

5761-XH2 V6R1 System i Access for Web Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

First Edition (February 2009)

This edition supplements the V6R1 System i Access for Web Information Center documentation.

© IBM Corporation 2009. All rights reserved.

U.S. Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corporation.

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get System i™ Access for Web running in a WebSphere® Application Server – Express V7.0 for IBM i® environment with single sign-on (SSO) enabled. It also describes how to verify that the setup is working.

Similar steps can be used to get System i Access for Web running in an IBM WebSphere Application Server V7.0 for IBM i or IBM WebSphere Application Server Network Deployment V7.0 for IBM i environment. **Note:** WebSphere Application Server profiles that are federated to the Network Deployment environment are not supported by System i Access for Web.

When the configuration is completed, System i Access for Web uses the authenticated WebSphere user identity to access IBM i resources. System i Access for Web does not perform additional prompting for an IBM i user profile and password in this environment.

This environment requires WebSphere administrative security to be enabled. When enabled, users must provide WebSphere credentials when accessing secured WebSphere resources. Configuration options enable System i Access for Web to be deployed as a secured WebSphere application. WebSphere credentials are required when accessing System i Access for Web functions in this environment. In turn, System i Access for Web uses Enterprise Identity Mapping (EIM) to map the authenticated WebSphere user to an IBM i user profile. The mapped IBM i user profile is used to authorize the user to IBM i resources using standard IBM i object level security.

Configuring your Web serving environment consists of these steps:

- Configure the EIM environment. See the *Configuring Enterprise Identity Mapping* document on the System i Access for Web web site (<http://www.ibm.com/systems/i/access/web/>).
- Start the IBM® Web Administration for i interface. See step 1.
- Create an HTTP server and a WebSphere Application Server – Express V7.0 for IBM i profile. See step 2.
- Verify WebSphere Application Server – Express V7.0 for IBM i administrative security has been enabled. If administrative security has not been enabled, enable it. For detailed steps to configure administrative security, refer to *Securing applications and their environment > Setting up and enabling security > Enabling security* in the [WebSphere Application Server V7.0 for IBM i Information Center](#).
- Configure System i Access for Web. See step 3.
- Start the web environment. See step 4.
- Use a browser to access System i Access for Web. See step 5.

Steps to configure the Web serving environment:

1. Start the IBM Web Administration for i interface.
 - a. Start a 5250 session to the system.
 - b. Sign on with a user profile that has at least these special authorities:
*ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
 - c. Run the following command to start the web administration interface job:

```
STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
```
 - d. Minimize the 5250 session.
2. Create an HTTP server and a WebSphere Application Server – Express V7.0 for IBM i profile.
 - a. Open a browser to: `http://<system_name>:2001/HTTPAdmin`

Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

- b. Log in with a user profile that has at least these special authorities:
*ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
- c. Select the **Setup** tabbed page.
- d. Under Common Tasks and Wizards, select **Create Application Server**.
- e. The Create Application Server page opens. Select **Next**.
- f. Under WebSphere Application Server, select **V7.0 Express**, then select **Next**.
- g. The Specify Application Server name page opens. For **Application server name**, specify `iwa70sso`. This will be the name of the WebSphere Application Server profile. Select **Next**.
- h. The Select HTTP Server Type page opens. Select **Create a new HTTP server (powered by Apache)**, then select **Next**.
- i. The **Create a new HTTP server (powered by Apache)** page opens.
 - For **HTTP server name**, enter `IWA70SSO`.
 - For **Port**, specify `4046`. This port number is an example. You should verify this port is available for use, or use a port you know is available.
 - Select **Next**.
- j. The Specify Internal Ports Used by the Application Server page opens.
 - For **First port in range**, change the default value to `41046`. This port number is an example. You should verify this port is available for use, or use a port you know is available.
 - Select **Next**.
- k. The Select Sample Applications page opens. Select **Next** until the Configure Identity Token SSO for Web to Access IBM i page opens.

Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

- l. On the Configure Identity Token SSO for Web to Access IBM i page, select the **Configure Identity Tokens** option, then specify these values:
 - For **LDAP server host name**, specify the fully qualified host name of the LDAP server hosting the EIM domain created during EIM setup. For example, `myi.mycompany.com`
 - For **LDAP Port**, specify the port number of the LDAP server hosting the EIM domain created during EIM setup. For example, `389`
 - For **LDAP administrator DN**, specify the distinguished name of the LDAP administrator. For example, `cn=administrator`
 - For **LDAP administrator password**, specify the password of the LDAP administrator. For example, `myadminpwd`
 - Select **Next**.
- m. The Configure Identity Token EIM Domain Information page opens. Specify this information:
 - For **EIM Domain Name**, select the name of the EIM domain created during EIM setup. For example, `EimDomain`
 - For **Source Registry Name**, select the name of the EIM source registry created during EIM setup. For example, `WebSphereUserRegistry`
 - Select **Next** until the Summary page opens.
- n. Select **Finish**.
- o. The Web page is re-displayed with the **Manage > Application Servers** tabbed page active. Under **Server**, `iwa70sso/iwa70sso – V7.0 Express` is listed with a status of **Creating**. From this Web page, you can manage the WebSphere Application Server profile.

Use the refresh icon next to the **Creating** status to refresh the page if the page does not periodically refresh.

- p. When the status is updated to **Stopped**, select the green icon next to the **Stopped** status to start the WebSphere Application Server profile. The status will be updated to **Starting**.

Use the refresh icon next to the **Starting** status to refresh the page if the page does not periodically refresh. System i Access for Web requires that the WebSphere Application Server profile is running before it can be configured.

Important: Wait for the status to be updated to **Running** before moving to the next step.

- q. Minimize the browser window.
3. Configure System i Access for Web.
 - a. Restore the 5250 session window.
 - b. To see the WebSphere Application Server profile running, run the command:

```
WRKACTJOB SBS(QWAS7)
```
 - c. Verify that IWA70SSO is listed as a job running under the QWAS7 subsystem. System i Access for Web requires the WebSphere Application Server profile to be running before it can be configured.
 - d. Verify the WebSphere Application Server profile is ready:
 - i. Enter option 5 on the IWA70SSO job.
 - ii. Enter option 10 to display the job log.
 - iii. Press F10 to display detailed messages.
 - iv. Verify the message **Websphere application server iwa70sso ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.
 - v. Press F3 until you return to a command line.
 - e. System i Access for Web provides QShell scripts to configure the product for WebSphere Application Server – Express V7.0 for IBM i.

Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

- i. Start the QShell environment using the following command:

```
QSH
```

- ii. Make the System i Access for Web directory containing the QShell script the current directory. Run this command:

```
cd /QIBM/ProdData/Access/Web2/install
```

- iii. Configure System i Access for Web for your WebSphere Application Server profile using the following command:

```
cfgaccweb2 -appsvrtype *WAS70EXP -wasprf iwa70sso -appsvr  
iwa70sso -wasinsdir  
/QIBM/ProdData/WebSphere/AppServer/V7/Express -authtype  
*APPSVR -authmethod *FORM -wasusrid myadminid -waspwd  
myadminpwd
```

These are the parameters used:

-appsvrtype

Tells the command which WebSphere Application Server type to configure. Use `*WAS70EXP` with WebSphere Application Server – Express V7.0 for IBM i. Use `*WAS70BASE` with WebSphere Application Server V7.0 for IBM i. Use `*WAS70ND` with WebSphere Application Server Network Deployment V7.0 for IBM i.

-wasprf

Tells the command which profile of the WebSphere Application Server to configure.

-wasinsdir

Tells the command the location in the IBM i integrated file system where WebSphere Application Server – Express V7.0 for IBM i is installed. The default value is

`/QIBM/ProdData/WebSphere/AppServer/V7/Express`. The default value for WebSphere Application Server V7.0 for IBM i is

`/QIBM/ProdData/WebSphere/AppServer/V7/Base`. The default value for WebSphere Application Server Network Deployment V7.0 for IBM i is `/QIBM/ProdData/WebSphere/AppServer/V7/ND`.

-appsvr

Tells the command the name of the application server within the profile to configure.

-authtype

Tells the command which authentication type to use. *APPSVR indicates the WebSphere Application Server should authenticate the user using the WebSphere active user registry.

-authmethod

Tells the command which authentication method to use. *FORM indicates the WebSphere Application Server should authenticate using form-based HTTP authentication.

-wasusrid

Tells the command which WebSphere administrative user ID to use when accessing this WebSphere Application Server profile. Replace the example value with an administrator user id defined in the WebSphere active user registry.

-waspwd

Tells the command which WebSphere administrative password to use when accessing this WebSphere Application Server profile. Replace the example value with the password for the administrative user ID specified with the -wasusrid parameter.

Migration Note: If you are already using System i Access for Web within another Web application server, see *System i Access > System i Access for Web > System i Access for Web in a Web application server environment > Configuring System i Access for Web > New Web application server considerations* in the IBM i5/OS Information Center (<http://www.ibm.com/systems/i/infocenter/>) under Connecting to System i. This topic discusses additional `cfgaccweb2` command parameters that can be input to migrate user data from an existing configuration to this new configuration.

Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

iv. Several messages similar to these will be displayed:

Configuring System i Access for Web.

Preparing to perform the configuration changes.

Calling WebSphere to perform the configuration changes.
System i Access for Web command has completed.

The WebSphere application server must be stopped and then started to enable the configuration changes.

v. Press F3 when the command completes to exit the QShell session.

f. If the command were to fail or indicate an error, refer to the log files:

- /QIBM/UserData/Access/Web2/logs/cmds.log

High level, cause and recovery information; translated.

- /QIBM/UserData/Access/Web2/logs/cmdstrace.log

Detailed command flow for IBM Software Service; English only.

g. After successfully configuring System i Access for Web, the WebSphere Application Server profile must be restarted to load the changes to its configuration. This will be done later.

h. Signoff the 5250 session and close the window.

4. Start the Web environment.

a. Restore the IBM Web Administration for i browser window.

b. The **Manage > Application Servers** tabbed page should be active. Under Server is listed iwa70sso/iwa70sso – V7.0 Express with a status of **Running**. Stop and restart the WebSphere Application Server profile.

i. Select the red icon next to the **Running** status to stop the WebSphere Application Server profile.

ii. The status will be updated to **Stopping**. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

- iii. When the status is updated to **Stopped**, select the green icon next to the **Stopped** status to start the WebSphere Application Server profile.
- iv. Status will be updated to **Starting**. Select the refresh icon next to the **Starting** status to refresh the page if it does not periodically refresh.

Important: Wait for the status to be updated to **Running** before moving to the next step.

System i Access for Web will load and start as the WebSphere Application Server profile starts.

- c. Select the **HTTP Servers** tabbed page.
- d. Under Server, select **IWA70SSO - Apache**. The current status of this Apache HTTP server should be **Running**.

If the current status is **Stopped**, select the green icon next to the status to start the HTTP server. The status is then updated to **Running**.

- e. Close the browser window.
5. Use a browser to access System i Access for Web.
- a. Open a browser to either of the following addresses to access System i Access for Web:

`http://<system_name>:4046/webaccess/iWAHome`
`http://<system_name>:4046/webaccess/iWAMain`
 - b. Log in using WebSphere credentials (user ID and password). System i Access for Web will then use Enterprise Identity Mapping (EIM) to map the authenticated WebSphere user to an IBM i user profile. The initial load of System i Access for Web might take a few seconds. WebSphere Application Server is loading Java™ classes for the first time. Subsequent loads of System i Access for Web will be faster.
 - c. The System i Access for Web Home or Main page displays.
 - d. Close the browser window.

Configuring WebSphere Application Server – Express V7.0 for IBM i with Single sign-on

By following the preceding steps, you completed these tasks:

- Configured an EIM environment to enable mapping of WebSphere user identities to IBM i user profiles.
- Created a WebSphere Application Server profile named iwa70sso.
- Created an HTTP server named IWA70SSO.
- Enabled administrative security for WebSphere Application Server profile iwa70sso.
- Configured System i Access for Web for the WebSphere Application Server profile.
- Stopped and restarted the WebSphere Application Server profile and HTTP server. System i Access for Web started when the WebSphere Application Server profile started.
- Verified that System i Access for Web can be accessed from a Web browser.