - Customizing the home page/template files

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Part 1:
Installation and Configuration

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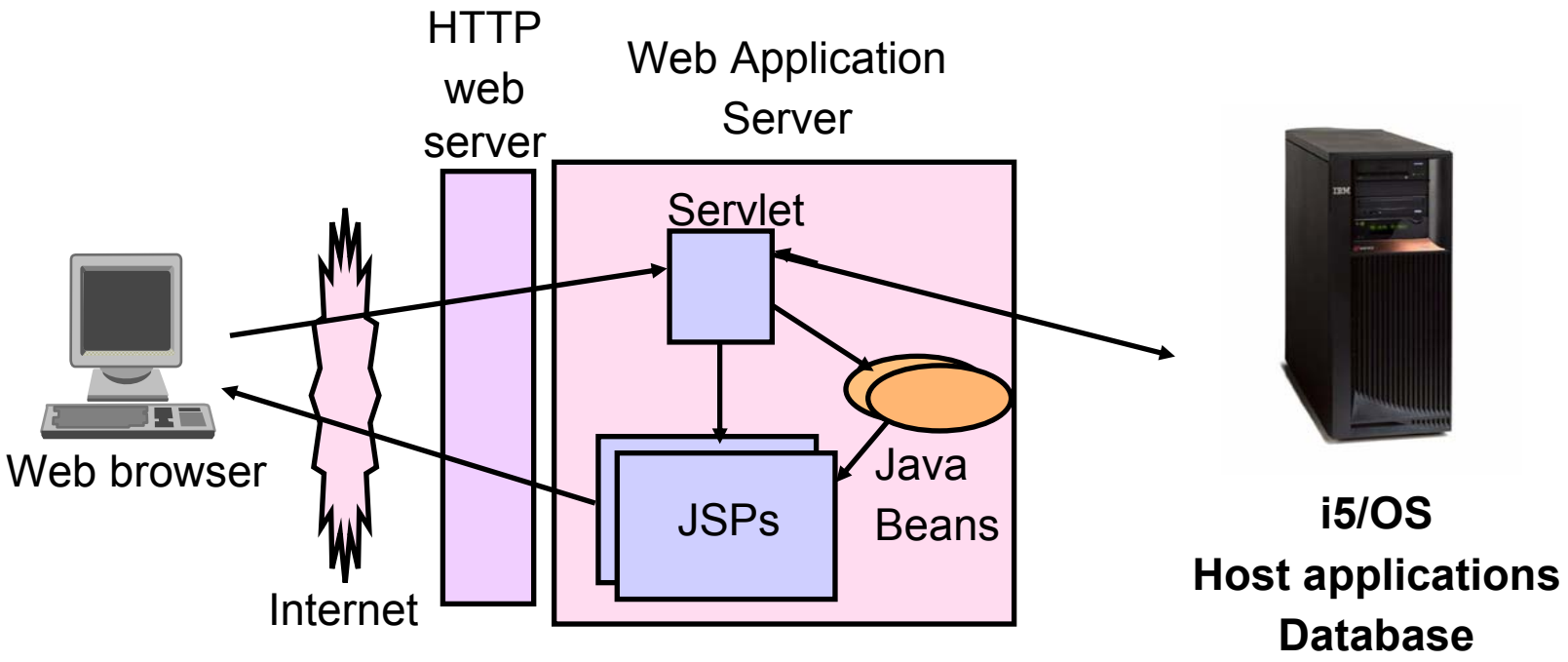
First you need a web-serving environment



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Pieces of the web-serving environment

- HTTP Server (powered by Apache)
  - Front door for your system into your web serving environment
  - HTTP/HTTPS (SSL)
  - Listens for web requests on a specific TCP/IP port
  - Routes web requests between an end-user browser and a web application sever
- Web application server
  - WebSphere Application Server
  - Integrated Web application server
  - Provides a java virtual machine environment where web applications run
- Web application
  - System i Access for Web
  - Provides specific function that users access using a web browser
  - Deployed/installed within a web application server
- WebSphere Portal/Workplace
  - Web application deployed to WebSphere Application Server
  - Provides environment in which portlets are deployed and run.

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Supported Web Application Servers

System i Access for Web servlet code can be used with any of the following web application servers:

V6R1 System i Access for Web

- 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

V5R4 System i Access for Web

- 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

System i Access for Web portlet code can be used with any of the following portal servers.

V6R1 System i Access for Web

- WebSphere Portal for Multiplatforms V6.0
- WebSphere Portal for Multiplatforms V5.1.0.1

V5R4 System i Access for Web

- IBM Workplace Services Express V2.6 (V5R4 iSeries Access for Web)
- IBM Workplace Services Express V2.5
- 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

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Performance...???

- Does running System i Access for Web affect performance?
  - Products like System i Access for Web don't put much load on i5/OS...
- How does the web application server affect performance?
  - If you have an older, under-powered System i, then performance may not be good...if you have a newer, bigger System i, then performance won't be an issue (unless you already are running your System i at maximum capacity).
  - Use the IBM Systems Workload Estimator to see what performance will be if WAS is added to your System i at: http://www-912.ibm.com/wle/EstimatorServlet
  - There is a Workload Estimator for WebFacing Workloads. System i Access for Web will be similar (depending on what functions of System i Access for Web are being used).
- Fine-tuning your web application server
  - If performance is not as good as expected, look in the WebSphere Information Center
  - http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/index.jsp?topic=/com.ibm.websphere.base.iseries.doc/info/iseries/ae/welc6topinstalling.html

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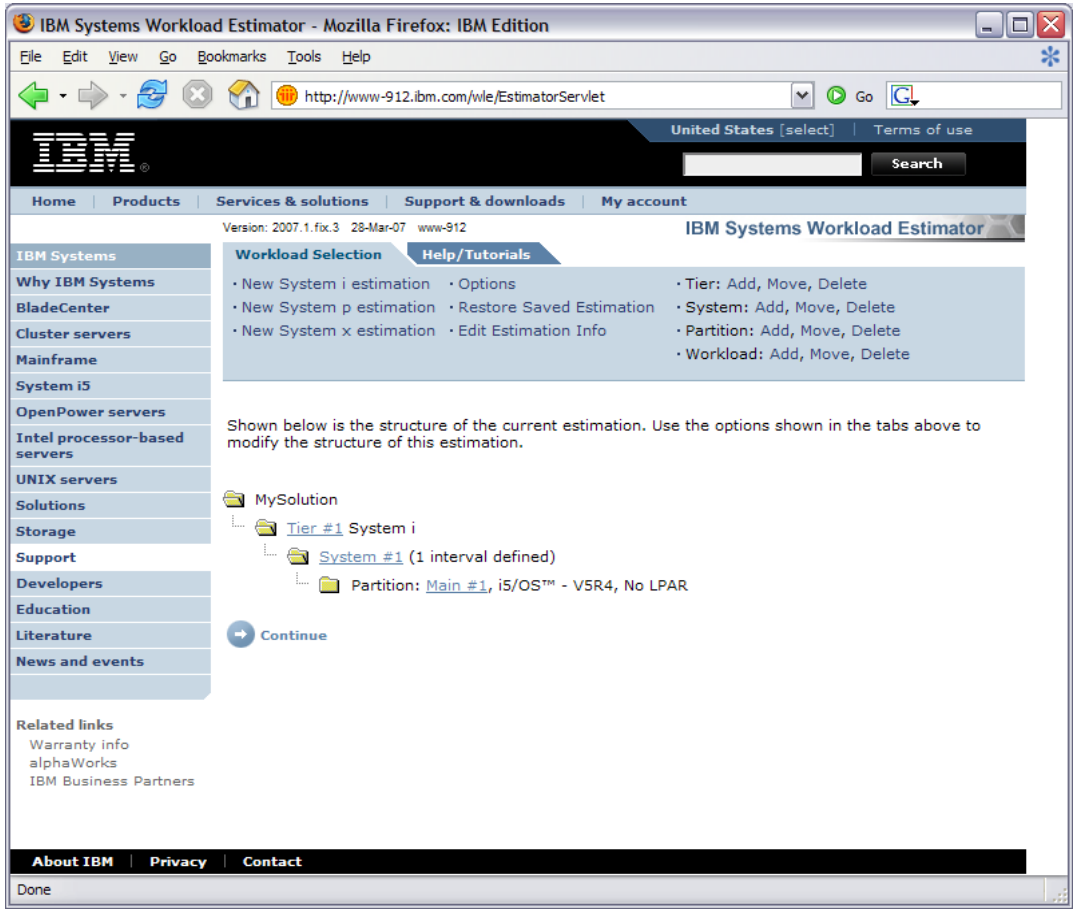
Performance Considerations…

Use the IBM Systems Workload Estimator at

http://www-912.ibm.com/wle/EstimatorServlet



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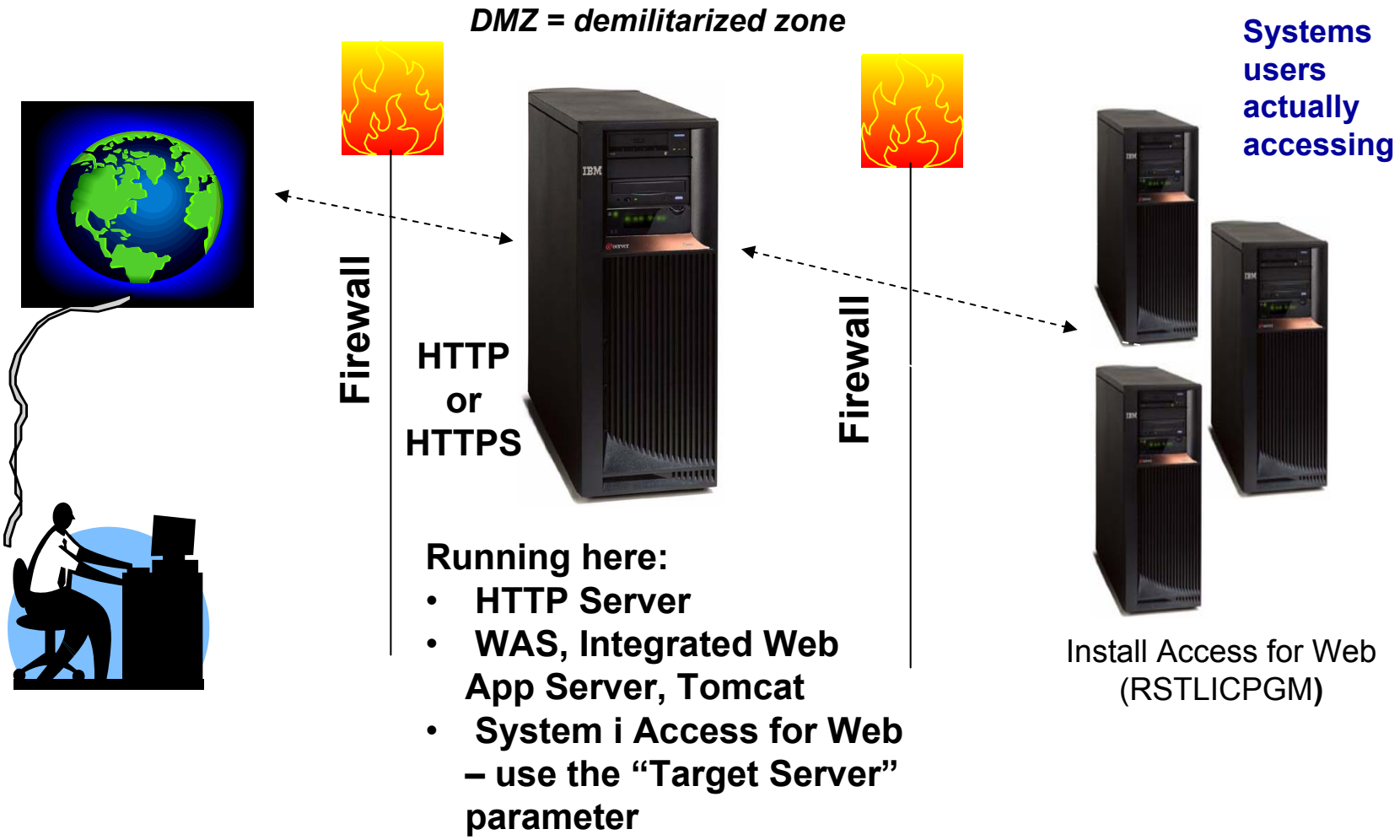
Setting up your web application server



Only need to set up 1 web application server

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Port Requirements Comparison

System i Access for Windows
(5722-XE1)* (5761-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

System i Access for Web
(5722-XH2) (5761-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**

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Hardware/Software Requirements

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Client Browser Requirements

- These browsers have been tested with V6R1 System i Access for Web:
  - Firefox 2.0 (Windows® and Linux®)
  - Internet Explorer 6.0 with Service Pack 1 (Windows)
  - Internet Explorer 7.0 Windows)
  - Mozilla 1.7 (Windows, Linux, and AIX®)
  - Opera 9.2 (Windows and Linux)
- These browsers have been tested with V5R4 System i Access for Web:
  - Firefox 1.0.2 (Windows, Linux)
  - Internet Explorer 6.0 with Service Pack 1 (Windows)
  - Opera 7.54 (Windows, Linux)
  - Mozilla 1.7 (Windows, Linux, AIX)
  - Other browsers that support the current HTTP and HTML specifications should work, but have not been tested with System i Access for Web.

- **Set browser to allow 'Cookies'**
  - **System i Access for Web requires that the web browser allow cookies. Set the cookie configuration option to allow cookies.**

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i5/OS Software Requirements

Product Number	Product Name	Option	$
5722-SS1 5761-SS1	V5R4 System i Access for Web: V5R3 or V5R4 i5/OS V6R1 System i Access for Web: V5R4 or V6R1 i5/OS	Base	w/HW
57xx-SS1	i5/OS - Extended Base Directory Support	3	N/C
57xx-SS1	i5/OS - AFP Compatibility Fonts	8	N/C
57xx-SS1	i5/OS - Host Servers	12	N/C
57xx-SS1	i5/OS QShell Interpreter	30	N/C
57xx-SS1	If you plan to use Secure Sockets Layer (SSL)… • i5/OS Digital Certificate Manager • Cryptographic Service Provider	 34 35	N/C N/C N/C
57xx-DG1	IBM HTTP Server for iSeries	Base	N/C
57xx-JV1	Developer Kit for Java Developer Kit for Java Version 1.3 Developer Kit for Java Version 1.4 Developer Kit for Java Version 5.0 J2SE 5.0 32 bit **(Check WebSphere doc for required version)**	Base 5 6 7 8	N/C N/C N/C N/C
57xx-JC1	Toolbox for Java	Base	N/C
57xx-TC1	TCP/IP Connectivity Utilities for iSeries	Base	N/C

Note: xx = “22” for V5R4, “61” for V6R1

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i5/OS Software Requirements (continued)

Product Number	Product Name	Option	$
57xx-XW1	System i Access Family	Base	$
57xx-XH2	System i Access for Web • Ships with 57xx-XW1 iSeries Access Family • V5R4 System i Access for Web runs on i5/OS V5R3 and V5R4 • V6R1 System i Access for Web runs on i5/OS V5R4 and V6R1	Base	part of XW1
5722-IP1	IBM Info Print Server (**Optional** -- enables best PDF output but **is not** required to view PDF output)	Base	$

Note: xx = “22” for V5R4, “61” for V6R1

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i5/OS Software Requirements (continued)

Product Number	Product Name	Option	$
	One, or more, of the following web servers		
5733-W61	• WebSphere Application Server V6.1 for i5/OS (all three editions)		
5733-W60	• WebSphere Application Server V6.0 for OS/400 (all three editions)	See	
5722-E51	• WebSphere Application Server V5.1 - Express for iSeries	documentation	
5733-W51	• WebSphere Application Server V5.1 for iSeries (Base and ND)		
5722-IWE	• WebSphere Application Server V5.0 - Express for iSeries		
5733-WS5	• WebSphere Application Server V5.0 for iSeries (Base and ND)		
57xx-DG1	• integrated Web application server • Apache Software Foundation Tomcat		
*	• WebSphere Portal for iSeries (Express and Express Plus) V5.0.2.2		
*	• WebSphere Portal Enable for Multiplatforms V5.1.0.1		
*	• WebSphere Portal V6.0		
*	• IBM Workplace Services Express V2.5, V2.6		

Note: xx = “22” for V5R4, “61” for V6R1

Refer to the documentation for the individual web serving environments additional requirements that may not be listed above.

- **WebSphere** **http://www.ibm.com/systems/i/software/websphere/index.html/**
- **Portal V5.0.2.2** **http://publib.boulder.ibm.com/pvc/wp/502/smbi/en/InfoCenter/index.html**
- **Portal V5.1.0.1** **http://publib.boulder.ibm.com/infocenter/wp51help/index.jsp**
- **Portal V6.0** **http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp**
- **Workplace V2.5** **http://publib.boulder.ibm.com/infocenter/wseic/v2r5/index.jsp**
- **Workplace V2.6** **http://publib.boulder.ibm.com/infocenter/wseic/v2r6/index.jsp**
- **ASF Tomcat** **http://www.ibm.com/systems/i/software/http/index.html/**

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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 you can order no-charge Feature No. 2649 of Product No. 5722-XW1	

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System i Hardware Requirements

Models/Processor features/Memory

Refer to the web application server documentation to determine what server models, processor features, and the memory requirements are for your web serving environment

- WebSphere Application Server
  - http://www.ibm.com/systems/i/software/websphere/index.html/
- ASF Tomcat
  - http://www.ibm.com/systems/i/software/http/index.html/
- WebSphere Portal Express/Express Plus for iSeries V5.0.2.2
  - http://publib.boulder.ibm.com/pvc/wp/502/smbi/en/InfoCenter/index.html
- WebSphere Portal V5.1.0.1
  - http://publib.boulder.ibm.com/infocenter/wp51help/index.jsp
- WebSphere Portal V6.0
  - http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp
- Workplace Services Express V2.5
  - http://publib.boulder.ibm.com/infocenter/wseic/v2r5/index.jsp
- Workplace Services Express V2.6
  - http://publib.boulder.ibm.com/infocenter/wseic/v2r6/index.jsp

Server disk space	Software product
470MB	V5R4 System i Access for Web
365MB	V6R1 System i Access for Web

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System i Access for Web - Web Serving Environments Supported

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3 Options for setting up the Access for Web environment

1. Integrated Web application server
   - Simplest to set up
   - Preconfigured HTTP web server
   - User created instances

2. Express Runtime Web Environments
   - All components provided in a single package
   - Greatly simplifies the complexity of the environment
   - Most automated
   - Running web environment when installation completes
   - Desktop icon linking to the deployed web environment

3. Step by Step
   - Greatest flexibility
   - Choice of **WebSphere Application Server** version
   - May already have components on your system

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1. Integrated Web Application Server

- Simplest to set up
- Preconfigured HTTP web server
- User created instances

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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
  - Administrative instance with preconfigured HTTP web server
  - User created instances
  - V5R4 is the last release i5/OS will contain ASF Tomcat

- How is it packaged?
  - With i5/OS
  - 57xx-DG1 IBM HTTP Server for i5/OS
  - Available in PTF package/group
    - V6R1 GA Cumulative PTF package
    - V5R4 SF99114 latest available level
    - V5R3 SF99099 latest available level

- System i Access for Web support
  - V5R4 System i Access for Web supports only the Administrative instance
  - V6R1 System i Access for Web supports
    - Administrative instance
    - User created instances

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To use System i Access for Web in this environment

Administrative instance and preconfigured HTTP web server

1. Stop the Web Administration for i5/OS
   - ENDTCPSVR SERVER(*HTTP) HTTPSVR(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 System i Access for Web PTF
   - V6R1 SI29664 or later
   - V5R4 SI29607 or later
4. Configure System 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) HTTPSVR(*ADMIN)
6. Start preconfigured HTTP web server
   - STRTCPSVR SERVER(*HTTP) HTTPSVR(IWADFT)
7. Open a browser to System i Access for Web using preconfigured HTTP port
   - http://>system_name>:2020/webaccess/iWAMain
8. Done!

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To use System i Access for Web in this environment

User-created instance and HTTP web server (requires use of V6R1 System i Access for Web)

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 System i Access for Web PTF
   - V6R1 SI29664 or later
3. Start the Web Administration for i5/OS
   - STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
4. Use the Web Administration for i5/OS wizard to create an instance of the integrated Web application server and an HTTP web server.
   - http://<system_name>:2001/HTTPAdmin
5. Configure System 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 i5/OS interface.
   - http://<system_name>:2001/HTTPAdmin
7. Open a browser to System i Access for Web using HTTP port you specified
   - http://>system_name>:<port>/webaccess/iWAMain
8. Done!

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Integrated Web application server

Questions regarding the integrated Web application server option?

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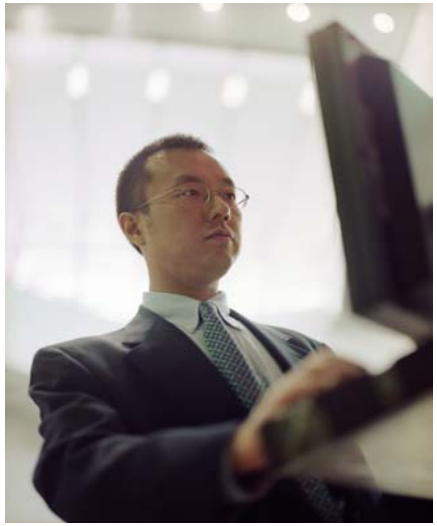
2. Web Enable Feature – Express Runtime Environment



- All components provided in a single package
- Greatly simplifies the complexity of the environment
- Most automated
- Running web environment when installation completes
- Desktop icon linking to the deployed web environment

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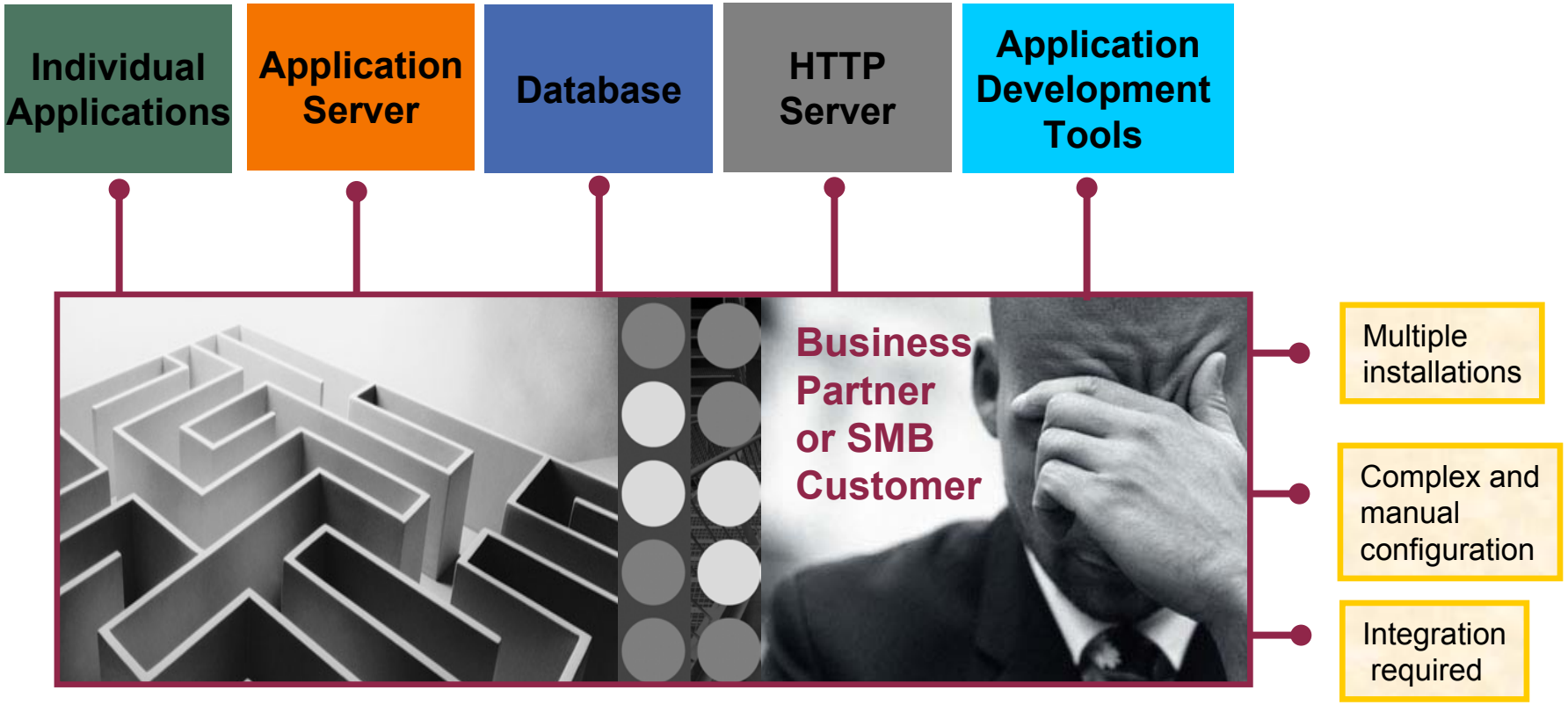
What is the problem?

The complexity of the web-serving environment

- Several parts/pieces to install
- Can be challenging to configure all the parts/pieces



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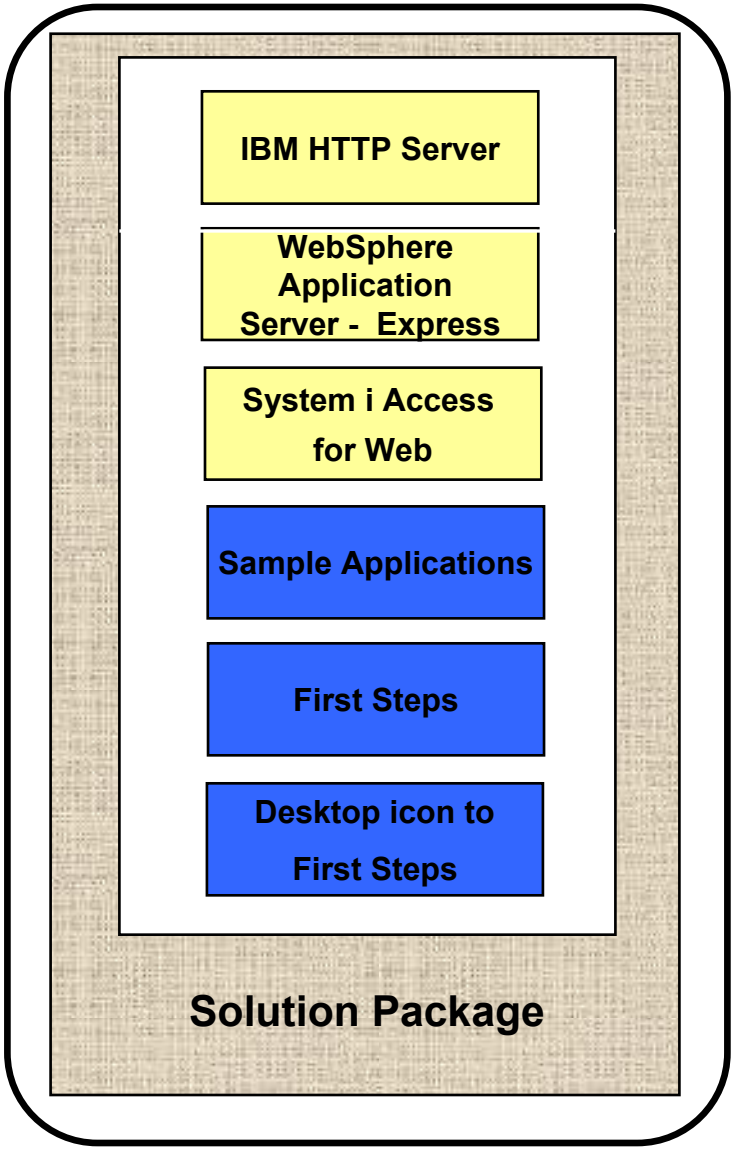
What is the solution?

- Put all the parts/pieces into a single package
  - Middleware components
    - HTTP web server
    - WAS Express 6.x
    - System i Access for Web
    - PTFs are included
  - Sample applications – modernizing an RPG application (flight400) using the following technologies:
    - HATS, WebFacing, Web Services
  - First Steps
    - Web page with links to System i Access for Web, Samples, web administration, Information
  - Getting Started Document
  - Deployment help text
  - Product licenses



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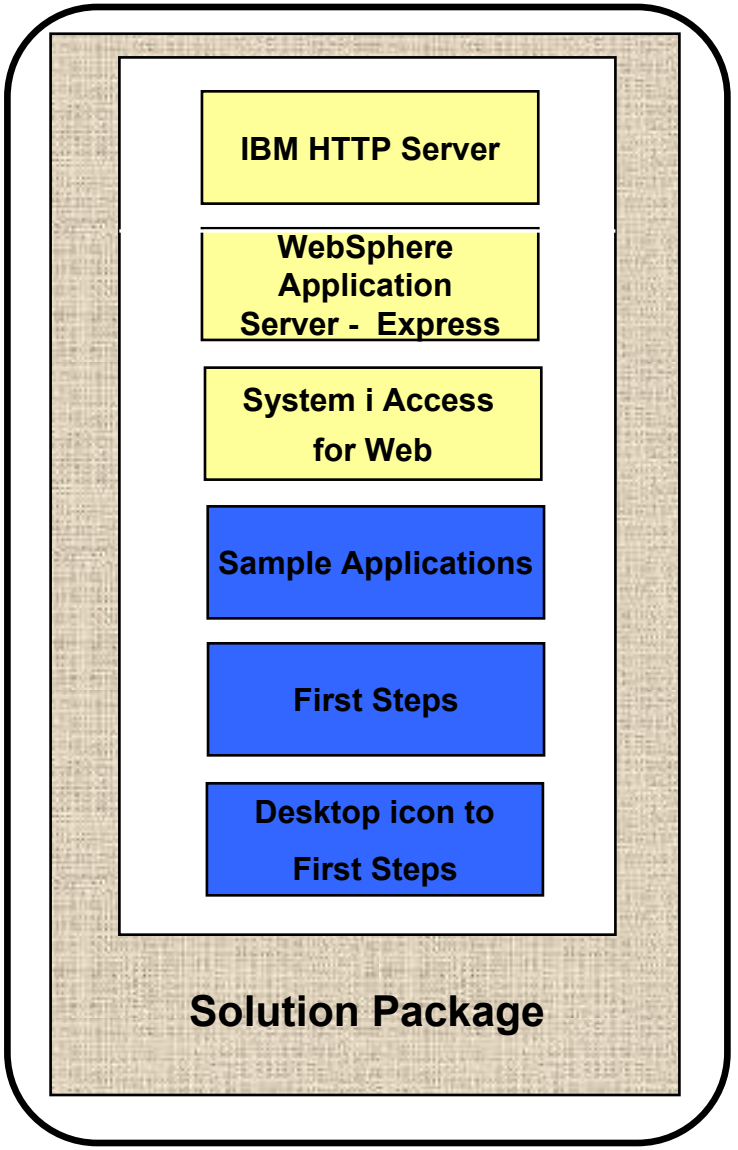
What is the solution? (continued)

- Make the package easily deployable
  - Easy to use wizard run from Windows workstation
  - Middleware is uploaded, installed/configured
  - System i Access for Web is set up
  - Sample applications are set up
  - FirstSteps webpage is deployed
  - Web-serving environment is ready for immediate use
  - Desktop icon to FirstSteps web page



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Target Audience

- i5/OS customers and partners
  - Anyone wanting/needing a simple way to setup web-serving on their i5/OS
- Users of the following:
  - System i Access for Web – end user web browser access to i5/OS resources
  - WDHT / HATS / WebFacing applications
  - J2EE web applications (JSF, JSP, servlets, EJBs, etc)
  - SOA applications (web services, including RPG/COBOL integration)
  - Demo of an application modernized using SOA, HATs and WebFacing
- Partners
  - Modify a similar solution to include their applications
    - Obtain SAT and source from PartnerWorld
    - Rebuild solution to include their application

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Packaging/Ordering

Express Runtime Web Environments
5722-WE2
5761-WE2

Can also be ordered separately

- No-charge feature of 5722-WE2 Web Enablement for i5/OS
  - Order feature 5905 for CDs
  - Order feature 5906 for a DVD

- V5R4 i5/OS
  - 5722-WE2 V1R1M0 = WAS 6.0.2.9 & V5R4 System i Access for Web
  - 5722-WE2 V1R2M0 = WAS 6.1.0.11 & V5R4 System i Access for Web
- V6R1 i5/OS
  - 5761-WE2 V1R1M0 = WAS 6.1.0.11 & V6R1 System i Access for Web
- Ships with all i5/OS orders
  - V5R4 – ships CDs, DVD is orderable
  - V6R1 – ships DVDs
  - All media contained in a single shrink wrapped package
- Packaged along with WebSphere Application Server - Express product CDs
  - Label on package identifies the two products and their purposes
  - Products identified on media labels
  - Look for DVD labeled: Express Runtime Web Environments V1R1, contains everything you need

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Installation/Setup Process

- Read the ReadMe packaged with the product
  - Verify requirements for Windows workstation and i5/OS system
- From a Windows workstation, launch the deployment wizard
  - Provide credentials
  - Specify i5/OS system to deploy
  - Name the HTTP web server, WebSphere profile/application server, ports
  - Optionally a backend i5/OS for System i Access for Web to connect
- Deployment wizard runs
  - Pushing middleware from workstation/media to the i5/OS system
  - Installs/configures middleware
  - Install/configures System i Access for Web, sample applications, FirstSteps web page
  - Creates desktop icon on Windows workstation
- Deployment wizard complete
  - Click desktop icon named Web_Enablement_Environment_V5R4M0 or Web_Enablement_Environment_V6R1M0
  - FirstSteps webpage provides links to web environment, System i Access for Web, sample applications
  - Administrator can then distribute web browser URL to users
  - GO LICPGM will list
    - 5733-SO1 Base Express Runtime Web Environments
    - 5733-SO1 1 Web Enablement Environment

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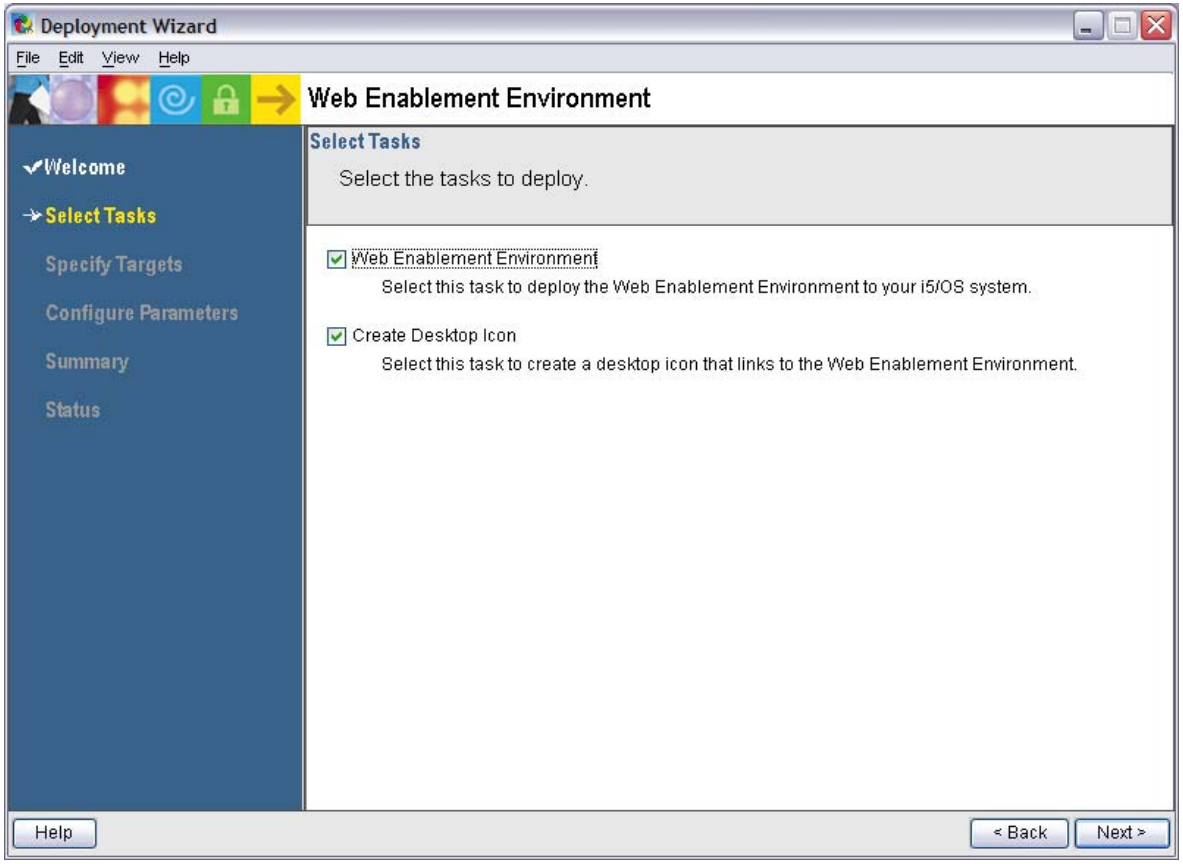
Demonstration

Launch the wizard. Deploy the web environment and create the desktop icon to the FirstSteps webpage



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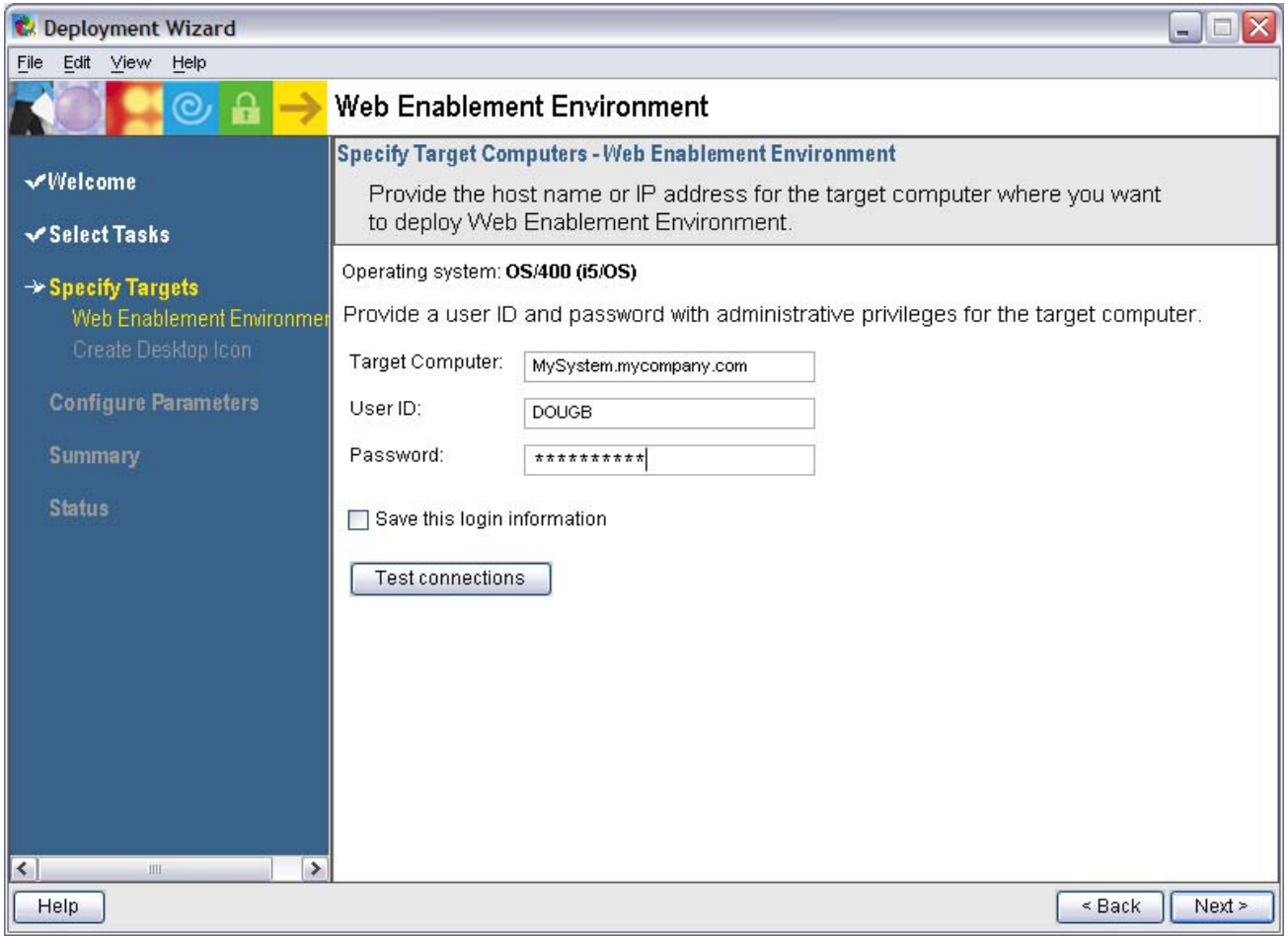
Demonstration (continued)

Name of i5/OS system to deploy the environment to



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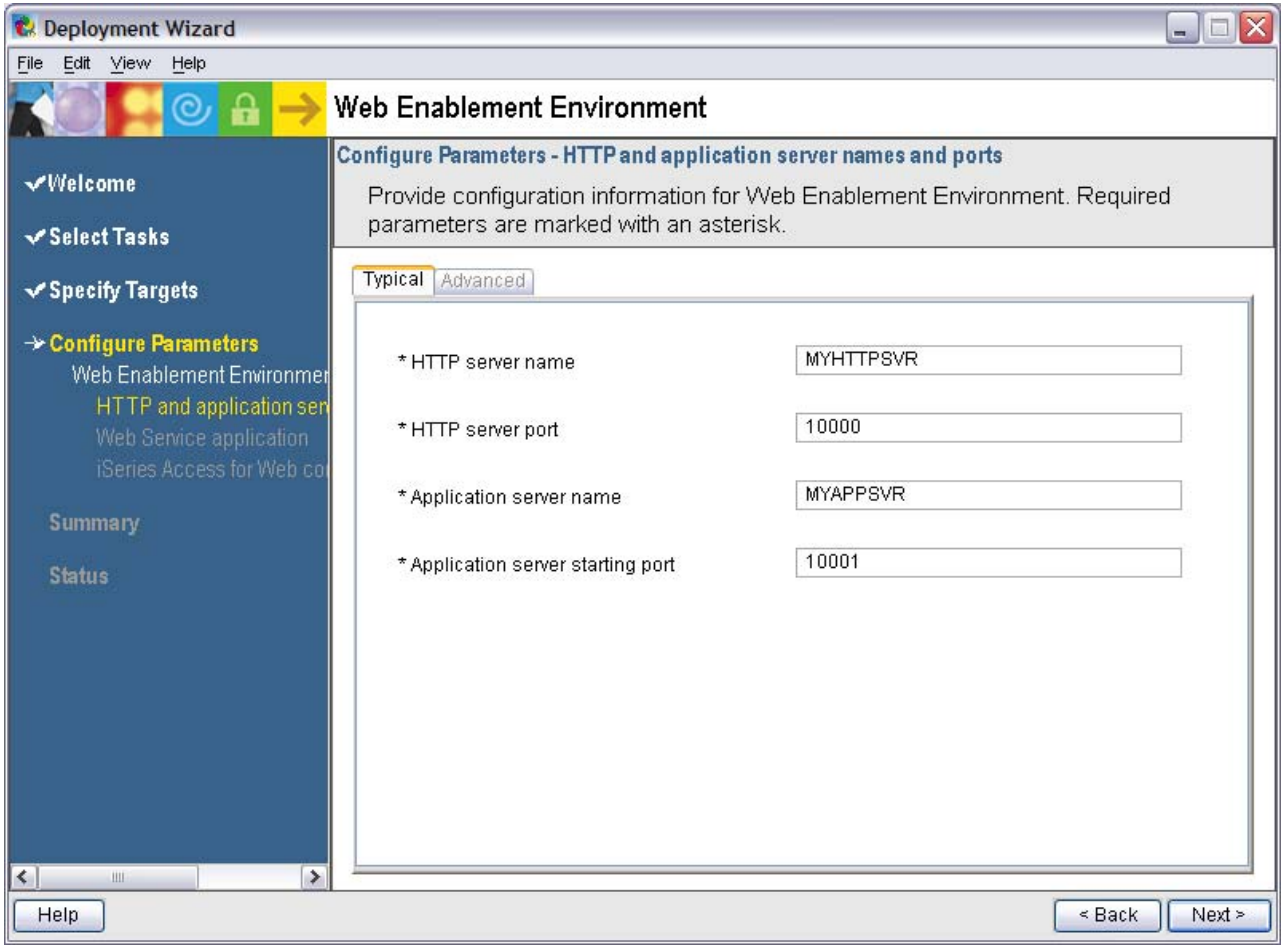
Demonstration (continued)

Name the HTTP web server and it's port

Name the WebSphere profile/app server and it's port range



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Questions regarding the

Express Runtime Web Environments option?

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3. Step by Step

- Greatest flexibility
- Choice of WebSphere Application Server version
- May already have components on your system

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Formula for successful setup and configuration

You need to do the following in this order:

1. **Decide what web application server environment to run**
2. **Install System i Access for Web on your i5/OS system**
3. **Verify, load, apply any additional PTFs**
   - **Cumulative PTF package**
   - **WebSphere, HTTP web server for i5/OS, integrated Web application server**
   - **System i Access for Web**
4. **Setup web-serving environment**
5. **Configure System i Access for Web**
6. **Verify the installation and configuration**

Information resources:

- **These steps are detailed in System i Access for Web InfoCenter information**
- **Examples at http://www.ibm.com/systems/i/software/access/web/doc.html**

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Decide what web application server environment to run

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Which web application server environment?

System i Access for Web can be deployed to a variety of web serving environments.

- Servlets
  - Integrated Web application server
  - WebSphere Application Server V6.1 for i5/OS (Express, Base, Network Deployment)
  - WebSphere Application Server V6.0 for OS/400 (Express, Base, Network Deployment)
  - WebSphere Application Server V5.1 - Express for iSeries
  - WebSphere Application Server V5.1 for iSeries (Base and Network Deployment)
  - WebSphere Application Server V5.0 - Express for iSeries
  - WebSphere Application Server V5.0 for iSeries (Base and Network Deployment)
  - ASF Tomcat
    - ASF Tomcat is delivered within the IBM HTTP Server for i5/OS product (5722-DG1)
    - V5R4 i5/OS is last release for ASF Tomcat on i5/OS
- Portlets
  - IBM WebSphere Portal – Express/Express Plus for Multiplatforms V5.0.2.2
  - IBM WebSphere Portal Enable for Multiplatforms V5.1.0.1
  - IBM WebSphere Portal V6.0
  - IBM Workplace Services Express V2.5, V2.6

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Install System i Access for Web on your i5/OS system

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Install System i Access for Web on your i5/OS system

Installing System i Access for Web

- Use the RSTLICPGM command to restore (install) the licensed program
- RSTLICPGM LICPGM(5722XH2) DEV(OPT01) OPTION(*BASE) - V5R4 version
- RSTLICPGM LICPGM(5761XH2) DEV(OPT01) OPTION(*BASE) - V6R1 version

The restore will...

- Create library QIWA2 and objects in QIWA2
- Create file system directories
  - /QIBM/ProdData/Access/Web2/...
  - /QIBM/UserData/Access/Web2/...
- Set basic ownership/authorities for library and file system objects

The restore will not...

- Make any changes to HTTP web server configurations
- Make any changes to web application server configurations
- Enable use of System i Access for Web

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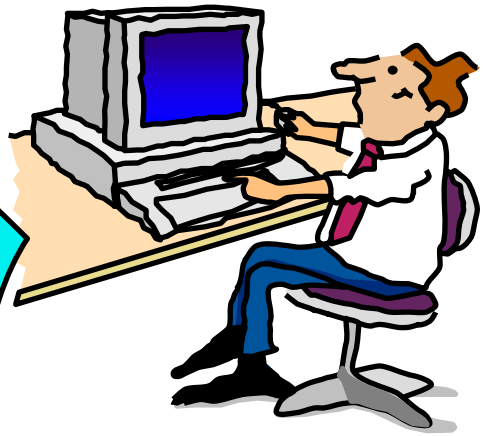
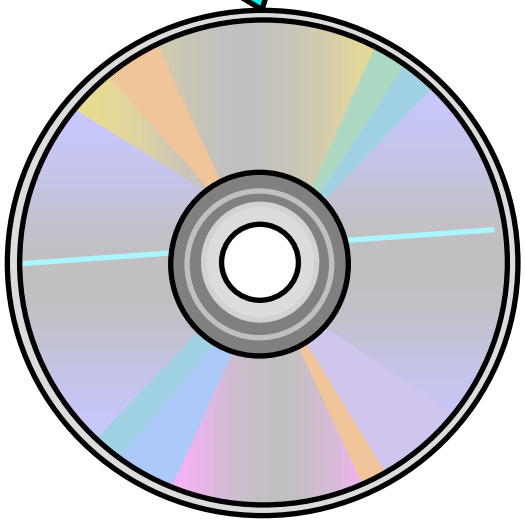
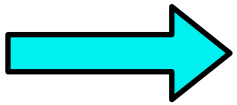


Verify, load, apply any additional PTFs





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Verify, load, apply any additional PTFs

- Each component of the web application serving environment has PTFs

1. WebSphere Application Server
   - http://www.ibm.com/systems/i/software/websphere/index.html
2. Integrated Web application server
   - http://www.ibm.com/systems/i/software/http/index.html
3. i5/OS Cumulative PTF package
4. HTTP web server
   - http://www.ibm.com/systems/i/software/http/index.html
5. WebSphere Portal/Workplace Services Express
   - Refer to the Portal and Workplace Information Center documentation
6. System i Access for Web
   - http://www.ibm.com/systems/i/software/access/web/servicepacks.html

- PTFs for the above components should be verified and updated as needed

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Setup up web-serving environment

HTTP Server for iSeries

IBM WebSphere

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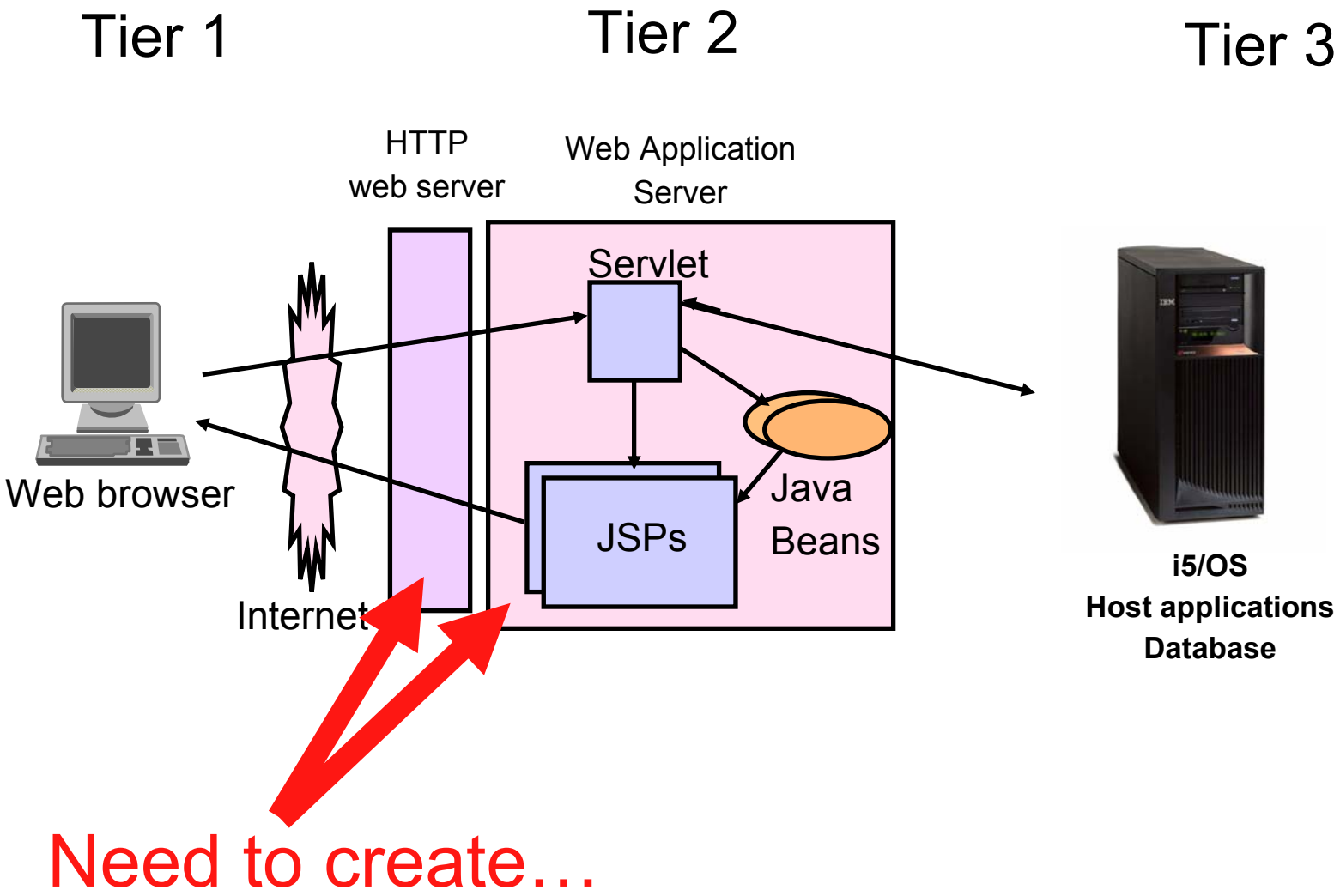
Step by Step
Setup web-serving environment



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Notes: Set up web-serving environment

- HTTP web server
  - Front door for into your web serving environment
  - HTTP/HTTPS (SSL)
  - Listens for web requests on a specific TCP/IP port
  - An HTTP server is configured to "talk" to a specific web application server
  - Routes web requests between and end-user browser and a web application sever

- WebSphere web application server (WAS)
  - Profiles (instances) are created containing a web application server
  - The web application server provides an environment for the deployment and management of web applications
  - Many different WAS versions can be installed and coexist on an i5/OS system
  - All web applications running within a web application server share the same name space.
  - You could create multiple profiles (instances) on a single i5/OS for the following reasons:
    - To create separate development environments for different developers. This allows them to have different versions of the same objects in their own name space.
    - To create separate development and test environments

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Setup web-serving environment

Use IBM Web Administration for i5/OS

- Easy to use wizard that prompts for required information and does all the work
- STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
- http://<system_name>:2001/HTTPAdmin

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Setup web-serving environment (continued)

Setup → Create Application Server

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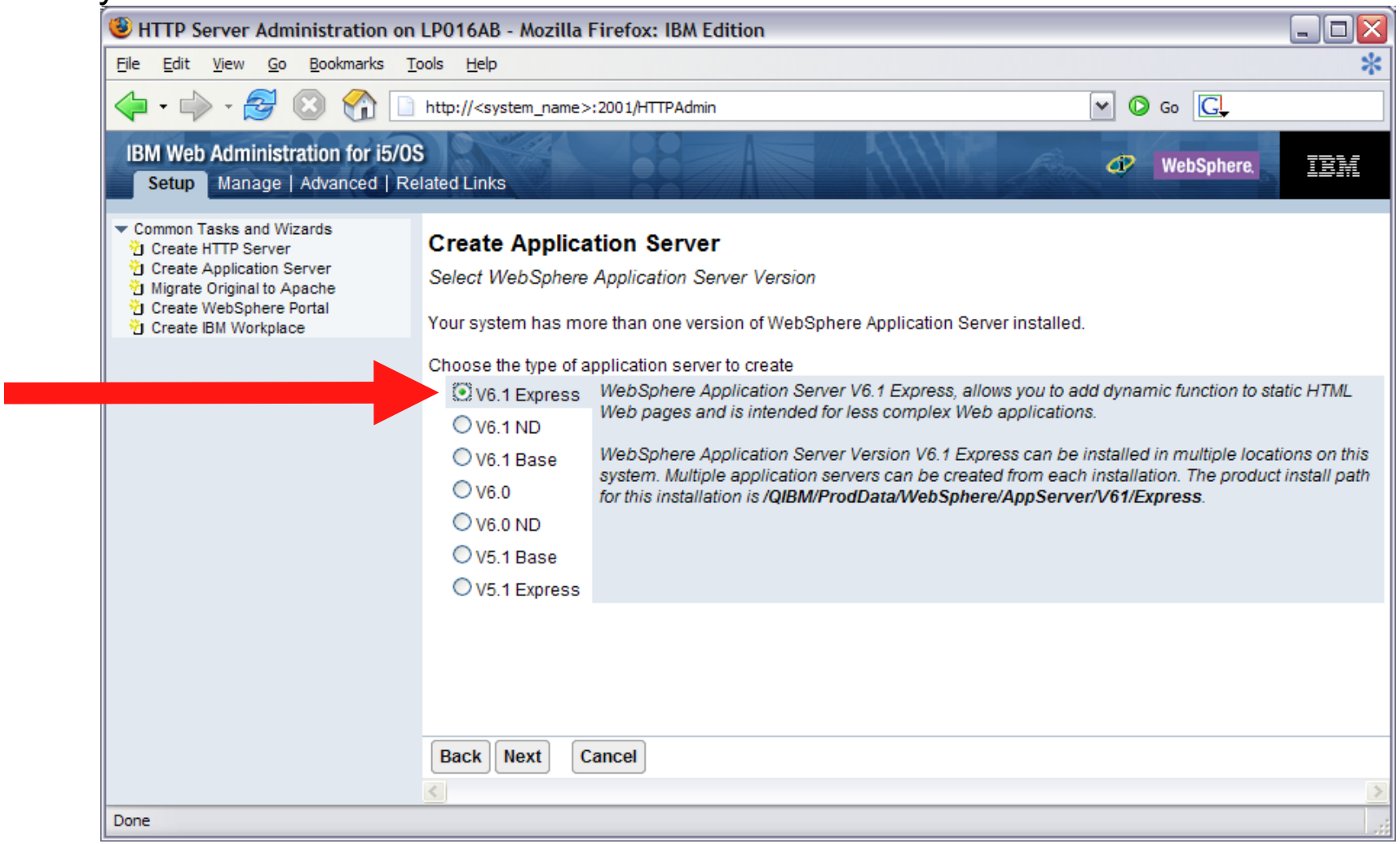
Setup web-serving environment (continued)

Select version of WebSphere Application Server of those installed on your system



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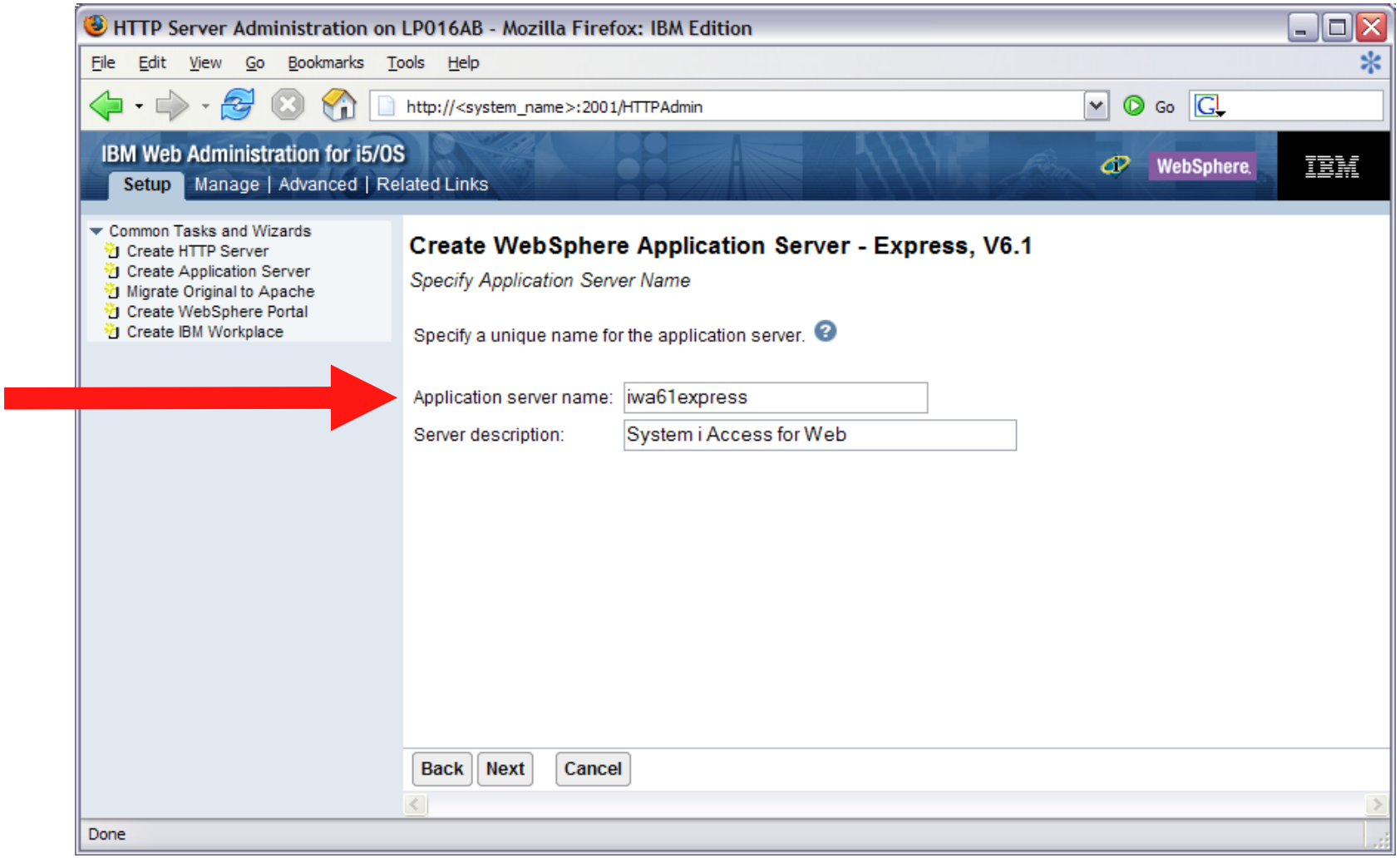
Setup web-serving environment (continued)

Enter a name for the web application server, optionally a description



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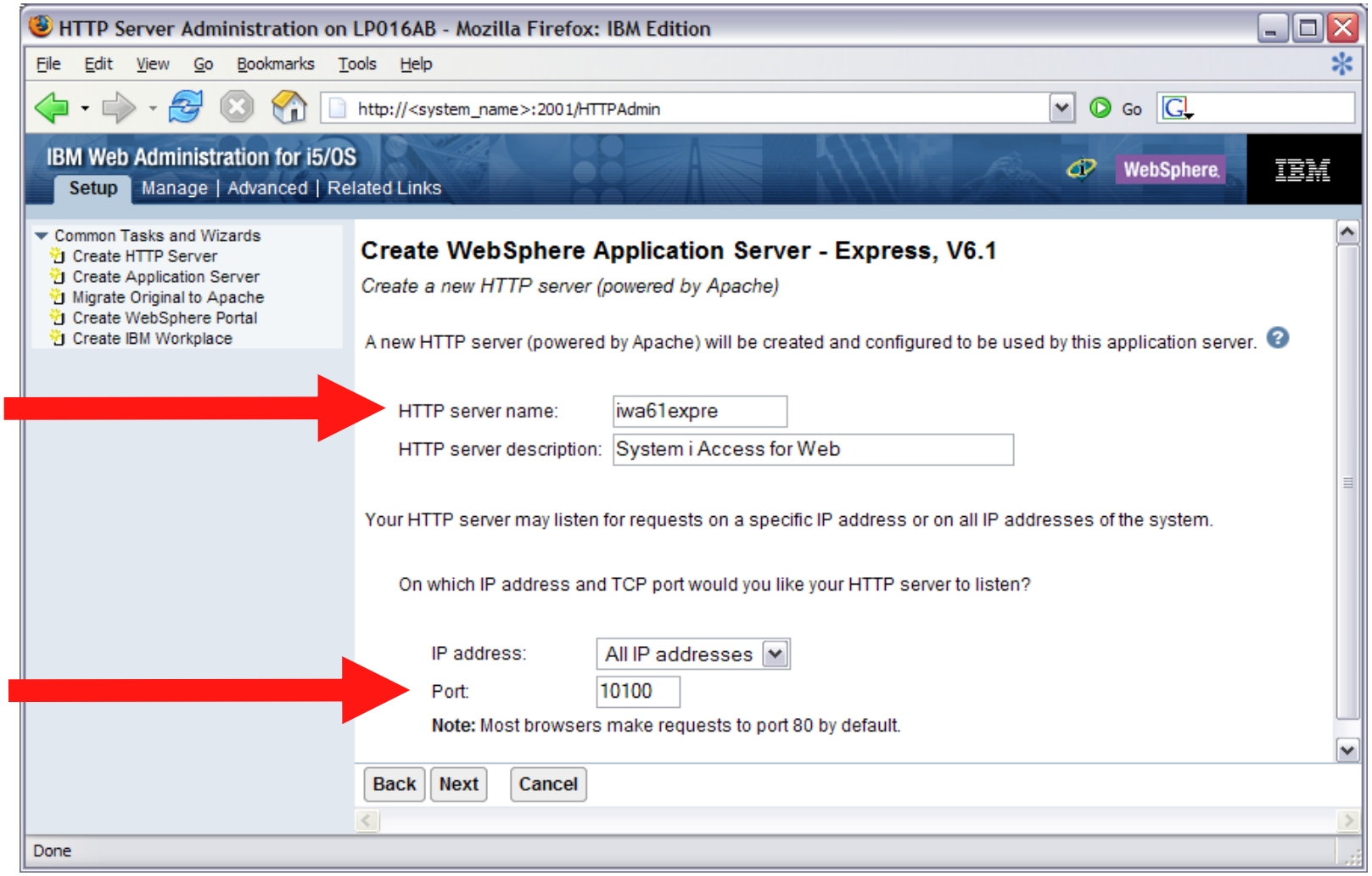
Setup web-serving environment (continued)

Enter name for HTTP server, optional description, port on which this HTTP server will listen



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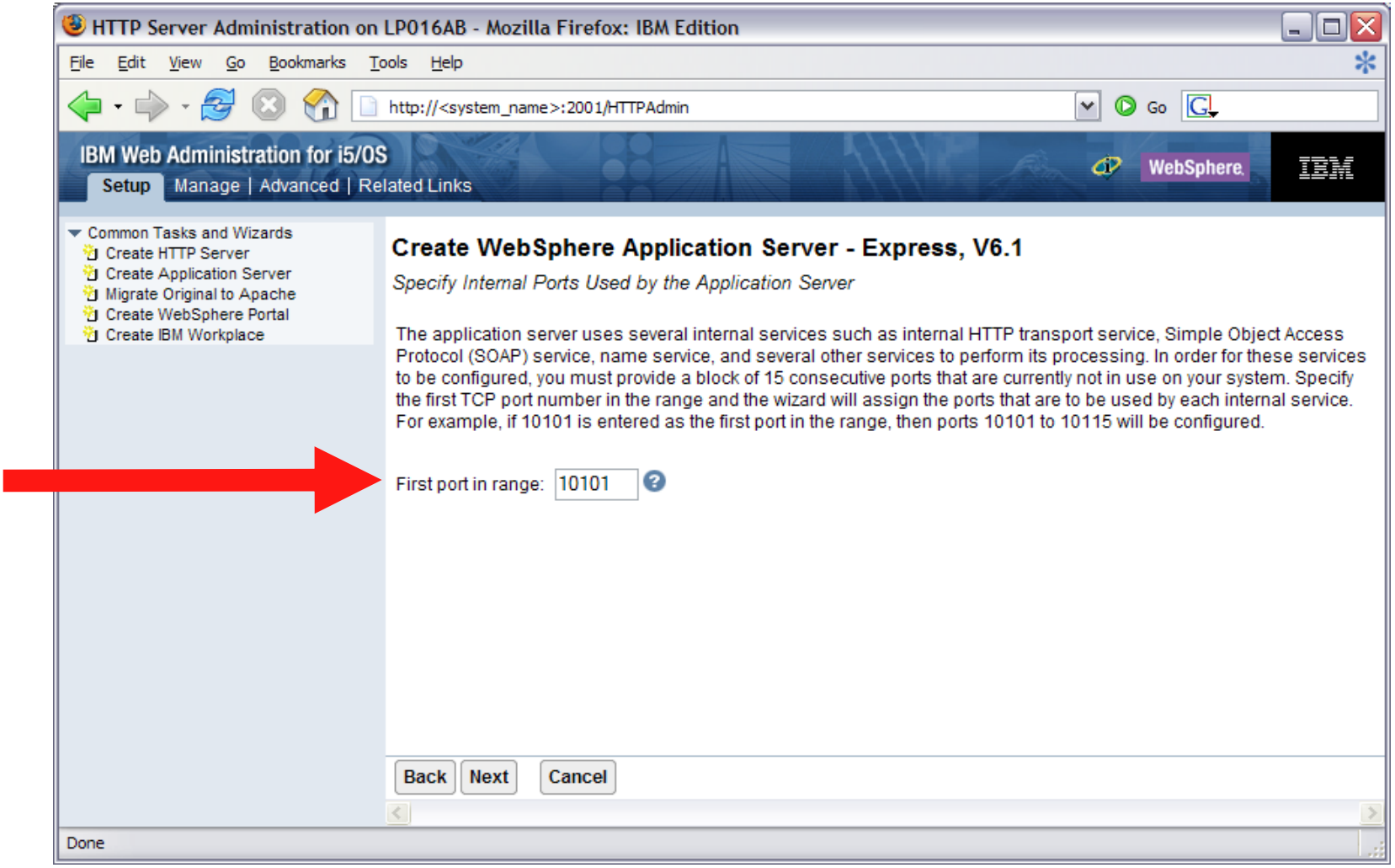
Setup web-serving environment (continued)

Enter first port in a range of available ports – the communication ports between the HTTP server and WAS



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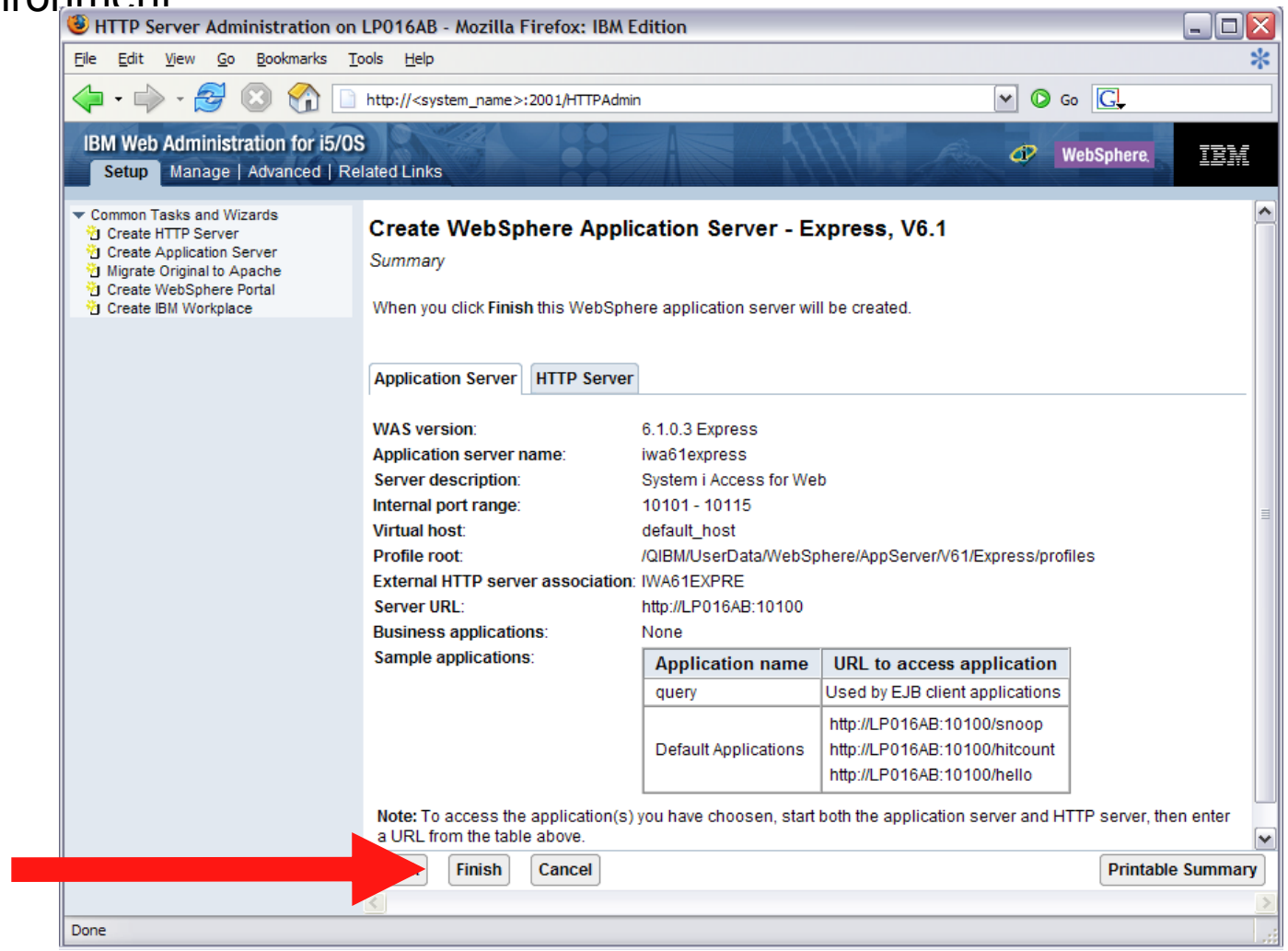
Setup web-serving environment (continued)

A few other steps in the wizard, then click Finish to create the web-serving environment



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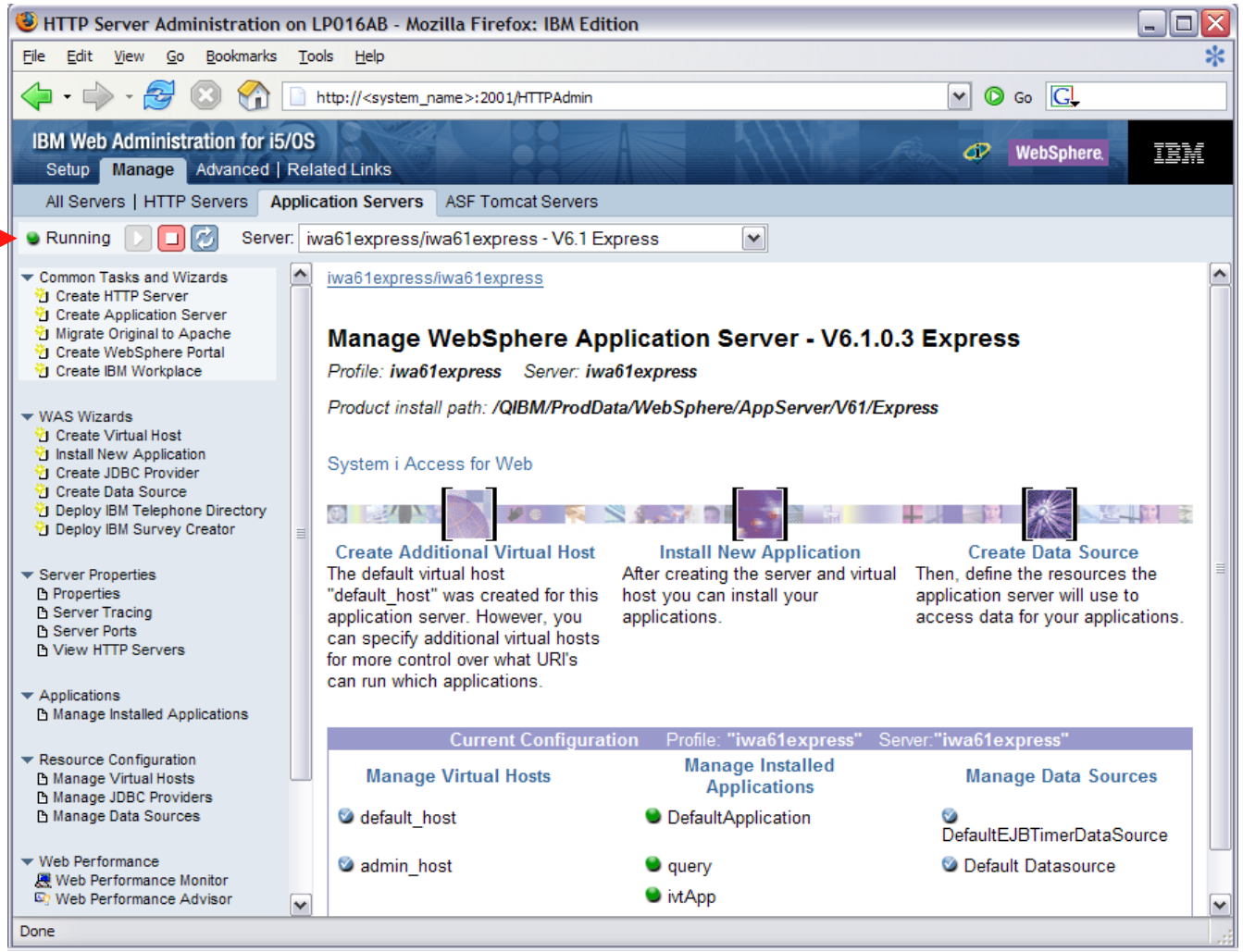
Setup web-serving environment (continued)

Environment is ready for configuratoin when status reaches Running



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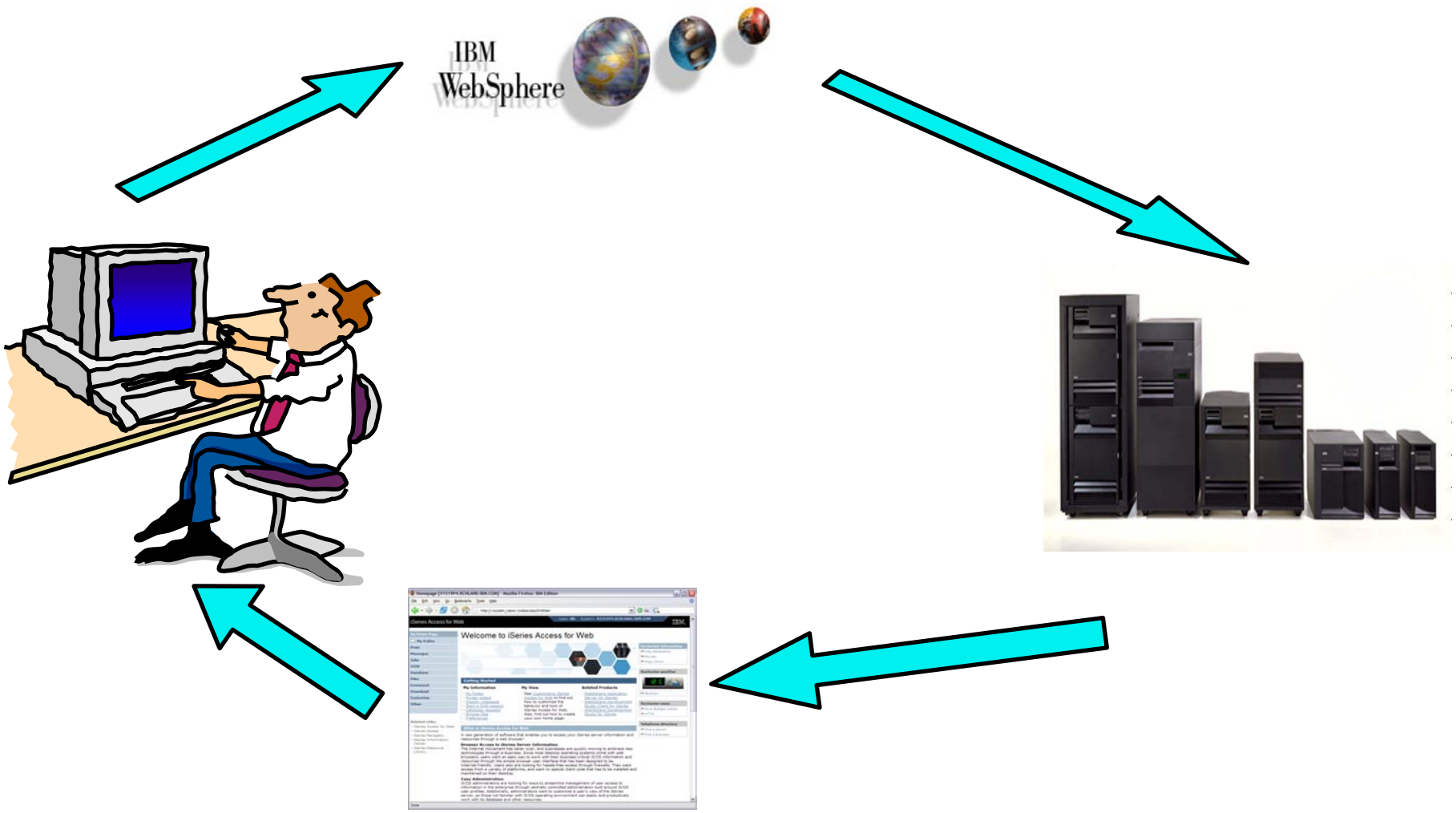
Configure System i Access for Web



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Configure System i Access for Web

System i Access for Web must be deployed (configured) to a running web application server

System i Access for Web provides CL and QShell commands

- CL commands – QIWA2 library
  - CFGACCWEB2 Configure System i Access for Web
  - STRACCWEB2 Start System i Access for Web
  - ENDACCWEB2 End System i Access for Web
  - RMVACCWEB2 Remove System i Access for Web
- QShell - /QIBM/ProdData/Access/Web2/install
  - cfgaccweb2 Configure System i Access for Web
  - straccweb2 Start System i Access for Web
  - endaccweb2 End System i Access for Web
  - rmvaccweb2 Remove System i Access for Web

Commands are provided to…

- Ease the complexity of deploying a web application
- Check dependencies
- Invoke appropriate WebSphere tool to deploy a web application
- Perform additional required setup
- /QIBM/UserData/Access/Web2/ … structure
- Allows for PTFs that make use of the normal i5/OS PTF tools

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Configure System i Access for Web (continued)

Use available documentation →

- System i Access for Web – Information Center
  - Place to start to get System i Access for Web installed and running

When the commands are run →

- The WebSphere web application server must be running before running the CFGACCWEB2 or RMVACCWEB2 commands
- The WebSphere web application server will need to be restarted after the CFGACCWEB2 or RMVACCWEB2 commands
  - No updates are made to the HTTP web server configuration.

Notes

- **Do not use the web administration interface or WebSphere Admin console to configure (deploy) or remove System i Access for Web**
- **Do not attempt to migrate a WebSphere environment to another WebSphere environment when System i Access for Web is configured**

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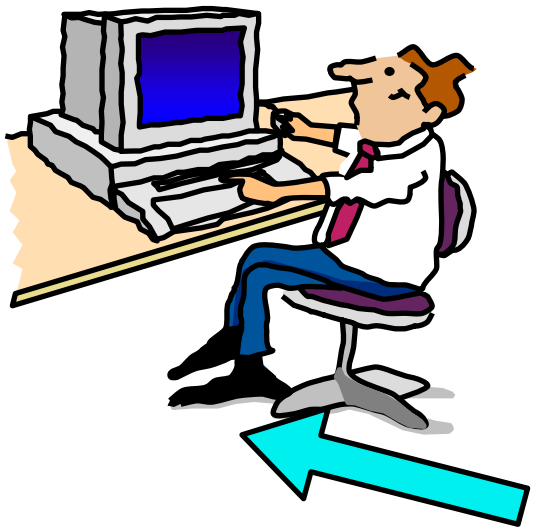
Verify the installation and configuration



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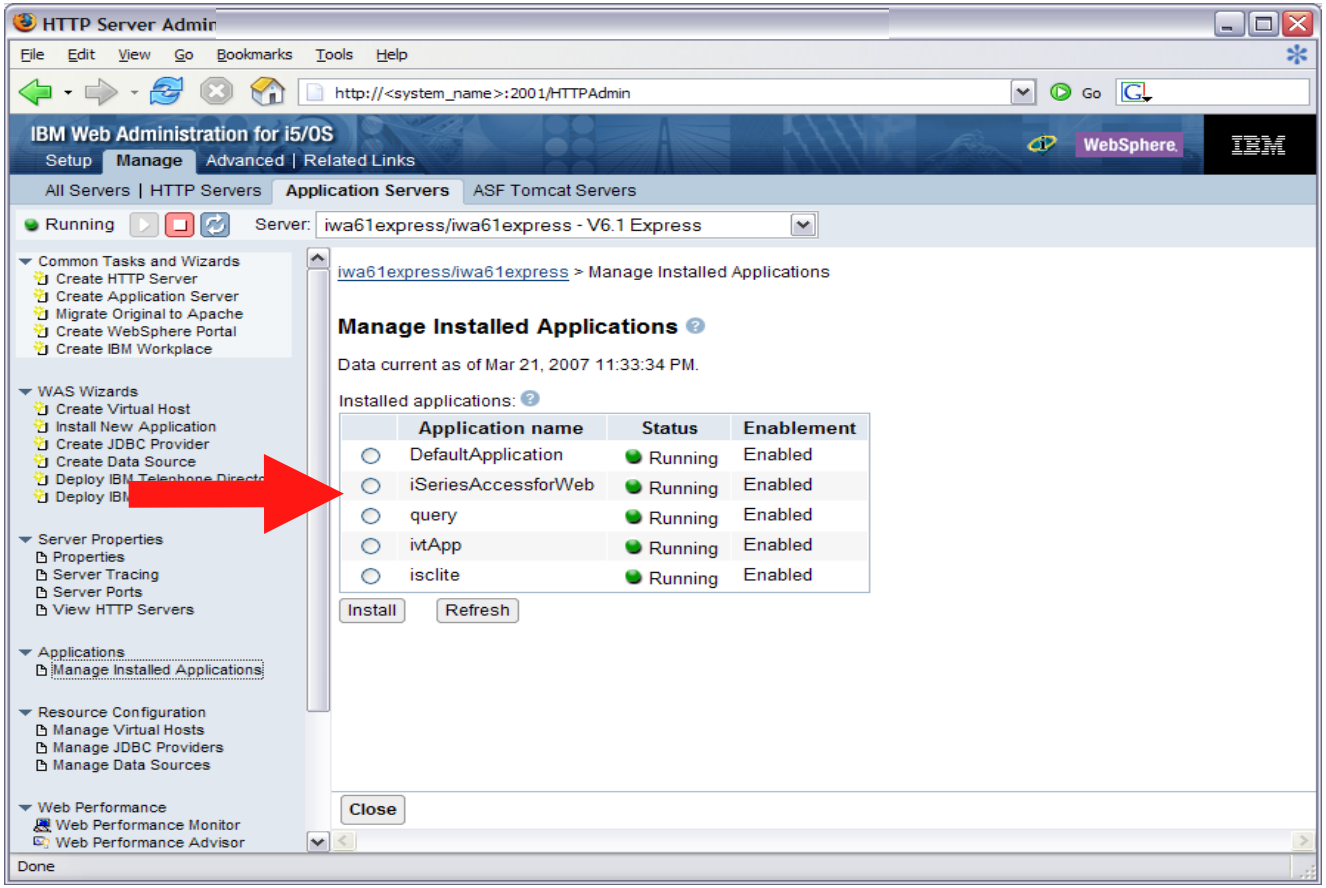
Verify the installation and configuration

IBM Web Administration for i5/OS → Applications → Manage Installed Applications



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When things do not work

- Verify the HTTP web server is running
- Verify the WebSphere web application server was restarted after running CFGACCWEB2
- Verify the WebSphere web application server is running
- Verify you have the latest group PTFs for the HTTP web server and WebSphere Application Server.
- Verify that System i Access for Web is listed as an installed application in the WebSphere application server (via the IBM Web Administration for i5/OS interface)
- Look at System i Access for Web logs

High level translated log	/QIBM/UserData/Access/Web2/logs/cmds.log
Low level untranslated log	/QIBM/UserData/Access/Web2/logs/cmdstrace.log
Logs for specific WAS servers. Note: some logs may be EBCDIC requiring use of WRKLNK i5/OS command to view them	/QIBM/UserData/Access/Web2/logs/<appsvrtype>/<wasprf>/<appsvr>/logs/*

- Next, if needed, the doc will lead you to the WebSphere Applicatoin Server or Portal logs

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Part 2:
Runtime Considerations

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Controlling Access

3 methods to control access using System i Access for Web

- **Administration Policies**
  - Administrators can use the Customize function to set policies for users and groups of users.

- **User Preferences**
  - Users can set their own Preferences for things like
    - What tabs are available in the navigation bar
    - How to view output (default rows/columns per page)
    - How to filter output

- **Customize the Home page and template files**
  - Administrators can use the Customize function to replace the default System i Access for Web home page with their own home page.
  - Administrators can use the Customize function to replace the default template that defines the layout, look, and feel of System i Access for Web pages
  - Style sheets - The look of the System i Access for Web page content is now controlled by external style sheets.

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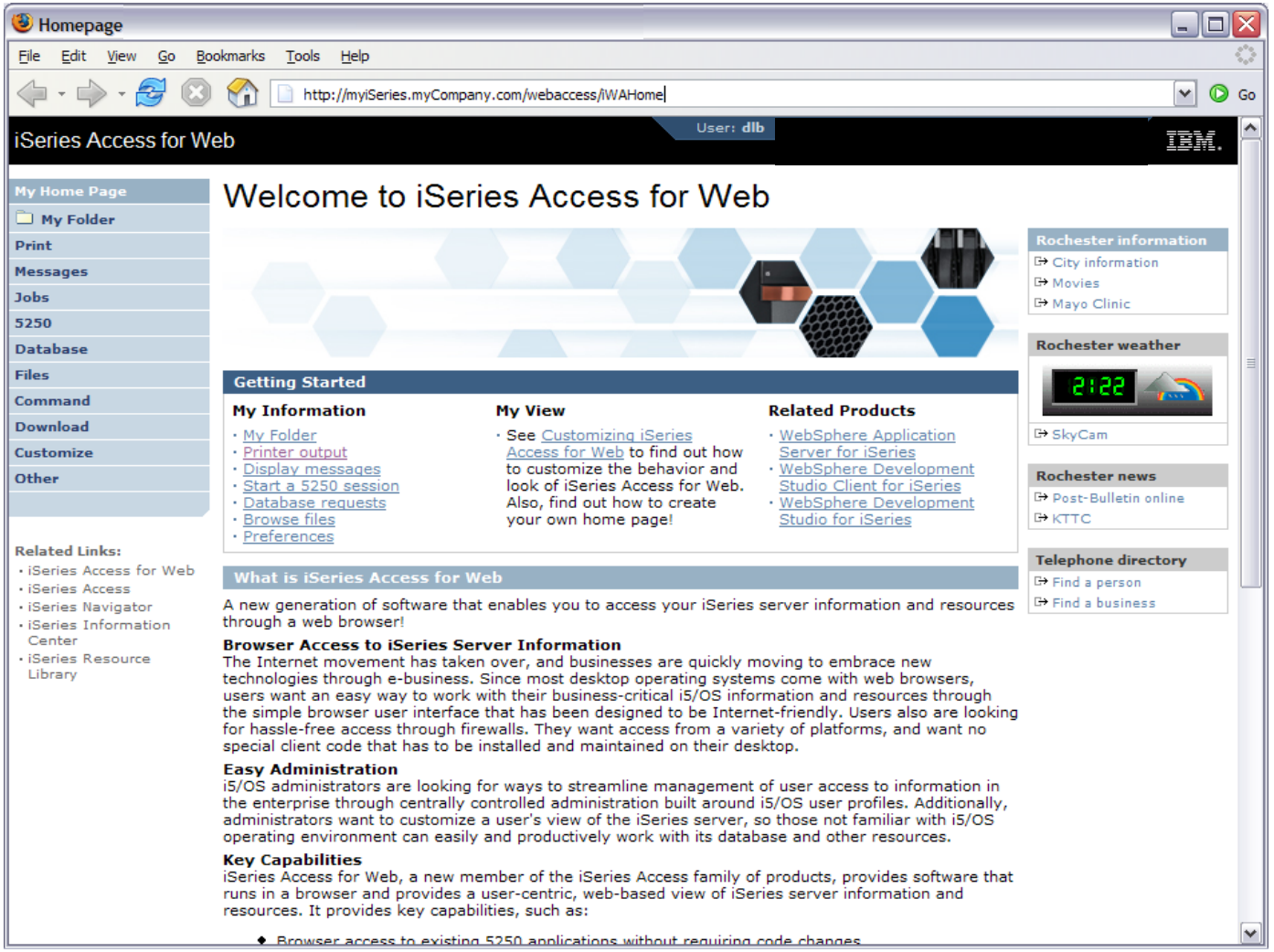
Controlling access

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



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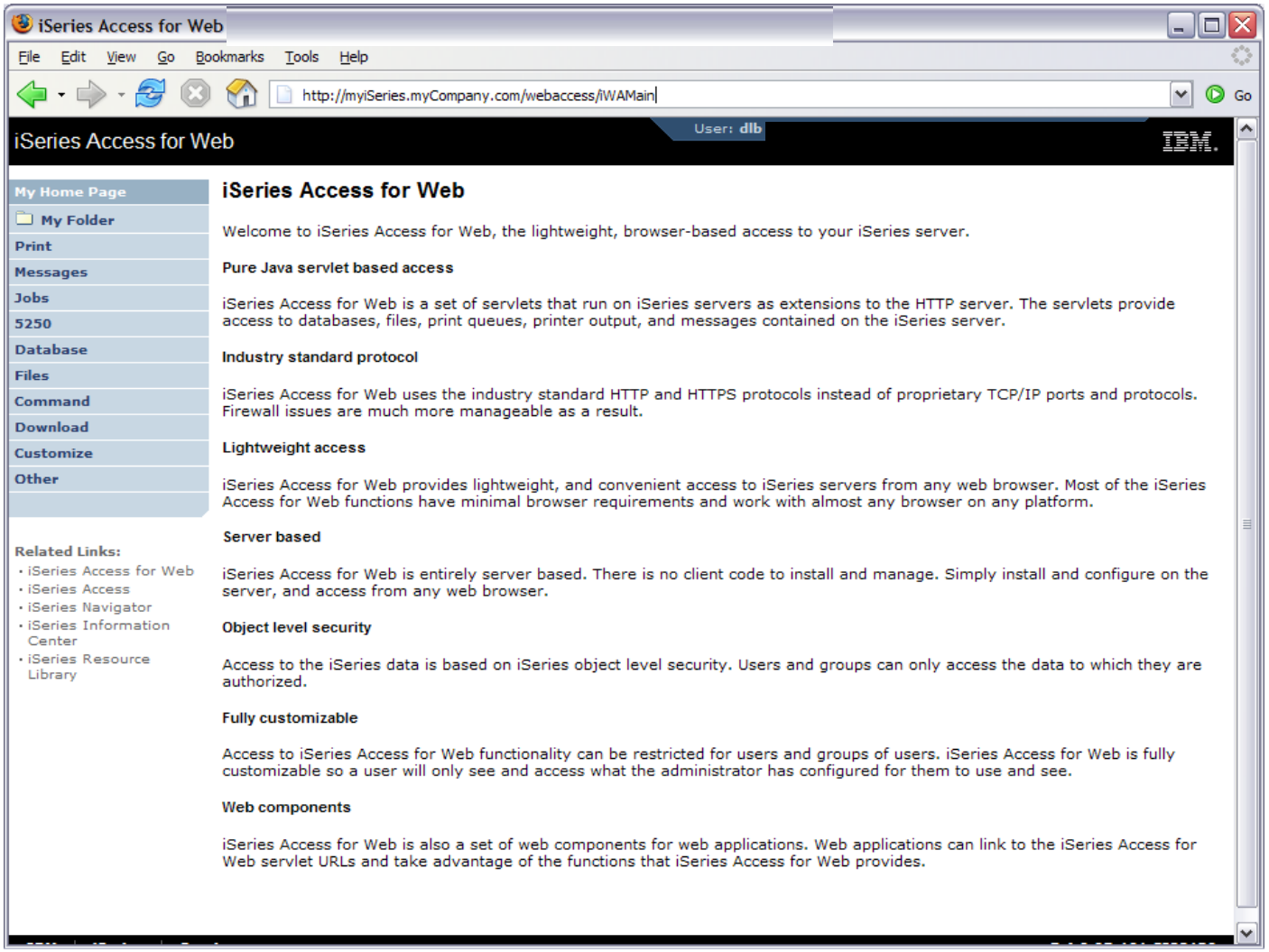
Controlling access

Main Page = http://<myiseries>:<port>/webaccess/iWAMain



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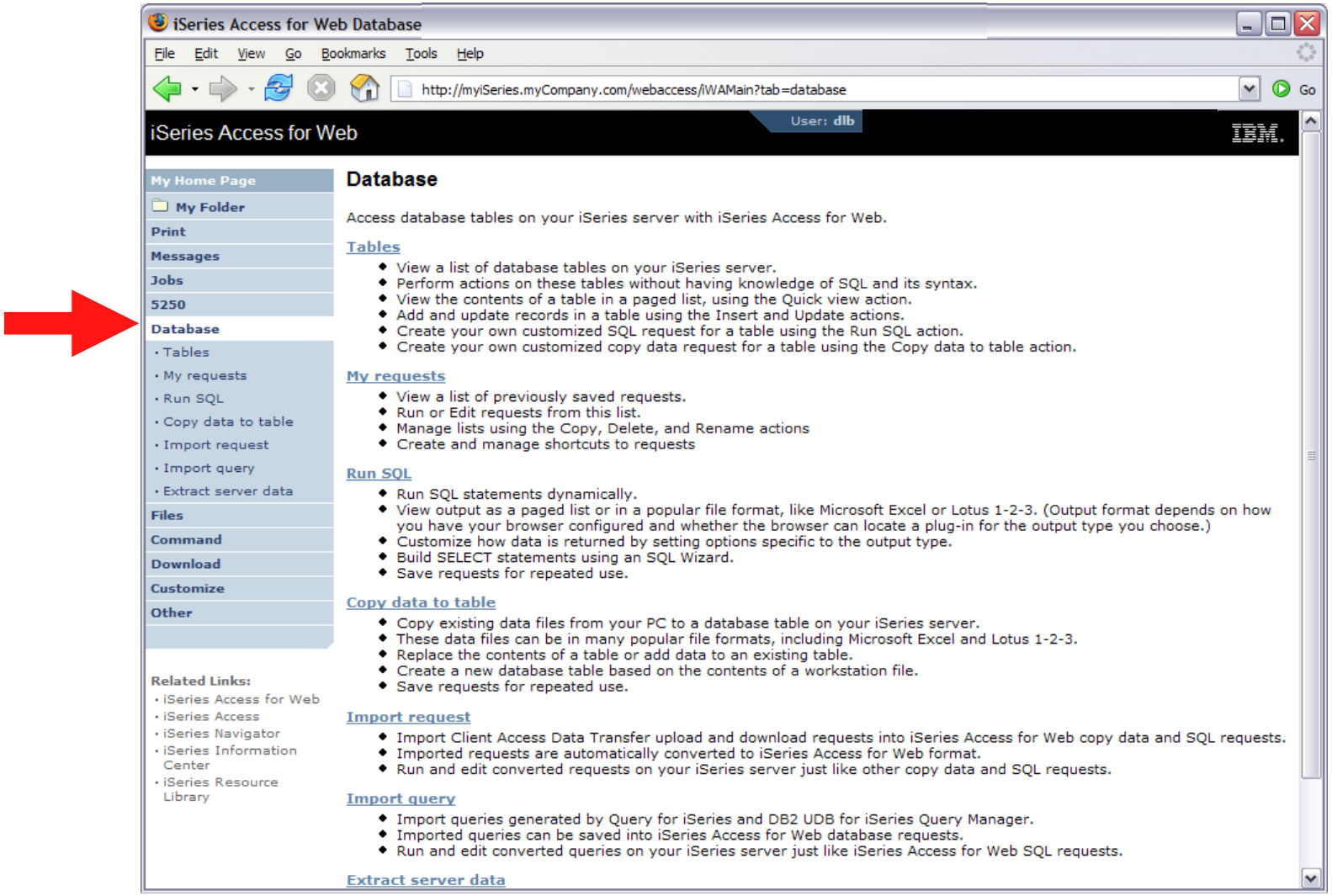
Controlling access

Product functionality



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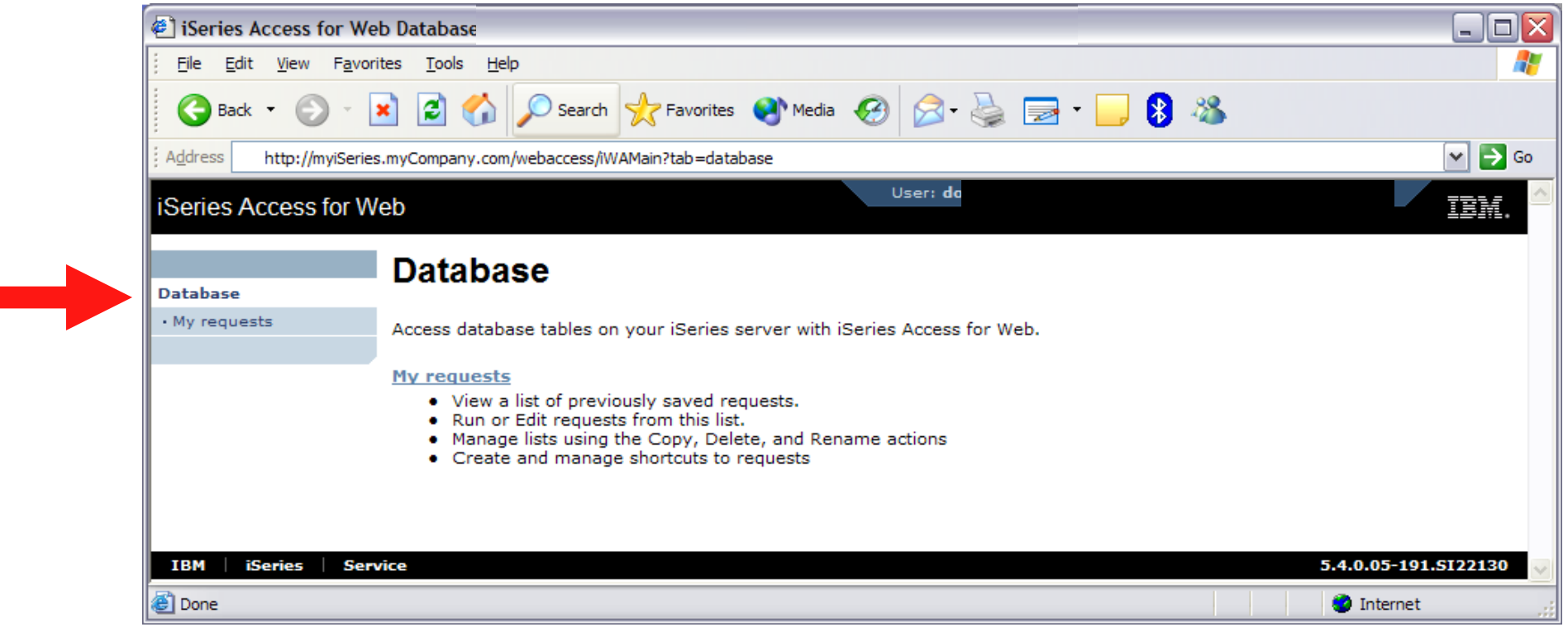
Controlling access

Sample for a user that only performs preset database queries



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Controlling Access:
Setting policies for users and groups of users

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Controlling User Access

- Customize policies for users and groups to
  - Allow/Deny functions users can access
  - Limit the information users can see
- Use group profiles to simplify policy management
  - Manage policies for group profiles
  - Add/remove users from groups
- When a function is restricted, access to the servlet is restricted
- You need *SECADM authority to customize profiles

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Notes: Controlling Access - How & Whom?

- The Customize function allows administrators to set policies for users and groups of users.
- These policies control...
  - Functions a user can perform.
  - How certain information is presented to the user.
- When a function is restricted...
  - Its navigation bar content is removed.
  - Access to the servlet is restricted.
  - It takes effect immediately.
- Administrators with *SECADM special authority are automatically authorized to administer settings for users and groups of users to which they have authority.
- These administrators can then grant other user profiles permission to administer System i Access for Web functions.

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Controlling User Access

- System i Access for Web ships with default policy settings
- Default allows most functions to be available to all users
- Use *PUBLIC to set policies for all users
- Strategy:
  - Grant an administrator profile access to all functions
  - Deny access to all functions to *PUBLIC
  - Then allow specific users/groups access to specific functions

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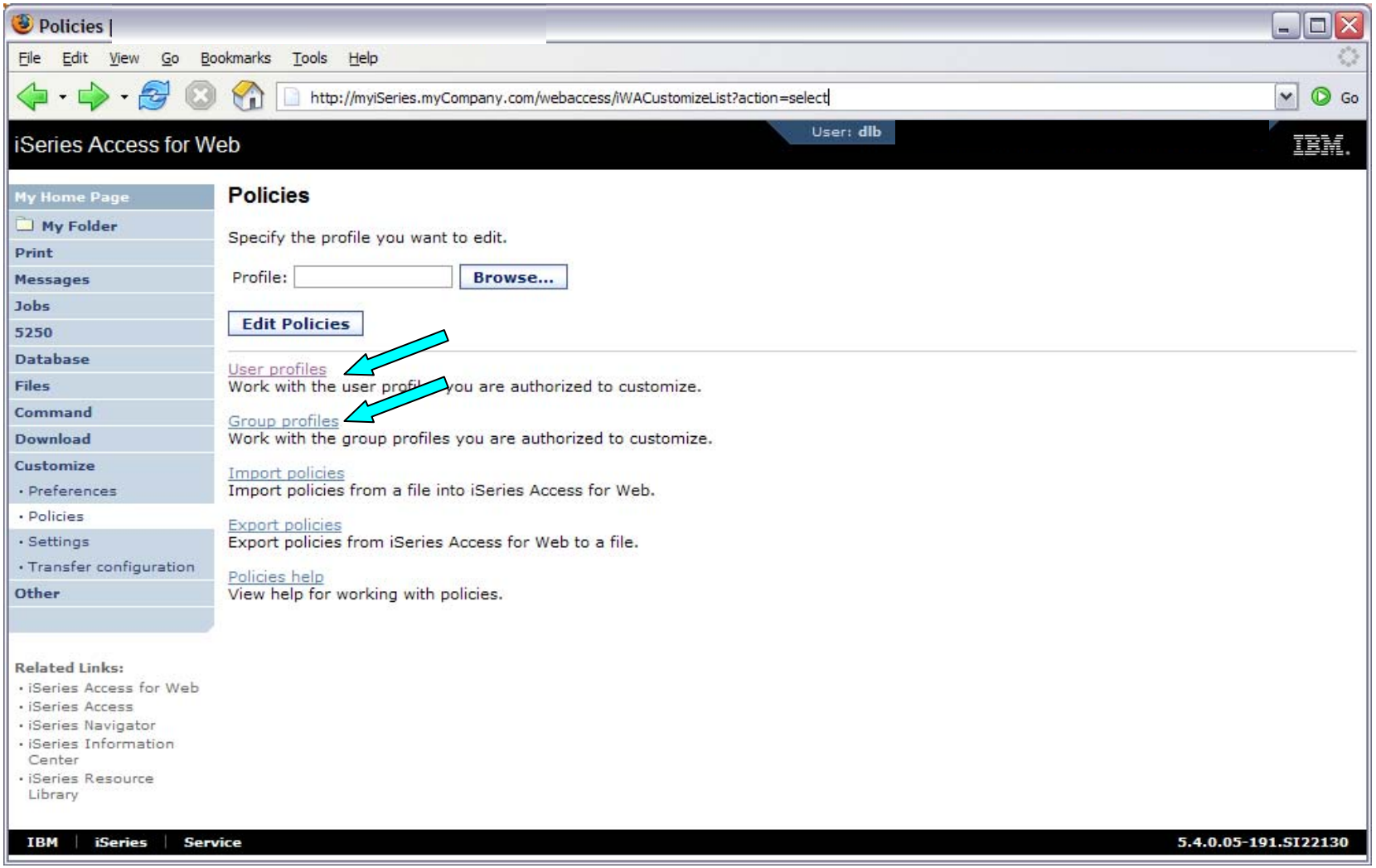
Controlling Access - Setting policies (continued)



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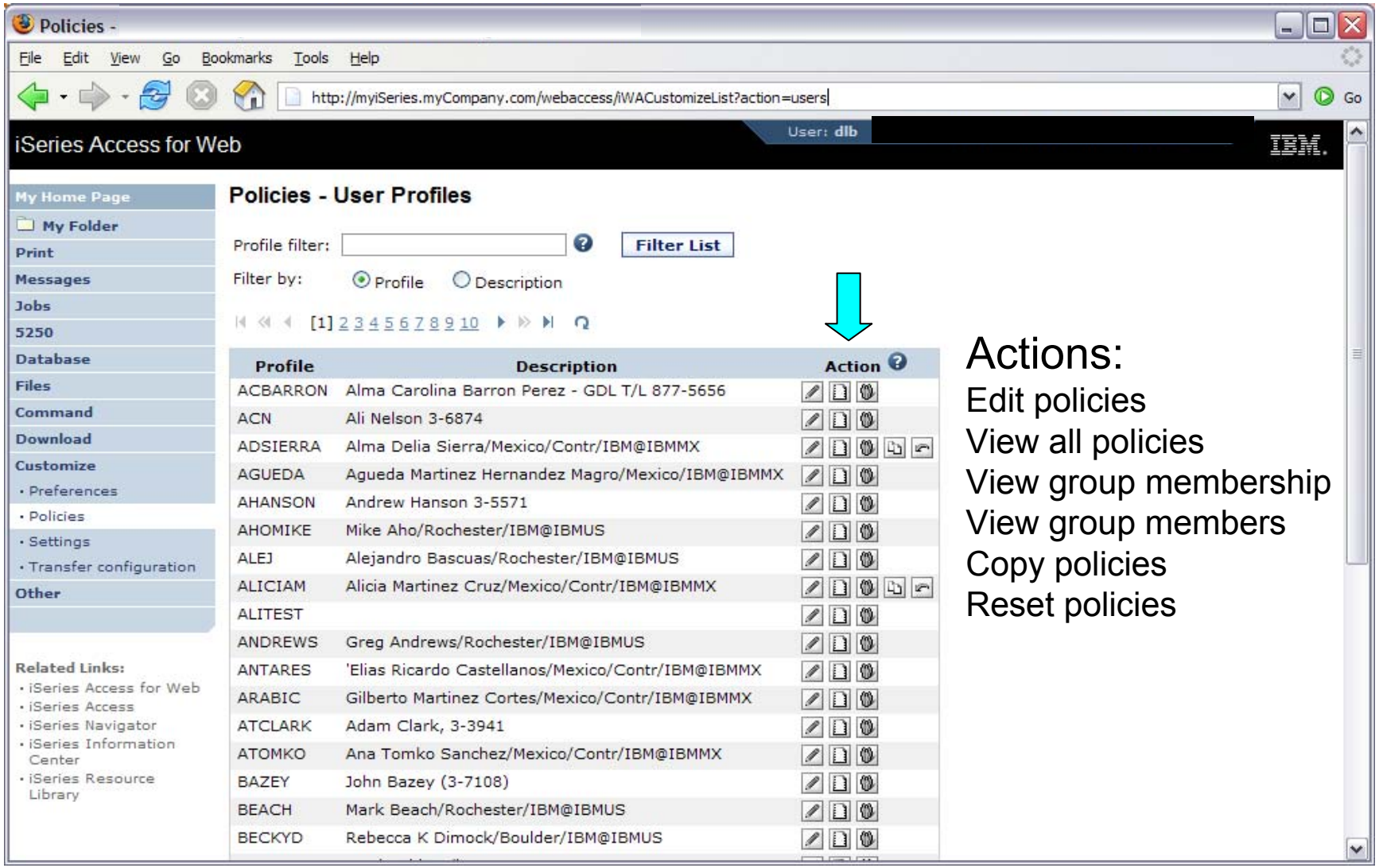
Controlling Access - Setting policies (continued)



Actions:

Edit policies
View all policies
View group membership
View group members
Copy policies
Reset policies

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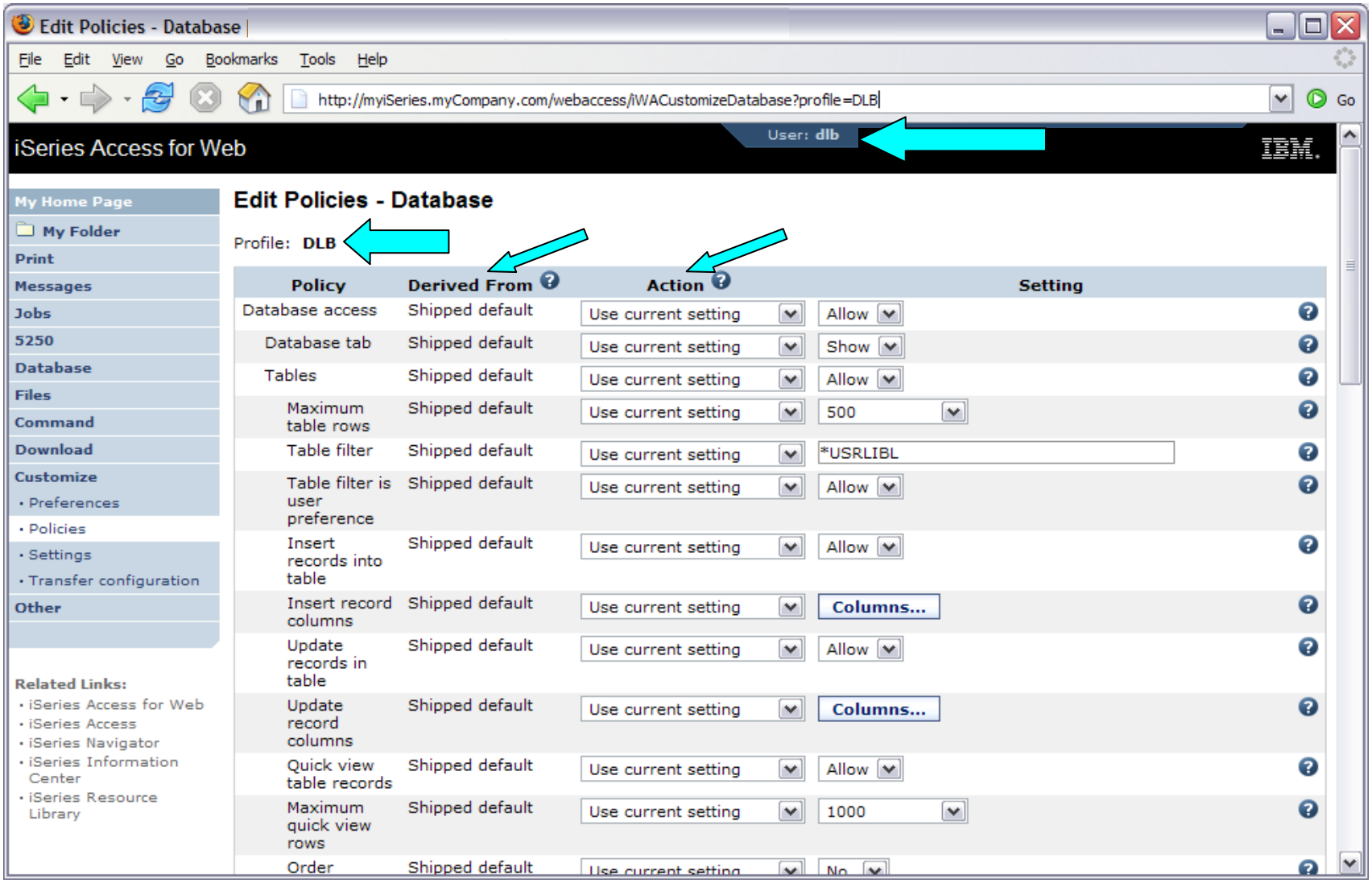
Controlling Access - Setting policies (continued)



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Example: Simple Database User

- The following screen shots step through setting the policies so a specific user only has the ability to run preconfigured database queries to generate reports.

- This example shows
  - the “Before” picture of what DB functions a user can perform with no customization of System i Access for Web
  - the specific database policies to set to restrict our user named REPORT_MAN
  - what general policies need to be set to restrict use of non-DB related functions by REPORT_MAN
  - The “After” picture of what REPORT_MAN can do

- When the policy is set, it takes effect immediately.

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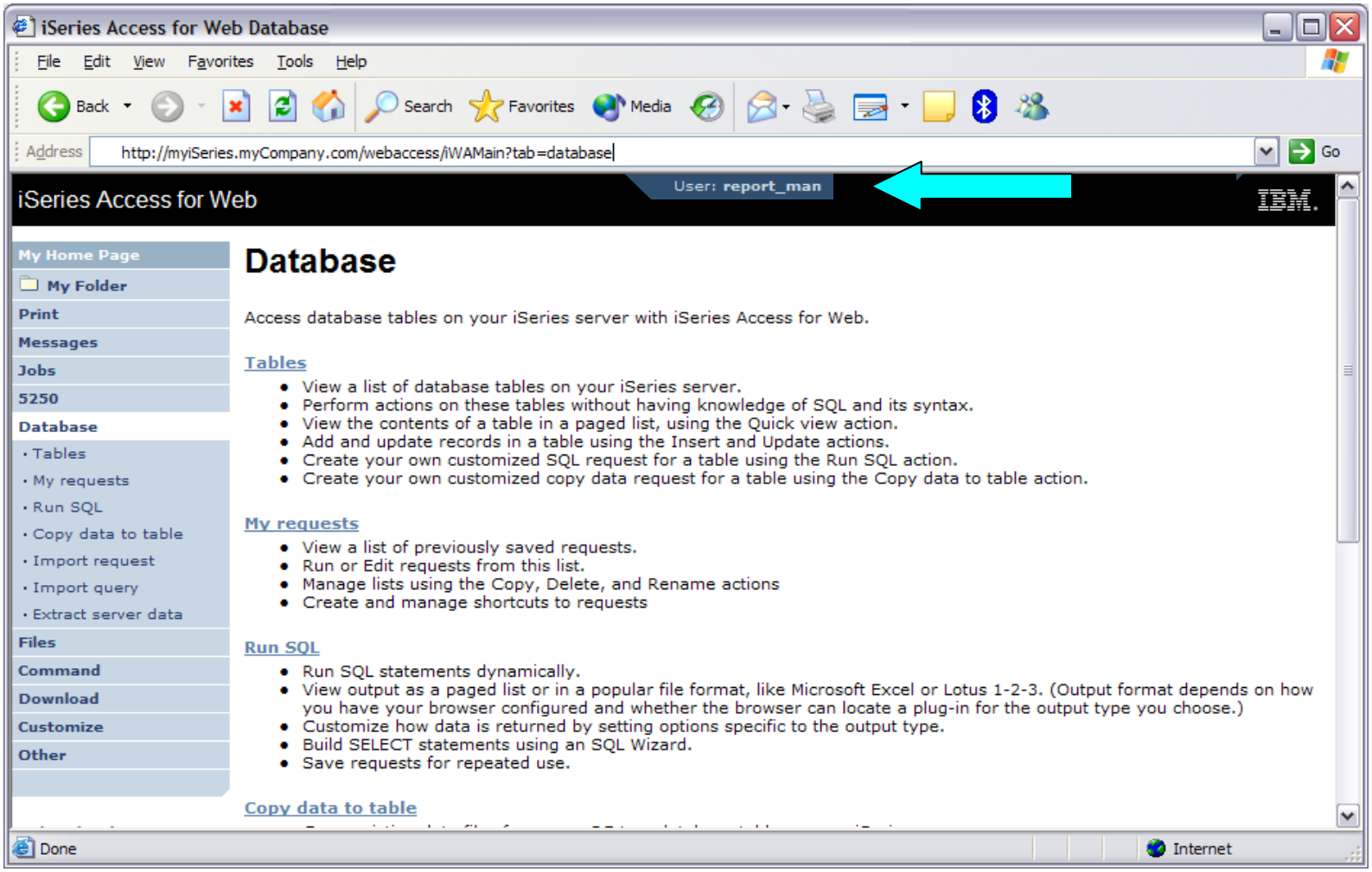
Example: Simple Database User - Before

Accessing the Database tab of System i Access for Web as user REPORT_MAN



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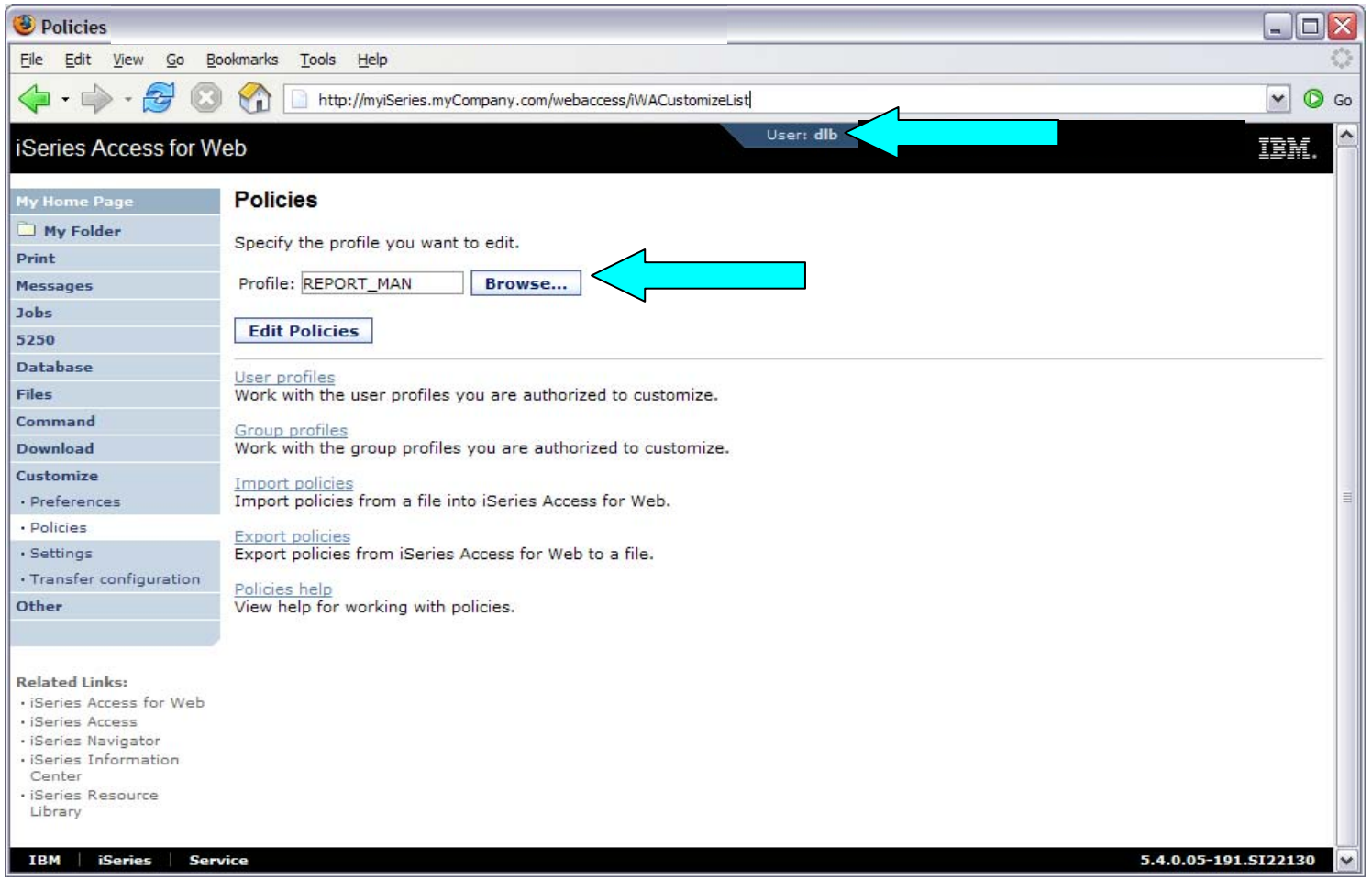
Example: Simple Database User - Policies

- Policies - the starting point for customization of a specific user or group.
- This is a new browser session, where we signed on as an administrator.



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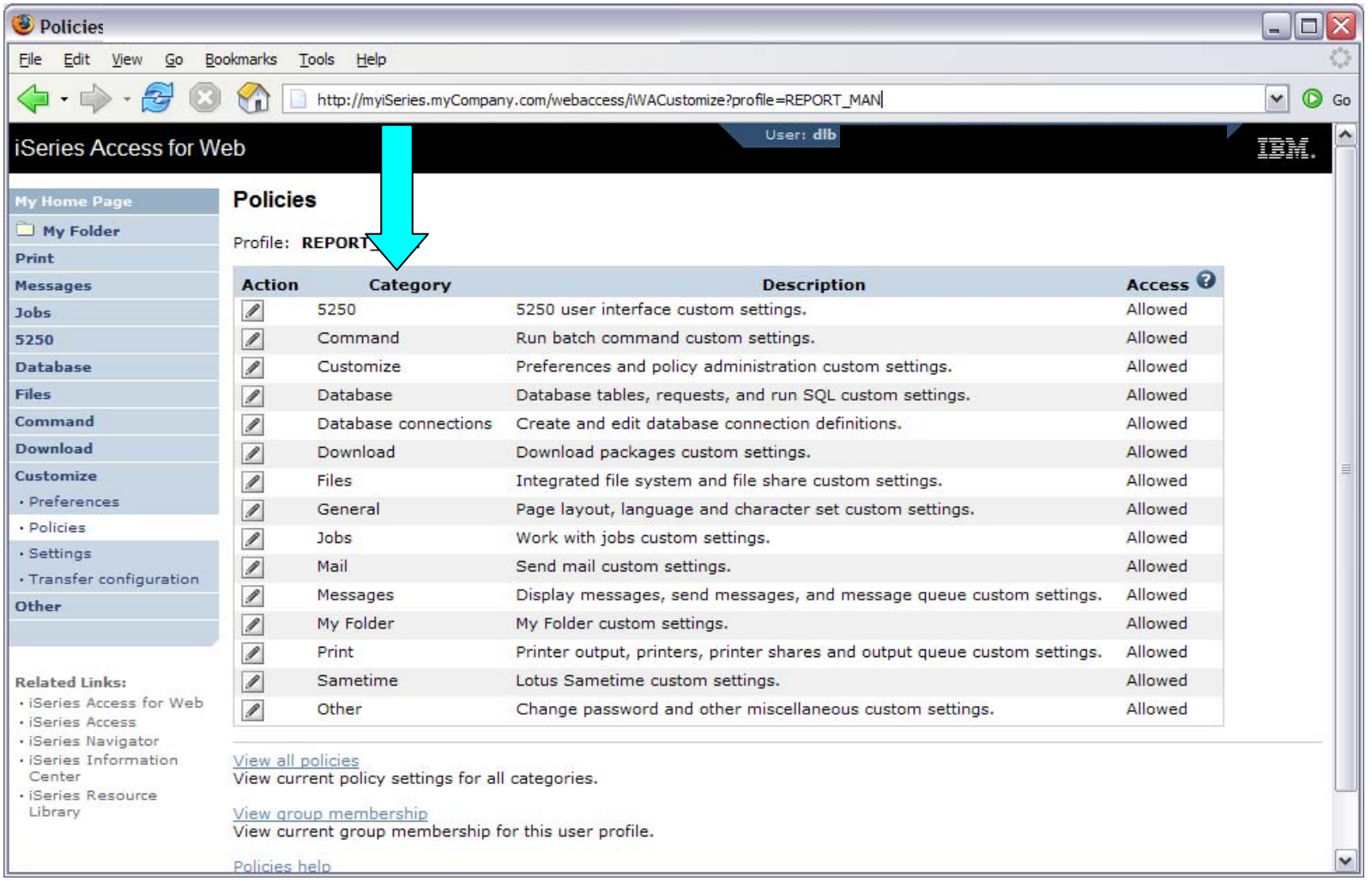
Example: Simple Database User - Categories

- Determine which categories need to be restricted/modified.



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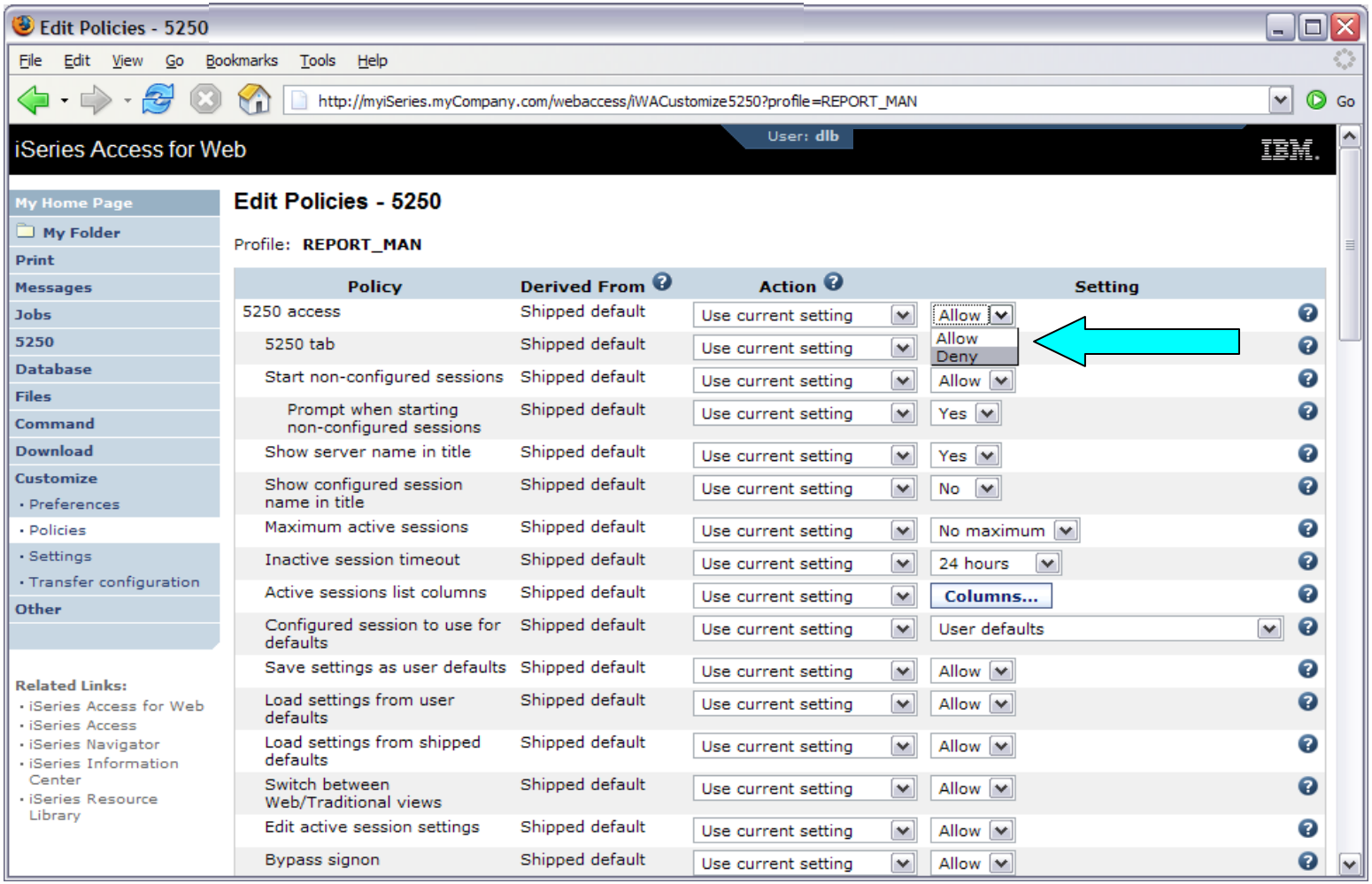
Example: Simple Database User – Other

- Turn off the other non-Database functions. Set top level to Deny.
- Repeat for each category, other than Database



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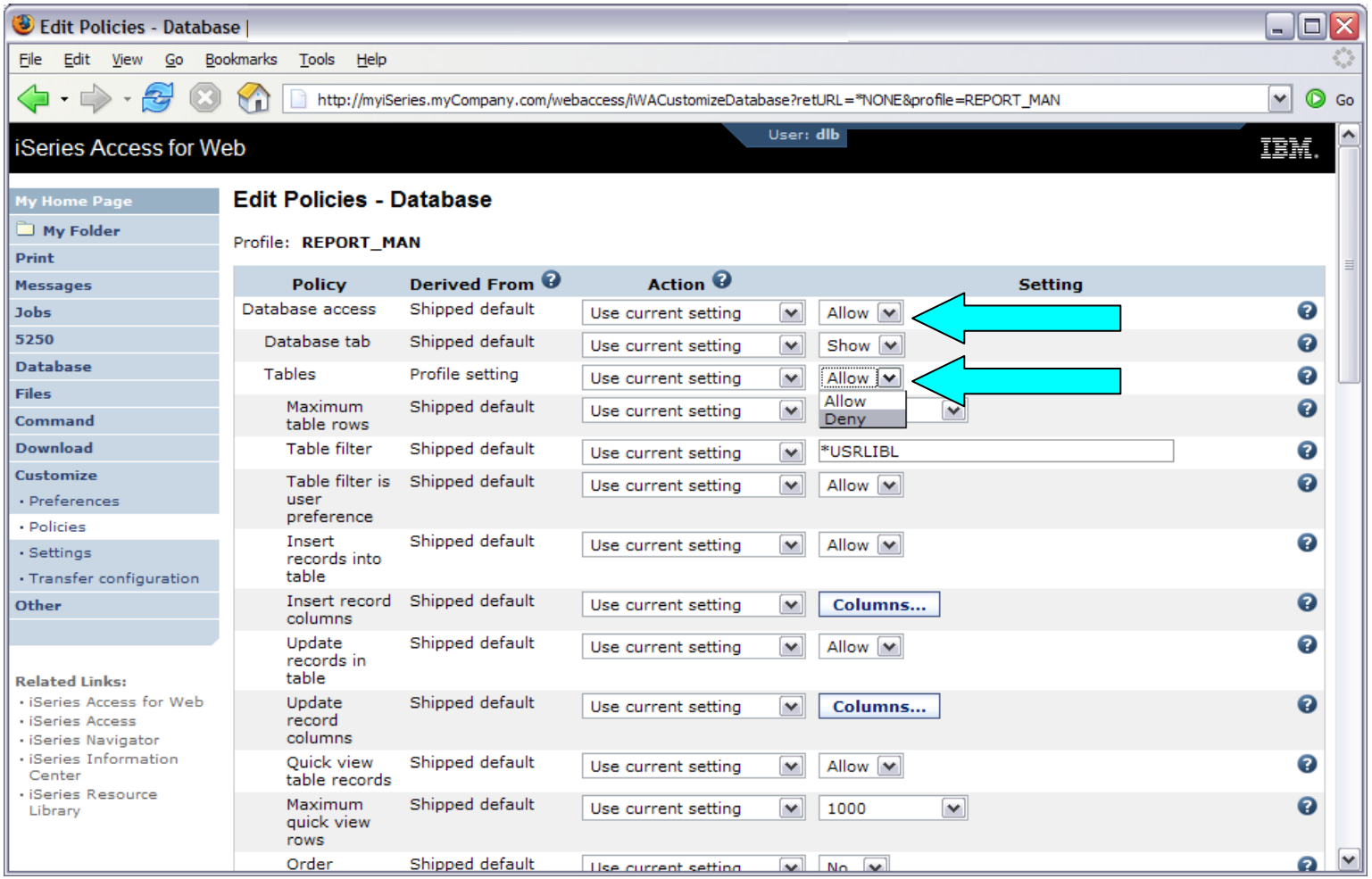
Example: Simple Database User

- Allow access to Database function.
- Set Tables policy to Deny.



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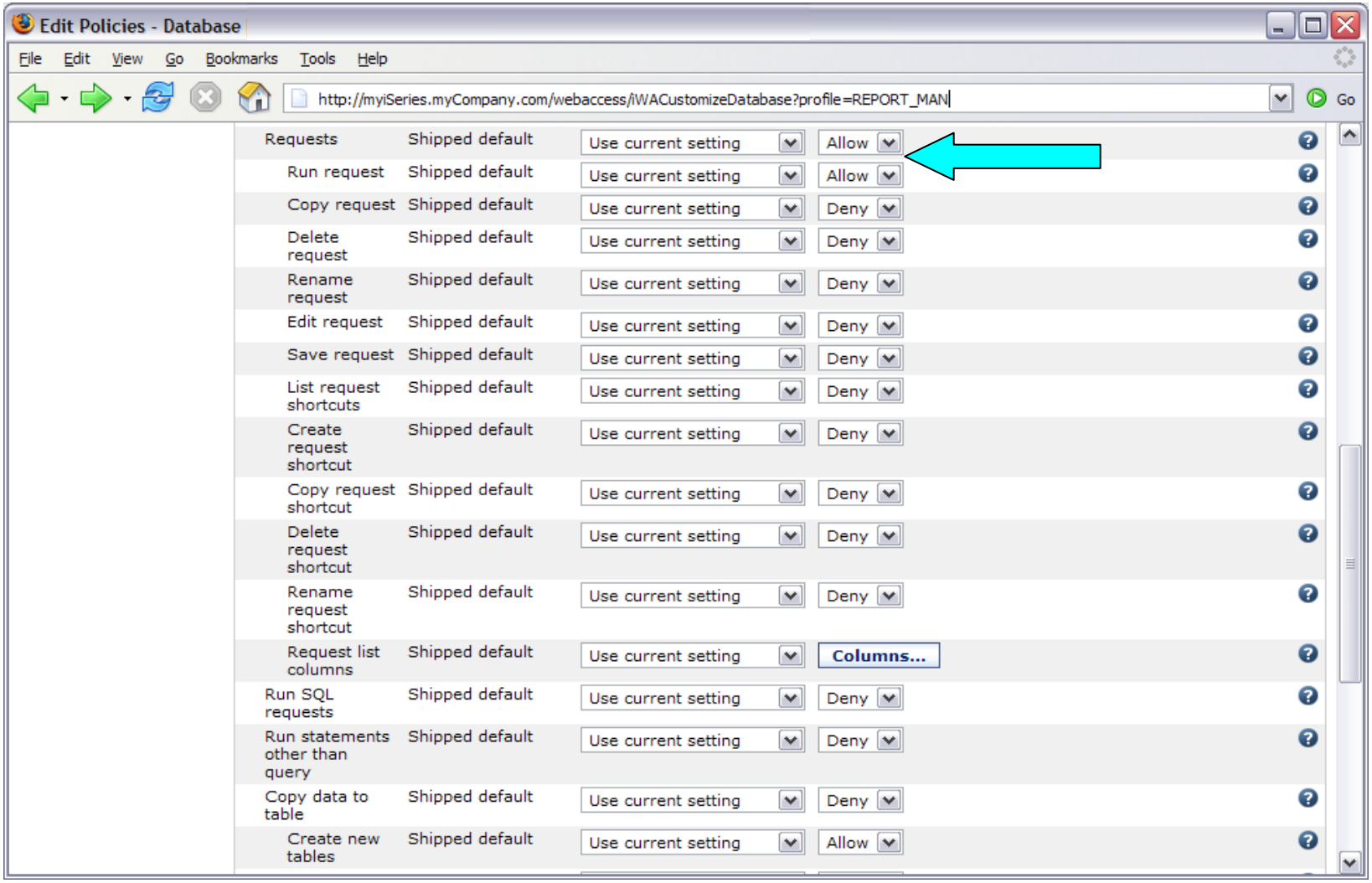
Example: Simple Database User

- Only allow the user the ability to run a saved DB request (Run request)



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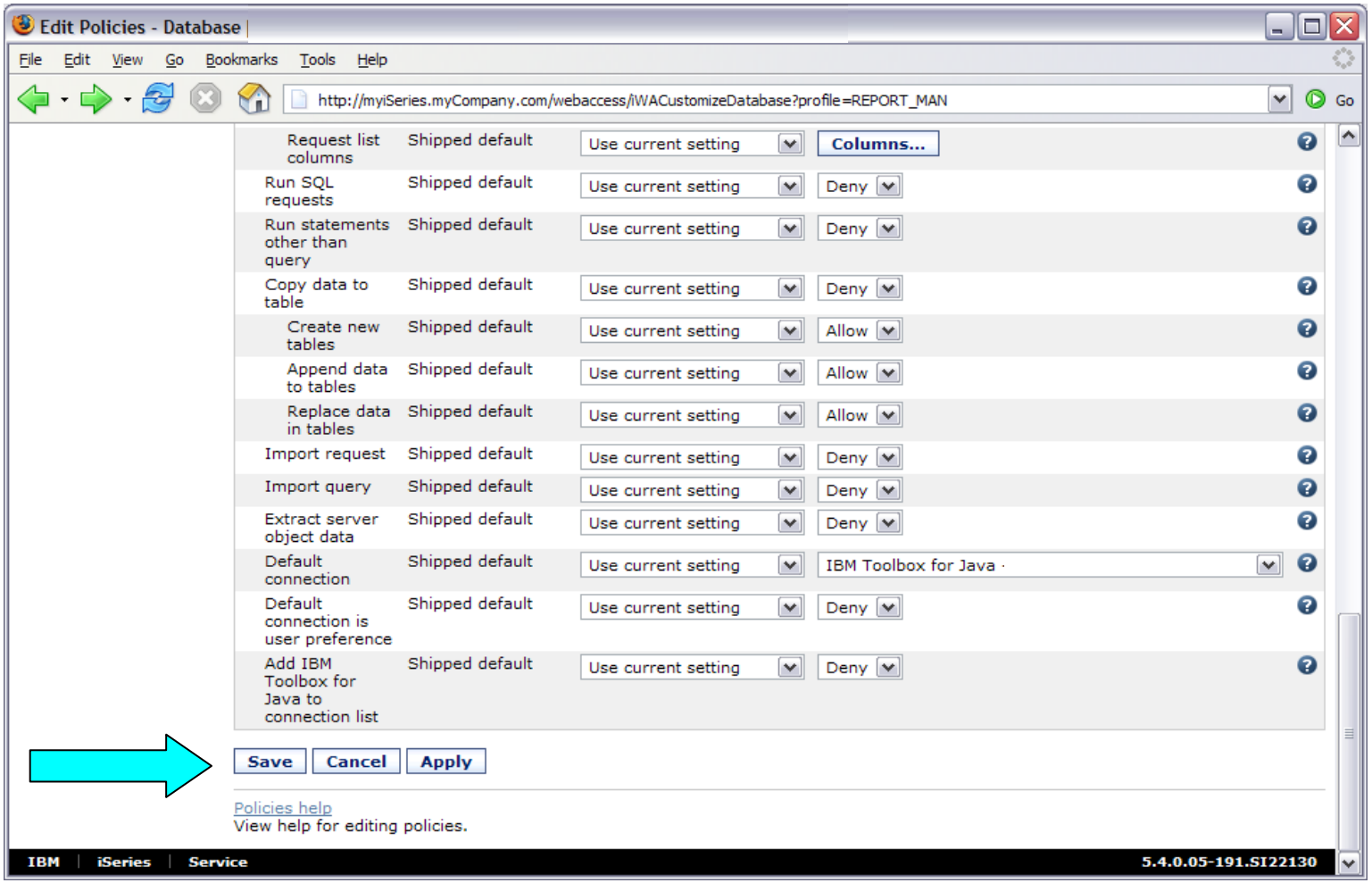
Example: Simple Database User

- Turn off the ability to perform the remaining database functions
- Save the changes



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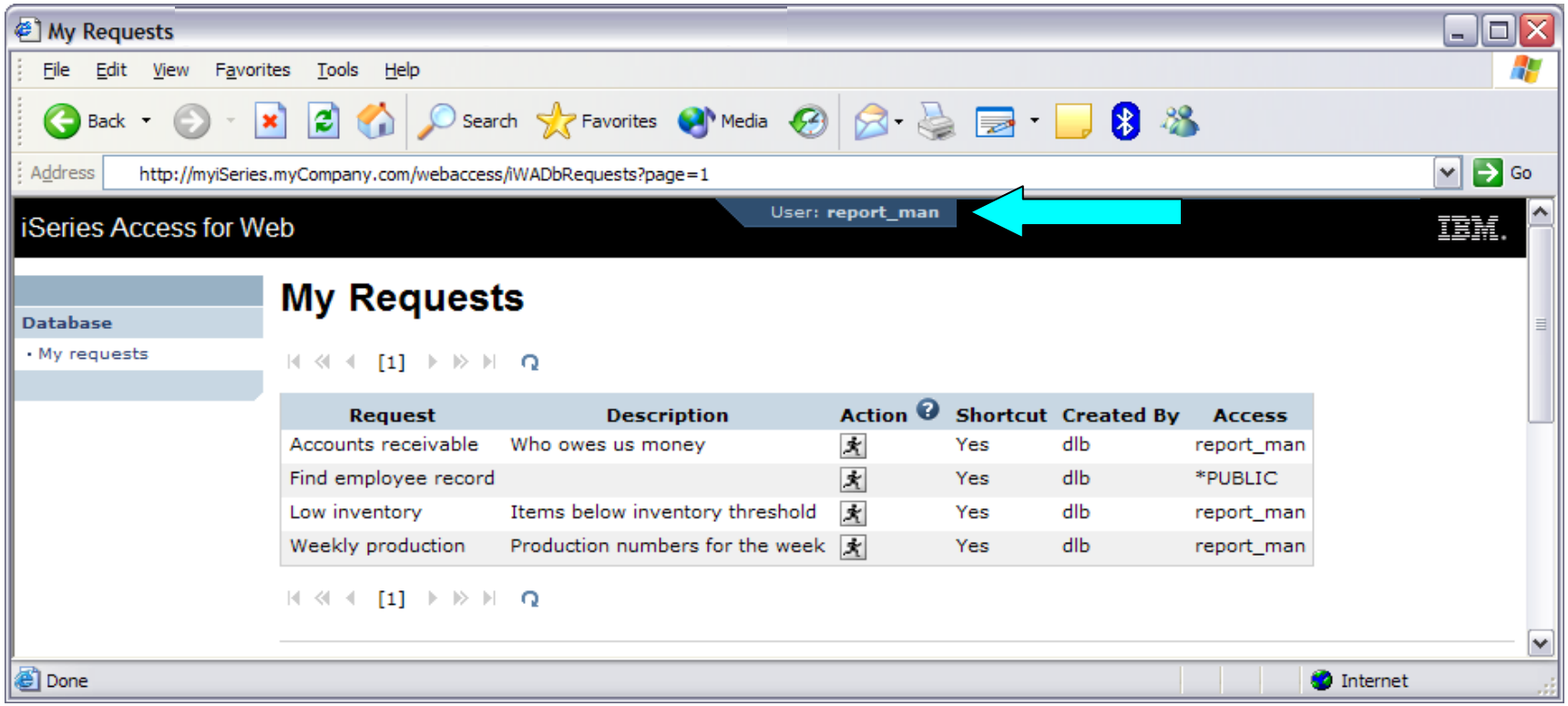
Example: Simple Database User - Completion

- The user can now only run the DB queries they have been given.



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User Preferences:
Users can set their own Preferences

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User Preferences

- The Preferences function allows users to customize System i Access for Web settings to meet their needs.
- By default, all users are allowed to modify their preferences.
- Preferences are a subset of the complete list of available policy settings.
- Users can set the following types of preferences
  - Column inclusion and ordering for functions that display output in columns.
  - Number of rows per page to display on output.
  - Show or hide navigation bar tabs.
  - Preferred language and character set.
  - And more
- Restricting access to Preferences
  - Administrators can deny specific users or groups from accessing their preferences.
  - This is controlled by the "Edit preferences" policy.

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Example: User Preferences, Printer output

- The following screen shots step through setting a user preference for Printer output.

- This example shows
  - the default printer output page for user BASIC_USER.
  - what settings the user can modify to change the printer output page output.
  - the printer output page after user BASIC_USER modifies the preferences.

- When the policy is set, it takes effect immediately.

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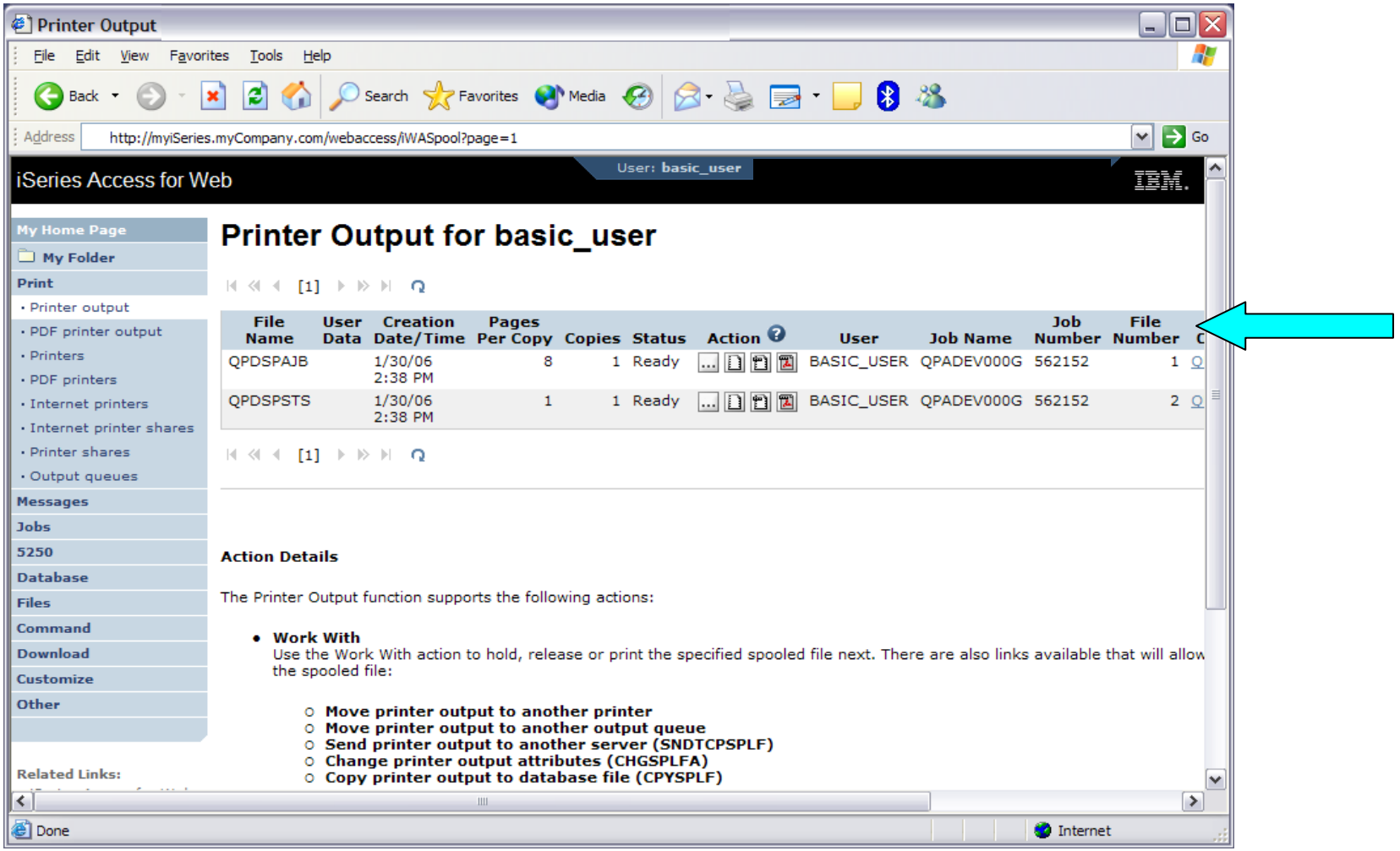
Example: User Preferences, Printer output (continued)

- The printer output display defaults with many columns of information.



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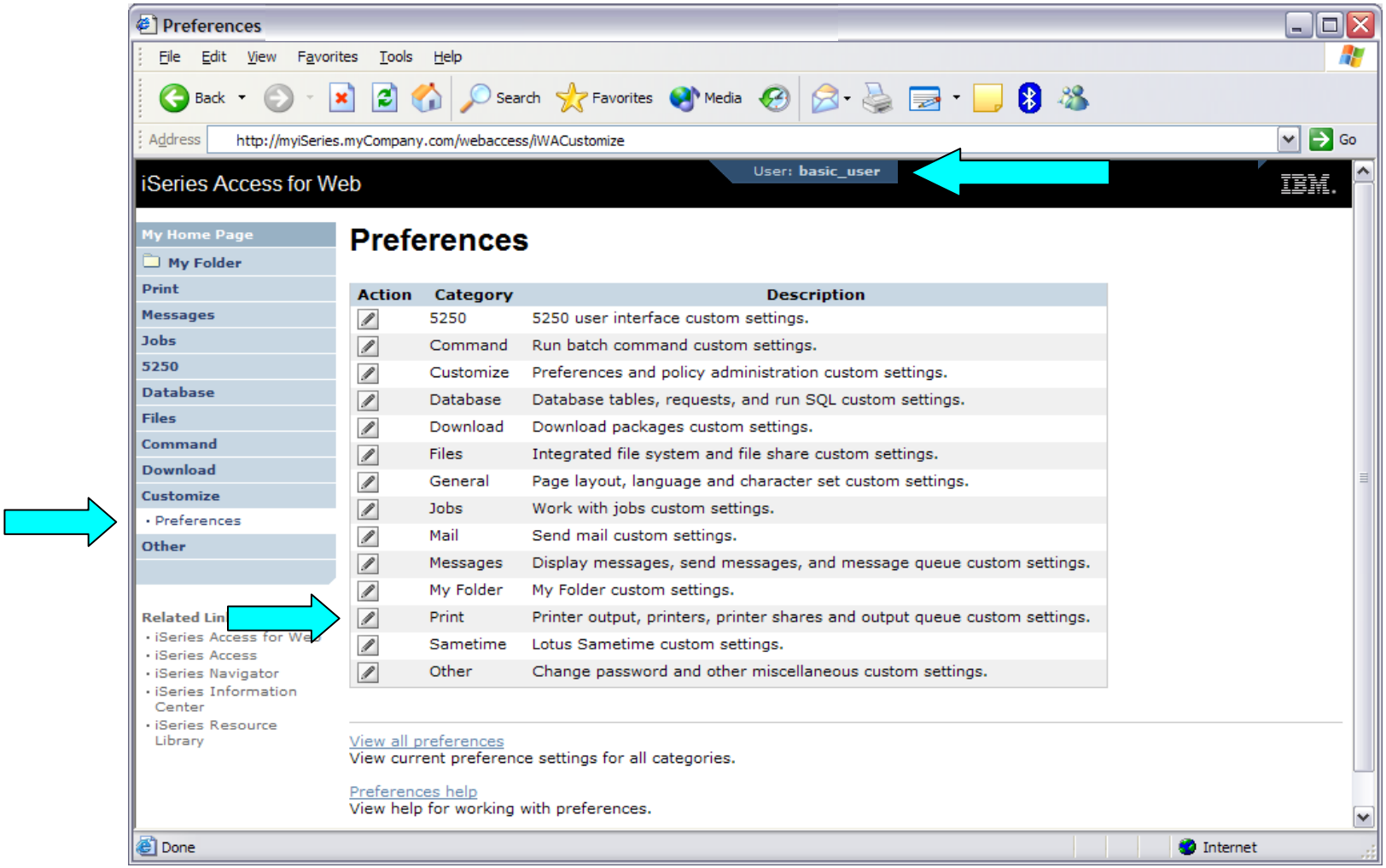
Example: User Preferences, Printer output (continued)

- Click on the Customize tab to work with Preferences.



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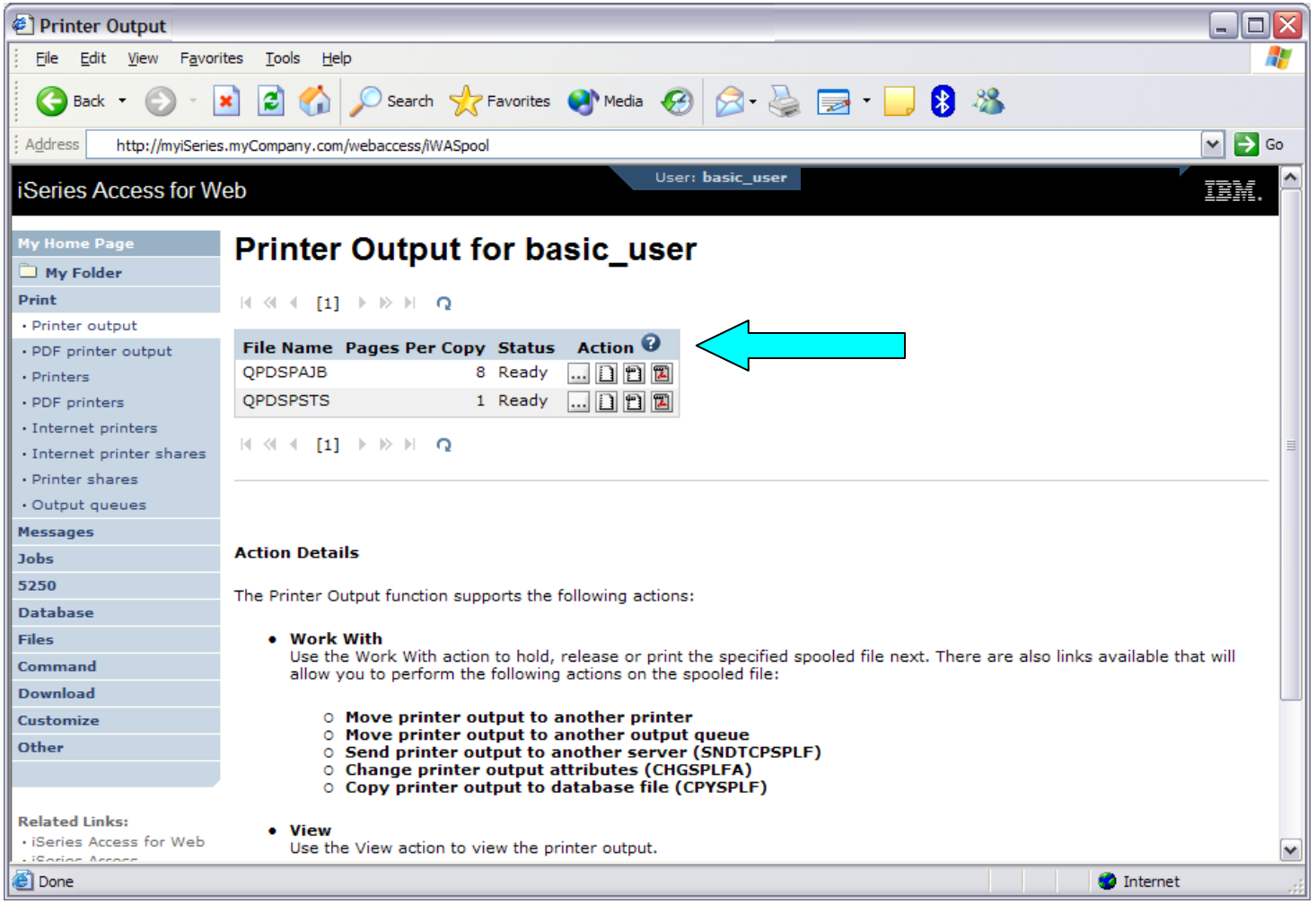
Example: User Preferences, Printer output (continued)

- AFTER: The printer output display now only has a few columns.



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Policy Tools for Administrators

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Policies and Tools

- Import/Export policy settings
  - Pick a user or group for export

- Transfer configuration data from one user to another
  - Move and copy operations supported for:
    - 5250 sessions and macros
    - Saved commands
    - Database requests
    - My Folder items
    - Policies

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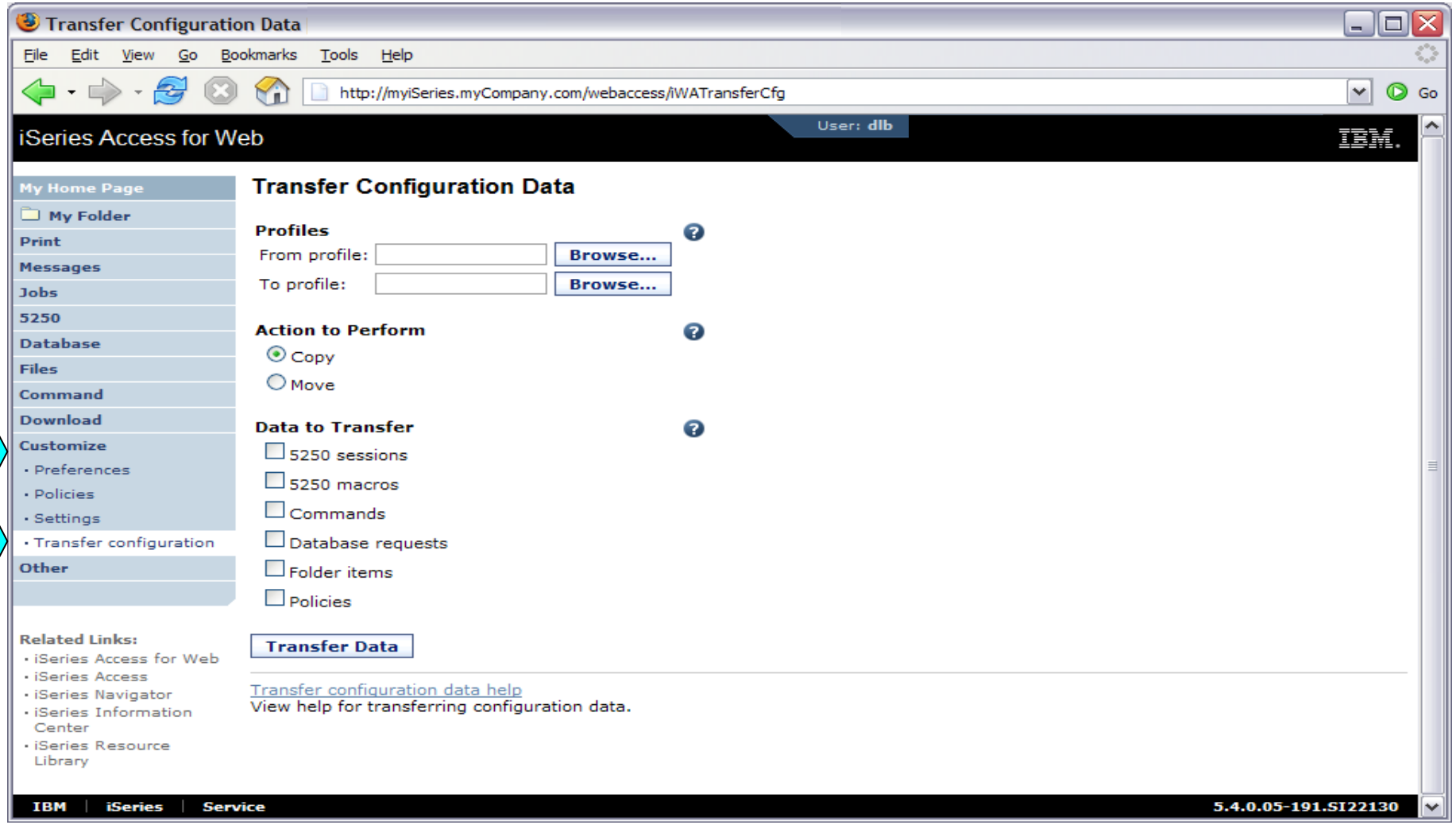
Transfer Configuration Data



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Page customization

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Home Page Customization

- A default home page is displayed when the iWAHome servlet is invoked.
  - http://<mySystem.myCompany.com>/webaccess/iWAHome
  - It's a starting point to highlight functions.
  - It's an example of how to build your own home page or pages that access System i Access for Web functionality.

- The Customize function allows you to replace the default home page.

- Default home page replacement can be done for all users (*PUBLIC), or can be changed for only certain users and/or groups of users.

- Great article - example
  - "Build a quick and easy Web site with System i Access for Web" - Janet Weber
  - http://www.ibm.com/servers/eserver/iseries/access/pdf/build_website_article.pdf
  - iSeries 400 Experts Journal
  - **Updated Oct 2006 in System i News - 'Tailor System i Access for Web'**

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Template file customization

- System i Access for Web has a default look for it functional pages.
  - This look is controlled by a template file and cascading style sheet.

- The template file has sections to specify
  - Header/footer areas of functional pages.
  - Where System i Access for Web content is placed in the page.

- The Customize function allows you to replace the default template file.

- Default template file replacement can be done for all users (*PUBLIC), or can be changed only for certain users and/or groups of users.

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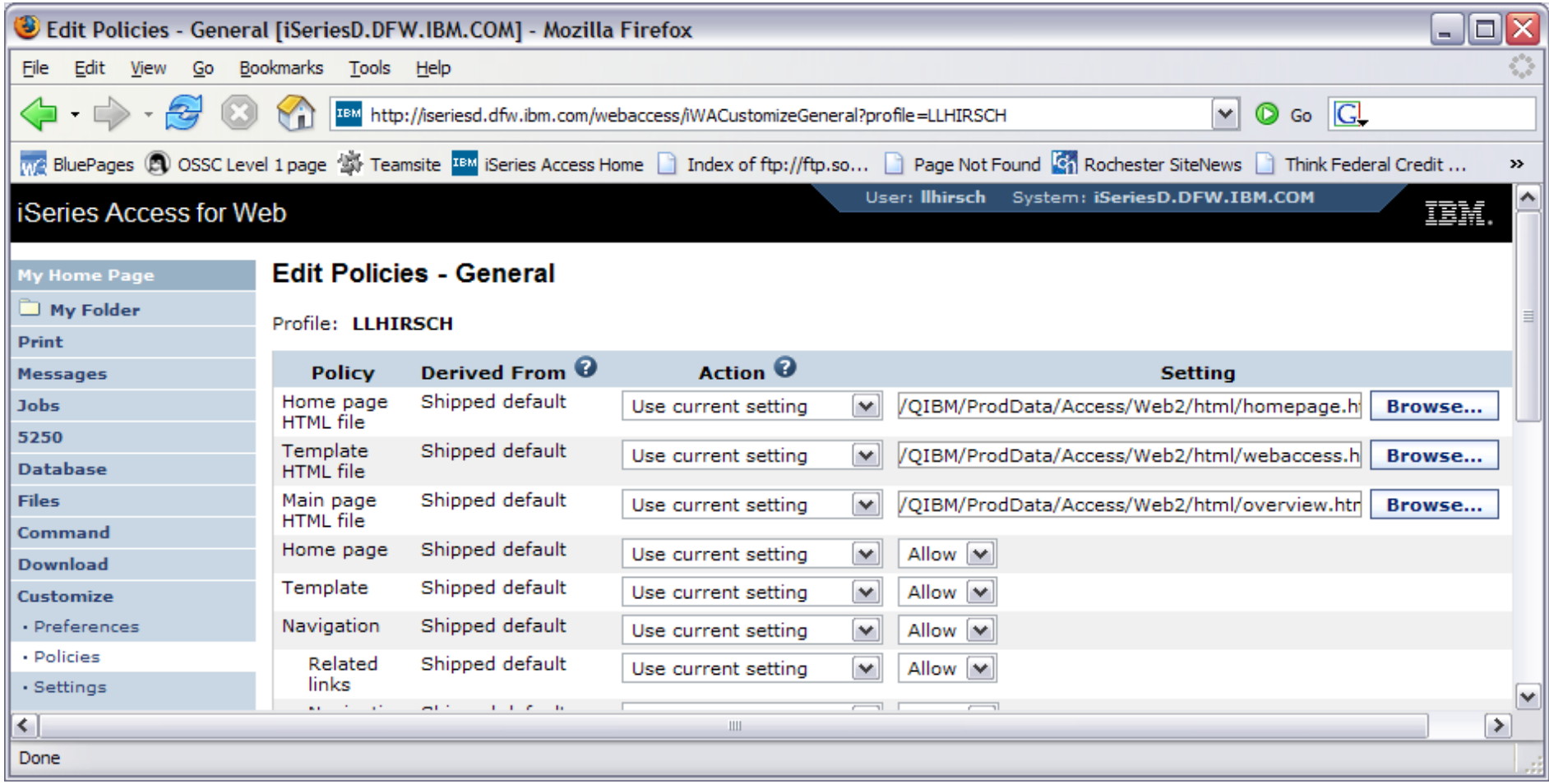
Edit Policies: specify home page and template files



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Special tags

- Within the home page and template .html files, special tags are used.
  - When these tags are encountered by the System i Access for Web code, they are replaced with the appropriate content.

Special tags…	**Replaced with…**
%%CONTENT%%	functional content for the page, separates the header/footer
%%include section=file%%	HTML section/fragment to include
%%MENU%%	navigation bar
%%STYLESHEET%%	default style sheet
%%STYLESHEET_CLASSIC_COLORS%%	default style sheet prior to V5R4
%%TITLE%%	title of the page
%%SYSTEM%%	name of iSeries being accessed
%%USER%%	i5/OS user profile used to access the server
%%VERSION%%	version of System i Access for Web

- For detailed information on these special tags
  - V5R4 System i Access for Web Info Center
    - Connecting to iSeries->System i Access->System i Access for Web->System i Access for Web in a web application sever environment->Customize System i Access for Web->Default page content->Home page

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Home Page default – iWAHome servlet http://<system>/webaccess/iWAHome

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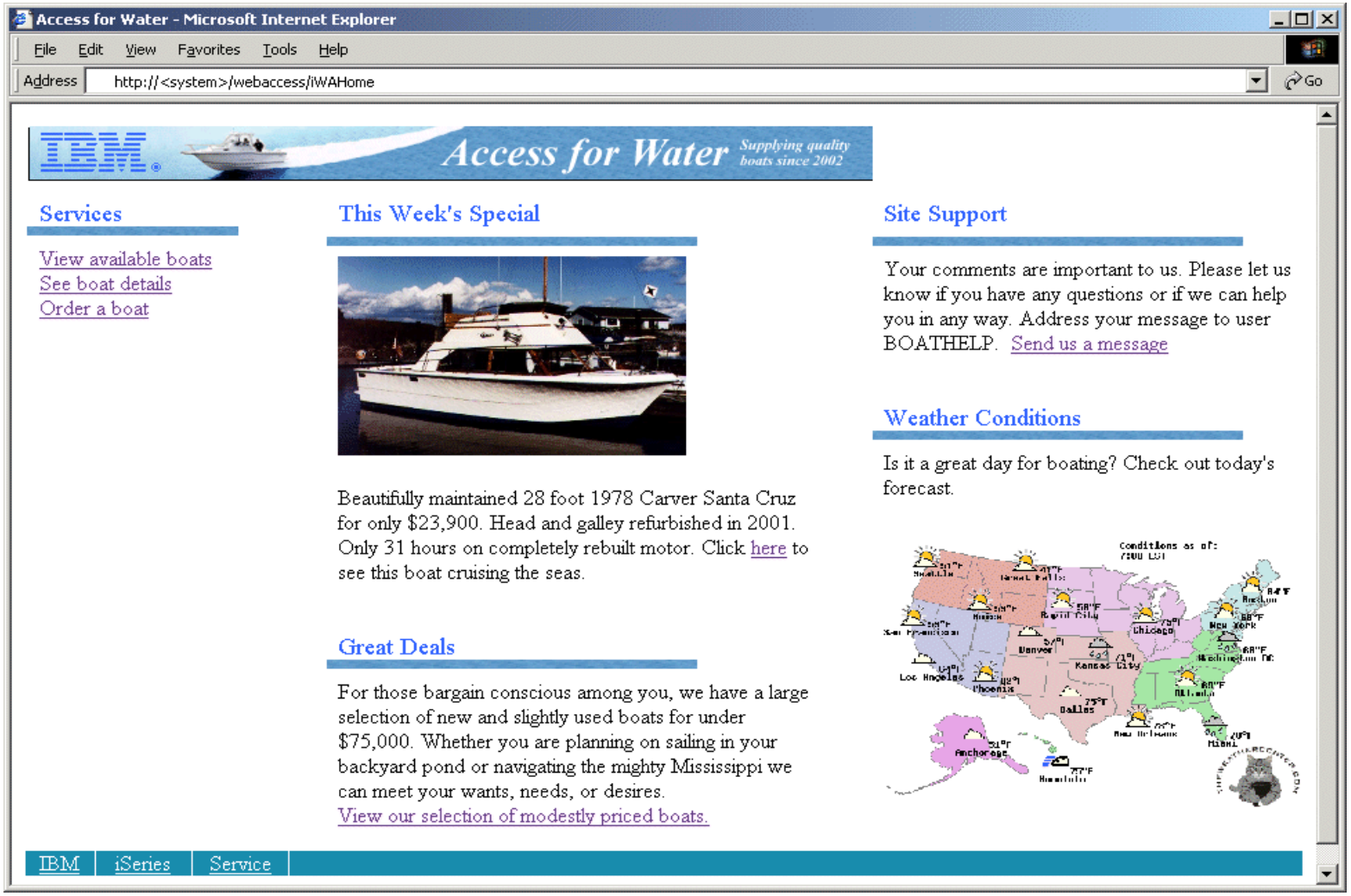
Home Page customization – iWAHome (another example)

- Custom home page - http://iseriesd.demos.ibm.com/webaccess/iWAHome
  - Refer to chart 6 for info on how to access this sample



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Home Page/Template Customization Example (continued)

- Custom template

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iWAHome - structure

http://<system>/webaccess/iWAHome

Homepage file

common_homepage.html

Defines content, layout, images, links to be displayed when the iWAHome servlet is invoked in the browser.

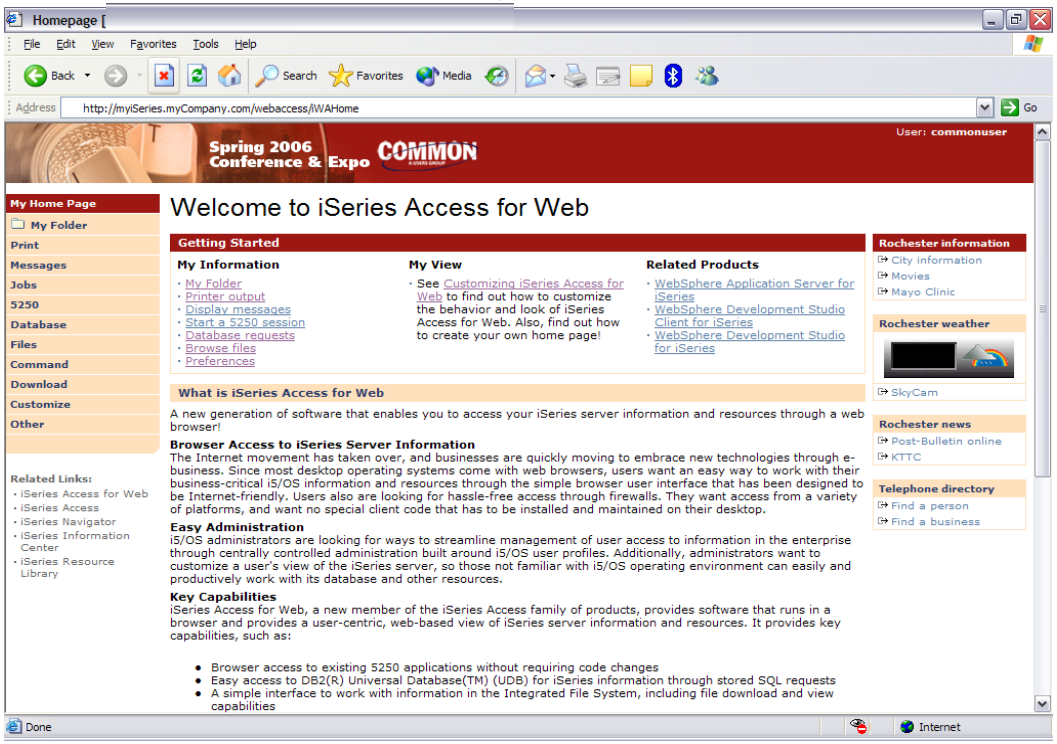

Image files

images/s06common.gif
images/iwa_navCorner.gif

Cascading Style Sheet file

common_styles.css

Defines the colors, fonts, font sizes for the various elements in the .html files.

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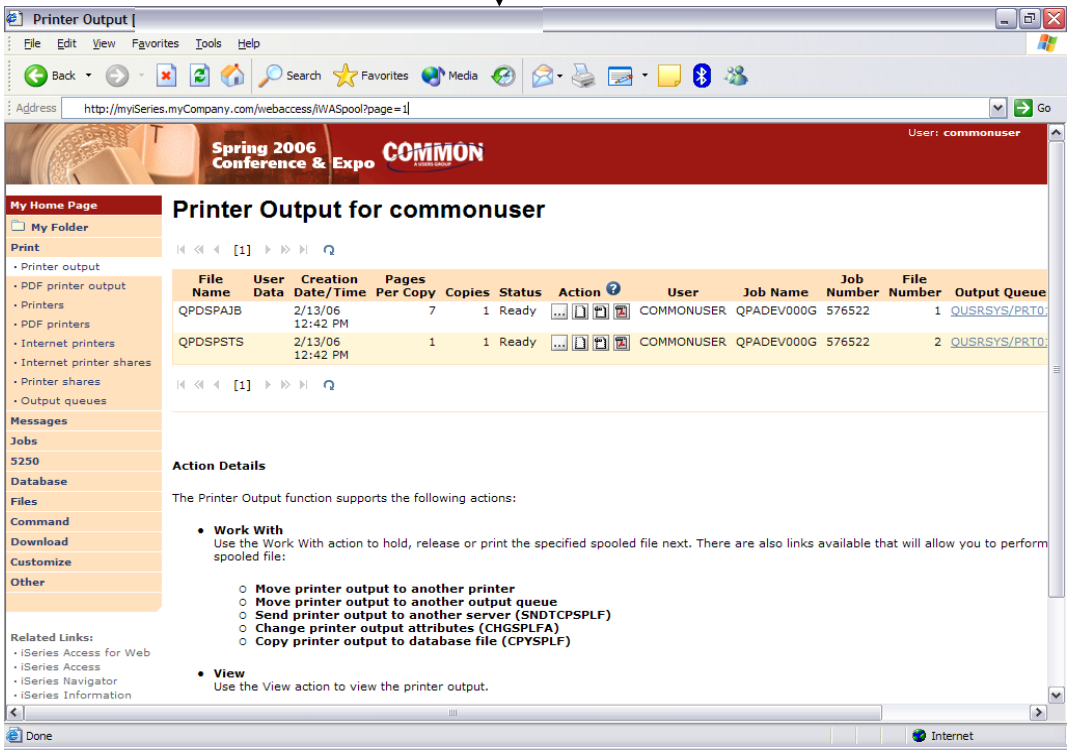
iWA servlet Template - structure

http://<system>/webaccess/iWASpool



Homepage file

common_homepage.html

Defines content, layout, images, links to be displayed when the iWAHome servlet is invoked in the browser.

Template file

common_template.html

Defines the header, content, footer on all other servlet pages.

Image files

images/s06common.gif
images/iwa_navCorner.gif

Cascading Style Sheet file

common_styles.css

Defines the colors, fonts, font sizes for the various elements in the .html files.

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Contact Linda at LLHIRSCH@us.ibm.com for a step-by-step example of how to customize the Home page and Template files:

- Customizing policies to use different home page and template files
- Adding a different image as header, changing the footer
- Updating the cascading style sheet

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Appendiz - Tips

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Auto-start Web environment after an IPL?

- You can configure the HTTP web server to automatically start the WebSphere application server when it starts

- Use the following command to start the HTTP web server as part of your IPL procedures and it will start your WebSphere application server.
  - STRTCPSVR SERVER(*HTTP) HTTPSVR(<http_server_name>)

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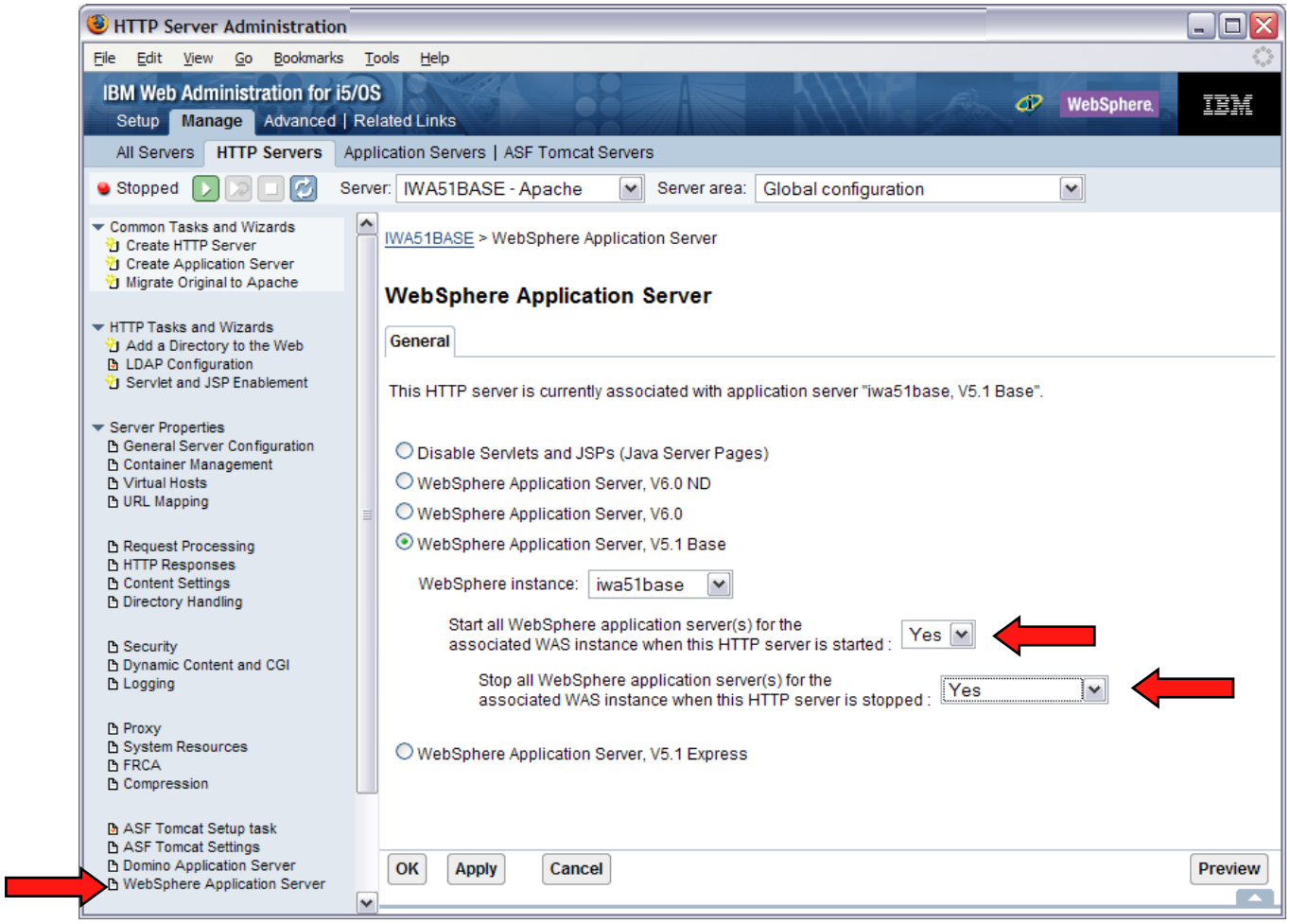
Auto start web environment after an IPL (continued)

STRTCPSVR SERVER(*HTTP) HTTPSVR(IWA51BASE)



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If using WAS Network Deployment

- For the WebSphere Application Server Network Deployment environment
  - WebSphere v5.0/5.1 Base Edition must be installed
  - WebSphere v6.0 Base/Express Edition must be installed
  - System i Access for Web does not support WebSphere instances/profiles that are federated to the WebSphere Network Deployment environment

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