IBM

IBM Systems - iSeries
Connecting to iSeries
iSeries Access for Web

Version 5 Release 4

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> **Note**
>
> Before using this information and the product it supports, read the information in "Notices," on page 125.

Third Edition (February 2006)

This edition applies to version 5, release 4, modification 0 of IBM eServer iSeries Access for Web (5722–XH2) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

Contents

iSeries Access for Web

iSeries™ Access for Web (5722-XH2) is a key offering in the iSeries Access (5722-XW1) family of products. It offers Web browser-based access to i5/OS™ resources on iSeries servers. iSeries Access for Web enables end users to leverage business information, applications, and resources across an enterprise by extending the i5/OS resources to the client desktop through a Web browser.

iSeries Access for Web has the following advantages:
- It is server based.
- It is implemented using Java™ servlet and portlet technology.
- It uses industry standard protocols: HTTP, HTTPS, and HTML.
- It is lightweight, requiring only a browser on the client.
- It provides a 5250 user interface and access to i5/OS resources, such as the iSeries database, integrated file system, printers, printer output, jobs, batch commands, and messages.

What's new for V5R4

For V5R4, iSeries Access for Web contains numerous new functions.

New Web application server environment support

The following information describes the new support in the Web application server environment:
- **Supported Web application servers:** The iSeries Access for Web licensed program supports the following Web application servers for logical partitions running on i5/OS V5R3, or later. For the latest information about this support, see the IBM® iSeries Access for Web home page.
  - WebSphere® Application Server V6.0 for OS/400® (Base, Express, and Network Deployment Editions)
  - WebSphere Portal for iSeries V5.1.0.1
  - Workplace™ Services Express V2.5
  - WebSphere Application Server - Express for iSeries V5.1
  - WebSphere Application Server V5.1 for iSeries
  - WebSphere Application Server - Express for iSeries V5.0
  - WebSphere Application Server V5.0 for iSeries
  - WebSphere Portal for iSeries V5.0.2
  - ASF Tomcat
- **Single Sign-on:** Prior to V5R4, iSeries Access for Web used HTTP basic authentication to retrieve the iSeries user profile and password from the user. This profile information could not be shared with other iSeries Web-based applications. Sometimes, this resulted in the user being prompted multiple times for the same information by different applications. In V5R4, iSeries Access for Web also supports the WebSphere security model to provide single sign-on support among WebSphere Application Server applications. This support is referred to as *application server authentication* in the iSeries Access for Web documentation.
- **Style sheets:** The look of the iSeries Access for Web page content is now controlled by external style sheets. Users that have customized templates being displayed by iSeries Access for Web will need to modify their templates to include the new style information. Users can provide their own style sheets if they desire a look different than the default iSeries Access for Web look.
- **5250 function:** There are several enhancements to 5250 sessions support, including Bypass signon, HTML keyword support, and hotspot support.

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- **Customize function:** You can now transfer configuration data. This enables iSeries Access for Web administrators to transfer 5250 sessions and macros, saved commands, database requests, My Folder items, and policies from one user to another.
- **Database function:** This function has several enhancements:
  - **Open Office:** Run SQL and Copy Data to Table now have support for the OpenDocument spreadsheet format.
  - **WebSphere Data Sources:** Customize now supports using WebSphere data source names to create database connections. Data source connections can be used with any of the iSeries Access for Web database functions.
  - **Integrated File System Destination:** Run SQL now has support for storing SQL results in the iSeries integrated file system.
  - **Import Query:** Import Query support allows customers to import Query for iSeries and DB2® UDB for iSeries Query Manager query file contents into iSeries Access for Web database requests.
  - **Find Record:** Find record provides a way to search for a record in a database table and display the contents of that record. Find record is available as an action of the Tables functions.
- **Removal of HATS LE support:** Host Access Transformation Server Limited Edition (HATS LE) is no longer being bundled with the 5722-XH2 iSeries Access for Web product. For customers that wish to continue to use this type of functionality, the standalone HATS product will need to be purchased. Refer to the HATS Web site for more information.

New portal environment support:

The following information describes the new support in the portal environment:
- **Database function:**The Database function has new support for iSeries SQL Requests and the iSeries SQL Results - Viewer portlets.
- **File function:** This function has a new iSeries Zip portlet to create, add to, and extract from zip files.
- **Other function:** The iSeries Credentials and data store portlets have new functions.
- **iSeries Data Store:** iSeries Access for Web Data Store displays a list of data, such as database requests, which are stored by iSeries Access portlets. From the list, items can be renamed and deleted. The access to stored data items can also be changed.

How to see what's new or changed

To help you see where technical changes have been made, this information uses:
- The ≫ image to mark where new or changed information begins.
- The ≪ image to mark where new or changed information ends.

To find other information about what's new or changed this release, see the Memo to users.

>   **Related concepts**

>   "Security considerations" on page 6
>   Learn about security considerations with iSeries Access for Web.

>   "Single sign-on considerations" on page 8
>   This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

>   "Default page content" on page 64
>   iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

Printable PDF

Use this to view and print a PDF version of this information.

To view or download the PDF version of this document, select iSeries Access for Web (about 1012 KB).

Saving PDF files

To save a PDF on your workstation for viewing or printing:
1. Right-click the PDF in your browser (right-click the link above).
2. Click the option that saves the PDF locally.
3. Navigate to the directory in which you want to save the PDF.
4. Click **Save**.

Downloading Adobe Reader

You need Adobe Reader installed on your system to view or print this PDF. You can download a free copy from the Adobe Web site .

License information for iSeries Access for Web

IBM eServer™ iSeries Access for Web is a licensed program. All components of iSeries Access for Web require an iSeries Access Family (5722-XW1) license before you can use them.

Important: For V5Rx servers, a software license key is required for iSeries Access Family 5722-XW1. iSeries Access is included on the V5Rx Keyed Stamped Media that comes with all i5/OS V5Rx software orders. You receive a license key if you order 5722-XW1. If you have not ordered 5722-XW1, you may evaluate the product from the keyed stamped media for 70 days. At the end of the 70-day evaluation period, the product will be disabled if you have not ordered the product and received a software license key. The software license key is an 18-digit authorization code that allows the software product and feature on the keyed stamped media to be used on a specified iSeries server.

Licensing is managed at the iSeries Access Family (5722-XW1) level, not at the individual client level. Therefore, any combination of the iSeries Access for Windows® clients and iSeries Access for Web clients is allowable up to the license limit. Customers who acquire iSeries Access licenses are entitled to use the iSeries Access for Windows and iSeries Access for Web clients in any combination.

To determine the iSeries Access Family usage limit:
1. Type the WRKLICINF command on the iSeries server to which you intend to connect. A list of products appears.
2. Type a 5 in the entry field next to the product 5722XW1 Base, Feature 5050. This will display the details for the iSeries Access Family, including the usage limit. The usage limit should be equal to the number of licenses that are purchased for the iSeries Access family. Any number exceeding the purchased limit violates the IBM license agreement.

To update the usage limit for the 5722-XW1 product on your server, follow these steps:
1. Enter the WRKLICINF command on the iSeries server to which you intend to connect. A list of products appears.
2. Enter 2 in the entry field next to the product 5722XW1 V5, Feature 5050. Change the usage limit to the number of licenses that you have purchased for iSeries Access. If you have purchased the processor-based option for iSeries Access, enter the value *NOMAX for usage limit. Entering any number that exceeds the purchased limit violates the IBM license agreement.

To enter the license key information, follow these steps:

1. Enter the `WRKLICINF` command on the iSeries server to which you intend to connect. A list of products appears.
2. Enter 1 in the entry field next to the product 5722XW1 Option 1, Feature 5101. Enter the license key information.

WebSphere Application Server or ASF Tomcat

iSeries Access for Web running under WebSphere Application Server or ASF Tomcat is licensed by the number of concurrently active HTTP sessions. How sessions behave depends on the browser's implementation. For example, each new instance of Internet Explorer results in a new session, thus a new, unique license is used for each instance of Internet Explorer. Each new instance of Mozilla uses the same session, therefore, only one license is used.

iSeries Access for Web expires licenses at five minute intervals. A session that is idle for more than five minutes will have its license released. Activity (retrieving a new Web page) after the license has expired will result in a new license being used. For example, when a user uses iSeries Access for Web to request some data from i5/OS, a license is retrieved and "held" by the session. If the browser is then left idle for five to ten minutes, the license being used for the session will be released. When another action is performed to iSeries Access for Web from this browser, a new license is requested and used.

Note: Only activity to iSeries Access for Web would result in a license being used. Browsing other Web sites in the same browser window would not result in a new license being requested.

Portal environment

The iSeries Access portlets running under a portal environment can be used one or more times on a page, or across multiple pages. Each instance of a portlet is configured to connect to a server with a specific i5/OS user profile. A license is used for each unique server and user profile combination within a portal session.

A license is requested when a page containing configured iSeries Access portlets is visited. A license is requested for each portlet only if a license for the configured server and user profile has not been requested during this portal session. Licenses are held until the portal session ends.

Related reference

This topic contains iSeries software requirements for iSeries Access.

Plan for iSeries Access for Web

iSeries Access for Web gives you an easy-to-use interface to access i5/OS resources and functions through a Web browser. It installs on i5/OS and eliminates the installation, configuration, and management of client code.

iSeries Access for Web is implemented as a Web application that runs in an instance of a Web application server and as a portal application that runs in a portal environment. You can access i5/OS resources from either interface or you can use both.

iSeries Access for Web offerings

iSeries Access for Web has two offerings: a Web application and a portal application. Use the information in these topics to learn about each application and decide which is best for you.

Web application

iSeries Access for Web provides a Web application that runs in an instance of a Web application server.

The Web application is a set of servlets that provide functions for accessing i5/OS resources. Each function is accessed as an individual Web page. Additional browser windows are needed to access multiple functions at the same time. You can create bookmarks for quick access to frequently used functions.

The Web application running in an instance of a Web application server provides access to i5/OS resources on a single server. The server being accessed does not need to be the server where the Web application is running. To access i5/OS resources on a second server, the Web application must be running in a second Web application server instance.

The Web application can run in multiple Web application server instances on the same server with each instance accessing i5/OS resources on a different server.

Web serving environment

The combination of an HTTP server and a Web application server provides the Web serving environment for the Web application provided by iSeries Access for Web. The HTTP server receives client HTTP requests from a browser and routes them to the Web application server instance for processing.

For the most current list of supported Web serving environments, refer to the Web page for iSeries Access for Web. This page will be updated with information about any additional Web serving environments supported.

Related concepts

"Browser considerations" on page 16

"iSeries Access for Web in a Web application server environment" on page 22
iSeries Access for Web provides a set of Java servlets to access i5/OS resources through a browser interface. These servlets run in a Web application server environment on an iSeries server. Both the IBM WebSphere and the ASF Tomcat application servers are supported.

Related information

IBM WebSphere Application Server

IBM HTTP Server for iSeries

Portal application
iSeries Access for Web provides a portal application that runs in a portal environment, such as WebSphere Portal or IBM Workplace Services Express.

The portal application is a set of portlets that provide functions for accessing i5/OS resources. Each portlet is accessed as part of a page. The portlets can be combined on pages to allow access to multiple functions at the same time. Each portlet can appear on a page multiple times. The portlets can be combined on pages with portlets from other applications to integrate information from i5/OS with data from other information sources.

The portal application can provide access to i5/OS resources on multiple servers. Each portlet on a page can access i5/OS resources on a different server. If a portlet appears on a page multiple times, each instance of the portlet can access a different server.

Web serving environment

The combination of an HTTP server and a portal server, such as WebSphere Portal, provides the Web serving environment for the portal application provided by iSeries Access for Web. The HTTP server receives client HTTP requests from a browser and routes them to the portal environment for processing.

For the most current list of supported portal environments, refer to the Web page for iSeries Access for Web. This page will be updated with information about any additional Portal environments supported.

Security considerations

This topic provides information about iSeries Access for Web security considerations.

Authentication

iSeries Access for Web needs to have the user identity authenticated so that i5/OS resources are accessed with the correct user profile. The methods of authenticating the user identity are different for the Web application and the portal application.

Web application

The Web application can be configured to authenticate users or to allow WebSphere to authenticate users.

The Web application authenticates the user identity with i5/OS using a user profile and password. HTTP basic authentication is used to prompt for a user profile and password. HTTP basic authentication encodes the user profile and password, but does not encrypt them. To secure authentication information during transmission, secure HTTP (HTTPS) should be used.

WebSphere authenticates the user identity with the active user registry. WebSphere uses HTTP basic authentication or form-based authentication to prompt for the user ID and password. HTTP basic authentication encodes the user ID and password, but does not encrypt them. Form-based authentication sends the user ID and password in clear text. To secure authentication information during transmission, secure HTTP (HTTPS) should be used.

Allowing WebSphere to authenticate the user identity using form-based authentication enables the Web application to participate in WebSphere single sign-on (SSO) environments.

Once WebSphere has authenticated the user identity, the Web application uses Enterprise Identity Mapping (EIM) to map the authenticated WebSphere user identity to an i5/OS user identity.

For information on iSeries Access for Web and EIM, see the "Single sign-on considerations" topic.

For information on WebSphere single sign-on, see "Configure single sign-on" in the appropriate Information center version. Links to WebSphere information centers are in the IBM WebSphere Application Server documentation.

Portal application

The portal application relies on the portal server to authenticate the user identity.

Once the portal server has authenticated the user identity, the iSeries Access portlets can be used. Each portlet provides an option in edit mode for selecting the credential to use when accessing i5/OS resources. Select one of these options:

Use credential specific to this portlet window

An i5/OS user profile and password are supplied for this portlet instance. This credential cannot be used by other portal users or other portlet instances for the current portal user.

Use credential set with iSeries Credentials portlet

An i5/OS user profile and password is selected from a list of credentials that were defined using the iSeries Credentials portlet. This credential can be used by other portlet instances for the current portal user, but cannot be used by other portal users.

Use system shared credential set by administrator
An i5/OS user profile and password is selected from a list of credentials that were defined by the portal administrator using the Credentials Vault administration function. This credential can be used by all portal users.

Use authenticated WebSphere credential
The authenticated portal environment user identity is mapped to an i5/OS user identity using EIM. For information about iSeries Access for Web and EIM, see the "Single sign-on considerations" topic.

For information about how WebSphere Portal authenticates the user identity, see **Securing your portal** → **Security Concepts** → **Authentication** in the WebSphere Portal Information Center.

Restricting access to functions

Users can be restricted from accessing iSeries Access for Web functions. Different methods of restricting access are used in the Web application and the portal application.

For information on restricting access to functions for the Web application, see the "Policies" topic.

For information on restricting access to functions for the portal application, see the "Portal roles" topic.

Object level security

iSeries Access for Web uses object level security when accessing i5/OS resources. Users will not be able to access i5/OS resources if their i5/OS user profile does not have the proper authority.

Secure HTTP (HTTPS)

You can configure the iSeries server to use a security protocol, called Secure Sockets Layer (SSL), for data encryption and client/server authentication. For information about SSL, HTTPS, and digital certificates, see the following:

- Security and SSL information in the HTTP server documentation .

- Security and SSL information in the WebSphere Application Server documentation .

- Securing your portal in the WebSphere Portal information center .
- Using digital certificates and the SSL to enable secure communications for many applications in the Digital Certificate Manager (DCM) topic.

Exit programs

iSeries Access for Web makes extensive use of the following Host Servers:
- Signon
- Central
- Remote Command/Program Call
- Database
- File
- Network Print

Exit programs that restrict access to these servers, especially Remote Command/Program Call, will cause all or portions of iSeries Access for Web to not function.

Related concepts
"Browser considerations" on page 16

Related information

Digital Certificate Manager (DCM)

Single sign-on considerations

This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

iSeries Access for Web supports participating in WebSphere SSO environments. When enabled, users provide WebSphere credentials when accessing i5/OS resources with iSeries Access for Web. The user is authenticated with the active WebSphere user registry and Enterprise Identity Mapping (EIM) is used to map the authenticated WebSphere user identity to an i5/OS user profile. The i5/OS user profile is used to authorize access to the requested i5/OS resources. Single sign-on with WebSphere is supported in both the Web application server and portal environments.

SSO with WebSphere and iSeries Access for Web require the following configurations:
- WebSphere Application Server with global security enabled and an active user registry to authenticate users.
- An EIM domain configuration to enable mapping of WebSphere user identities to i5/OS user profiles.
- The EIM Identity Token Connector (resource adapter) installed and configured into WebSphere Application Server.

WebSphere global security

For information on WebSphere global security, search for "Configuring global security" in the appropriate version of the WebSphere Application Server information center. Links to the WebSphere information centers are in the IBM WebSphere Application Server documentation.

EIM domain configuration

For information on EIM domain configuration, see the "Configure Enterprise Identity Mapping" topic.

EIM Identity Token Connector

The EIM Identity Token Connector is a resource adapter that must be installed and configured into WebSphere when enabling iSeries Access for Web for WebSphere SSO. The iSeries Access for Web application and portal application request identity tokens from the connector. Identity tokens are encrypted data strings that represent the currently authenticated WebSphere user. Identity tokens are input to EIM lookup operations, which map an authenticated WebSphere user identity to an i5/OS user profile.

The connector supports J2C connection factories with JNDI names **eis/IdentityToken** and **eis/iwa_IdentityToken**. By default, iSeries Access for Web attempts to use configuration values from the factory defined with JNDI name **eis/iwa_IdentityToken**. If this factory is not found, configuration values from the factory defined with JNDI name **eis/IdentityToken** are used.

For information on EIM Identity Token Connector configuration, follow this path in the WebSphere Application Server for OS/400, Version 6 Information Center: **Securing applications and their environment** → **Integrating IBM WebSphere Application Server security with existing security systems** → **Configure the EIM Identity Token Connection Factory**.

Configuration examples

See "WebSphere Application Server V6.0 for OS/400 with Single sign-on" topic for an example of configuring iSeries Access for Web with SSO in a Web application server environment.

See "WebSphere Portal - Express for Multiplatforms V5.0.2 (iSeries) with Single sign-on" topic for an example of configuring iSeries Access for Web with SSO in a portal application environment.

Related concepts

"IFrame" on page 120
The iSeries Access for Web IFrame portlet provides the ability to access iSeries Access for Web servlet functions from a portal environment.

"Login template" on page 74
The main page is displayed when the iSeries Access for Web main page address is accessed without any parameters.

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

Related tasks

"Configure WebSphere Application Server V6.0 for OS/400 with Single sign-on" on page 27
This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server V6.0 for OS/400 environment with single sign-on (SSO) enabled. It also describes how to verify that the setup is working.

"Configure WebSphere Portal - Express for Multiplatforms V5.0.2 (iSeries) with Single sign-on" on page 107
This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Portal web serving environment with single sign-on (SSO) enabled. It also describes how to verify that the setup is working.

Related reference

"Configure iSeries Access for Web in a Web application server environment" on page 22
Installing iSeries Access for Web to the iSeries server does not make it available for use. To use iSeries Access for Web, it must be configured to the Web application server (WebSphere or ASF Tomcat).

"Configure iSeries Access for Web in a portal environment" on page 102
Follow the steps necessary configure iSeries Access for Web in a portal environment.

Related information

Enterprise Identity Mapping

Configure Enterprise Identity Mapping:

In order to enable Single sign-on (SSO) with WebSphere and iSeries Access for Web, you must configure Enterprise Identity Mapping (EIM). This topic provides an overview of the steps to configure EIM. These steps are intended as a guide to administrators when planning and configuring the EIM environment.

EIM is part of the Network subcomponent of iSeries Navigator. For information about EIM, see the Enterprise Identity Mapping topic. Configuring EIM involves these steps:
- Create an EIM domain. See step 1 on page 10.
- Add EIM domain to Domain Management. See step 2 on page 10.
- Create EIM source user registry. See step 3 on page 10.
- Create EIM identifier for each user. See step 4 on page 11.
- Add associations to EIM identifiers. See step 5 on page 11.

Steps to configure Enterprise Identity Mapping:

1. Create an EIM domain. EIM domain information is stored on a Lightweight Directory Access Protocol (LDAP) directory server. The LDAP administrator distinguished name and password is required in order to create an EIM domain. To create an EIM domain, follow these steps:

   a. In iSeries Navigator, expand *<ServerName>* → **Network** → **Enterprise Identity Mapping**.

   b. Right-click **Configuration** and select **Configure** (or **Reconfigure**, if EIM has been previously configured) to start the EIM configuration wizard.

   c. On the Welcome page, select **Create and join a new domain**. Select **Next**.

   d. On the Specify EIM Domain Location page, select one of these as appropriate:
      - **On the local Directory server**
      - **On a remote Directory server**

   Select **Next**.

   e. On the Configure Network Authentication Service page, select **No**. Select **Next**.

      Note: Network Authentication Service is not required for EIM in WebSphere environments. For more information about Network Authentication Service, see the "Network authentication service" topic.

   f. Either the Specify User for Connection or the Configure Directory Server page is displayed. Specify the **Distinguished name** and **Password** of the directory server administrator, as well as the **Directory server port number**, as appropriate. For example:

   ```
   Distinguished name: cn=administrator
   Password: myadminpwd
   Port: 389
   ```

   Select **Next**.

   g. On the Specify Domain page, provide a name for the EIM domain. For example: Domain: `EimDomain` Select **Next**.

   h. On the Specify Parent DN for Domain page, select **No**. Select **Next**.

   i. If the directory server is active, a message is displayed indicating to end and restart the directory server for the changes to take effect. Select **Yes** to restart the directory server.

   j. On the Registry Information page, select **Local OS/400** and de-select **Kerberos**. Write down the Local OS/400 registry name. This registry name will be used when creating associations for EIM identifiers. For example: `MYISERIES.MYCOMPANY.COM` Select **Next**.

   k. On the Specify EIM System User page, let it default to using the directory server administrator distinguished name and password when performing EIM operations on behalf of operating system functions. Select **Next**.

   l. On the Summary page, confirm the EIM configuration information. Select **Finish**.

2. Add EIM domain to Domain Management. To add the EIM domain to Domain Management, follow these steps:

   a. In iSeries Navigator, expand *<ServerName>* → **Network** → **Enterprise Identity Mapping**.

   b. Right-click **Domain Management**, and select **Add Domain**.

   c. On the Add Domain dialog, select the EIM domain name specified in step 1g of the Create an EIM domain step. For example: `EimDomain`. Select **OK**.

   d. The domain is added to iSeries Navigator. Expand the domain by Selecting the + next to the domain name.

   e. Specify the directory server administrator distinguished name and password at the Connect to EIM domain controller prompt.

   f. Two subcategories are displayed, User Registries and Identifiers.

3. Create EIM source user registry. To create an EIM source user registry, follow these steps.

a. In iSeries Navigator, expand *<ServerName>* → **Network** → **Enterprise Identity Mapping** → **Domain Management** → *<DomainName>* → **User Registries**.

b. Right-click **User Registries**, and select **Add Registry** → **System**.

c. On the Add System Registry dialog, provide a registry name. For example: Registry: `WebSphereUserRegistry`

d. Select **LDAP - short name** from the registry type selection list. Registry type **LDAP - short name** is not available in iSeries Navigator releases prior to V5R4M0. If you are using an earlier release of iSeries Navigator, specify `1.3.18.0.2.33.14-caseIgnore` as the registry type. This is the ObjectIdentifier-normalization (OID) form of registry types whose principals are identified by the LDAP short name attribute. This OID is mapped to "LDAP - short name" in V5R4M0 iSeries Navigator. Select **OK**.

4. Create EIM identifier for each user. An EIM identifier must be created for each user in the WebSphere user registry. When new users are added to the WebSphere user registry, an EIM identifier must be created for each new user. To create an EIM identifier for a user in the WebSphere user registry, follow these steps:

a. In iSeries Navigator, expand *<ServerName>* → **Network** → **Enterprise Identity Mapping** → **Domain Management** → *<DomainName>* → **Identifiers**.

b. Right-click **Identifiers**, and select **New Identifier**.

c. On the New EIM Identifier dialog, provide a unique identifier name and optional description. For example: `Thomas R. Smith`. Select **OK**.

d. Repeat steps 4b and 4c for each WebSphere user that uses iSeries Access for Web.

5. Add associations to EIM identifiers. Each EIM identifier requires two EIM associations. These associations link the WebSphere user identity (source identity) to an i5/OS user profile (target identity). To add associations to an EIM identifier, follow these steps. When new EIM identifiers are added to represent new users in the WebSphere user registry, repeat these steps to create the corresponding EIM associations.

a. In iSeries Navigator, expand *<ServerName>* → **Network** → **Enterprise Identity Mapping** → **Domain Management** → *<DomainName>* → **Identifiers**. A list of identifiers is displayed in the right pane of iSeries Navigator.

b. Right-click an identifier and select **Properties**. For example: `Thomas R. Smith`

c. From the Associations tabbed page, select **Add** to add a WebSphere user registry source association.

d. On the Add Association dialog, provide values for the following fields. You can specify a value or select **Browse...** to select from a list of known values.

   • **Registry:** Specify the source registry name from step 3c of the Create EIM source user registry step. For example: `WebSphereUserRegistry`

   • **User:** Specify the user's WebSphere user identity. For example: `tsmith`

   • **Association type:** Source

   Select **OK**.

e. From the Associations tabbed page, select **Add** to add an i5/OS user profile target association.

f. On the Add Association dialog, provide values for following fields. You can specify a value or select **Browse...** to select from a list of known values.

   • **Registry:** Specify the target registry name from step 1j on page 10 of the Create EIM domain step. For example: `MYISERIES.MYCOMPANY.COM`

   • **User:** Specify the user's i5/OS user profile name. For example: `TOMSMITH`

   • **Association type:** Target

   Select **OK** to add the target association.

g. Select **OK** to close the Properties dialog.

Related information

Enterprise Identity Mapping

Network authentication service

Checklist: Plan, install, and configure

Use this checklist to guide you through the steps necessary to plan, install, verify, and configure a simple iSeries Access for Web environment. These steps do not take into account other Web applications or more complex Web environments.

1. Verify that your iSeries server has the necessary hardware listed in "iSeries hardware requirements."

2. Verify that your iSeries server has the prerequisite software and PTFs listed in "iSeries software requirements" on page 13.

3. Verify that your Web browser meets the requirements listed in "Web browser requirements" on page 16.

4. If the beta release of iSeries Access for Web was installed on your server, it must be deleted before installing the new release of iSeries Access for Web. For details, see "Delete the beta release" on page 17.

5. Install the iSeries Access for Web product and PTFs on the iSeries server using the instructions in "Install iSeries Access for Web on the iSeries server" on page 20.

6. If you want to use the Web application provided by iSeries Access for Web, follow the instructions in "Configure iSeries Access for Web in a Web application server environment" on page 22.

   Note: This step is required even if you are upgrading from a previous release of iSeries Access for Web.

7. If you want to use the portal application provided by iSeries Access for Web, follow the instructions in "Configure iSeries Access for Web in a portal environment" on page 102.

   Note: This step is required even if you are upgrading from a previous release of iSeries Access for Web

Related concepts

"iSeries Access for Web offerings" on page 4
iSeries Access for Web has two offerings: a Web application and a portal application. Use the information in these topics to learn about each application and decide which is best for you.

Related tasks

"Save and restore iSeries Access for Web in a Web application server environment" on page 99
Find out how to save iSeries Access for Web and restore it to another server.

Related reference

"Upgrade considerations" on page 18
This topic contains information about upgrading iSeries Access for Web from a previous release.

"Save and restore iSeries Access for Web in a portal environment" on page 122
iSeries Access for Web can be propagated to other iSeries servers but there are considerations that need to be reviewed before saving and restoring it.

Prerequisites for installing iSeries Access for Web

Before you begin your installation, use this information to ensure you meet all the hardware, software, and Web browser requirements.

iSeries hardware requirements

This topic contains server hardware requirements for iSeries Access for Web.

Server models, processor features, and memory

For information about the server models, processor features, and server memory required for your iSeries server, depending on your application server type, see the following:

- WebSphere Application Server.
   1. Click the appropriate WebSphere Application Server version and edition.
   2. Click **Prerequisites**.
- WebSphere Portal (for iSeries).
   1. Navigate to the Hardware and Software requirements section for your iSeries version of WebSphere Portal.
   2. Follow appropriate links for your release of software.
- ASF Tomcat.
   1. Click **Documentation**.
   2. Click the V5Rx Information.

Server disk space

iSeries Access for Web requires 470 MB of free disk space on the server.

Note:

1. iSeries Access for Web consists of servlets and portlets. Take this into consideration when reviewing the hardware requirements for Web application servers.
2. For help with sizing all system configurations, use the IBM Workload Estimator, located under **Tools** on the IBM iSeries Support Web page.

Related concepts

"iSeries Access for Web offerings" on page 4
iSeries Access for Web has two offerings: a Web application and a portal application. Use the information in these topics to learn about each application and decide which is best for you.

Tune performance:

The workload required to support a Web serving environment is greater than traditional workload environments. Your iSeries server may need to be tuned to operate efficiently for a Web serving environment.

The following Web sites provide information to help tune the iSeries server for this environment:

- IBM WebSphere Application Server for iSeries Performance Considerations .

- iSeries performance capabilities guidelines documents. .

- The IBM Workload Estimator for iSeries, located under **Tools** on IBM iSeries Support .

   Related concepts

   "iSeries Access for Web offerings" on page 4
   iSeries Access for Web has two offerings: a Web application and a portal application. Use the information in these topics to learn about each application and decide which is best for you.

iSeries software requirements

The table below lists required and optional software needed to run iSeries Access for Web. Each product should be installed at the latest fix level. There are additional software requirements associated with each of the supported Web environments. The steps needed to access these prerequisites are listed after the table.

Table 1. Required and optional software

Product	Option	Description
5722-SS1		i5/OS Version 5 Release 3 or later
5722–SS1	3	Extended Base Directory Support
5722-SS1	8	AFP™ Compatibility Fonts
5722-SS1	12	Host Servers
5722-SS1	30	QShell Interpreter
5722-SS1	34	Digital Certificate Manager **Note:** This is required only to use the Secure Sockets Layer (SSL) protocol.
5722–IP1	Base	IBM Infoprint® Server **Note:** This software product is required only to use the PDF printers support.
5722-JV1	Base	Java Developer Kit
	5	Java Developer Kit Version 1.3
	6	Java Developer Kit Version 1.4 **Note:** Refer to the WebSphere Application Server, WebSphere Portal or ASF Tomcat documentation for the required version.
5722-JC1	Base	Toolbox for Java
5722-TC1	Base	TCP/IP Connectivity Utilities
5722-DG1	Base	IBM HTTP Server **Note:** The ASF Tomcat application server is part of this product.
5722-AC3	128-bit	Crypto Access Provider 128-bit for iSeries **Note:** • This only applies to V5R3 i5/OS users. • This is required only to use the Secure Sockets Layer (SSL) protocol.
5722-XW1	Base Option 1	iSeries Access iSeries Access Enablement Support
5733-W60 5722-E51 5733-W51 5722-IWE 5733-WS5	See the WebSphere application server Web site.	IBM WebSphere Application Server V6.0 for OS/400 (Base, Express, and Network Deployment Editions) IBM WebSphere Application Server - Express for iSeries V5.1 IBM WebSphere Application Server V5.1 for iSeries (Base and Network Deployment Editions) IBM WebSphere Application Server - Express for iSeries V5.0 IBM WebSphere Application Server V5.0 for iSeries (Base and Network Deployment Editions)
		WebSphere Portal for iSeries V5.0.2.2 **Note:** • This is required only if you want to use the portal application provided by iSeries Access for Web. WebSphere Portal for iSeries is not required to use the Web application provided by iSeries Access for Web. • For a current list of supported portal environments, refer to the IBM iSeries Access for Web home page.

WebSphere Application Server prerequisites

1. Access the WebSphere Application Server documentation.
2. Choose the appropriate WebSphere Application server version and edition.
3. Choose **Prerequisites**.

WebSphere Portal (for iSeries) prerequisites

1. Access the WebSphere Portal documentation.
2. Choose the appropriate version category.
3. Choose **Hardware and Software Requirements**.
4. Select the appropriate option for your version of WebSphere Portal.

ASF Tomcat prerequisites

1. Access the HTTP Server documentation.
2. Choose **Documentation**.
3. Follow the appropriate links to access the concepts article about ASF Tomcat for your release of software.

   Related concepts

   "License information for iSeries Access for Web" on page 3

   "iSeries Access for Web offerings" on page 4
   iSeries Access for Web has two offerings: a Web application and a portal application. Use the information in these topics to learn about each application and decide which is best for you.

   "Security considerations" on page 6
   This topic provides information about iSeries Access for Web security considerations.

   Related reference

   "Print" on page 96
   iSeries Access for Web provides support to access spooled files, printers, printer shares, and output queues on an iSeries server. It also provides support for automatic transformation of SCS and AFP printer output to PDF documents.

SSL usage notes:

Secure Sockets Layer (SSL) is supported with iSeries Access for Web.

To use SSL, order and install the appropriate iSeries software. You are responsible for making sure that you are using the correct encryption for your country or region and the countries or regions that your iSeries server does business in. If you want 128-bit server encryption, install the appropriate software, depending on your operating system:

For i5/OS V5R3, you need 5722-AC3, Cryptographic Access Provider 128-bit for iSeries.

For i5/OS V5R4, you need these:
- 5722-SS1 - Digital Certificate Manager (5722-SS1 Option 34)
- 5722-DG1 - IBM HTTP Server

PTF requirements:

After the required software has been installed on the server, the latest available fixes should also be loaded and applied.

Cumulative PTF package

You should install the currently available cumulative PTF package for the i5/OS version you are running before installing any other fixes. You must install the latest i5/OS cumulative PTF package before installing the group PTF for WebSphere Application Server, WebSphere Portal, or ASF Tomcat.

WebSphere Application Server

WebSphere PTFs are delivered as group PTFs. These group PTFs contain all the fixes required, across different software products, to bring WebSphere up to a specific fix level. To obtain the correct PTFs, refer to the WebSphere application Server PTFs Web page then select your version of operating system and WebSphere.

WebSphere Portal - Express for iSeries V5.0.2

iSeries Access for Web requires a minimum fix level of 5.0.2.2 for WebSphere Portal - Express for iSeries. To access fix information, refer to the WebSphere Portal on iSeries Support page.

ASF Tomcat and HTTP Server for iSeries

The ASF Tomcat Web application server is part of the IBM HTTP Server for iSeries licensed program. ASF Tomcat PTFs are delivered within the IBM HTTP Server for iSeries Group PTFs. These Group PTFs contain all the fixes required to bring the HTTP Server up to a specific fix level. To obtain the correct Group PTFs, refer to the HTTP Server: PTFs and Support page, then follow the links appropriate for your version of operating system.

Web browser requirements
The following browsers have been tested with iSeries Access for Web:
- Firefox 1.0.2 (Windows and Linux®)
- Internet Explorer 6.0 with Service Pack 1 (Windows)
- Mozilla 1.7 (Windows, Linux, and AIX®)
- Opera 7.54 (Windows and Linux)

Other browsers (for these and other platforms) that support the current HTTP, HTML and CSS specifications should work, but have not been tested with iSeries Access for Web.

iSeries Access for Web requires that your browser be configured to accept cookies that persist for the duration of the browser session and are returned to the originating server. For more information about cookies, see your browser's help information.

Browser considerations: This topic contains browser considerations for iSeries Access for Web.

Browser plug-ins
   A browser plug-in or a separate application may be needed to view some of the content returned by iSeries Access for Web.

Opera 6.0 browser
   The Opera 6.0 browser cannot display PDF documents using the Adobe Acrobat Reader plug-in if the URL used to access the document contains parameters.

Web application

The following considerations apply to the Web application, not the portal application, provided by iSeries Access for Web.

Content-type (MIME-type) mapping
   When downloading a file to the browser, iSeries Access for Web uses the file extension to

| determine the file content-type (MIME-type). The file content-type is used by the browser to determine how best to render the information. iSeries Access for Web provides a way to extend or override the included file extension to file content-type mapping. See Content-type (MIME-type) mapping in "File considerations" for more information.

| **Force a Save As window when downloading files**
| When using Microsoft® Internet Explorer and any of the iSeries Access for Web functions to download a file to the browser, often Internet Explorer will display the file's content in the browser window without offering an opportunity to save the file. Internet Explorer examines the data in the file and determines that it is capable of displaying the data within the browser window. See Forcing a Save As window when downloading files in "File considerations" for information on working around this issue.

Log out
HTTP basic authentication does not have a means of logging out a user. You must close all browser windows to clear the user identity from the browser.

Bookmarks
Pages of the Web application may be bookmarked for easier access. In wizards, only the first page may be bookmarked.

Realm The term Realm is used by some browsers when prompting for user name and password with HTTP basic authentication. When the Web application is configured to authenticate the user identity, the realm is the host name of the server containing the i5/OS resources you are accessing.

URL Use http://<*server_name*>/webaccess/iWAMain to access the main page of the Web application. Use http://<*server_name*>/webaccess/iWAHome to access the home page. Both of these pages can be customized.

Related concepts

"Web application" on page 4
Learn about the Web application provided by iSeries Access for Web.

"Portal application" on page 5
Learn about the portal application provided by iSeries Access for Web.

"Security considerations" on page 6
Learn about security considerations with iSeries Access for Web.

"Default page content" on page 64
Learn how iSeries Access for Web generates customized page content.

Related information

IBM WebSphere Application Server

IBM HTTP Server for iSeries

Delete the beta release

Prior to the release of V5R4 iSeries Access for Web, the software product was available as a beta release. The beta release configuration must be removed, and the product deleted from the iSeries server before installing the official release of iSeries Access for Web.

Check the version of the licensed program to determine whether you have the beta release installed. To check the version of the licensed program:

1. Run the server command DSPF STMF('/QIBM/ProdData/Access/Web2/config/prodinfo.properties') to display the product information.

2. Check /QIBM/Prodata/Access/Web2/config/prodinfo.properties for lines like the following:

| ```
vrm=5.4.0
fix=Beta-1
```

You are running the beta if vrm is 5.4.0 and fix starts with Beta-.

To remove the beta release, follow these steps:

1. Sign on to the server.
2. Use the `QIWA2/RMVACCWEB2` command to remove the configuration information from the Web application servers and portal servers.

   **Note:** If you do not recall what was configured, the /QIBM/UserData/Access/Web2/config/instances.properties file lists the Web applications server versions, instances or profiles, and application servers that were configured. Use the values listed in instances.properties as input to the RMVACCWEB2 command and follow the instructions displayed.

3. Run the following command `DLTLICPGM LICPGM(5722XH2)`
4. Delete all files in the directory /QIBM/UserData/Access/Web2/logs.
5. Determine whether you want to keep the user data created during the use of the beta version of iSeries Access for Web. User data created by iSeries Access for Web can be any or all of the following: user policies and preferences, 5250 sessions and macros, 5250 keypads, database requests, saved commands, My Folder items, and more. Keeping the user data from the beta or other supported releases of iSeries Access for Web would let you reuse the information in a new installation of iSeries Access for Web.

   If you do not want to use the user data created during the use of the beta, delete the /QIBM/UserData/Access/Web2 directory that matches the instances used with the beta version of iSeries Access for Web. If you also have user data from previous supported releases of iSeries Access for Web that you do not want to use, you can choose to delete those directories as well.

   If you want to use the user data, do not delete anything from the /QIBM/UserData/Access/Web2 directories. If you are using the same Web application server instance for the beta and the official release of iSeries Access for Web, the existing user data will automatically be used. If you want to use a new Web application server instance and want to reuse existing user data, see the New Web application server considerations topic.

6. Determine whether you want to use the user data created during the use of the beta version of iSeries Access for Web and do one of these:
   - If you do not want to use the user data, delete the directory /QIBM/UserData/Access/Web2.
   - If you do want to use the user data, specify the appropriate values when configuring the official release of iSeries Access for Web. When using the CFGACCWEB2 command, input the same values that were input to RMVACCWEB2 in step 2.

7. Verify the directory /QIBM/ProdData/Access/Web2 does not exist. Delete it if it does.

   **Related reference**

   "New Web application server considerations" on page 63
   Use this information when iSeries Access for Web is configured for a Web application server and a new Web application server is added to the environment.

   **Related information**

   RMVACCWEB2 CL command

## Upgrade considerations

This topic contains information about upgrading iSeries Access for Web from a previous release.

## Upgrade process

Upgrading iSeries Access for Web from a previous release is performed in two steps.

1. Install the new release of iSeries Access for Web on the iSeries server. This overlays the previous release of the product.
2. Configure, or reconfigure, iSeries Access for Web. This enables the new functions provided in the new release and preserves all of the existing user-generated data.

## Portal environment considerations

If the iSeries Access for Web default pages were created during the original portal configuration and you changed those pages, it is recommended that you do not re-create the default pages when you upgrade. If you re-create the pages, all customizations and configurations settings are lost.

The page creation option is a parameter on the iSeries Access for Web configuration command CFGACCWEB2. Specify WPDFTPAG(*NOCREATE) if you do not want to re-create the default pages. Specify WPDFTPAG(*CREATE) to create the default pages. Refer to the help text for the CFGACCWEB2 command and its parameters for more detail.

**Note:** If you used the IBM Web Administration for iSeries wizard interface to create the portal instance and deploy the iSeries Access for Web portlets, the iSeries Access for Web default pages were created automatically.

## Upgrade from V5R1 iSeries Access for Web

If you have V5R1 iSeries Access for Web (5722-XH1) installed on your server, installing V5R4 iSeries Access for Web (5722-XH2) has no impact on the V5R1 installation. V5R1 and V5R4 iSeries Access for Web can coexist on the same server.

When V5R4 iSeries Access for Web is configured using the CFGACCWEB2 command, the following automatically occur the first time the command is run:
- V5R1 iSeries Access for Web user generated data is copied to the V5R4 iSeries Access for Web directory structure.
- The V5R1 iSeries Access for Web policy information is copied to the V5R4 iSeries Access for Web configuration.
- The V5R1 iSeries Access for Web file content-type (MIME-type) mappings are copied to the V5R4 iSeries Access for Web configuration.

To prevent these from happening automatically, follow these steps before running the CFGACCWEB2 command:
1. Create the file /QIBM/UserData/Access/Web2/config/migration.properties.
2. Using an editor, add was35migrationrun=true to the migration.properties file.

**Related concepts**

"Checklist: Plan, install, and configure" on page 12
Use this checklist to guide you through the steps necessary to plan, install, verify, and configure a simple iSeries Access for Web environment. These steps do not take into account other Web applications or more complex Web environments.

**Related tasks**

"Install iSeries Access for Web" on page 20
Follow these instructions to install iSeries Access for Web on the server.

**Related reference**

"Configure iSeries Access for Web in a Web application server environment" on page 22
Installing iSeries Access for Web to the iSeries server does not make it available for use. To use iSeries Access for Web, it must be configured to the Web application server (WebSphere or ASF Tomcat).

"Configure iSeries Access for Web in a portal environment" on page 102
Follow the steps necessary configure iSeries Access for Web in a portal environment.

**Related information**

CFGACCWEB2 CL command

# Install iSeries Access for Web on the iSeries server

You can install V5R4 iSeries Access for Web on V5R3 and later releases of i5/OS.

If you are using an earlier release of the server, see "Install, upgrade, or delete i5/OS and related software" for instructions on upgrading your server to a supported release. If you need to install a new release of i5/OS, install the new release before installing iSeries Access for Web.

**Note:** In order to install the iSeries server, your profile needs the correct special authorities. You need to have these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, *SECADM. This security level is required for installation and configuration only, not for regular use of iSeries Access for Web.

**Related reference**

"Tune performance" on page 13
Find information about tuning your iSeries server to operate efficiently in a Web serving environment.

**Related information**

Install, upgrade, and delete i5/OS and related software

# Install iSeries Access for Web

Follow these instructions to install iSeries Access for Web on the server.

Installing iSeries Access for Web (5722-XH2) on the iSeries server will:
* Overlay a previously installed release of iSeries Access for Web
* Create the required library QIWA2
* Set up the directory structure in the integrated file system:
  – /QIBM/ProdData/Access/Web2/...
  – /QIBM/UserData/Access/Web2/...
* Copy the files from the install media to your iSeries server
* Not perform any configuration within an HTTP server or Web application server
* Not start or end any jobs on your server

To install iSeries Access for Web on the server:
1. Sign on to the iSeries server with *SECOFR authority.
2. If a previous release of iSeries Access for Web is currently installed and actively running within a Web application server instance (WebSphere or ASF Tomcat), you must stop that Web application server instance or the iSeries Access for Web Web application. Use the QIWA2/ENDACCWEB2 command or the Web application server administrative console to stop the running application.
3. Use the `WRKACTJOB SBS(QSYSWRK)` server command to display all running jobs under the QSYSWRK subsystem. If the QIWAPDFSRV job is running, use option 4 with the `OPTION(*IMMED)` parameter to end it.
4. Load the medium containing the licensed programs on the installation device. If the licensed programs are contained on more than one medium, you can load any one of them.
5. Type `RSTLICPGM` in the iSeries command prompt, then F4 to prompt the command.
6. Specify the following values on the Install Options display and press **Enter**:

*Table 2. Licensed program install values*

| Parameter name | Parameter Key | Value |
|---|---|---|
| Product | LICPGM | 5722XH2 |
| Device | DEV | OPT1 is an example |
| Optional part to be restored | OPTION | *BASE |

The licensed program will now install. If the licensed program is on multiple volumes, the install program will prompt you for a new volume. Load the next media volume, press G and then **Enter**. If you do not have any additional media volumes, press X and then **Enter**.

**Note:**

1. If V5R1 iSeries Access for Web (5722-XH1) is already installed on the server, installing V5R4 iSeries Access for Web (5722-XH2) will not impact the V5R1 installation. V5R1 and V5R4 iSeries Access for Web can coexist on the server.

2. After the installation of iSeries Access for Web, 5722-XH2 iSeries Access for Web will be listed as an installed licensed program. You can view the list using the server command GO LICPGM and selecting option 10.

3. The installation of iSeries Access for Web will not perform any configuration or start any jobs on the server. The configuration must be performed as a separate step for the Web application server or portal server you intend to use. This configuration must be performed even if you are upgrading from a previous release of iSeries Access for Web.

**Related reference**

"Upgrade considerations" on page 18
This topic contains information about upgrading iSeries Access for Web from a previous release.

"Configure iSeries Access for Web in a Web application server environment" on page 22
Installing iSeries Access for Web to the iSeries server does not make it available for use. To use iSeries Access for Web, it must be configured to the Web application server (WebSphere or ASF Tomcat).

"Configure iSeries Access for Web in a portal environment" on page 102
Follow the steps necessary configure iSeries Access for Web in a portal environment.

**Related information**

ENDACCWEB2 CL command

# Install iSeries Access for Web PTFs

After iSeries Access for Web has been installed on the server, the latest available fixes should also be loaded and applied.

iSeries Access for Web Service Pack PTF information can be found on the iSeries Access for Web Service Packs (PTFs) Available page. On this page you can determine the latest available PTFs for iSeries Access for Web, other potentially related PTFs, and how to obtain the fixes.

**Note:** Using the server commands Load PTF (LODPTF) and Apply PTF (APYPTF) to install the iSeries Access for Web PTF does not enable the fixes delivered in the PTF. Always review the iSeries Access for Web PTF cover letter before loading and applying the PTF for instructions that are required to enable the fixes.

## iSeries Access for Web portal pages

The CFGACCWEB2 command is used to deploy iSeries Access for Web portlets to the WebSphere Portal environment. The WPDFTPAG(*CREATE) parameter of the CFGACCWEB2 command creates default iSeries Access for Web portal pages and populates the pages with iSeries Access for Web portlets. When the portlets are used, they have to be configured first. The configuration data for the portlets is associated with the pages where the portlets exist.

When an iSeries Access for Web PTF for the WebSphere Portal environment is installed on the server, the CFGACCWEB2 command is run to redeploy the portlets to the WebSphere Portal environment. It is recommended to specify the WPDFTPAG(*NOCREATE) parameter on the CFGACCWEB2 command. This parameter will redeploy the iSeries Access for Web portlets but will not re-create the default iSeries Access for Web portal pages. This preserves configuration and customization settings for the iSeries Access for Web portlets and portal pages. If WPDFTPAG(*CREATE) is specified on the CFGACCWEB2

| command, the default iSeries Access for Web portal pages are recreated and all portlet configuration
| information associated with those pages is lost.

| **Related concepts**
| "iSeries Access for Web in a portal environment" on page 101
| Find out how to configure, customize, use, and save iSeries Access for Web in a portal environment.

# iSeries Access for Web in a Web application server environment

iSeries Access for Web provides a set of Java servlets to access i5/OS resources through a browser
interface. These servlets run in a Web application server environment on an iSeries server. Both the IBM
WebSphere and the ASF Tomcat application servers are supported.

The following topics provide information on configuring, customizing, utilizing, and saving the product
in this environment.

> **Related concepts**
> "Web application" on page 4
> Learn about the Web application provided by iSeries Access for Web.

# Configure iSeries Access for Web in a Web application server environment

Installing iSeries Access for Web to the iSeries server does not make it available for use. To use iSeries
Access for Web, it must be configured to the Web application server (WebSphere or ASF Tomcat).

**Note:** If you are upgrading iSeries Access for Web from a previous release, you must still configure it to
enable the new functions.

## Configuration commands

iSeries Access for Web provides commands to perform and manage the configuration on the server. These
commands must be used to perform actions such as configuring, starting, ending, and removing the
iSeries Access for Web configuration within the Web application server.

Both CL and script commands are provided. The CL commands are installed to the library QIWA2. The
script commands are installed to /QIBM/ProdData/Access/Web2/install and can be used within the
QShell environment.

The iSeries Access for Web CL commands are:
- CFGACCWEB2: Configure the iSeries Access for Web application server.
- STRACCWEB2: Start the iSeries Access for Web application server.
- ENDACCWEB2: End the running iSeries Access for Web application server.
- RMVACCWEB2: Remove the iSeries Access for Web application server configuration.

| The iSeries Access for Web script commands are:
| - cfgaccweb2: Configure the iSeries Access for Web application server.
| - straccweb2: Start the iSeries Access for Web application server.
| - endaccweb2: End the running iSeries Access for Web application server.
| - rmvaccweb2: Remove the iSeries Access for Web application server configuration.

**Note:** When using the configuration commands for a WebSphere application server instance, the
application server instance must be running when the configuration commands are invoked. If
using the ASF Tomcat application server, it is recommended that the application server instance is
not running when the configuration commands are invoked.

| Providing different types of commands gives you the flexibility to manage iSeries Access for Web using
| the interface you are most comfortable with. The CL and script commands perform identical functions,
| they are just invoked differently. The parameters are also identical, but are input differently.

## | Command help

| There are multiple ways to access help for CL commands. Enter the command name on the command
| line and press F1. Alternatively, enter the command name and press F4 to prompt the command, then
| move the cursor to any field and press F1 for help on that field.

| To get help on a script command, specify the -? parameter. For example, start a QShell session by
| running the command STRQSH. Then enter the command
| /QIBM/ProdData/Access/Web2/install/cfgaccweb2 -?

## | Configuration scenarios

| If you are not familiar with the Web serving environment and need to create an HTTP and Web
| application server, or if you want to create a new Web environment for iSeries Access for Web, examples
| are available to walk you through the process.

| If you are familiar with the Web serving environment and already have HTTP and Web application
| servers created and ready for use, examples are available that show you how to invoke the iSeries Access
| for Web commands and what to input into the commands.

**Related tasks**

"Install iSeries Access for Web" on page 20
Follow these instructions to install iSeries Access for Web on the server.

**Related reference**

"Upgrade considerations" on page 18
This topic contains information about upgrading iSeries Access for Web from a previous release.

**Related information**

CFGACCWEB2 CL command

STRACCWEB2 CL command

ENDACCWEB2 CL command

RMVACCWEB2 CL command

### Examples for configuring a new Web application server environment

These examples provide step-by-step instructions for setting up a complete Web serving environment.

The instructions walk you through creating an HTTP server and a Web application server, configuring
iSeries Access for Web, and verifying that iSeries Access for Web web pages can be accessed.

| Before using these examples, ensure you have completed the Plan, install, and configure checklist.

| **Configure WebSphere Application Server V6.0 for OS/400:**

| This example is for users that are not familiar with the Web serving environment. It describes all the
| steps necessary to get iSeries Access for Web running in a WebSphere Application Server V6.0 for OS/400
| environment. It also describes how to verify that the setup is working.

| Configuring your Web serving environment consists of these steps:
| • Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries).
|   See step 1 on page 24.

- Create an HTTP web server and a WebSphere Application Server V6.0 for OS/400 Web application server. See step 2.
- Configure iSeries Access for Web. See step 3 on page 25.
- Start the web environment. See step 4 on page 26.
- Use a browser to access iSeries Access for Web. See step 5 on page 27.

**Steps to configure the Web serving environment:**

1. Start the IBM Web Administration for iSeries interface.

   a. Start a 5250 session to the server.

   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)

   d. Minimize the 5250 session.

2. Create an HTTP web server and a WebSphere Application Server V6.0 for OS/400 Web application server:

   a. Open a browser to: http://<i>&lt;server_name&gt;</i>:2001

   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Select **IBM Web Administration for iSeries**.

   d. Select the **Setup** tabbed page.

   e. Under Common Tasks and Wizards, select **Create Application Server**.

   f. The Create Application Server page opens. Select **Next**.

   g. Select **WebSphere Application Server V6.0 for OS/400** then select **Next**.

   h. The Specify Application Server Name page opens. For **Application server name**, specify iwa60. This will be the name of the WebSphere Web application server. Select **Next**.

   i. The Select HTTP Server Type page opens. Select **Create a new HTTP server (powered by Apache)** then select **Next**.

   j. The **Create a new HTTP server (powered by Apache)** page opens.
      - For **HTTP server name**, enter IWA60
      - For Port, specify 2044.

      Select **Next**.

   k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21044. Select **Next**.

   l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

   m. Select **Finish**.

   n. The web page is re-displayed with the **Manage → Application Servers** tabbed page active. Under **Instance/Server**, iwa60/iwa60 – WAS, V6.0 is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

   o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

      **Important:**

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

p. Minimize the browser window

3. Configure iSeries Access for Web.

   a. Restore the 5250 session window.

   b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QWAS6)

   c. Verify that IWA60 is listed as a job running under the QWAS6 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

   d. Verify the Web application server is ready:

      1) Enter option #5 on your IWA60 job.

      2) Enter option #10 to display the job log.

      3) Press F10 to display detailed messages.

      4) Verify the message **Websphere application server iwa60 ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

      5) Press F3 until you return to a command line.

   e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

      • **To use the CL command, follow these steps:**

        1) Configure iSeries Access for Web for your Web application server by using the following command:

        ```
        QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS60) WASPRF(iwa60) APPSVR(iwa60)
        ```

        These are the parameters used:

        APPSVRTYPE
        Tells the command which Web application server to configure.

        WASPRF
        Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the WASINST parameter was used. In WebSphere Application Server V6.0 for OS/400, profiles have replaced instances.

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

        For help on this command and the parameters, press F1.

        Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to the New Web application server considerations topic. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

        2) Several messages similar to these will be displayed:

        ```
        Configuring iSeries Access for Web.
        Preparing to perform the configuration changes.
        Calling WebSphere to perform the configuration changes.
        iSeries Access for Web command has completed.
        The WebSphere instance application server must be stopped and then started to enable the configuration changes.
        ```

3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**

    1) Start the QShell environment using the following server command: QSH

    2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

    3) Configure iSeries Access for Web for the Web application server previously created:

       ```
       cfgaccweb2 -appsvrtype *WAS60 -wasprf iwa60 -appsvr iwa60
       ```

       These are the parameters used:

       -appsvrtype
       Tells the command which Web application server to configure.

       -wasprf
       Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the -wasinst parameter was used. In WebSphere Application Server V6.0 for OS/400, profiles have replaced instances.

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

       For help on this command and the parameters, specify the -? parameter.

       Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

    4) Several messages similar to these will be displayed:

       ```
       Configuring iSeries Access for Web.

       Preparing to perform the configuration changes.

       Calling WebSphere to perform the configuration changes.

       iSeries Access for Web command has completed.

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

    5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

  h. Signoff the 5250 session window and close the window.

4. Start the Web environment.

  a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

b. The **Manage → Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa60/iwa60 – WAS, V6** with a status of **Running**. Stop and restart the WebSphere application server:

   1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

   2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

   3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

c. Select the HTTP Servers tabbed page.

d. Under **Server**, select IWA60 - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

e. Close the browser window.

5. Use a browser to access iSeries Access for Web

   a. Open a browser to either of the following addresses to access iSeries Access for Web:

      http://<*server_name*>:2044/webaccess/iWAHome
      http://<*server_name*>:2044/webaccess/iWAMain

   b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

   c. The iSeries Access for Web Home or Main page displays.

   d. Close the browser window.

By following the above steps, you completed these tasks:

- Created a WebSphere Web application server named iwa60.
- Created an HTTP server named IWA60.
- Configured iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server.   iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server V6.0 for OS/400 with Single sign-on:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server V6.0 for OS/400 environment with single sign-on (SSO) enabled. It also describes how to verify that the setup is working.

When the configuration is completed, iSeries Access for Web uses the authenticated WebSphere user identity to access i5/OS resources. iSeries Access for Web does not perform additional prompting for an i5/OS user profile and password in this environment.

| This environment requires WebSphere global security to be enabled. When enabled, users must provide
| WebSphere credentials when accessing secured WebSphere resources. Configuration options enable iSeries
| Access for Web to be deployed as a secured WebSphere application. WebSphere credentials are required
| when accessing iSeries Access for Web functions in this environment. In turn, iSeries Access for Web uses
| Enterprise Identity Mapping (EIM) to map the authenticated WebSphere user to an i5/OS user profile.
| The mapped i5/OS user profile is used to authorize the user to i5/OS resources using standard i5/OS
| object level security.

| Configuring your Web serving environment consists of these steps:
| • Configure the EIM environment. See the ""Configure Enterprise Identity Mapping" on page 9" topic
| for information about how to do this.
| • Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries).
| See step 1.
| • Create an HTTP web server and a WebSphere Application Server V6.0 for OS/400 Web application
| server. See step 2.
| • Configure global security for WebSphere Application Server V6.0 for OS/400. For detailed steps to
| configure WebSphere global security, refer to **Securing applications and their environment** →
| **Administering security** → **Configuring global security** in the WebSphere Application Server for
| OS/400®, Version 6 Information Center.
| • Configure iSeries Access for Web. See step 3 on page 29.
| • Start the web environment. See step 4 on page 32.
| • Use a browser to access iSeries Access for Web. See step 5 on page 32.

| **Steps to configure the Web serving environment:**
| 1. Start the IBM Web Administration for iSeries interface.
| a. Start a 5250 session to the server.
| b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Run the following server command to start the web administration interface job: STRTCPSVR
| SERVER(*HTTP) HTTPSVR(*ADMIN)
| d. Minimize the 5250 session.
| 2. Create an HTTP web server and a WebSphere Application Server V6.0 for OS/400 Web application
| server:
| a. Open a browser to: http://<server_name>:2001
| b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Select **IBM Web Administration for iSeries**.
| d. Select the **Setup** tabbed page.
| e. Under Common Tasks and Wizards, select **Create Application Server**.
| f. The Create Application Server page opens. Select **Next**.
| g. Select **WebSphere Application Server V6.0 for OS/400** then select **Next**.
| h. The Specify Application Server Name page opens.   For **Application server name**, specify
| iwa60sso.   This will be the name of the WebSphere Express Web application server. Select **Next**.
| i. The Select HTTP Server Type page opens.   Select **Create a new HTTP server (powered by Apache)**
| then select **Next**.
| j. The **Create a new HTTP server (powered by Apache)** page opens.
| • For **HTTP server name**, enter IWA60SSO.
| • For Port, specify 4044.
| Select **Next**.

k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 41044. Select **Next**.

l. The **Select Business and Sample Applications** page opens. Select **Next**.

m. The **Configure Identity Token SSO for Web to i5/OS Access** page opens. 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, MYISERIES.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**.

n. 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**.

o. The **Summary** page opens. Select **Finish**.

p. The Web page is re-displayed with the **Manage** → **Application Servers** tabbed page active. Under **Instance/Server**, iwa60sso/iwa60sso– WAS, V6.0 is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

q. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

Important:

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

r. Minimize the browser window

3. Configure iSeries Access for Web.

a. Restore the 5250 session window.

b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QWAS6)

c. Verify that IWA60SSO is listed as a job running under the QWAS6 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

d. Verify the Web application server is ready:

1) Enter option #5 on your IWA60SSO job.

2) Enter option #10 to display the job log.

3) Press F10 to display detailed messages.

4) Verify the message **Websphere application server iwa60sso ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

5) Press F3 until you return to a command line.

e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

- **To use the CL command, follow these steps:**
    1) Configure iSeries Access for Web for your Web application server by using the following command:

    ```
    QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS60) WASPRF(iwa60sso)
        APPSVR(iwa60sso) AUTHTYPE(*APPSVR) AUTHMETHOD(*FORM)
        WASUSRID(myadminid) WAPWD(myadminpwd)
    ```

    These are the parameters used:

    APPSVRTYPE
    > Tells the command which Web application server to configure.

    WASPRF
    > Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the WASINST parameter was used. In WebSphere Application Server V6.0 for OS/400, profiles have replaced instances.

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

    AUTHTYPE
    > Tells the command which authentication type to use. *APPSVR indicates the Web application server should authenticate the user using the WebSphere active user registry.

    AUTHMETHOD
    > Tells the command which authentication method to use. *FORM indicates the Web application server should authenticate using form-based HTTP authentication.

    WASUSRID
    > Tells the command which WebSphere administrative user ID to use when accessing this Web application server. 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 Web application server. Replace the example value with the password for the administrative user ID provided with the WASUSRID parameter.

    Refer to the online help for the command for additional options and information.

    2) Several messages similar to these will be displayed:

    ```
    Configuring iSeries Access for Web

    Preparing to perform the configuration changes.

    Calling WebSphere to perform the configuration changes.

    iSeries Access for Web command has completed.

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

    3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**
    1) Start the QShell environment using the following server command: QSH

2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

3) Configure iSeries Access for Web for the Web application server previously created:

```
cfgaccweb2 -appsvrtype *WAS60 -wasprf iwa60 -appsvr iwa60
           -authtype *APPSVR -authmethod *FORM
           -wasusrid myadminid -wapwd myadminpwd
```

These are the parameters used:

-appsvrtype
    Tells the command which Web application server to configure.

-wasprf
    Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the -wasinst parameter was used. In WebSphere Application Server V6.0 for OS/400, profiles have replaced instances.

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

-authtype
    Tells the command which authentication type to use. *APPSVR indicates the Web application server should authenticate the user using the WebSphere active user registry.

-authmethod
    Tells the command which authentication method to use. *FORM indicates the Web application server should authenticate using form-based HTTP authentication.

-wasusrid
    Tells the command which WebSphere administrative user ID to use when accessing this Web application server. 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 Web application server. Replace the example value with the password for the administrative user ID provided with the -wasusrid parameter.

For help on this command and the parameters, specify the -? parameter. Refer to the online help for the command for additional options and information.

4) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.

Preparing to perform the configuration changes.

Calling WebSphere to perform the configuration changes.

 iSeries Access for Web command has completed.

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

5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

   h. Signoff the 5250 session window and close the window.

4. Start the Web environment.

   a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

   b. The **Manage → Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa60sso/iwa60sso– WAS, V6** with a status of **Running**. Stop and restart the WebSphere application server:

      1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

      2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

      3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

   c. Select the HTTP Servers tabbed page.

   d. Under **Server**, select IWA60SSO - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

   e. Close the browser window.

5. Use a browser to access iSeries Access for Web.

   a. Open a browser to either of the following addresses to access iSeries Access for Web:

      http://*<server_name>*:4044/webaccess/iWAHome
      http://*<server_name>*:4044/webaccess/iWAMain

   b. Log in using a WebSphere user ID and password defined in the WebSphere active user registry. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

   c. The iSeries Access for Web Home or Main page displays.

   d. Close the browser window.

By following the above steps, you completed these tasks:

- Configured an EIM environment to enable mapping of WebSphere user identities to i5/OS user profiles.
- Created a WebSphere Web application server named iwa60sso.
- Created an HTTP server named IWA60.
- Enabled global security for WebSphere web application server iwa60sso.
- Configured   iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server.   iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Configure WebSphere Application Server Network Deployment V6.0 for OS/400:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server Network Deployment V6.0 for OS/400 environment. It also describes how to verify that the setup is working.

Note: WebSphere instances that are federated to the Network Deployment environment are not supported by iSeries Access for Web.

Configuring your Web serving environment consists of these steps:
- Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries). See step 1.
- Create an HTTP web server and a WebSphere Application Server Network Deployment V6.0 for OS/400 Web application server. See step 2.
- Configure iSeries Access for Web. See step 3 on page 34.
- Start the web environment. See step 4 on page 36.
- Use a browser to access iSeries Access for Web. See step 5 on page 36.

Steps to configure the Web serving environment:
1. Start the IBM Web Administration for iSeries interface.
   a. Start a 5250 session to the server.
   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   d. Minimize the 5250 session.
2. Create an HTTP web server and a WebSphere Application Server Network Deployment V6.0 for OS/400 Web application server:
   a. Open a browser to: http://<*server_name*>:2001
   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Select **IBM Web Administration for iSeries**.
   d. Select the **Setup** tabbed page.
   e. Under Common Tasks and Wizards, select **Create Application Server**.
   f. The Create Application Server page opens. Select **Next**.
   g. Select **WebSphere Application Server Network Deployment V6.0 for OS/400** then select **Next**.
   h. The Specify Application Server Name page opens.   For **Application server name**, specify iwa60nd. This will be the name of the WebSphere Express Web application server. Select **Next**.
   i. The Select HTTP Server Type page opens. Select **Create a new HTTP server (powered by Apache)** then select **Next**.
   j. The **Create a new HTTP server (powered by Apache)** page opens.
      - For **HTTP server name**, enter IWA60ND
      - For Port, specify 2046.

Select **Next**.

k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21046. Select **Next**.

l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

m. Select **Finish**.

n. The web page is re-displayed with the **Manage → Application Servers** tabbed page active. Under **Instance/Server**, iwa60nd/iwa60nd – WAS, V6.0 ND is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

Important:

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

p. Minimize the browser window

3. Configure iSeries Access for Web.

a. Restore the 5250 session window.

b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QWAS6)

c. Verify that IWA60ND is listed as a job running under the QWAS6 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

d. Verify the Web application server is ready:

1) Enter option #5 on your IWA60ND job.

2) Enter option #10 to display the job log.

3) Press F10 to display detailed messages.

4) Verify the message **Websphere application server iwa60nd ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

5) Press F3 until you return to a command line.

e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

- **To use the CL command, follow these steps:**

1) Configure iSeries Access for Web for your Web application server by using the following command:

```
QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS60ND) WASPRF(iwa60nd) APPSVR(iwa60nd)
```

These are the parameters used:

APPSVRTYPE

Tells the command which Web application server to configure.

WASPRF

Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the WASINST parameter was used. In WebSphere Application Server Network Deployment V6.0 for OS/400, profiles have replaced instances.

APPSVR

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

For help on this command and the parameters, press F1.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.

Preparing to perform the configuration changes.

Calling WebSphere to perform the configuration changes.

iSeries Access for Web command has completed.

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

3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**
  1) Start the QShell environment using the following server command: QSH
  2) Make the iSeries Access for Web directory the current directory. Run this server command:

     ```
     cd /QIBM/ProdData/Access/Web2/install
     ```
  3) Configure iSeries Access for Web for the Web application server previously created:

     ```
     cfgaccweb2 -appsvrtype *WAS60ND -wasprf iwa60nd -appsvr iwa60nd
     ```

     These are the parameters used:

     -appsvrtype
     > Tells the command which Web application server to configure.

     -wasprf
     > Tells the command which profile of the Web application server to configure. In previous releases of WebSphere, the -wasinst parameter was used. In WebSphere Application Server Network Deployment V6.0 for OS/400, profiles have replaced instances.

     -appsvr
     > Tells the command the name of the Web application server within the profile to configure.

     For help on this command and the parameters, specify the -? parameter.

     Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.
  4) Several messages similar to these will be displayed:

     ```
     Configuring iSeries Access for Web.

     Preparing to perform the configuration changes.
     ```

```
Calling WebSphere to perform the configuration changes.
iSeries Access for Web command has completed.
The WebSphere instance application server must be stopped and then started to
enable the configuration changes.
```

        5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

   h. Signoff the 5250 session window and close the window.

4. Start the Web environment.

   a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

   b. The **Manage** → **Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa60nd/iwa60nd – WAS, V6.0 ND** with a status of **Running**. Stop and restart the WebSphere application server:

      1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

      2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

      3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

   c. Select the HTTP Servers tabbed page.

   d. Under **Server**, select IWA60ND - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

   e. Close the browser window.

5. Use a browser to access iSeries Access for Web

   a. Open a browser to either of the following addresses to access iSeries Access for Web:

      http://<*server_name*>:2046/webaccess/iWAHome
      http://<*server_name*>:2046/webaccess/iWAMain

   b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

   c. The iSeries Access for Web Home or Main page displays.

   d. Close the browser window.

By following the above steps, you completed these tasks:

- Created a WebSphere Web application server named iwa60nd.
- Created an HTTP server named IWA60ND.
- Configured   iSeries Access for Web for the WebSphere application server.

- Stopped and restarted the WebSphere application server and HTTP web server.   iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

> **Related information**
>
> CL command finder

Configure WebSphere Application Server - Express for iSeries V5.1:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server - Express for iSeries V5.1 Web serving environment. It also describes how to verify that the setup is working.

Configuring your Web serving environment consists of these steps:
- Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries). See step 1.
- Create an HTTP web server and a WebSphere Application Server - Express V5.1 for iSeries Web application server. See step 2.
- Configure iSeries Access for Web. See step 3 on page 38.
- Start the web environment. See step 4 on page 40.
- Use a browser to access iSeries Access for Web. See step 5 on page 40.

Steps to configure the Web serving environment:

1. Start the IBM Web Administration for iSeries interface.
   a. Start a 5250 session to the server.
   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   d. Minimize the 5250 session.
2. Create an HTTP web server and a WebSphere Application Server V5.1 - Express for iSeries Web application server:
   a. Open a browser to: http://<server_name>:2001
   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Select **IBM Web Administration for iSeries**.
   d. Select the **Setup** tabbed page.
   e. Under Common Tasks and Wizards, select **Create Application Server**.
   f. The Create Application Server page opens. Select **Next**.
   g. Select **WebSphere Application Server - Express V5.1** then select **Next**.
   h. The Specify Application Server Name page opens.   For **Application server name**, specify iwa51exp.   This will be the name of the WebSphere Express Web application server. Select **Next**.
   i. The Select HTTP Server Type page opens.   Select **Create a new HTTP server (powered by Apache)** then select **Next**.
   j. The **Create a new HTTP server (powered by Apache)** page opens.
      - For **HTTP server name**, enter IWA51EXP
      - For Port, specify 2042.

Select **Next**.

k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21042. Select **Next**.

l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

m. Select **Finish**.

n. The web page is re-displayed with the **Manage → Application Servers** tabbed page active. Under **Instance/Server**, iwa51exp/iwa51exp – WAS - Express, V5.1 is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

   Important:

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

3. Configure iSeries Access for Web

   a. Restore the 5250 session window.

   b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QASE51)

   c. Verify that IWA51EXP is listed as a job running under the QASE51 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

   d. Verify the Web application server is ready:

      1) Enter option #5 on your IWA51EXP job.

      2) Enter option #10 to display the job log.

      3) Press F10 to display detailed messages.

      4) Verify the message **Websphere application server iwa51exp ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

      5) Press F3 until you return to a command line.

   e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

      • **To use the CL command, follow these steps:**

      1) Configure iSeries Access for Web for your Web application server by using the following command:

         QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS51EXP) WASINST(iwa51exp)

         These are the parameters used:

         APPSVRTYPE
            Tells the command which Web application server to configure.

         WASINST
            Tells the command which instance of the Web application server to configure.

         For help on this command and the parameters, press F1.

         Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations.

This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.
Preparing to perform the configuration changes.
Calling WebSphere to perform the configuration changes.
iSeries Access for Web command has completed.
The WebSphere instance application server must be stopped and then started to
enable the configuration changes.
```

3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**
  1) Start the QShell environment using the following server command: QSH
  2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

  3) Configure iSeries Access for Web for the Web application server previously created:

  ```
  cfgaccweb2 -appsvrtype *WAS51EXP -wasinst iwa51exp
  ```

  These are the parameters used:

  -appsvrtype
  > Tells the command which Web application server to configure.

  -wasinst
  > Tells the command which instance of the Web application server to configure.

  For help on this command and the parameters, specify the -? parameter.

  Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

  4) Several messages similar to these will be displayed:

  ```
  Configuring iSeries Access for Web.
  Preparing to perform the configuration changes.
  Calling WebSphere to perform the configuration changes.
  iSeries Access for Web command has completed.
  The WebSphere instance application server must be stopped and then started to
  enable the configuration changes.
  ```

  5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

h. Signoff the 5250 session window and close the window.

4. Start the web environment

   a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

   b. The **Manage** → **Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa51exp/iwa51exp – WAS - Express V5.1** with a status of **Running**. Stop and restart the WebSphere application server:

      1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

      2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

      3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

   c. Select the HTTP Servers tabbed page.

   d. Under **Server**, select IWA51EXP - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

   e. Close the browser window.

5. Use a browser to access iSeries Access for Web

   a. Open a browser to either of the following addresses to access iSeries Access for Web:

      http://*<server_name>*:2042/webaccess/iWAHome
      http://*<server_name>*:2042/webaccess/iWAMain

   b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

   c. The iSeries Access for Web Home or Main page displays.

   d. Close the browser window.

By following the above steps, you completed these tasks:

- Created a WebSphere Web application server named iwa51exp.
- Created an HTTP server named IWA51EXP.
- Configured iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server. iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server V5.1 for iSeries:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server V5.1 for iSeries environment. It also describes how to verify that the setup is working.

Configuring your Web serving environment consists of these steps:

- Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries). See step 1.
- Create an HTTP web server and a WebSphere Application Server V5.1 for iSeries . See step 2.
- Configure iSeries Access for Web. See step 3 on page 42.
- Start the web environment. See step 4 on page 43.
- Use a browser to access iSeries Access for Web. See step 5 on page 44.

Steps to configure the Web serving environment:

1. Start the IBM Web Administration for iSeries interface.

   a. Start a 5250 session to the server.

   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)

   d. Minimize the 5250 session.

2. Create an HTTP web server and a WebSphere Application Server V5.1 for iSeries :

   a. Open a browser to: http://<*server_name*>:2001

   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Select **IBM Web Administration for iSeries**.

   d. Select the **Setup** tabbed page.

   e. Under Common Tasks and Wizards, select **Create Application Server**.

   f. The Create Application Server page opens. Select **Next**.

   g. Select **WebSphere Application Server V5.1 (base) for iSeries** then select **Next**.

   h. The Specify Application Server Name page opens.   For **Application server name**, specify iwa51base.   This will be the name of the WebSphere Express Web application server. Select **Next**.

   i. The Select HTTP Server Type page opens.   Select **Create a new HTTP server (powered by Apache)** then select **Next**.

   j. The **Create a new HTTP server (powered by Apache)** page opens.
      - For **HTTP server name**, enter IWA51BASE
      - For Port, specify 2040.

      Select **Next**.

   k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21040. Select **Next**.

   l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

   m. Select **Finish**.

   n. The web page is re-displayed with the **Manage → Application Servers** tabbed page active. Under **Instance/Server**, iwa51base/iwa51base – WAS, V5.1 (base) is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

Important:

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

p. Minimize the browser window

3. Configure iSeries Access for Web.

a. Restore the 5250 session window.

b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QEJBAS51)

c. Verify that IWA51BASE is listed as a job running under the QEJBAS51 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

d. Verify the Web application server is ready:

1) Enter option #5 on your IWA51BASE job.

2) Enter option #10 to display the job log.

3) Press F10 to display detailed messages.

4) Verify the message **Websphere application server iwa51base ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

5) Press F3 until you return to a command line.

e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

- **To use the CL command, follow these steps:**

1) Configure iSeries Access for Web for your Web application server by using the following command:

```
QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS51) WASINST(iwa51base)
```

These are the parameters used:

APPSVRTYPE
   Tells the command which Web application server to configure.

WASINST
   Tells the command which instance of the Web application server to configure.

For help on this command and the parameters, press F1.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.
Preparing to perform the configuration changes.
Calling WebSphere to perform the configuration changes.
iSeries Access for Web command has completed.
The WebSphere instance application server must be stopped and then started to
enable the configuration changes.
```

3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**
  1) Start the QShell environment using the following server command: QSH
  2) Make the iSeries Access for Web directory the current directory. Run this server command:

     ```
     cd /QIBM/ProdData/Access/Web2/install
     ```
  3) Configure iSeries Access for Web for the Web application server previously created:
     ```
     cfgaccweb2 -appsvrtype *WAS51 -wasinst iwa51base
     ```

     These are the parameters used:

     -appsvrtype
     > Tells the command which Web application server to configure.

     -wasinst
     > Tells the command which instance of the Web application server to configure.

     For help on this command and the parameters, specify the -? parameter.

     Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

  4) Several messages similar to these will be displayed:
     ```
     Configuring iSeries Access for Web.

     Preparing to perform the configuration changes.

     Calling WebSphere to perform the configuration changes.

     iSeries Access for Web command has completed.

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

  5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

h. Signoff the 5250 session window and close the window.

4. Start the Web environment.

a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

b. The **Manage → Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa51base/iwa51base – WAS, V5.1 (base)** with a status of **Running**. Stop and restart the WebSphere application server:

   1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

c. Select the HTTP Servers tabbed page.

d. Under **Server**, select IWA51BASE - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

e. Close the browser window.

5. Use a browser to access iSeries Access for Web

a. Open a browser to either of the following addresses to access iSeries Access for Web:

http://<*server_name*>:2040/webaccess/iWAHome
http://<*server_name*>:2040/webaccess/iWAMain

b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

c. The iSeries Access for Web Home or Main page displays.

d. Close the browser window.

By following the above steps, you completed these tasks:

- Created a WebSphere Web application server named iwa51base.
- Created an HTTP server named IWA51BASE.
- Configured iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server. iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server - Express for iSeries V5.0:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server - Express for iSeries V5.0 Web serving environment. It also describes how to verify that the setup is working.

Configuring your Web serving environment consists of these steps:

- Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries). See step 1 on page 45.
- Create an HTTP web server and a WebSphere Application Server - Express for iSeries V5.0 Web application server. See step 2 on page 45.
- Configure iSeries Access for Web. See step 3 on page 45.
- Start the web environment. See step 4 on page 47.
- Use a browser to access iSeries Access for Web. See step 5 on page 47.

Steps to configure the Web serving environment:

1. Start the IBM Web Administration for iSeries interface.

   a. Start a 5250 session to the server.

   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)

   d. Minimize the 5250 session.

2. Create an HTTP web server and a WebSphere Application Server - Express for iSeries V5.0 Web application server:

   a. Open a browser to: http://<*server_name*>:2001

   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Select **IBM Web Administration for iSeries**.

   d. Select the **Setup** tabbed page.

   e. Under Common Tasks and Wizards, select **Create Application Server**.

   f. The Create Application Server page opens. Select **Next**.

   g. Select **WebSphere Application Server - Express V5.0** then select **Next**.

   h. The Specify Application Server Name page opens.   For **Application server name**, specify iwa50exp.   This will be the name of the WebSphere Express Web application server. Select **Next**.

   i. The Select HTTP Server Type page opens.   Select **Create a new HTTP server (powered by Apache)** then select **Next**.

   j. The **Create a new HTTP server (powered by Apache)** page opens.

      • For **HTTP server name**, enter IWA50EXP

      • For Port, specify 2030.

      Select **Next**.

   k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21030. Select **Next**.

   l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

   m. Select **Finish**.

   n. The web page is re-displayed with the **Manage** → **Application Servers** tabbed page active. Under **Instance/Server**, iwa50exp/iwa50exp – WAS - Express, V5.0 is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

   o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

      Important:

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

3. Configure iSeries Access for Web

   a. Restore the 5250 session window.

   b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QASE5)

c. Verify that IWA50EXP is listed as a job running under the QASE5 subsystem. iSeries Access for Web requires the WebSphere application server is running before it can be configured.

d. Verify the Web application server is ready:

   1) Enter option #5 on your IWA50EXP job.

   2) Enter option #10 to display the job log.

   3) Press F10 to display detailed messages.

   4) Verify the message **Websphere application server iwa50exp ready** is listed. This message indicates that the application server is fully started and is ready for Web serving.

   5) Press F3 until you return to a command line.

e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

   - **To use the CL command, follow these steps:**

     1) Configure iSeries Access for Web for your Web application server by using the following command:

        ```
        QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS50EXP) WASINST(iwa50exp)
        ```

        These are the parameters used:

        APPSVRTYPE
        > Tells the command which Web application server to configure.

        WASINST
        > Tells the command which instance of the Web application server to configure.

        For help on this command and the parameters, press F1.

        Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

     2) Several messages similar to these will be displayed:

        ```
        Configuring iSeries Access for Web.

        Preparing to perform the configuration changes.

        Calling WebSphere to perform the configuration changes.

        iSeries Access for Web command has completed.

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

     3) Press F3 or Enter when the command completes to exit the display session.

   - **To use the QShell script command, follow these steps:**

     1) Start the QShell environment using the following server command: QSH

     2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

     3) Configure iSeries Access for Web for the Web application server previously created:

        ```
        cfgaccweb2 -appsvrtype *WAS50EXP -wasinst iwa50exp
        ```

        These are the parameters used:

-appsvrtype
Tells the command which Web application server to configure.

-wasinst
Tells the command which instance of the Web application server to configure.

For help on this command and the parameters, specify the -? parameter.

4) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.
Preparing to perform the configuration changes.
Calling WebSphere to perform the configuration changes.
iSeries Access for Web command has completed.
The WebSphere instance application server must be stopped and then started to
enable the configuration changes.
```

5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.

h. Signoff the 5250 session window and close the window.

4. Start the web environment

a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

b. The **Manage › Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa50exp/iwa50exp – WAS - Express V5** with a status of **Running**. Stop and restart the WebSphere application server:

1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.

2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.

3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.

c. Select the HTTP Servers tabbed page.

d. Under **Server**, select IWA50EXP - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.

e. Close the browser window.

5. Use a browser to access iSeries Access for Web

a. Open a browser to either of the following addresses to access iSeries Access for Web:

http://<*server_name*>:2030/webaccess/iWAHome
http://<*server_name*>:2030/webaccess/iWAMain

b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.

c. The iSeries Access for Web Home or Main page displays.

d. Close the browser window.

By following the above steps, you completed these tasks:

- Created a WebSphere Web application server named iwa50exp.
- Created an HTTP server named IWA50EXP.
- Configured iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server. iSeries Access for Web started when the WebSphere application server started.
- Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server V5.0 for iSeries:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Application Server V5.0 for iSeries environment. It also describes how to verify that the setup is working.

Configuring your Web serving environment consists of these steps:

- Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries). See step 1.
- Create an HTTP web server and a WebSphere Application Server V5.0 for iSeries Web application server. See step 2.
- Configure iSeries Access for Web. See step 3 on page 49.
- Start the web environment. See step 4 on page 51.
- Use a browser to access iSeries Access for Web. See step 5 on page 51.

Steps to configure the Web serving environment:

1. Start the IBM Web Administration for iSeries interface.

   a. Start a 5250 session to the server.

   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)

   d. Minimize the 5250 session.

2. Create an HTTP web server and a WebSphere Application Server V5.0 for iSeries Web application server:

   a. Open a browser to: http://<server_name>:2001

   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.

   c. Select **IBM Web Administration for iSeries**.

   d. Select the **Setup** tabbed page.

   e. Under Common Tasks and Wizards, select **Create Application Server**.

f. The Create Application Server page opens. Select **Next**.

g. Select **WebSphere Application Server V5.0 (base) for iSeries** then select **Next**.

h. The Specify Application Server Name page opens.   For **Application server name**, specify iwa50base.   This will be the name of the WebSphere Web application server. Select **Next**.

i. The Select HTTP Server Type page opens. Select **Create a new HTTP server (powered by Apache)** then select **Next**.

j. The **Create a new HTTP server (powered by Apache)** page opens.

   - For **HTTP server name**, enter IWA50BASE

   - For Port, specify 2028.

   Select **Next**.

k. The **Specify Internal Ports Used by the Application Server** page opens. For **First port in range**, change the default value to 21028. Select **Next**.

l. The **Select Business and Sample Applications** page opens. Select **Next** until the **Summary** page opens.

m. Select **Finish**.

n. The web page is re-displayed with the **Manage** → **Application Servers** tabbed page active. Under **Instance/Server**, iwa50base/iwa50base – WAS, V5 (base) is listed with a status of **Creating**. From this Web page, you can manage the WebSphere application server.

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

o. When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server. 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. iSeries Access for Web requires that the WebSphere application server is running before it can be configured.

   Important:

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

p. Minimize the browser window

3. Configure iSeries Access for Web.

   a. Restore the 5250 session window.

   b. To see the WebSphere application server running, run the server command: WRKACTJOB SBS(QEJBAS5)

   c. Verify that IWA50BASE is listed as a job running under the QEJBAS5 subsystem.   iSeries Access for Web requires the WebSphere application server is running before it can be configured.

   d. Verify the Web application server is ready:

      1) Enter option #5 on your IWA50BASE job.

      2) Enter option #10 to display the job log.

      3) Press F10 to display detailed messages.

      4) Verify the message **Websphere application server iwa50base ready** is listed.   This message indicates that the application server is fully started and is ready for Web serving.

      5) Press F3 until you return to a command line.

   e. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command.   Both commands provide and perform the same function.   Use whichever version you prefer.

      - **To use the CL command, follow these steps:**

      1) Configure iSeries Access for Web for your Web application server by using the following command:

         ```
         QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS50) WASINST(iwa50base)
         ```

These are the parameters used:

APPSVRTYPE
Tells the command which Web application server to configure.

WASINST
Tells the command which instance of the Web application server to configure.

For help on this command and the parameters, press F1.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.
Preparing to perform the configuration changes.
Calling WebSphere to perform the configuration changes.
iSeries Access for Web command has completed.
The WebSphere instance application server must be stopped and then started to
enable the configuration changes.
```

3) Press F3 or Enter when the command completes to exit the display session.
- **To use the QShell script command, follow these steps:**
  1) Start the QShell environment using the following server command: QSH
  2) Make the iSeries Access for Web directory the current directory. Run this server command:

     ```
     cd /QIBM/ProdData/Access/Web2/install
     ```
  3) Configure iSeries Access for Web for the Web application server previously created:
     ```
     cfgaccweb2 -appsvrtype *WAS50 -wasinst iwa50base
     ```

     These are the parameters used:

     -appsvrtype
     Tells the command which Web application server to configure.

     -wasinst
     Tells the command which instance of the Web application server to configure.

     For help on this command and the parameters, specify the -? parameter.

     Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.
  4) Several messages similar to these will be displayed:

     ```
     Configuring iSeries Access for Web.
     Preparing to perform the configuration changes.
     Calling WebSphere to perform the configuration changes.
     iSeries Access for Web command has completed.
     ```

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

    5) 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 iSeries Access for Web, the WebSphere application server must be restarted to load the changes to its configuration. This will be done later.
  h. Signoff the 5250 session window and close the window.
4. Start the Web environment.
  a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.
  b. The **Manage → Application Servers** tabbed page should be active. Under Instance/Server is listed **iwa50base/iwa50base – WAS, V5 (base)** with a status of **Running**. Stop and restart the WebSphere application server:
    1) Select the red icon next to the **Running** status to stop the WebSphere server. Select the refresh icon next to the **Stopping** status to refresh the page if the page does not periodically refresh.
    2) When the status is updated to **Stopped**, select the green icon next to **Stopped** to start the WebSphere application server.
    3) The 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. iSeries Access for Web will load and start as the WebSphere application server starts.
  c. Select the HTTP Servers tabbed page.
  d. Under **Server**, select IWA50BASE - Apache. The current status of this Apache HTTP server should be **Stopped**. Select the green icon next to the status to start the HTTP server. The status is updated to **Running**.
  e. Close the browser window.
5. Use a browser to access iSeries Access for Web
  a. Open a browser to either of the following addresses to access iSeries Access for Web:

    http://<*server_name*>:2028/webaccess/iWAHome
    http://<*server_name*>:2028/webaccess/iWAMain
  b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds. WebSphere Application Server is loading Java classes for the first time. Subsequent loads of iSeries Access for Web will be faster.
  c. The iSeries Access for Web Home or Main page displays.
  d. Close the browser window.

By following the above steps, you completed these tasks:
- Created a WebSphere Web application server named iwa50base.
- Created an HTTP server named IWA50BASE.
- Configured iSeries Access for Web for the WebSphere application server.
- Stopped and restarted the WebSphere application server and HTTP web server. iSeries Access for Web started when the WebSphere application server started.

| • Verified that iSeries Access for Web can be accessed from a Web browser.

| In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more
| information about using all the iSeries Access for Web CL commands, use the CL command finder.
| **Related information**
| CL command finder

| **Configure the Apache Software Foundation (ASF) Tomcat Web serving environment:**

| This example is for users that are not familiar with the Web serving environment. It describes all the
| steps necessary to get iSeries Access for Web running in an ASF Tomcat web serving environment. It also
| describes how to verify that the setup is working.

| Configuring your Web serving environment consists of these steps:
| • Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries).
| See step 1
| • Create an HTTP web server and an ASF Tomcat Web application server. See step 2
| • Configure iSeries Access for Web. See step 3 on page 53
| • Start the web environment. See step 4 on page 55
| • Use a browser to access iSeries Access for Web. See step 5 on page 55

| **Steps to configure the Web serving environment:**
| 1. Start the IBM Web Administration for iSeries interface.
| a. Start a 5250 session to the server.
| b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Run the following server command to start the web administration interface job: STRTCPSVR
| SERVER(*HTTP) HTTPSVR(*ADMIN)
| d. Minimize the 5250 session.
| 2. Create an HTTP web server and an ASF Tomcat Web application server:
| a. Open a browser to: http://*<server_name>*:2001
| b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Select **IBM Web Administration for iSeries**.
| d. Select the **Setup** tabbed page.
| e. Under Common Tasks and Wizards, select **Create HTTP Server**.
| f. The Create HTTP Server page opens. For **Server name**, specify `iwatomcat`, then select **Next**.
| g. A page opens that prompts for the Server root path. Select **Next**.
| h. A page opens that prompts for the Document root path. Select **Next**.
| i. The IP Address and Port page opens. For **Port**, specify 2016.
| j. The **Access log** page opens. Select **Next**.
| k. The **Keep logs** page opens. Select **Next**.
| l. Select **Finish** to create the HTTP server.
| m. The web page is re-displayed.   The Manage/HTTP Servers tabbed page is active. Under **Server**,
| IWATOMCAT - APACHE is listed with a status of Stopped.
| n. Under Server Properties, select ASF Tomcat Settings.
| o. The Web page is re-displayed with ASF Tomcat Settings. Specify the following:
| • Select **Enable servlets for this HTTP server**.
| • De-select **Enable an "in-process" servlet engine**.

- Select **Enable "out-of-process" servlet engine connections**.
- Add an entry for Out-of-process workers:
  1) Select **Add** under **Out-of- process workers**.
  2) For **Hostname:Port**, change 8009 to 2017.
  3) For **URLs (Mount points)**, specify /webaccess/*.
  4) Select **Continue**. A warning message is displayed for the worker that was just added. Ignore the error. The problem will be resolved when the ASF Tomcat Web application server setup is completed. Select **OK**.

p. Select the **ASF Tomcat Servers** tabbed page.

q. Under **Tomcat Tasks and Wizards**, select **Create ASF Tomcat Server**.

r. The Out-of-Process Engine Creation page opens. for **ASF Tomcat server name**, specify `iwatomcat`. Select **Next**.

s. The **Out-of-Process Engine Configuration** page opens. Note the values specified for **Server userid** and **ASF Tomcat home**. These values will be used when iSeries Access for Web is configured. Select **Next**.

t. The Out-of-Process Communication Settings page opens. Change **Port** from 8009 to 2017. Select **Next**.

u. The **Out-of-Process Application Context Definition** page opens. Select **Add**, then specify these values:
- For **URL path**, specify /webaccess.
- For **Application base directory**, specify webapps/webaccess.

Select **Continue**. A warning message is displayed for the application context that was just added. This can be ignored. The problem will be resolved when iSeries Access for Web is configured. Select **Next**.

v. The **Out-of-Process Summary** page opens. Select **Finish**. You have now created the HTTP server IWATOMCAT, and an ASF Tomcat Web application server called `iwatomcat`. Minimize the browser window.

3. Configure iSeries Access for Web. iSeries Access for Web provides commands to configure the product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use whichever version you prefer.

- **To use the CL command, follow these steps:**

  a. Configure iSeries Access for Web for your Web application server using the following command:

```
QIWA2/CFGACCWEB2 APPSVRTYPE(*ASFTOMCAT) TCSVRNAME(iwatomcat)
      TCHOMEDIR('/ASFTomcat/iwatomcat')TCUSRPRF(QTMHHTTP)
```

These are the parameters used:

APPSVRTYPE
Tells the command which Web application server to configure.

TCSVRNAME
Tells the command the name of the Tomcat Web application server to configure.

TCHOMEDIR
Tells the command where in the server's file system the Tomcat Web application server's directory structure is. This value was displayed in step 2s.

TCUSRPRF
Tells the command what user profile the Tomcat Web application server uses. This value was displayed in step 2s.

For help on this command and the parameters, press F1.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

b. Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.

Preparing to perform the configuration changes.

Calling WebSphere to perform the configuration changes.

iSeries Access for Web command has completed.

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

c. Press F3 or Specify when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**

  a. Start the QShell environment using the following server command: QSH

  b. Make the iSeries Access for Web directory the current directory. Run this server command:

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

  c. Configure iSeries Access for Web portlets using the following command:

     ```
     cfgaccweb2 -appsvrtype *ASFTOMCAT —tcsvrname iwatomcat
                 -tchomedir /ASFTomcat/iwatomcat —tcusrprf QTMHHTTP
     ```

     These are the parameters used:

     -appsvrtype
     Tells the command which Web application server environment to configure.

     -tcsvrname
     Tells the command the name of the Tomcat Web application server to configure.

     –tchomedir
     Tells the command where in the server's file system the Tomcat Web application server's directory structure is. This value was displayed in step 2s on page 53.

     -tcusrprf
     Tells the command what user profile the Tomcat Web application server uses. This value was displayed in step 2s on page 53.

     For help on this command and the parameters, specify the -? parameter.

     Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

  d. Several messages similar to these will be displayed:

     ```
     Configuring iSeries Access for Web.

     Preparing to perform the configuration changes.

     Calling WebSphere to perform the configuration changes.

     iSeries Access for Web command has completed.

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

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

a. 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.

b. After successfully configuring iSeries Access for Web, the ASF Tomcat Web application server must be started to load the changes to its configuration.   This will be done later.

c. Signoff the 5250 session window.

d. Close the 5250 session window.

4. Start the web environment.

a. Return to the browser window that is open to the **IBM Web Administration for iSeries server management** page.

b. The Manage ASF Tomcat Servers tabbed page should be active. Under Server is listed IWATOMCAT – ASF Tomcat with a status of Stopped. Select the green icon next to the Stopped status to start the ASF Tomcat Web application server. The status is updated to Running.

c. Select the HTTP Servers tabbed page.

d. Under **Server**, select IWATOMCAT - Apache. The current status of this Apache HTTP server should be Stopped. Select the green icon next to the status to start the HTTP server. The status is updated to Running.

e. Close the browser window.

5. Use a browser to access iSeries Access for Web

a. Open a browser to either of the following addresses to access iSeries Access for Web:

http://<*server_name*>:2016/webaccess/iWAHome
http://<*server_name*>:2016/webaccess/iWAMain

b. Log in using an i5/OS user ID and password. The initial load of iSeries Access for Web might take a few seconds.   ASF Tomcat is loading Java classes for the first time.   Subsequent loads of iSeries Access for Web will be faster.

c. The iSeries Access for Web Home or Main page displays.

d. Close the browser window.

By following the above steps, you completed these tasks:

• Created an ASF Tomcat Web application server named iwatomcat.

• Created an HTTP server named IWATOMCAT.

• Configured   iSeries Access for Web for the ASF Tomcat Web application server.

• Started ASF Tomcat Web application server and HTTP Web server.   iSeries Access for Web started when the ASF Tomcat Web application server started.

• Verified that iSeries Access for Web can be accessed from a Web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Examples for configuring an existing Web application server environment

These examples provide instructions for configuring iSeries Access for Web within an existing Web serving environment.

These examples assume that an HTTP server and Web application server exist and can be used for iSeries Access for Web.

Before using these examples, ensure you have completed the plan, install, and configure checklist.

Configure WebSphere Application Server V6.0 for OS/400:

Use this information to configure iSeries Access for Web for WebSphere Application Server V6.0 for OS/400.

Note: WebSphere profiles that are federated to the Network Deployment environment are not supported by iSeries Access for Web.

To configure iSeries Access for Web for WebSphere Application Server V6.0 for OS/400 (Base and Express Editions), do the following:

1. Sign on to your server.
2. Start the WebSphere subsystem in which you want iSeries Access for Web to run. Enter the server command `STRSBS QWAS6/QWAS6`.
3. Start the WebSphere application server in which you want iSeries Access for Web to run by following these steps:
   a. Run the server command `STRTCPSVR *HTTP HTTPSVR(*ADMIN)`.
   b. Open your browser to`http://<server_name>:2001`.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window. You will return to this window in a later step.
4. Use the iSeries Access for Web CL or script configuration command.
   - To use the CL command, run this server command:

     `QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS60) WASPRF(`*was_profile_name*`) APPSVR(`*app_svr*`)`
   - To use the script command, run these server commands:

     ```
     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WAS60 -wasprf was_profile_name -appsvr app_svr
     ```

   The configuration commands use these variables:

   was_profile_name
   > The name of the WebSphere application server profile you are using. If you are using the default WebSphere profile with the CL command, specify *DEFAULT.

   app_svr
   > The name of the application sever within the profile being configured.

   For more information about either value, refer to the help text for the appropriate field.

   Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.
5. Return to the Web administration browser interface window that you minimized in step 3g, then stop and restart the WebSphere application server.
6. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

| The iSeries Access for Web main page opens.

| **Note:** The first call of the iWAMain page might take a few minutes, but subsequent calls should not take
| as long.

| In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more
| information about using all the iSeries Access for Web CL commands, use the CL command finder.
| **Related information**
| CL command finder

Configure WebSphere Application Server Network Deployment V6.0 for OS/400:

Use this information to configure iSeries Access for Web for WebSphere Application Server Network
Deployment V6.0 for OS/400.

Note: WebSphere profiles that are federated to the Network Deployment environment are not supported
by iSeries Access for Web.

To configure iSeries Access for Web for WebSphere Application Server V6.0 for OS/400, do the following:
1. Sign on to your server.
2. Start the WebSphere subsystem in which you want iSeries Access for Web to run. Enter the server
   command STRSBS QWAS6/QWAS6.
3. Start the WebSphere application server in which you want iSeries Access for Web to run by following
   these steps:
   a. Run the server command STRTCPSVR *HTTP HTTPSVR(*ADMIN).
   b. Open your browser to http://<server_name>:2001.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window. You will return to this window in a later step.
4. Use the iSeries Access for Web CL or script configuration command.
   - To use the CL command, run this server command:

     QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS60ND) WASPRF(*was_profile_name*) APPSVR(*app_svr*)
   - To use the script command, run these server commands:

     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WAS60ND -wasprf *was_profile_name* -appsvr *app_svr*

The configuration commands use these variables:

was_profile_name
     The name of the WebSphere application server profile you are using. If you are using the
     default WebSphere profile with the CL command, specify *DEFAULT.

app_svr
     The name of the application sever within the profile being configured.

For more information about either value, refer to the help text for the appropriate field.

| **Migration Note:** If you are already using iSeries Access for Web within another Web application
| server, refer to New Web application server considerations. This topic discusses

| additional CFGACCWEB2 command parameters that can be input to migrate user
| data from an existing configuration to this new configuration.
5. Return to the Web administration browser interface window that you minimized in step 3g on page 57, then stop and restart the WebSphere application server.
6. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

The iSeries Access for Web main page opens.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

| In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more
| information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server - Express for iSeries V5.1:

Use these steps to configure iSeries Access for Web for WebSphere Application Server - Express for iSeries V5.1.

1. Sign on to your server.
2. Start the WebSphere subsystem in which you want iSeries Access for Web to run. Enter the server command `STRSBS QASE51/QASE51`.
3. Start the WebSphere application server in which you want iSeries Access for Web to run by following these steps:
   a. Run the server command `STRTCPSVR *HTTP HTTPSVR(*ADMIN)`.
   b. Open your browser to `http://<server_name>:2001`.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere Express application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window. You will return to this window in a later step.
4. Use the iSeries Access for Web CL or script configuration command.
   - To use the CL command, run this server command:

     ```
     QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS51EXP) WASINST(was_instance_name)
         APPSVR(app_svr)
     ```
   - To use the script command, run the server commands:

     ```
     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WAS51EXP -wasinst was_instance_name
         -appsvr app_svr
     ```

   The configuration commands use these variables:

   was_instance_name
       The name of the WebSphere application server instance you are using.

   app_svr
       The name of the application sever within the instance being configured.

For more information about either value, refer to the help text for the appropriate field.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

5. Return to the Web administration browser interface window that you minimized in step 3g on page 58, then stop and restart the WebSphere Express application server.

6. Open your browser to http://<*your_server_name*>:port/webaccess/iWAMain. Be sure the case matches the example.

The iSeries Access for Web main page is displayed.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

> **Related information**
>
> CL command finder

Configure WebSphere Application Server V5.1 for iSeries:

Use this information to configure iSeries Access for Web for WebSphere Application Server V5.1 for iSeries.

Note: WebSphere instances that are federated to the Network Deployment environment are not supported by iSeries Access for Web.

To configure iSeries Access for Web for WebSphere Application Server V5.1 for iSeries (Base and Network Deployment Editions), follow these steps:

1. Sign on to your server.
2. Start the WebSphere subsystem in which you want to configure iSeries Access for Web to run. Enter the server command STRSBS QEJBAS51/QEJBAS51.
3. Start the WebSphere instance in which you want to configure iSeries Access for Web to run by following these steps:
   a. Run the server commandSTRTCPSVR *HTTP HTTPSVR(*ADMIN).
   b. Open your browser to http://<*server_name*>:2001.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere Express application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window. You will return to this window in a later step.
4. Use the iSeries Access for Web CL or script configuration command.
   - To use the CL command, run this server command:

     QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS51) WASINST(*was_instance_name*) APPSVR(*app_svr*)
   - To use the iSeries Access for Web script command, Run the server commands:

     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WAS51 -wasinst *was_instance_name* -appsvr *app_svr*

The configuration commands use these variables:

was_instance_name
> The name of the WebSphere application server instance you are using.

app_svr
> The name of the application sever within the instance being configured.

For more information about either value, refer to the help text for the appropriate field.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

5. Return to the Web administration browser interface window that you minimized in step 3g on page 59, then stop and restart the WebSphere application server.
6. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

The iSeries Access for Web main page opens.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server - Express for iSeries V5.0:

Use this information to configure iSeries Access for Web for WebSphere Application Server - Express for iSeries V5.0.

1. Sign on to your server.
2. Start the WebSphere subsystem. Run the server command STRSBS QASE5/QASE5.
3. Start the WebSphere Express application server in which you want to configure iSeries Access for Web to run.
   a. Run the server command STRTCPSVR *HTTP HTTPSVR(*ADMIN).
   b. Open your browser to `http://<server_name>:2001`.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere Express application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window, you will return to this window in a later step.
4. Use the appropriate iSeries Access for Web configuration command.
   - To use the CL command, run this command:

     `QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS50EXP) WASINST(`*was_instance_name*`) APPSVR(`*app_svr*`)`
   - To use the script command, run these server commands:

     ```
     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WAS50EXP -wasinst was_instance_name -appsvr app_svr
     ```

The configuration commands use these variables:

was_instance_name
    The name of the WebSphere Express application server instance you are using.

app_svr
    The name of the application sever within the instance being configured.

For more information about either value, refer to the help text for the appropriate field.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

5. Return to the Web administration browser interface window you minimized in step 3g on page 60. Stop and restart the WebSphere Express application server.
6. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

The iSeries Access for Web main page is displayed.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Application Server V5.0 for iSeries:

Use this information to configure iSeries Access for Web for WebSphere Application Server V5.0 for iSeries (Base and Network Deployment Editions).

Note: WebSphere instances that are federated to the Network Deployment environment are not supported by iSeries Access for Web.

To configure iSeries Access for Web for WebSphere Application Server V5.0 for iSeries (Base and Network Deployment Editions), do the following:

1. Sign on to your server.
2. Start the WebSphere subsystem in which you want to configure iSeries Access for Web to run. Run the server command `STRSBS QEJBAS5/QEJBAS5`.
3. Start the WebSphere application server in which you want to configure iSeries Access for Web to run. Follow these steps:
   a. Run the server command `STRTCPSVR *HTTP HTTPSVR(*ADMIN)`.
   b. Open your browser to `http://<server_name>:2001`.
   c. Select the IBM Web Administration for iSeries link.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere Express application server and start it if it is not already running.
   f. Wait for the application server to show a status of running.
   g. Minimize the browser window, you will return to this window in a later step.
4. Run the appropriate iSeries Access for Web configuration command.
   • To use the CL command, run this server command:

```
        QIWA2/CFGACCWEB2 APPSVRTYPE(*WAS50) WASINST(was_instance_name) APPSVR(app_svr)
```
- To use the script command, run these server commands:

```
STRQSH
cd /QIBM/ProdData/Access/Web2/install
cfgaccweb2 -appsvrtype *WAS50 -wasinst was_instance_name -appsvr app_svr
```

The configuration commands use these variables:

was_instance_name
> The name of the WebSphere application server instance you are using. If you are using the default WebSphere instance and the CL configuration command, specify *DEFAULT. For more information about specifying an instance, see the appropriate help text.

app_svr
> The name of the application sever within the instance being configured.

For more information about either value, refer to the help text for the appropriate field.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

5. Return to the Web administration browser interface window that you minimized in step 3g on page 61, then stop and restart the WebSphere application server.
6. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

The iSeries Access for Web home main page is displayed.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

> **Related information**
> CL command finder

Configure ASF Tomcat:

Use this information to configure iSeries Access for Web for Apache Software Foundation (ASF) Tomcat.

Use these steps to configure iSeries Access for Web for ASF Tomcat:
1. Sign on to your server.
2. Use the appropriate iSeries Access for Web configuration command.
   - To use the CL command, run this server command:

```
QIWA2/CFGACCWEB2 APPSVRTYPE(*ASFTOMCAT) TCSVRNAME(tc_server_name)
      TCHOMEDIR('tc_home_directory') TCUSRPRF(user_id)
```
   - To use the script command, run these server commands:

```
STRQSH
cd /QIBM/ProdData/Access/Web2/install
cfgaccweb2 -appsvrtype *ASFTOMCAT -tcsvrname tc_server_name
      -tchomedir tc_home_directory -tcusrprf user_id
```

The configuration commands use these variables:

tc_server_name
> The name of the ASF Tomcat server that was created to run iSeries Access for Web.

tc_home_directory
> The ASF Tomcat home directory that was specified when you set up your ASF Tomcat server. If you do not know the path, use the IBM Web Administration for iSeries interface to check the settings for your ASF Tomcat server.

user_id The Tomcat Server user ID that was specified when you set up your ASF Tomcat server. If you do not know the user ID, use the IBM Web Administration for iSeries interface to check the settings for your ASF Tomcat server.

For help on this command and the parameters, specify the -? parameter.

Migration Note: If you are already using iSeries Access for Web within another Web application server, refer to New Web application server considerations. This topic discusses additional CFGACCWEB2 command parameters that can be input to migrate user data from an existing configuration to this new configuration.

3. Start the HTTP server by running the server command `STRTCPSVR SERVER(*HTTP)` `HTTPSVR(http_server_name)`.

   Note: Replace `http_server_name` with the name of the Apache powered IBM HTTP server that you created.

4. Stop and restart the ASF Tomcat server. Run these server commands, where *tc_server_name* is the name of the ASF Tomcat server :

   ENDTCPSVR SERVER(*ASFTOMCAT) TOMCATSVR(*tc_server_name*)
   STRTCPSVR SERVER(*ASFTOMCAT) TOMCATSVR(*tc_server_name*)

5. Open your browser to `http://<your_server_name>:port/webaccess/iWAMain`. Be sure the case matches the example.

The iSeries Access for Web main page is displayed.

Note: The first call of the iWAMain page might take a few minutes, but subsequent calls should not take as long.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

> **Related information**
> CL command finder

New Web application server considerations

Use this information when iSeries Access for Web is configured for a Web application server and a new Web application server is added to the environment.

In this situation, iSeries Access for Web can be configured for the new Web application server and automatically preserve all user-generated data and configuration settings. The CFGACCWEB2 command provides four input parameters that identify an existing Web application server configuration that has iSeries Access for Web configured. When you run the command, user data is copied or linked into the new Web application server configuration. Use these parameters:

SRCSVRTYPE
> Source web server type

SRCSVRINST
> Source web server instance

SRCAPPSVR
> Source application server

SHRUSRDTA
> Share user data

Refer to the help text for the CFGACCWEB2 command and its parameters for more detail.

> **Related information**
>
> CFGACCWEB2 CL command

Customize iSeries Access for Web in a Web application server environment

Use the following topics to find information about customizing iSeries Access for Web.

The following topics provide information on controlling access to iSeries Access for Web functions and customizing how page content is presented.

Policies

The Customize Policies function controls access to iSeries Access for Web functions. Individual policy settings can be administered at the iSeries user and group profile level.

By default, most policies are set to allow all users access to the iSeries Access for Web functions. When a function is set to Deny, its navigation menu content is not displayed and access to the corresponding function is restricted. The function is also restricted if a user tries to access the function directly by providing the function's URL. When an administrator sets policies for a user or group, they take effect immediately.

The online help for Policies contains information on using the Policies function and detailed descriptions for each of the available policy settings.

> **Related concepts**
>
> "Security considerations" on page 6
> Learn about security considerations with iSeries Access for Web.

Default page content

iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

Default content HTML files are provided to supply the static content. User supplied files can be used in place of these default implementations to provide customized content. The Customize function is used to specify which files to use. User-supplied files can be configured for an individual user, a group of users, or all users (*PUBLIC)

A default style sheet is also provided to control aspects of the content's appearance. This style sheet is referenced from the default home page, default page template, and default login template. To replace the use of this style sheet with a customized style sheet, user-defined HTML files must be created and the style sheet references must be changed to link to the new style sheet.

The following topics contain information on the content that can be customized:

> **Related concepts**
>
> "Browser considerations" on page 16

"Customized content"
Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of page content.

This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

Related reference

iSeries Access for Web delivers a default home page that is shown when the home page URL (`http://<server_name>/webaccess/iWAHome`) is accessed.

Home page:

The iSeries Access for Web home page is displayed when the home page URL (http://<*server_name*>/webaccess/iWAHome) is accessed.

The default home page content is supplied in /QIBM/ProdData/Access/Web2/html/homepage.html. It provides a product overview and serves as an example for developing a customized home page. To use customized content in place of the default home page, create a new home page file and use Customize to specify the new file as the Home page HTML file.

iSeries Access for Web supports the use of special tags within the home page file. When these tags are encountered, they are replaced with the appropriate content.

The default home page also contains a link to a localized version of the iSeries Access for Web default style sheet (/QIBM/ProdData/Access/Web2/html/iwa_styles.css). The style sheet controls aspects of the home page appearance. To override the use of this style sheet, create a new style sheet and use a customized home page which references it.

Related reference

iSeries Access for Web provides support to tailor the product.

Customized content:

Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

- The default files in /QIBM/ProdData/Access/Web2/html can be used as a starting point, but they should not be modified directly. These files reside in the product directory which is only meant for product files.

  If the default files are used as a starting point, they should be copied to the /QIBM/UserData/Access/Web2 tree or to another location in the iSeries integrated file system. Modifications can then be made to the copy of the files.

| Localized versions of the default files can be found in subdirectories under
| /QIBM/ProdData/Access/Web2/html. The subdirectories are named using ISO Language Codes and
| ISO Country Codes. These codes are lower-case, two-letter codes as defined by ISO-639 and ISO-3166.

- *PUBLIC, QEJBSVR (for WebSphere), or QTMHHTTP (for ASF Tomcat) must have at least *RX authority to the user-supplied HTML files and to any files they reference. This authority is also required for the directories containing the files.

- If the user-supplied HTML file contains image, style sheet, or other external references with absolute paths, the HTTP server must be configured to serve the files. If the external references contain paths relative to the path containing the user-supplied HTML file, no HTTP server configuration is needed.

- Image files should not be placed in the /QIBM/ProdData/Access/Web2/html/images directory. This directory is meant for product image files only.

Related concepts

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

"Special tags"
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

"Style sheets" on page 68
iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of page content.

"Main page" on page 69
The iSeries Access for Web main page is displayed when the main page URL (http://< server_name >/webaccess/iWAMain) is accessed with no parameters.

"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template" on page 74
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

| *Special tags:*

| Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default
| implementations for this content. Alternatively, user-supplied files can be used. A number of special tags
| can be used within these files. When these tags are encountered, they are replaced with the appropriate
| content.

| The supported tags, the content that replaces them, and the files that support them follow:

| **%%CONTENT%%**

| Replaced with: The functional content for the page. This tag separates the template header from the
| template footer.

| Supported by: Page template (this is a required tag), login template (this is a required tag).

| **%%include section=file%%**

Replaced with: An HTML fragment, where *file* identifies a file containing information about which file contains the HTML fragment to use. The HTML section to include can be tailored to an individual user, a group of users, or all users (*PUBLIC). When the home page is displayed, this tag is replaced with the appropriate HTML fragment for the current user profile. An example file can be found in /QIBM/ProdData/Access/Web2/config/phone.polices. The default home page references this file using a %%include section=file%% tag.

Supported by: Home page

%%MENU%%

Replaced with: The iSeries Access for Web navigation bar.

Note: The values of the Navigation and Navigation bar policies are ignored when this tag is specified.

Supported by: Home page

%%STYLESHEET%%

Replaced with: A link to the iSeries Access for Web default style sheet.

Supported by: Home page, page template (header only), login template (header only)

%%STYLESHEET_CLASSIC_COLORS%%

Replaced with: A link to an iSeries Access for Web style sheet which uses the color scheme used by iSeries Access for Web prior to V5R4M0.

Note: If specified, this tag must be after the %%STYLESHEET%% tag.

Supported by: Home page, page template (header only), login template (header only)

%%TITLE%%

Replaced with: The title of the page.

Supported by: Home page, page template (header only), login template (header only)

%%SYSTEM%%

Replaced with: The name of the iSeries server being accessed.

Supported by: Home page, page template

%%USER%%

Replaced with: The iSeries user profile used to access iSeries resources.

Supported by: Home page, page template

%%VERSION%%

Replaced with: The version of iSeries Access for Web that is installed.

Supported by: Home page, page template, login template

Related concepts

| "Default page content" on page 64
| iSeries Access for Web generates most of its page content dynamically in response to user actions. The
| remainder of the content is retrieved from static HTML files. A style sheet is also used to control
| certain aspects of the content's appearance.
| "Customized content" on page 65
| Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is
| also used to control aspects of the product's appearance. User-supplied files can be used in place of
| the default implementations. The following considerations exist for creating these user-supplied files:
| "Style sheets"
| iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance
| of page content.
| "Page template" on page 70
| The iSeries Access for Web page template contains static content to display before and after
| dynamically generated content on functional pages.
| "Login template" on page 74
| The login template supplies content to display before and after the login form when iSeries Access for
| Web is configured for form-based, application server authentication. For information on form-based,
| application server authentication, see Security considerations.

Style sheets:

iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of
page content.

The default style sheet controls the look of the page header, page footer, navigation bar and page content.
This style sheet is referenced from the default home page, default page template, and default login
template using the %%STYLESHEET%% special tag. The default style sheet is supplied in
/QIBM/ProdData/Access/Web2/html/iwa_styles.css.

A second style sheet overrides the colors used in the default style sheet with the colors used by iSeries
Access for Web prior to V5R4M0. This style sheet is referenced from the classic page template
(/QIBM/ProdData/Access/Web2/html/webaccess_classic.html) using the
%%STYLESHEET_CLASSIC_COLORS%% special tag. This style sheet is supplied in
/QIBM/ProdData/Access/Web2/html/iwa_classic_colors.css.

The iSeries Access for Web style sheets can be used with a customized home page, page template, or
login template. Use the %%STYLESHEET%% and %%STYLESHEET_CLASSIC_COLORS%% special tags
to include the style sheets in your customized files.

Customized style sheets can be created using the iSeries Access for Web style sheets as a starting point.
The customized style sheets must be referenced from a customized home page, page template, or login
template. This requires knowledge of using CSS with HTML.

Related concepts

"Customized content" on page 65
Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is
also used to control aspects of the product's appearance. User-supplied files can be used in place of
the default implementations. The following considerations exist for creating these user-supplied files:
"Special tags" on page 66
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default
implementations for this content. Alternatively, user-supplied files can be used. A number of special
tags can be used within these files. When these tags are encountered, they are replaced with the
appropriate content.

"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template" on page 74
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

Main page:

The iSeries Access for Web main page is displayed when the main page URL (http://< server_name >/webaccess/iWAMain) is accessed with no parameters.

The default main page content is supplied in /QIBM/ProdData/Access/Web2/html/overview.html. It provides function overview information. To use customized content in place of the default main page, create a new main page file and use the Customize function to specify the new file as the Main page HTML file.

Related reference

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

Customized content:

Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

- The default files in /QIBM/ProdData/Access/Web2/html can be used as a starting point, but they should not be modified directly. These files reside in the product directory which is only meant for product files.

  If the default files are used as a starting point, they should be copied to the /QIBM/UserData/Access/Web2 tree or to another location in the iSeries integrated file system. Modifications can then be made to the copy of the files.

  | Localized versions of the default files can be found in subdirectories under
  | /QIBM/ProdData/Access/Web2/html. The subdirectories are named using ISO Language Codes and
  | ISO Country Codes. These codes are lower-case, two-letter codes as defined by ISO-639 and ISO-3166.
- *PUBLIC, QEJBSVR (for WebSphere), or QTMHHTTP (for ASF Tomcat) must have at least *RX authority to the user-supplied HTML files and to any files they reference. This authority is also required for the directories containing the files.
- If the user-supplied HTML file contains image, style sheet, or other external references with absolute paths, the HTTP server must be configured to serve the files. If the external references contain paths relative to the path containing the user-supplied HTML file, no HTTP server configuration is needed.
- Image files should not be placed in the /QIBM/ProdData/Access/Web2/html/images directory. This directory is meant for product image files only.

Related concepts

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

"Special tags" on page 66
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

Page template:

The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

The default page template is supplied in /QIBM/ProdData/Access/Web2/html/webaccess.html. It contains a page header with the product name, the current iSeries user, and the iSeries server name. It also contains a page footer with the product version number and links to IBM internet sites. To use customized content in place of the default page template, create a new page template file and use the Customize function to specify the new file as the Template HTML file.

iSeries Access for Web supports the use of special tags within the page template file. When these tags are encountered, they are replaced with the appropriate content.

The default page template also contains a link to a localized version of the iSeries Access for Web default style sheet (/QIBM/ProdData/Access/Web2/html/iwa_styles.css). The style sheet controls aspects of the content area appearance as well as the navigation bar appearance. To override the use of this style sheet, create a new style sheet and use a customized page template which references it.

Customized content:

Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

- The default files in /QIBM/ProdData/Access/Web2/html can be used as a starting point, but they should not be modified directly. These files reside in the product directory which is only meant for product files.

If the default files are used as a starting point, they should be copied to the /QIBM/UserData/Access/Web2 tree or to another location in the iSeries integrated file system. Modifications can then be made to the copy of the files.

Localized versions of the default files can be found in subdirectories under /QIBM/ProdData/Access/Web2/html. The subdirectories are named using ISO Language Codes and ISO Country Codes. These codes are lower-case, two-letter codes as defined by ISO-639 and ISO-3166.

- *PUBLIC, QEJBSVR (for WebSphere), or QTMHHTTP (for ASF Tomcat) must have at least *RX authority to the user-supplied HTML files and to any files they reference. This authority is also required for the directories containing the files.

- If the user-supplied HTML file contains image, style sheet, or other external references with absolute paths, the HTTP server must be configured to serve the files. If the external references contain paths relative to the path containing the user-supplied HTML file, no HTTP server configuration is needed.

- Image files should not be placed in the /QIBM/ProdData/Access/Web2/html/images directory. This directory is meant for product image files only.

Related concepts

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

"Special tags" on page 66
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

"Home page" on page 65
The home page is displayed when the iSeries Access for Web home page URL is accessed.

"Style sheets" on page 68
iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of page content.

"Main page" on page 69
The iSeries Access for Web main page is displayed when the main page URL (http://< server_name >/webaccess/iWAMain) is accessed with no parameters.

"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template" on page 74
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

Related reference

"My home page" on page 95
iSeries Access for Web delivers a default home page that is shown when the home page URL (`http://<server_name>/webaccess/iWAHome`) is accessed.

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

Special tags:

Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

The supported tags, the content that replaces them, and the files that support them follow:

%%CONTENT%%

Replaced with: The functional content for the page. This tag separates the template header from the template footer.

Supported by: Page template (this is a required tag), login template (this is a required tag).

%%include section=file%%

Replaced with: An HTML fragment, where *file* identifies a file containing information about which file contains the HTML fragment to use. The HTML section to include can be tailored to an individual user, a group of users, or all users (*PUBLIC). When the home page is displayed, this tag is replaced with the appropriate HTML fragment for the current user profile. An example file can be found in /QIBM/ProdData/Access/Web2/config/phone.polices. The default home page references this file using a %%include section=file%% tag.

Supported by: Home page

%%MENU%%

Replaced with: The iSeries Access for Web navigation bar.

Note: The values of the Navigation and Navigation bar policies are ignored when this tag is specified.

Supported by: Home page

%%STYLESHEET%%

Replaced with: A link to the iSeries Access for Web default style sheet.

Supported by: Home page, page template (header only), login template (header only)

%%STYLESHEET_CLASSIC_COLORS%%

Replaced with: A link to an iSeries Access for Web style sheet which uses the color scheme used by iSeries Access for Web prior to V5R4M0.

Note: If specified, this tag must be after the %%STYLESHEET%% tag.

Supported by: Home page, page template (header only), login template (header only)

%%TITLE%%

Replaced with: The title of the page.

Supported by: Home page, page template (header only), login template (header only)

%%SYSTEM%%

Replaced with: The name of the iSeries server being accessed.

Supported by: Home page, page template

%%USER%%

| Replaced with: The iSeries user profile used to access iSeries resources.

| Supported by: Home page, page template

| **%%VERSION%%**

| Replaced with: The version of iSeries Access for Web that is installed.

| Supported by: Home page, page template, login template
| **Related concepts**
| "Default page content" on page 64
| iSeries Access for Web generates most of its page content dynamically in response to user actions. The
| remainder of the content is retrieved from static HTML files. A style sheet is also used to control
| certain aspects of the content's appearance.
| "Home page" on page 65
| The home page is displayed when the iSeries Access for Web home page URL is accessed.
| "Customized content" on page 65
| Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is
| also used to control aspects of the product's appearance. User-supplied files can be used in place of
| the default implementations. The following considerations exist for creating these user-supplied files:
| "Style sheets" on page 68
| iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance
| of page content.
| "Page template" on page 70
| The iSeries Access for Web page template contains static content to display before and after
| dynamically generated content on functional pages.
| "Login template" on page 74
| The login template supplies content to display before and after the login form when iSeries Access for
| Web is configured for form-based, application server authentication. For information on form-based,
| application server authentication, see Security considerations.

Style sheets:

iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of
page content.

The default style sheet controls the look of the page header, page footer, navigation bar and page content.
This style sheet is referenced from the default home page, default page template, and default login
template using the %%STYLESHEET%% special tag. The default style sheet is supplied in
/QIBM/ProdData/Access/Web2/html/iwa_styles.css.

A second style sheet overrides the colors used in the default style sheet with the colors used by iSeries
Access for Web prior to V5R4M0. This style sheet is referenced from the classic page template
(/QIBM/ProdData/Access/Web2/html/webaccess_classic.html) using the
%%STYLESHEET_CLASSIC_COLORS%% special tag. This style sheet is supplied in
/QIBM/ProdData/Access/Web2/html/iwa_classic_colors.css.

The iSeries Access for Web style sheets can be used with a customized home page, page template, or
login template. Use the %%STYLESHEET%% and %%STYLESHEET_CLASSIC_COLORS%% special tags
to include the style sheets in your customized files.

Customized style sheets can be created using the iSeries Access for Web style sheets as a starting point.
The customized style sheets must be referenced from a customized home page, page template, or login
template. This requires knowledge of using CSS with HTML.

Related concepts

"Customized content" on page 65
Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

"Special tags" on page 66
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

"Home page" on page 65
The home page is displayed when the iSeries Access for Web home page URL is accessed.

"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template"
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

Login template:

The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

The default login template is supplied in /QIBM/ProdData/Access/Web2/html/login.html. It contains a page header with the product name. It also contains a page footer with the product version number and links to IBM internet sites. To use customized content in place of the default login template, create a new login template file and use the Customize function to specify the new file as the **Login template HTML file** in the **Security** settings.

iSeries Access for Web supports the use of special tags within the login template file. When these tags are encountered, they are replaced with the appropriate content.

The default login template also contains a link to a localized version of the iSeries Access for Web default style sheet (/QIBM/ProdData/Access/Web2/html/iwa_styles.css). The style sheet controls aspects of the content area appearance. To override the use of this style sheet, create a new style sheet and use a customized login template which references it.

Related concepts

"Single sign-on considerations" on page 8
This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

Related reference

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

Customized content:

Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

- The default files in /QIBM/ProdData/Access/Web2/html can be used as a starting point, but they should not be modified directly. These files reside in the product directory which is only meant for product files.

  If the default files are used as a starting point, they should be copied to the /QIBM/UserData/Access/Web2 tree or to another location in the iSeries integrated file system. Modifications can then be made to the copy of the files.

  Localized versions of the default files can be found in subdirectories under /QIBM/ProdData/Access/Web2/html. The subdirectories are named using ISO Language Codes and ISO Country Codes. These codes are lower-case, two-letter codes as defined by ISO-639 and ISO-3166.

- *PUBLIC, QEJBSVR (for WebSphere), or QTMHHTTP (for ASF Tomcat) must have at least *RX authority to the user-supplied HTML files and to any files they reference. This authority is also required for the directories containing the files.

- If the user-supplied HTML file contains image, style sheet, or other external references with absolute paths, the HTTP server must be configured to serve the files. If the external references contain paths relative to the path containing the user-supplied HTML file, no HTTP server configuration is needed.

- Image files should not be placed in the /QIBM/ProdData/Access/Web2/html/images directory. This directory is meant for product image files only.

  Related concepts

  "Default page content" on page 64
  iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

  "Special tags" on page 66
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  "Home page" on page 65
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  iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of page content.

  "Main page" on page 69
  The iSeries Access for Web main page is displayed when the main page URL (http://< server_name >/webaccess/iWAMain) is accessed with no parameters.

  "Page template" on page 70
  The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

  "Login template" on page 74
  The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

  Related reference

  "My home page" on page 95
  iSeries Access for Web delivers a default home page that is shown when the home page URL (`http://<server_name>/webaccess/iWAHome`) is accessed.

  "Customize" on page 80
  iSeries Access for Web provides support to tailor the product.

Special tags:

Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

The supported tags, the content that replaces them, and the files that support them follow:

%%CONTENT%%

Replaced with: The functional content for the page. This tag separates the template header from the template footer.

Supported by: Page template (this is a required tag), login template (this is a required tag).

%%include section=file%%

Replaced with: An HTML fragment, where *file* identifies a file containing information about which file contains the HTML fragment to use. The HTML section to include can be tailored to an individual user, a group of users, or all users (*PUBLIC). When the home page is displayed, this tag is replaced with the appropriate HTML fragment for the current user profile. An example file can be found in /QIBM/ProdData/Access/Web2/config/phone.polices. The default home page references this file using a %%include section=file%% tag.

Supported by: Home page

%%MENU%%

Replaced with: The iSeries Access for Web navigation bar.

Note: The values of the Navigation and Navigation bar policies are ignored when this tag is specified.

Supported by: Home page

%%STYLESHEET%%

Replaced with: A link to the iSeries Access for Web default style sheet.

Supported by: Home page, page template (header only), login template (header only)

%%STYLESHEET_CLASSIC_COLORS%%

Replaced with: A link to an iSeries Access for Web style sheet which uses the color scheme used by iSeries Access for Web prior to V5R4M0.

Note: If specified, this tag must be after the %%STYLESHEET%% tag.

Supported by: Home page, page template (header only), login template (header only)

%%TITLE%%

Replaced with: The title of the page.

Supported by: Home page, page template (header only), login template (header only)

%%SYSTEM%%

Replaced with: The name of the iSeries server being accessed.

Supported by: Home page, page template

%%USER%%

Replaced with: The iSeries user profile used to access iSeries resources.

Supported by: Home page, page template

%%VERSION%%

Replaced with: The version of iSeries Access for Web that is installed.

Supported by: Home page, page template, login template

Related concepts

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

"Home page" on page 65
The home page is displayed when the iSeries Access for Web home page URL is accessed.

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"Style sheets" on page 68
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"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template" on page 74
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

Style sheets:

iSeries Access for Web uses Cascading Style Sheets (CSS) to control certain aspects of the appearance of page content.

The default style sheet controls the look of the page header, page footer, navigation bar and page content. This style sheet is referenced from the default home page, default page template, and default login template using the %%STYLESHEET%% special tag. The default style sheet is supplied in /QIBM/ProdData/Access/Web2/html/iwa_styles.css.

A second style sheet overrides the colors used in the default style sheet with the colors used by iSeries Access for Web prior to V5R4M0. This style sheet is referenced from the classic page template (/QIBM/ProdData/Access/Web2/html/webaccess_classic.html) using the %%STYLESHEET_CLASSIC_COLORS%% special tag. This style sheet is supplied in /QIBM/ProdData/Access/Web2/html/iwa_classic_colors.css.

The iSeries Access for Web style sheets can be used with a customized home page, page template, or login template. Use the %%STYLESHEET%% and %%STYLESHEET_CLASSIC_COLORS%% special tags to include the style sheets in your customized files.

Customized style sheets can be created using the iSeries Access for Web style sheets as a starting point. The customized style sheets must be referenced from a customized home page, page template, or login template. This requires knowledge of using CSS with HTML.

Related concepts

"Customized content" on page 65
Portions of the iSeries Access for Web content are retrieved from static HTML files. A style sheet is also used to control aspects of the product's appearance. User-supplied files can be used in place of the default implementations. The following considerations exist for creating these user-supplied files:

"Special tags" on page 66
Portions of the iSeries Access for Web content are retrieved from static HTML files. There are default implementations for this content. Alternatively, user-supplied files can be used. A number of special tags can be used within these files. When these tags are encountered, they are replaced with the appropriate content.

"Home page" on page 65
The home page is displayed when the iSeries Access for Web home page URL is accessed.

"Page template" on page 70
The iSeries Access for Web page template contains static content to display before and after dynamically generated content on functional pages.

"Login template" on page 74
The login template supplies content to display before and after the login form when iSeries Access for Web is configured for form-based, application server authentication. For information on form-based, application server authentication, see Security considerations.

Use iSeries Access for Web in a Web application server environment

The following topics give you information about using iSeries Access for Web in a Web application server environment.

iSeries Access for Web functions

This topic lists functions that can be performed in a Web application server environment. Select a function from the list to see the supported tasks, usage considerations, and restrictions.

5250:

The iSeries Access for Web 5250 user interface provides a Web interface for configuring, starting, and using 5250 sessions. Additional support includes macros for automating repetitive tasks, customized keypads for fast access to frequently used keys and macros, and Web and Traditional views.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Start session
5250 sessions can be started to any iSeries server. The server to access is not required to have iSeries Access for Web installed, but the telnet server must be running and accessible.

Macros can be recorded and played while a session is active. They can be shared with other users by creating shortcuts to them. Macros can also be modified, copied, deleted, and renamed.

Active sessions
A list of active 5250 user interface sessions for the current user can be displayed. Once a session is started, it remains active until it is either stopped or it times out after a period of inactivity. From the session list, you can reconnect to a session which was suspended by viewing another page or by closing the browser window. Session settings can be edited for active sessions.

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Sessions can also be shared with other users. Sharing a session provides other users with a read-only view of the session. This can be helpful in situations such as demonstrations and debugging.

Configured sessions

Configured sessions can be created to save customized session settings. The list of configured sessions for the current user can be displayed. From the list, 5250 user interface sessions can be started using the settings in a configured session. Configured sessions can be shared with other users by creating shortcuts to them. Configured sessions can also be modified, copied, deleted, and renamed. Customized keypads can be configured for use with all sessions.

Considerations

None.

Restrictions

None.

> **Related reference**
>
> "Customize" on page 80
> iSeries Access for Web provides support to tailor the product.

Command:

iSeries Access for Web provides support for running CL commands on an iSeries server.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Run command

CL commands can be run on the iSeries server. Support is provided to prompt for parameter values. Commands can be run immediately or submitted as batch jobs. The results of a command can be sent to the browser, placed in the user's personal folder, or mailed to the user as an e-mail attachment. Commands can also be saved for repeated use.

My commands

A list of saved commands for the current user can be displayed and managed. From the list, saved commands can be run. A command can be retrieved and modified manually. It is also possible to prompt a saved command for different parameter values. Saved commands can also be deleted.

Search

Support is provided to search for CL commands either by name or by text description. When searching for a command by name, an asterisk can be used as a wildcard character. For example, searching for *DTAQ* returns all commands containing the string DTAQ. When searching for commands by text description, all commands containing at least one of the search words in their command text description are returned.

Considerations

None.

Restrictions

- Prompt controls and prompt control programs for parameters are not supported.
- Key parameters and prompt override programs are not supported.
- Parameter value validity checking is not performed.
- *Command mapping* exit programs are not supported.

- Selective prompting characters are not supported.

   Related reference

   "Customize"
   iSeries Access for Web provides support to tailor the product.

   "Mail" on page 93
   The mail function is available from several places in iSeries Access for Web, including Database, Print, Files, and Commands. You can also send e-mail notifications to users when items are saved in their personal folders or when their folder has reached a size threshold.

   "My folder" on page 94
   iSeries Access for Web lets you store and manage content generated by iSeries Access for Web.

Customize:

iSeries Access for Web provides support to tailor the product.

A list of tasks that can be performed is shown below.

Preferences
   Preferences are used by iSeries Access for Web to control how functions operate. For example, users can select which columns to display when viewing a printer output list. By default, all users can configure their own preferences, but by using a policy, an administrator can take away this ability. Preferences are saved and associated with the user's iSeries user profile. See the Preferences online help text for more information about this function.

Policies
   Policies are used to control user and group access to iSeries Access for Web functionality. For example, the *Files access* policy can be set to *Deny* to restrict a user or group from accessing the file function. Policies are saved and associated with the appropriate iSeries user or group profile. See the Policies online help text for more information about this function.

Settings
   Settings are used for product configuration. For example, the Sametime® community server used for sending Sametime announcements can be set. Settings are saved and associated with the current instance of iSeries Access for Web. They are not associated with an iSeries user or group profile.

Transfer configuration
   Transfer configuration is used to copy or move configuration data from one user or group profile to another profile. Configuration data include 5250 session and macro definitions, saved commands, database requests, folder items, and policy settings.

Considerations

The Policies, Settings, and Transfer configuration functions can only be accessed by iSeries Access for Web administrators. An iSeries Access for Web administrator is an iSeries user profile with *SECADM special authority or with iSeries Access for Web administrator privileges. A user profile can be granted administrator privileges using the customize function and setting the *Grant administrator privileges* policy to *Allow*.

Restrictions

None.

Database:

iSeries Access for Web provides support for accessing database tables on an iSeries server.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Tables A list of database tables on the iSeries server can be displayed. The set of tables shown in the list can be customized for individual users. From the tables list, the contents of a table or an individual record can be displayed. Table records can also be inserted or updated.

Run SQL

SQL statements can be run and the results can be viewed in a paged list or returned in one the supported file formats. The layout of the result data can be customized using the file format options. The results of the SQL statement can be sent to the browser, sent to the iSeries integrated file system, placed in a user's personal folder, or mailed as an e-mail attachment. An SQL wizard is provided to help build SQL SELECT statements. SQL requests can be saved for repeated use. Support is also provided for running prompted statements with the use of parameter markers. See Database considerations for more information.

Copy data to table

A data file, in one of the supported file formats, can be copied into a relational database table on the iSeries server. Options are available to create a new table, append to an existing table, or replace the contents of an existing table. Copy data to table requests can be saved for repeated use.

My requests

A list of saved SQL and copy data to table requests can be displayed and managed. Requests can be run and modified. Requests can be shared with other users by creating shortcuts to them. Requests can also be copied, deleted, and renamed.

Import request

IBM Client Access for Windows or Client Access Express Data Transfer request files can be imported and converted to iSeries Access for Web format. Data Transfer from iSeries server requests are converted to SQL requests. Data Transfer to iSeries server requests are converted to copy data to table requests.

Import query

SQL statements contained in Query for iSeries and DB2 UDB for iSeries Query Manager query files can be imported and converted to iSeries Access for Web SQL request format.

Extract server data

Information about objects on the iSeries server can be extracted and the results can be stored in a database table. General object information can be retrieved for any iSeries object type. The object information to extract and store can be customized when the Extract Data is performed. Object specific information can also be retrieved for the following object types:

- Directory entries
- Messages
- Software fixes
- Software products
- System pool
- User profiles

Related reference

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

"Mail" on page 93
The mail function is available from several places in iSeries Access for Web, including Database, Print, Files, and Commands. You can also send e-mail notifications to users when items are saved in their personal folders or when their folder has reached a size threshold.

"My folder" on page 94
iSeries Access for Web lets you store and manage content generated by iSeries Access for Web.

Database considerations:

The following considerations apply to using the iSeries Access for Web database functions in a Web application server environment.

The database considerations can be grouped into these functional categories:
- Database connections
- Run SQL: Output types
- Run SQL: Prompted statements
- Copy data to table
- Import query

Database connections

iSeries Access for Web makes JDBC calls to access database tables. By default, the IBM Toolbox for Java JDBC driver is used to establish a driver manager connection to the iSeries server running iSeries Access for Web. The customize function provides support for defining additional database connections. Additional connections can be defined to access different iSeries servers, to specify different driver settings, or to use different JDBC drivers. If a different JDBC driver is used in a single sign-on (SSO) environment, any required authentication values must be set on the JDBC URL.

The customize function also provides support for defining data source connections. This support is only available in the WebSphere application server environment. Version 4 data sources are not supported. If iSeries Access for Web is configured to use basic authentication to prompt for the iSeries user profile and password, these user and password values are also used to authenticate the data source connection. If iSeries Access for Web is running in an SSO environment, the data source must have a component-managed authentication alias configured.

Note: iSeries Access for Web is tested using the IBM Toolbox for Java JDBC driver. Using a different driver might work, but this is an untested and unsupported environment.

For a list of the different connection properties that are recognized by the JDBC driver, refer to the "IBM Toolbox for Java JDBC properties" topic.

Run SQL: Output types

The supported output types for returning SQL statement result data are:
- Preview
- Comma separated value (.csv)
- Data interchange format (.dif)
- Extensible markup language (.xml)
- Hypertext markup language (.html)
- Lotus® 1-2-3® version 1 (.wk1)
- Microsoft Excel 3 (.xls)
- Microsoft Excel 4 (.xls)
- Microsoft Excel XML (.xml)
- OpenDocument Spreadsheet (.ods)
- Portable Document Format (.pdf)
- Text, plain (.txt)
- Text, tab delimited (.txt)

Extensible markup language (.xml)

The XML output generated by Run SQL is a single document containing both an embedded schema and results from the SQL query. The embedded schema is compliant

with the W3C Schema Recommendation dated May 2, 2001. The schema contains meta information for the query results portion of the document. Contained in the schema is data type information, limits on data, and document structure.

Current XML parser implementations do not support validation using the embedded approach. Many parsers, including SAX and DOM implementations, require independent documents for the schema and content to do validation. To achieve schema validation with an XML document produced by Run SQL, the document must be restructured into individual data and schema documents. The root elements must also be updated to support this new structure. Visit the World Wide Web Consortium's Web site for additional information about XML Schema.

The query results portion of the XML document contains the data returned from the query in a structured row and column fashion. This data may be easily processed by other applications. If more information about the data contained in this topic is required, reference can be made to the document schema.

Hypertext markup language (.html)
When the HTML output type is being used, the results are displayed in the browser. To save the results to a file, the browser save function can be used. Another option is to save the SQL request and to redirect the results to a file when the request is run. With Internet Explorer, right-click the Run link and choose the Save Target As option. With Netscape Navigator, hold down the shift key while clicking the Run link.

If the HTML rows per table value is set, Run SQL will display the results in a paged list, similar to Preview, instead of returning a single HTML page.

Microsoft Excel/Lotus 1-2-3
The supported file formats for Microsoft Excel and Lotus 1-2-3 are not the newest types supported by these applications. Since the additional capabilities of the newer types are not likely to be needed for retrieving data from a database, this should not result in a loss of functionality. By supporting the older versions of these file types, compatibility can be retained for the older versions of these applications. A newer version of the application can be used to save the results to a file in a newer format.

Note: The file in the new format is not compatible with Copy data to table.

Microsoft Excel XML (.xml)
The Microsoft Excel XML file format is only supported by Microsoft Excel 2002 or newer versions of the application. Microsoft Excel 2002 is part of Microsoft Office XP.

Portable document format (.pdf)
The PDF file format represents your SQL data as it would appear on a page. The amount of data that can fit on a page depends on the page size, the page orientation, and the margin sizes. A very large number of columns can result in an unusable PDF document. In some cases, the Adobe Acrobat Reader plug-in cannot load a file like this into the browser. As an alternative, you can break the request into multiple queries, which return subsets of the columns, or you can choose a different output type.

Using the output settings, you can customize the selection of fonts used for the various parts of the PDF document. You can embed the chosen fonts into the document, rather than installing them on the computer used to view the document. Embedding fonts in the document increases the document size.

The character encoding used to represent text is also a PDF output option. If the font is not able to represent a character in the encoding, the character is left blank or another indicator character is used to show the character cannot be displayed. You should choose font and character set values which are capable of representing all characters in the data to display.

By default, Run SQL supports the standard PDF fonts and the Adobe Asian fonts for building PDF output. Since the standard fonts are required to be available with any PDF viewer, there is no need to embed them in the PDF document. Adobe provides a set of Asian font packs for displaying text containing Simplified Chinese, Traditional Chinese, Japanese, or Korean characters. Run SQL supports creating documents with these fonts, but it does not support embedding these fonts in the document. If these fonts are used, the appropriate font pack needs to be installed on the computer used to view the document. These font packs can be downloaded from Adobe's Web site.

Additional fonts can be added to the available fonts list, using the "Additional PDF font directories" Customization setting. The supported font types are:

- Adobe Type 1 fonts (*.afm)

  In order for Type 1 fonts to be embedded into a document, the Type 1 font file (*.pfb) needs to be in the same directory as the font metrics file (*.afm). If only the font metrics file is available, the document can be created with the font, but the computer used to view the document needs to have the font installed. Type 1 fonts only support single-byte encoding.

- TrueType fonts (*.ttf) and TrueType font collections (*.ttc)

  Embedding TrueType fonts and TrueType font collections is optional. When a TrueType font is embedded, only the portions of the font needed to represent the data are embedded. The list of available character set encodings is retrieved from the font file. In addition to the retrieved encodings, the multilingual "Identity-H" encoding can be used. When this encoding is used, the font is always embedded into the document. You can embed TrueType fonts, which support double-byte character sets, as an alternative to the Adobe Asian fonts. This generates a larger document, but the computer used to view it does not need to have the font installed.

  Run SQL supports building PDF documents with bi-directional data, if the locale of the current request is Hebrew or Arabic.

OpenDocument Spreadsheet (.ods)

The OpenDocument spreadsheet documents created by iSeries Access for Web conform to the Oasis Open Document Format for Office Applications (OpenDocument) 1.0 specification.

Date and time values are stored in date and time format only if the ISO date and time format options are chosen. Otherwise, they are stored as text values.

Run SQL: Prompted statements

Run SQL supports SQL statements containing parameter markers. There are two ways to create this type of statement. The first option is through the SQL Wizard. The SQL Wizard supports parameter markers for condition values. In addition to the option of specifying the condition values as part of the request, the SQL wizard provides the option to prompt for condition values when the request is run. The SQL wizard handles building the page to prompt for the condition values as well as building the SQL statement containing parameter markers.

The second way to create an SQL statement with parameter markers is to manually enter the statement using Run SQL. This option requires the request to be saved. The request cannot be run directly from Run SQL or with the Run link from My Requests. The Run SQL Request (iWADbExec) URL interface must be used to pass values for the parameter markers. One URL parameter must be specified for each parameter marker in the statement. The URL parameters must be named iwaparm_x, where x is the parameter index. iwaparm_1 is used for the first parameter marker, iwaparm_2 is used for the second parameter marker, and so on. For example:

```
http://server:port/webaccess/iWADbExec?request=promptedRequest&iwaparm_1=Johnson&iwaparm_2=500
```

One way to invoke the Run SQL Request (iWADbExec) URL interface to pass values for parameter markers is to use an HTML form. Input fields can be used to prompt the user for the values. The names of these fields must follow the URL parameter naming convention mentioned

above. The request name can be stored in the form as a hidden parameter. The form action must specify the Run SQL Request (iWADbExec) URI. When the form is submitted, the URL is built with the values specified, iSeries Access for Web is invoked, and the request is executed. Sample HTML source is shown below:

```
<HTML>
 <BODY>
  <FORM action="http://server:port/webaccess/iWADbExec" method="get">
   Enter a customer name and press <B>OK</b> to retrieve account information.<br>
   <input type="text" name="iwaparm_1" value=""/>
   <input type="submit" name="ok" value=" OK "/>
   <input type="hidden" name="request" value="promptedRequest"/>
  </FORM>
 </BODY>
</HTML>
```

Copy data to table

If you are copying data to a table, and the chosen file type is Extensible Markup Language (XML), the file to copy must be in a concise format. This format might or might not contain an embedded schema element and its supporting elements. In its simplest form, the XML document must be structured as shown below.

```
<?xml version="1.0" encoding="utf-8" ?>
<QiwaResultSet  version="1.0">
    <RowSet>
       <Row number="1">
          <Column1 name="FNAME">Jane</Column1>
          <Column2 name="BALANCE">100.25</Column2>
       </Row>
       <Row number="2">
          <Column1 name="FNAME">John</Column1>
          <Column2 name="BALANCE">200.00</Column2>
       </Row>
    </RowSet>
</QiwaResultSet>
```

This format consists of the XML directive, followed by the root element QiwaResultSet. If the encoding attribute is not specified in the XML directive, copy data to table will assume the document is encoded in utf-8. The root element contains a version attribute. The version corresponding to this format of XML is 1.0. The RowSet element is a container for all the rows of data that follow. These rows of data are contained within Row elements. Each Row element must have a unique numeric number attribute. Within each Row element is one or more Column elements. Each column element within a row must be unique. This is accomplished by adding a sequential numeric suffix. For example, Column1, Column2, Column3, Columnx, where 'x' is the number of columns in the row. Each column must also have a name attribute. The name corresponds to the column name in the relational table on the server. If this simple format is used, the 'Validate document with its schema' setting must be turned off since the document does not contain a schema.

Although not required, an XML Schema may also be included in the document. Examine an XML document generated by Run SQL to get an idea of how a schema is structured. Also, visit the World Wide Web Consortium's Web site for additional information about XML schemas.

Import Query

Query files can contain much more information in them than just the SQL statement. Since Run SQL function stores only the SQL statement, some considerations need to be made to get identical query results. In cases where the Query file contains special instructions for the query, you might need to use the Customize function to create a new iSeries Access for Web database connection to honor the special case. Default iSeries Access for Web database connections will run database query requests using SQL naming conventions and using the locale specific defaults for the current user profile. Known special cases requiring the creation of non-default database connections, with the special attributes set, are:

- System naming convention is used for the table designation
- Date and time formats other than locale defaults are specified in the query
- Decimal separator character other than the locale default is used in the query
- A non-default sort sequence is specified

iSeries Access for Web cannot determine the CCSID of the contents of the query file. If the user profile that is importing the query has a CCSID that does not match the CCSID of the data in the query file, incorrect conversions or conversion errors might result. Users can set a CCSID value during the import of the query to overcome this problem.

Related reference

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

Related information

IBM Toolbox for Java JDBC properties

Database restrictions:

The following restrictions apply to using the iSeries Access for Web database support in a Web application server environment.

General

iSeries Access for Web only supports using the IBM Toolbox for Java JDBC driver, to access the database server. Although other drivers might work, this is an unsupported and untested environment.

The iSeries Access for Web preferred language setting is not used on database connections. Therefore, all messages received from the database server will be in the language derived from the LANGID and CNTRYID of the user profile used to start the WebSphere Application Server.

Tables The table list returns relational database tables, aliases, materialized query tables, and views. Non-relational database tables are not returned.

Insert table records restrictions

- Insert does not support binary large object (BLOB), integer with scale, or ROWID column types. Insert does support the character large object (CLOB) column type, however, entering a very large value could potentially consume all of the browser's memory. All other column types, supported by the iSeries server, are supported by Insert.
- Insert only supports setting the URL portion of a datalink.
- Insert does not support inserting a null column value, unless the default value for the field is null and the field value is left unchanged.

Update table records restrictions

- Update does not support binary large object (BLOB), integer with scale, or ROWID column types. Update does support the character large object (CLOB) column type, however, entering a very large value could potentially consume all of the browser's memory. All other column types, supported by the iSeries server, are supported by Update.
- Update only supports setting the URL portion of a datalink.
- Update does not provide a way to insert null column values. However, if a column has a null value and the field is left blank, the column value will remain null.

Run SQL

You cannot run a saved MS Excel 3 or MS Excel 4 request from a Netscape browser, if you have the NCompass DocActive plug-in installed. You can run these requests dynamically, using the Run SQL button.

On Windows 2000 using Internet Explorer, if you have Microsoft Excel installed and you try to write your results to MS Excel 3, MS Excel 4 or MS Excel XML, you will be prompted to logon to the iSeries server again. This will cause an additional license to be used. This only happens the first time you try to load an Excel file into the browser. As an alternative, you could save the request without running it, run the saved request, and redirect the results to a file. This is done by right-clicking on the Run link and choosing the Save Target As option. After saving the SQL output file, you could load it using Microsoft Excel or some other application.

If you choose PDF as the output type and the SQL statement generates a very large number of columns, the resulting output might be too compressed to read, or might be a blank page. In this case, use a different page size, choose a different output type, or modify the SQL statement to return a subset of the columns.

If you are using the Opera browser and your output contains very long column data, your data may be truncated when displayed.

If you use Microsoft Internet Explorer, choose PDF as the output type, and get a blank page instead of the SQL output, try one of the following circumventions:

- Ensure you have the installed the latest version of Microsoft Internet Explorer.
- Instead of running the request directly from Run SQL, save the request and use the Run action from My Requests.
- Change your Adobe Acrobat Reader configuration to display the reader in a separate window, instead of within the browser.

Restrictions with the character large object (CLOB) column type

- Output types with a maximum cell size, such as Microsoft Excel and Lotus 1-2-3 version 1, will truncate the data if it exceeds the maximum cell size.
- Other output types will not truncate the data, however, retrieving very large values could potentially consume all of the browser's memory.

SQL wizard

- Only single table selects are supported.
- Nested conditions are not supported.
- Building conditions is supported for the column types supported by the iSeries, with the following exceptions: Binary large objects (BLOBs), Character large objects (CLOBs), and Datalinks.

Copy data to table

When using the iSeries Access for Web Extensible Markup Language (XML) document format to copy data to a table on the iSeries server, the document must be the same XML format as generated by Run SQL. An embedded schema is required only if the document is set to Validate document with its schema.

In order to copy an OpenDocument spreadsheet file, the file must be in package format and must not be compressed or encrypted.

When a saved request is edited or run, the file name is not automatically specified in the **Copy Data to Table** form to protect the data on your workstation. The original file name is shown beneath the **File to Copy** section. This file name does not include path information when the browser is run from the Linux operating system.

My requests

When a shortcut is created the connection information is stored directly with a shortcut. Therefore, when the connection in the original request is changed, the shortcut does not pick up the new connection.

Import request

Importing a request containing a reference to a file member will result in the member being removed from the file name. iSeries Access for Web will only provide access to the default member of a file (table).

Certain Data Transfer From AS/400® statements cannot be converted into statements that can be modified by the SQL Wizard. The SQL Wizard does not support building or editing SQL statements containing GROUP BY, HAVING or JOIN BY clauses. In this case, you must hand-edit the resulting statement on the Run SQL panel.

Data Transfer has an option for specifying whether ANSI or ASCII data is written to or read from a PC file. Requests imported into iSeries Access for Web will use the Data Transfer setting, combined with the language and character set specified by the browser to determine the encoding of the client file. This may or may not be correct. You may have to manually change this setting.

iSeries Access for Web will not differentiate between source physical and data physical files. An imported request that selects all columns (SELECT *) from a source physical file will produce output containing all columns contained within the source physical file, including the sequence and date columns. An identical request run with Client Access Express produces output containing only the data column(s).

When importing Client Access Data Transfer to AS/400 requests that copy data to a source physical file, the request must be using an FDF file. This situation cannot be detected by the import function and an error will not be issued. However, if an FDF was not being used, the resulting copy data to table request will not work correctly.

iSeries Access for Web does not support all the file types currently supported by Client Access Data Transfer. In some cases, a Data Transfer file type may be mapped to a corresponding iSeries Access for Web file type. If a corresponding file format cannot be found the import will fail.

Some output options available in Client Access Data Transfer are not available in iSeries Access for Web. These options will be ignored.

Import query

Query files with SQL statements containing program variables or replacement variables are not supported. Query files containing forms or procedures are not supported.

Download:

iSeries Access for Web provides support for distribution of files from the server to the end user workstation.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the Customize function.

Download

You can display a list of files that have been made available for download. The list shows only the downloads to which you have authority. From the list, you can download files to your workstation. Download files can also be managed by the user who created the file, by a user with *SECADM authority, or by a user who has been granted authority to manage the file. Management capabilities include the ability to edit the name, edit the description, update the file, update access to the file, and delete the file from the Downloads list.

Create downloads

You can add files to the list of files available for download by users. This could be an individual file or a group of files packaged or compressed into a single file. When you create a download, only the creator and those with *SECADM authority can access it. Other users can be granted access to the download by working with the download in the download list. When a download package is created, it will only be available within the web serving environment in which it was created. Packages are not available to other users running in a different Web serving

| environment. To make the package available to those users, a new download package would
| need to be created within that Web serving environment.

Considerations

None.

Restrictions

None.

Related reference

"Customize" on page 80

iSeries Access for Web provides support to tailor the product.

File:

iSeries Access for Web provides support for accessing files on an iSeries server.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Browse files

A list of directories in the integrated file system can be displayed and navigated. From the list, files can be viewed, downloaded, or mailed. Management functions are provided for renaming, copying, and deleting files and directories. Support is available to zip and unzip files. New directories can be created. Files can be uploaded from the local file system to the integrated file system. There is also support to edit authorities and change ownership of the objects in the integrated file system.

| **Browse file share**
| A list of directories of an iSeries NetServer™ file share can be displayed and navigated. From the
| list, files can be viewed, downloaded, or mailed. For read-write shares, other available functions
| include: renaming, copying, and deleting files and directories; zipping and unzipping files;
| creating new directories; uploading files from the local file system; and editing authorities and
| changing ownership of objects in the share.

File shares
| A list of iSeries NetServer file shares can be displayed. From the list, the directories on a share
| can be browsed.

Related reference

"Customize" on page 80

iSeries Access for Web provides support to tailor the product.

File considerations:

The following considerations apply to using the iSeries Access for Web file functions in a Web application server environment.

Content-type (MIME-type) mapping

iSeries Access for Web uses the file extension to determine the file content-type (MIME-type). The file content-type is used by the browser to determine how best to render the information. For example, files with an extension of .htm, .html, or .txt are rendered in the browser window. The browser will also attempt to determine what browser plug-in to use for the given file content-type. A file with a .pdf extension will cause the browser to attempt to load the Adobe Acrobat Reader.

iSeries Access for Web provides a way to extend or override the included file extension to file content-type mapping. These overrides are done on an instance basis. For each Web application server (WebSphere and ASF Tomcat) instance for which iSeries Access for Web is configured, you can override the included file extension content-type mapping.

To override the included mappings, create a file called `extension.properties` and place the file in the integrated file system at one of the following locations:

- (For ASF Tomcat) /QIBM/UserData/Access/Web2/*application_server*/*instance_name*/config
- (For the WebSphere environments):
  /QIBM/UserData/Access/Web2/*application_server*/*instance_name*/*server_name*/config

An example is provided at /QIBM/ProdData/Access/Web2/config/extension.properties that you can copy to your UserData tree.

For *application_server*, specify:
- `was60` for WebSphere Application Server V6.0
- `was60nd` for WebSphere Application Server Network Deployment V6.0 for OS/400
- `was51exp` for WebSphere Application Server - Express for iSeries V5.1
- `was51base` for WebSphere Application Server for iSeries V5.1 (Base and Network Deployment editions)
- `was50base` for WebSphere Application Server for iSeries V5.0 (Base and Network Deployment editions)
- `was50exp` for WebSphere Application Server - Express for iSeries V5.0
- `asftomcat` for a ASF Tomcat configuration

For *instance_name*, specify the name of the Web application server instance in which iSeries Access for Web was configured. This Web application server instance was specified on the QIWA2/CFGACCWEB2 command when you configured iSeries Access for Web.

For *server_name*, specify the name of the application server within the Web application server instance in which iSeries Access for Web was configured. This application server was specified on the QIWA2/CFGACCWEB2 command when you configured iSeries Access for Web.

Some examples of `extension.properties` entries are:
- `out=text/plain`
- `lwp=application/vnd.lotus-wordpro`

For a list of file content-types, see the Internet Assigned Numbers Authority Mime Media Types Web page.

Forcing a Save As window when downloading files

When using Microsoft Internet Explorer and any of the iSeries Access for Web functions to download a file to the browser, many times Internet Explorer will display the file's content in the browser without offering an opportunity to just save the file. Basically, Internet Explorer examines the data in the file and determines that it can display the data in the browser window. Many users do not want this behavior and would prefer to save the file immediately.

To get around this issue, iSeries Access for Web can now optionally write a HTTP header that forces Microsoft Internet Explorer and other browsers to display a File Save As window. The HTTP header being written is a Content-Disposition header. The Content-Disposition header that can be written is controlled by creating a `disposition.properties` file. Different Content-Disposition headers can be written based on the file content-type (MIME-type) being downloaded.

iSeries Access for Web uses the file extension to determine the file content-type (MIME-type) to be sent to the browser. The file content-type is used by the browser to determine how best to render the information. For more information about controlling the MIME-type based on the file extension, see Content-type (MIME type) mapping in this topic. This topic describes how to map file extensions to different MIME-types.

Once the MIME-type mapping setup has been done, you need to create a `disposition.properties` file in the iSeries Access for Web UserData tree. For most of the supported Web serving environments, the iSeries Access for Web UserData tree is /QIBM/UserData/Access/Web2/*application_server/instance_name/server_name/*config. Replace *application_server*, *instance_name*, and *server_name* with the unique values on your server.

The `disposition.properties` file needs to contain entries that specify which Content-Disposition header value should be written, based on the MIME-type of the file being downloaded using iSeries Access for Web.

The following sample properties files give an example of what would be required to force a File Save As window when downloading a file with a .TXT extension:

Example:

The `extensions.properties` file needs to contain: `txt=text/plain`

The `disposition.properties` file needs to contain: `text/plain=attachment`

Changes to the properties file will take effect shortly after the files are changed. The changes do not take effect immediately unless the Web application server is stopped and restarted.

Document Library Services (QDLS) file system enrollment

A user must be enrolled in the system directory in order to access the Document Library Services (QDLS) file system with iSeries Access for Web. The steps needed to enroll a user are listed below. If the user has previously been enrolled or does not need access to the QDLS file system, these steps are not necessary. A user can still use the File function of iSeries Access for Web without having access to the QDLS file system.

1. Enter GO PCSTSK at the iSeries command prompt. This display screen is shown:

```
#

+---------------------------------------------------------------+
| PCSTSK                    Client Access Tasks                 |
|                                        System:   SYSTEM1      |
|  Select one of the following:                                 |
|                                                               |
|    User Tasks                                                 |
|       1. Copy PC document to database                         |
|       2. Copy database to PC document                         |
|                                                               |
|    Administrator Tasks                                        |
|      20. Work with Client Access administrators               |
|      21. Enroll Client Access users                           |
+---------------------------------------------------------------+
```

Figure 1. Client Access Tasks (GO PCSTSK)

2. Select the Enroll Client Access Users option. This display screen is shown:

```
+-------------------------------------------------------------------+
|                    Enroll Client Access Users                     |
|                                                                   |
| Type choices, press Enter.                                        |
|                                                                   |
|   User profile . . . . . . . .    AARON              Name         |
|   User identifier:                                                |
|     User ID  . . . . . . . . .    AARON              Character value |
|     Address  . . . . . . . . .    SYSTEM1            Character value |
|   User description . . . . . .    AARON B.                        |
|   Add to system directory  . .    *NO               *NO, *YES     |
+-------------------------------------------------------------------+
```

Figure 2. Enroll Client Access Users display

3. Enter the appropriate information for these values:

   User profile
   > Name of user

   User ID
   > Usually the same as the User profile name

   User address
   > Usually the same as the system name

   User description
   > A description of the user

   Add to system directory
   > Use *YES if you want to use the QDLS file system

   See the online help for a complete description of the entry fields.
4. Repeat the above steps to enroll other users in the Directory Entry Database.

File restrictions:

The following restrictions apply to using the iSeries Access for Web file functions in a Web application server environment.

Restrictions

There is currently a 2 147 483 647 byte (approximately 2 GB) size limit for files created on the server.

Jobs:

iSeries Access for Web provides support for accessing jobs on an iSeries server.

Jobs and server jobs
> A list of user jobs can be displayed. The type of jobs (based on current job status) displayed in the list can be customized with a job list filter preference setting. A list of server jobs can also be displayed. From either list, job properties can be retrieved for each job. Active jobs can be held, released, and ended. Job logs can be displayed for active jobs. Printer output can be displayed for completed jobs.

Considerations

None.

Restrictions

None.

> **Related reference**
>
> "Customize" on page 80
> iSeries Access for Web provides support to tailor the product.

Mail:

The mail function is available from several places in iSeries Access for Web, including Database, Print, Files, and Commands. You can also send e-mail notifications to users when items are saved in their personal folders or when their folder has reached a size threshold.

Considerations

| To use the Mail function, you must first have an e-mail address and an SMTP server configured for your
| user profile. These values are retrieved from the iSeries system directory, if they are configured.
| Otherwise, use Customize to set these values. Administrator access is required to set the SMTP server
| value. Administrator access might also be required to set the e-mail address.

Restrictions

None.

> **Related reference**
>
> "Print" on page 96
> iSeries Access for Web provides support to access spooled files, printers, printer shares, and output queues on an iSeries server. It also provides support for automatic transformation of SCS and AFP printer output to PDF documents.
>
> "Command" on page 79
> iSeries Access for Web provides support for running CL commands on an iSeries server.
>
> "Database" on page 80
> iSeries Access for Web provides support for accessing database tables on an iSeries server.
>
> "Customize" on page 80
> iSeries Access for Web provides support to tailor the product.

Messages:

iSeries Access for Web provides support for accessing messages on an iSeries server.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Display messages
> The list of messages in the message queue for the iSeries Access for Web authenticated user can be displayed. The list of messages in the system operator message queue can also be displayed. From the message lists, message text and message information can be viewed. Messages can also be answered and deleted.

Send messages and announcements
> Text messages can be sent to a user profile or a message queue. The message can either be an informational or an inquiry message. Break messages can be sent to iSeries workstations. Sametime announcements can also be sent to iSeries Access for Web Sametime users.

Message queues
A list of message queues on the iSeries server can be displayed. From the list, message queues can be selected and the messages in a selected queue can be managed. Message queues can also be deleted from the server.

Considerations

In order to send Sametime announcements, the following conditions must be met:

- The Sametime server to use must be identified. Use the **Customize → Settings** function to configure this information. See the Customize topic for more information.
- Each announcement recipient must have a registered user name on the Sametime server.
- The Sametime **User preference** setting must be set to the registered user name for each announcement recipient.
- The Sametime client and server code must be version 3.0 or later.
- The IP address of the iSeries server must be in the Sametime server's trusted IP list. If the iSeries server has multiple IP addresses, all IP addresses must be added to the list. To add an IP address to the trusted IP list, edit the sametime.ini file in the data directory of the Sametime server and add the following line to the Config section of the file:

```
[Config]
VPS_TRUSTED_IPS="trusted IP addresses separated by commas"
```

Restrictions

Messages can only be sent to message queues contained in libraries with nine or fewer characters in the library name.

Related reference
"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

My folder:

Each user of iSeries Access for Web has a personal folder. The folder contains items placed in it by the folder owner or by other iSeries Access for Web users. Multiple functions within iSeries Access for Web provide the option to store operation results in a personal folder. For example, the results of an SQL statement or a CL command can be stored in a personal folder.

My folder
The list of items in the current user's personal folder can be displayed. From the list, folder items can be opened, mailed, or copied to another folder or to the integrated file system. Management functions are provided to rename, delete, and mark items as opened or unopened.

Considerations

Customize can be used to limit the size of a user's folder or to limit the number of items in a user's folder. Customize can also be used to setup mail or Sametime notification when an item is placed in a user's folder or when the folder has reached a size or item count threshold.

Restrictions

None.

Related reference
"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

"Print" on page 96
iSeries Access for Web provides support to access spooled files, printers, printer shares, and output queues on an iSeries server. It also provides support for automatic transformation of SCS and AFP printer output to PDF documents.

"Command" on page 79
iSeries Access for Web provides support for running CL commands on an iSeries server.

"Database" on page 80
iSeries Access for Web provides support for accessing database tables on an iSeries server.

My home page:

iSeries Access for Web delivers a default home page that is shown when the home page URL (`http://<server_name>/webaccess/iWAHome`) is accessed.

The default home page is designed to be a starting point to highlight the functions of the product. It is also meant to be an example of how to build a customized home page or pages that access iSeries Access for Web functionality. To replace the default home page, use the Customize function to set the Home page HTML file policy to the name of the new home page HTML file. This home page replacement can be done for an individual user, a group of users, or all users (*PUBLIC).

Considerations

None.

Restrictions

None.

Related concepts

"Default page content" on page 64
iSeries Access for Web generates most of its page content dynamically in response to user actions. The remainder of the content is retrieved from static HTML files. A style sheet is also used to control certain aspects of the content's appearance.

Related reference

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

Other:

iSeries Access for Web provides a set of utilities that can be useful when working with the other functions of iSeries Access for Web.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

About Information about iSeries Access for Web and the environment in which it is running can be displayed.

Bookmarks
A bookmark file can be created with entries for each link in the iSeries Access for Web navigation tabs.

Change password
The password for the logged on user profile can be changed using iSeries Access for Web.

Connection pool status
iSeries Access for Web maintains a pool of iSeries server connections. A summary of connection use and availability can be displayed. Details of connection use is also available for each user and

iSeries server pair within the pool. From this detailed list, all connections for a user/server pair can be cleared from the pool. Customize can be used to configure settings for the connection pool.

Trace Tracing capabilities can be used to aid problem determination. IBM Service can provide information about these capabilities if a problem is found.

Considerations

None.

Restrictions

None.

> **Related reference**
> "Customize" on page 80
> iSeries Access for Web provides support to tailor the product.

Print:

iSeries Access for Web provides support to access spooled files, printers, printer shares, and output queues on an iSeries server. It also provides support for automatic transformation of SCS and AFP printer output to PDF documents.

A list of tasks that can be performed is shown below. Any of these tasks can be restricted using the customize function.

Printer output
The list of spooled files owned by the current user can be displayed. From the list, SCS and AFP output can be viewed in PNG, TIFF, PCL and AFP formats. ASCII output can be downloaded to the browser. PDF documents can be created with spooled file contents. These documents can be viewed in the browser, placed in a personal folder, or sent to someone as an e-mail attachment. Options are also provided to perform the following actions on printer output: hold, delete, print next, move to another printer, move to another output queue, send to another server, change attributes, and copy to a database file.

Printers and shares
The list of printers on the iSeries server can be displayed. The set of printers shown in the list can be restricted using a printer name filter. The list of iSeries NetServer printer shares can also be displayed. From these lists, the printer output for a printer can be accessed. Printer status information can be viewed. Messages waiting on printer jobs can be viewed and answered. Writer jobs can also be held, released, started and stopped.

PDF printers
PDF printers can be created to automatically transform SCS and AFP printer output into PDF documents. The list of configured PDF printers can be displayed. From the list, printers can be started and stopped. A printer's configuration can be changed or overridden with the contents of a PSF configuration object. The owner of a PDF printer can allow additional users to access the printer or change the printer's owner. PDF printers can also be deleted by the owner.

> **Note:** In order to use PDF Printers, IBM Infoprint Server (5722IP1) must be installed on the iSeries server.

PDF printer output
The list of documents transformed by PDF printers, for which the current user has authority, can be displayed. From the list, the job information associated with each transformed spooled file can be displayed. The documents can also be viewed, deleted, copied to a personal folder, copied to the iSeries integrated file system, or sent to someone as an e-mail attachment.

Internet printers and shares

The list of Internet printers on the iSeries server can be displayed. The list of Internet printers shares (Internet printers configured using the IBM IPP Server Administrator interface) can also be displayed. From these lists, printer status, printer configuration information, and the URL used to print to each printer can be viewed. Printer output for each printer can be accessed. Printers can also be started and stopped. For more information about the IBM Internet Printing Protocol, see the Internet Printing Protocol topic.

Output queues

The list of output queues on the iSeries server can be displayed. The set of queues shown in the list can be restricted using library and queue name filters. From the list, the number of files on each queue and the writer associated with each queue can be viewed. Queue status information can be viewed. The printer output on a queue can be accessed. Queues can also be held and released.

Related reference

"iSeries software requirements" on page 13
This topic contains iSeries software requirements for iSeries Access.

"My folder" on page 94
iSeries Access for Web lets you store and manage content generated by iSeries Access for Web.

"Customize" on page 80
iSeries Access for Web provides support to tailor the product.

"Mail" on page 93
The mail function is available from several places in iSeries Access for Web, including Database, Print, Files, and Commands. You can also send e-mail notifications to users when items are saved in their personal folders or when their folder has reached a size threshold.

Print considerations:

The following considerations apply to using the iSeries Access for Web print functions in a Web application server environment.

PDF Printers

IBM Infoprint Server for iSeries is required if you want to use the PDF Printers function.

PDF Transformations of Printer Output

iSeries Access for Web has two PDF transformation possibilities, IBM Infoprint Server (5722-IP1) or a TIFF transform. IBM Infoprint Server is a separately purchasable product that gives iSeries Access for Web users the ability to create full text PDF files that deliver document fidelity, while preserving the ability to navigate through the document. If you have IBM Infoprint Server installed, iSeries Access for Web automatically detects and uses it. If you do not have IBM Infoprint Server installed, the individual pages of the spooled file will be converted into images. These images become the pages of the PDF document. You cannot edit content in any of these pages.

Note:

1. IBM Infoprint Server may make changes to the order of the spooled files in the current user's list. It may also make changes to the creation date and time and the start and complete date and time.
2. The spooled file must be in either the HELD, READY, or SAVED state to be printed by IBM Infoprint Server.

Printer Output - View

Viewing in Advanced Function Presentation™ (AFP) format:

- When previewing in AFP format, select *Pick App* and then choose the appropriate executable file, for example, choose `C:\Program Files\IBM\Client Access\AFPVIEWR\ftdwinvw.exe`.
- Download the AFP Viewer plug-in by using the iSeries Access for Web Download function or install the plug-in from the Windows AFP Viewer Plug-in download page. This plug-in supports printing both SCS and AFP files.

Viewing in PCL or TIFF format

A viewer must be installed in order to view printer output as PCL or TIFF.

Print restrictions:

The following are restrictions for the iSeries Access for Web print functions in a Web application server environment.

Viewing AFP data
> AFP data might not display correctly when viewed as PNG, TIFF, or PCL. If the data was created using one of the IBM AFP printer drivers and the "Print Text as Graphics" driver setting was set to "Off", then the "Fonts" device setting must be set to an EBCDIC code page. The "Print Text as Graphics" setting is a document defaults setting for the printer driver.

Viewing spooled files using the AFP Viewer
> The external resources in AFP spooled files will not be displayed.

iSeries Access for Web URL interfaces
The functionality provided by iSeries Access for Web is available through a number of URL interfaces. These URL interfaces can be included as links on Web pages to provide direct access to iSeries Access for Web functions. These URLs can also be bookmarked for easy access to frequently used tasks.

The complete documentation for these interfaces can be found on the iSeries Access for Web Web site.

NLS considerations
iSeries Access for Web displays information from a variety of sources. Some of these sources are able to provide information in more than one language, or format information in a language-specific manner.

These sources include:
- i5/OS
- JDBC driver
- Web application server
- iSeries Access for Web

Such language-specific information includes forms, error messages, help, formatted dates and times, and sorted lists. When a choice of languages is available, every attempt is made to select a language that is appropriate for the user. The selected language is used to influence the language and format of information from these other sources. However, there is no guarantee that the information from a specific source will be in the selected language, or that all the information will be in the same language.

Messages and help which originate from i5/OS may not be in the selected language, depending on which language versions are installed on the iSeries. If the selected language is not installed on the iSeries, then i5/OS messages displayed by iSeries Access for Web will be in the primary language of the i5/OS.

Language and character set selection

iSeries Access for Web uses the following method to select an appropriate language and character set.

First, a list of potential language choices is assembled from the following sources:
- The iSeries Access for Web **locale=** parameter.

- The iSeries Access for Web **Preferred language** preference.
- The browser language configuration (HTTP Accept-Language header).
- The iSeries user profile Language ID.
- The Java Virtual Machine default locale.

Second, a list of acceptable character sets is assembled from the following sources:
- The iSeries Access for Web **charset=** parameter.
- The iSeries Access for Web **Preferred character set** preference.
- The browser character set information (HTTP Accept-Charset header).

Note: If the browser character set information (HTTP Accept-Charset header) indicates that UTF-8 is supported, the list of acceptable character sets will include UTF-8 before other character sets supported by the browser. In this case, UTF-8 is used as the character set when the **Preferred character set** preference is set to None.

Third, each language in the list of potential languages is examined to determine if it is available and if it can be represented using a character set from the list of acceptable character sets.

The first language that is available and can be represented using one of the acceptable character sets is selected.

The first character set from the list of acceptable character sets that can represent the language is selected.

Information in multiple languages (multilingual)

Because the information displayed by iSeries Access for Web comes from a variety of sources, there is a possibility that the information is in more than one language. When multiple languages are displayed in a browser simultaneously, a multilingual character set, such as UTF-8, might be required to display all the characters correctly. If this is the case, the **Preferred character set** preference should be changed to either Multilingual [UTF-8] or None.

Note: Since most browsers support UTF-8 as a character set, if you specify None for the **Preferred character set** preference, iSeries Access for Web uses UTF-8 for the character set.

CCSIDs and i5/OS messages

To ensure that information is displayed properly, make certain that the Coded Character Set ID (CCSID) setting for the user profile is appropriate for the messages originating from i5/OS.

Save and restore iSeries Access for Web in a Web application server environment

The server commands SAVLICPGM and RSTLICPGM can be used to save and restore iSeries Access for Web from one server to another. Using these commands has the same effect as installing iSeries Access for Web using the install media (CD-ROM). However, the advantage of using the commands is that any iSeries Access for Web PTFs that have been applied are saved from the source server and restored to the target server.

If iSeries Access for Web has been used on the source server and users have generated and saved user data, the SAVLICPGM and RSTLICPGM process will not propagate that user data to the target server. To propagate the user data, additional steps must be performed.

To start iSeries Access for Web and propagate the user data, do the following:
1. **Complete the Plan, install, and configure checklist.** Please note that the RSTLICPGM command does not make iSeries Access for Web available for use on the target server. iSeries Access for Web must first be configured and started before it can be used. To configure iSeries Access for Web, refer

to the Plan, install, and configure checklist. The checklist contains steps to install iSeries Access for Web on the server using the install media (CD-ROM). At the point in the checklist that installation is addressed, you would run the SAVLICPGM and RSTLICPGM commands from the source server to the target server.

2. **Use the CFGACCWEB2 command.** Continue with the checklist and run the steps to configure iSeries Access for Web on the target server using the CFGACCWEB2 command.

3. **Run the WRKLNK command.** After configuring iSeries Access for Web, run the server command WRKLNK OBJ('/QIBM/UserData/Access/Web2/*') on the target server.

4. **Identify the users path on the target server.** Several directories will be listed. One directory has a name that corresponds to the Web application server type that was configured using the CFGACCWEB2 command. That directory contains subdirectories that identify the instance and application server of the Web application server type that is configured.

   Expand the directories until a directory named 'users' is displayed. Make note of this complete directory path. User data will be copied to this users directory in a later step.

   If you have multiple Web application server types configured, you might need to locate multiple users directories under different directory trees.

5. **Run the WRKLNK command.** On the source server, run the server command WRKLNK OBJ('/QIBM/UserData/Access/Web2/*').

6. **Identify the users path on the source server.** Several directories will be listed. One directory has a name that corresponds to the Web application server type that has been used on the source server. That directory contains subdirectories that identify the instance and application server of the Web application server type that is configured.

   Expand that directory tree until a directory named users is displayed. Make note of this complete directory path. This users directory contains the user data that is to be saved and restored to the target server.

   If you have multiple Web application server types configured, you might need to locate multiple users directories under different directory trees.

7. **Save and restore the users directory.** The users directory on the source server should now be saved and restored to the users directory on the target server. Use the save and restore mechanism you are most comfortable using.

8. **Save and restore the config directory.** The directory that contains the users directory also contains a directory called config. The config directory contains files that should also be saved and restored. If they exist, the files to save and restore are: webaccess.policies extension.properties, and disposition.properties.

9. **Run the CFGACCWEB2 command.** Now that all the user data files have been saved from the source server and restored to the target server, the CFGACCWEB2 command must be run again. Running the command again will ensure that all the user data files that were saved and restored have the correct data and object authority settings.

   If you have multiple Web application server types configured, you need to repeat steps 7, 8, and 9 for each pair of user directories located in steps 4 and 6.

10. **Return to the checklist.** Return to the Plan, install, and configure checklist and complete any remaining steps.

   Related concepts

   "Checklist: Plan, install, and configure" on page 12
   Use this checklist to guide you through the steps necessary to plan, install, verify, and configure a simple iSeries Access for Web environment. These steps do not take into account other Web applications or more complex Web environments.

   Related information

   CFGACCWEB2 CL command
   WRKLNK CL command

iSeries Access for Web in a portal environment

iSeries Access for Web provides a set of portlets to access iSeries resources through a browser interface. These portlets run in the portal environment on an iSeries server.

The following topics provide information about configuring, customizing, utilizing, and saving the product in this environment. Concepts unique to the portal environment are also discussed.

> **Related concepts**
>
> "Portal application" on page 5
> iSeries Access for Web provides a portal application that runs in a portal environment, such as WebSphere Portal or IBM Workplace Services Express.

Portal concepts

IBM offers many products, such as WebSphere Portal, that provide a portal environment in which applications can be installed and run. A portal in simplistic terms is a single point of access to multiple information sources. Each information source is called a portlet. A portlet is one of the small windows or content areas that appears on a portal page.

By putting portlets on a portal page, many "applications" or sources of data can be displayed at once. Since an individual portlet can process data from any available back-end server, a portal page provides consolidation of data independent of data location or data format.

The individual portlets on a page may or may not be related. When portlets are related, it is helpful when the portlets are able work together to perform a set of tasks for the end user. Portlets that are able to communicate with each other to perform related tasks are called cooperative portlets.

iSeries Access for Web portlets provide portal functionality for accessing iSeries i5/OS resources.

The following topics contain more information about portlets and their usage.

Cooperative portlets

The term cooperative portlets refers to the capability of portlets on a page to interact with each other by sharing information.

One or more cooperative portlets on a portal page can automatically react to changes from a source portlet triggered by an action or event in the source portlet. A source portlet is the sender of information that will be consumed and processed by a target or receiving portlet. Portlets that are targets or receivers of the piece of information can process the information and react by displaying the appropriate information in their portlet content area. Cooperation between source and target portlets is facilitated by a WebSphere Portal runtime entity called the property broker.

Portlets on a page can cooperate in this way even if they were developed independently and are part of different applications. The only requirement for this to work is both the sender portlet and the receiver portlet of a piece of information need to be on the same portal page, and be set up to handle the same type of information. By default a manual action is required for source portlet information to be sent to a target portlet. This manual action is called Click To Action (C2A). If an automatic sending of the information is desired, the portlets can be "wired" together. An administrator can do the wiring by using the IBM Wiring portlet. In this scenario, the piece of information will automatically flow to the correct receiving portlet when an action is taken in the source portlet. End users or administrators can also wire two portlets together by holding down the CTRL key while clicking on the Action icon on the source portlet. This source-target relationship will be honored until a user holds down the CTRL key and clicks on the Action icon a second time.

iSeries Access for Web's portal functionality includes multiple cooperative portlets. The functional areas containing cooperative portlets include: Database, File, and Print. See the detailed information in these sections to determine which portlets work together to provide a more advanced set of functionality.

> **Related concepts**
>
> "Print" on page 121
>
> "Database" on page 116
>
> **Related reference**
>
> "Files" on page 118
> The iSeries Access portlets provide support for accessing files on i5/OS.

Cross-site scripting

WebSphere Portal enables Cross-site scripting (CSS) security protection by default. With CSS security protection enabled, the characters ″>″ (greater than) and ″<″ (less than) in form input are changed to the character entities ″>″ and ″<″. This is done to minimize the security risk of malicious input which could disrupt portal content.

Having CSS security protection enabled can cause problems with iSeries Access portlets which rely on form input to retrieve information from the user. For example, the iSeries Dynamic SQL portlet uses a form to retrieve a SQL statement to run. Any ″>″ or ″<″ characters in the statement are changed to ″>″ and ″<″. When the modified statement is run, it fails with this message: `[SQL0104] Token & was not valid. Valid tokens: < > = <> <= ...`

WebSphere Portal provides a configuration option to disable CSS security protection. Disabling this protection avoids the problems associated with modifying form input; however, the security implications associated with disabling this support need to be considered. See the Troubleshooting section of the WebSphere Portal documentation for more information.

> **Related reference**
>
> "File considerations" on page 118
> The following are considerations for files.
>
> "Database considerations" on page 82
> The following considerations apply to using the iSeries Access for Web database functions in a Web application server environment.

Configure iSeries Access for Web in a portal environment

Installing iSeries Access for Web to the iSeries server does not make it available for use. To use iSeries Access for Web, it must be deployed to the portal environment.

Note: If you are upgrading iSeries Access for Web from a previous release, you must still configure iSeries Access for Web to enable the new functions.

Configuration commands

iSeries Access for Web provides commands to perform and manage the configuration on the server. These commands must be used to perform actions such as configuring and removing the iSeries Access for Web configuration within the portal environment.

Both CL and script commands are provided. Providing different types of commands gives you the flexibility to manage iSeries Access for Web using the interface you are most comfortable with. The CL and script commands perform identical functions, they are just invoked differently. The parameters are also identical, but are input differently.

The CL commands are installed to the library QIWA2. The script commands are installed to /QIBM/ProdData/Access/Web2/install and can be used within the QShell environment.

The iSeries Access for Web CL commands are:
- **CFGACCWEB2:** Deploys the iSeries Access for Web portal application.
- **RMVACCWEB2:** Removes the iSeries Access for Web configuration.

The iSeries Access for Web script commands are:
- **cfgaccweb2:** Deploys the iSeries Access for Web portal application.
- **rmvaccweb2:** Removes the iSeries Access for Web configuration.

Command help

There are multiple ways to access help for CL commands. Enter the command name on the command line and press F1. Alternatively, enter the command name and press F4 to prompt the command, then move the cursor to any field and press F1 for help on that field.

To get help on a script command, specify the -? parameter. For example, start a QShell session by running the command STRQSH, then enter the command /QIBM/ProdData/Access/Web2/install/cfgaccweb2 -?

Configuration scenarios

If you are not familiar with the portal environment and need to create an HTTP and Web application server and deploy a portal environment, or if you want to create a new portal environment for iSeries Access for Web, examples are available to walk you through the process.

If you are familiar with the portal environment and already have HTTP and Web application servers created and a portal environment deployed and ready for use, examples are available that show you how to invoke the iSeries Access for Web commands and what to input into the commands.

Related tasks

"Install iSeries Access for Web" on page 20
Follow these instructions to install iSeries Access for Web on the server.

Related reference

"Create pages" on page 114
When configuring iSeries Access portlets for WebSphere Portal, default WebSphere Portal pages can be created and populated with the iSeries Access portlets. The default pages created consist of a main page entitled "My iSeries" and multiple sub-pages under the main page. The sub-pages group similar functional portlets on the same page.

"Upgrade considerations" on page 18
This topic contains information about upgrading iSeries Access for Web from a previous release.

Related information

CFGACCWEB2 CL command

RMVACCWEB2 CL command

Examples for configuring a new portal environment
These examples provide step-by-step instructions for setting up a complete portal environment.

The instructions walk you through creating an HTTP and Web application server, deploying a portal environment, deploying the Series Access for Web portal application, and verifying that the iSeries Access for Web portal application is working.

Before using these examples, ensure you have completed the Plan, install, and configure checklist.

Configure WebSphere Portal - Express for Multiplatforms V5.0.2 (iSeries):

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Portal Web serving environment. It also describes how to verify that the setup is working.

This example consists of these steps:
- Start the IBM Web Administration for iSeries interface (also known as the IBM HTTP Server for iSeries). See step 1.
- Create an HTTP Web server, create a WebSphere Application Server V5.0 for iSeries Web application server, and deploy WebSphere Portal. See step 2
- Configure iSeries Access for Web. See step 3 on page 105
- Use a browser to access iSeries Access for Web. See step 4 on page 107

Steps to configure the WebSphere Portal Web serving environment:
1. Start the IBM Web Administration for iSeries interface.
   a. Start a 5250 session to the server.
   b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Run the following server command to start the web administration interface job: STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   d. Minimize the 5250 session.
2. Create an HTTP web server, create a WebSphere Application Server V5.0 for iSeries Web application server, and deploy WebSphere Portal:
   a. Open a browser to: http://<server_name>:2001
   b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG, *JOBCTL, and *SECADM.
   c. Select **IBM Web Administration for iSeries**.
   d. Select the **Setup** tabbed page.
   e. Under Common Tasks and Wizards, select **Create WebSphere Portal**.
   f. The Create WebSphere Portal page opens. Select **Next**.
   g. The Create a WebSphere Application Server for the Portal - Specify Name page opens. In the **Application server name** field, enter `iwawps5`, then 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**, specify `IWAWPS5`.
      - For **Port**, specify `2038`.

      After entering the values, select **Next**.
   j. The Specify Internal Ports Used by the Application Server page opens. For **First port in range**, change the default value to 21038, then select **Next**.
   k. The Create DB2 Database for Portal page opens. Select **Next**.
   l. The Specify User to Own the Portal Database page opens. The page defaults to use an existing user profile, `wpsdbuser`.
      - If you know the password for this user profile, enter it.
      - Otherwise, select **Create a new user on this local system** and follow the prompts.

      In this example, we assume you use the existing user (default option). After specifying the user profile, select **Next**.
   m. The "Create a default URL path, portal path, and personalized path" page opens. Leave the default values for the fields displayed. Select **Next**.

n. The Configure Proxy Information for Content Access Service page opens. Select **Next**.

o. The Deploy Default Portlets page opens. Select **Business portlets** for deployment. De-select all other optional portlets, including **iSeries Access portlets**. Select **Next**.

p. The Secure Application Server and WebSphere Portal with LDAP page opens. Select **Next**.

q. The Portal Administrative Group and Administrative User page opens. For Password and Confirm Password, enter `wpsadmin` Select **Next**.

r. The Summary page opens. Select **Finish**.

s. The Web page is re-displayed. The Manage/Application Servers tabbed page is active. Under Instance/Server, iwawps5/iwawps5 – WAS, V5 (portal) is listed with a status of Creating. From this Web page, you can manage the WebSphere application server.

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

   When the process completes, the status is updated to Running.

   Minimize the browser window.

3. Configure iSeries Access for Web

   a. Restore the 5250 session window.

   b. To see the WebSphere application server running, Enter this server command: WRKACTJOB SBS(QEJBAS5)

   c. Verify that IWAWPS5 is listed as a job running under the QEJBAS5 subsystem. iSeries Access for Web requires WebSphere Portal to be running before it can be configured.

   d. To see the HTTP server running, run this server command: WRKACTJOB SBS(QHTTPSVR)

   e. Verify that IWAWPS5 is listed as a running job. There will likely be multiple jobs of this name running.

   f. iSeries Access for Web portlets are configured using a command provided by the software product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use the command you prefer.

   - **To use the CL command, follow these steps:**

     1) Configure iSeries Access for Web portlets using the following command:

```
CFGACCWEB2 APPSVRTYPE  (*WP50) WASINST(iwawps5)
           WPUSRID(wpsadmin) WPPWD(wpsadmin)
           WPURL('<server_name>:2038/wps/config') WPDFTPAG(*CREATE)
```

       These are the parameters used:

       APPSVRTYPE
           Tells the command which Web application server environment to configure.

       WASINST
           Tells the command which instance of the Web application server to configure.

       WPUSRID
           Tells the command what WebSphere Portal administrative user ID to use to make the configuration change.

       WPPWD
           The password for the user ID entered with the WPUSRID parameter.

       WPURL
           Access the WebSphere Portal configuration servlet so that the configuration changes can be made.

       WPDFTPAG
           Tells the command to create the default iSeries Access portlet pages and deploy portlets to those pages.

For help on this command and the parameters, press F1.

2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.

Preparing to perform the configuration changes.

Calling Portal Server to perform the configuration changes.

Refer to the following log file for additional success/failure information:
/QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwa.log

Refer to the following log file for additional success/failure
information: /QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwapage.log

iSeries Access for Web command has completed.
```

3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**
    1) Start the QShell environment using the following server command: QSH
    2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

    3) Configure iSeries Access for Web portlets using the following command:

       ```
       cfgaccweb2 -appsvrtype *WP50 -wasinst iwawps5 –wpusrid wpsadmin
                -wppwd wpsadmin –wpurl <server_name>:2038/wps/config
                -wpdftpag *CREATE
       ```

    These are the parameters used:

    -appsvrtype
    > Tells the command which Web application server environment to configure.

    -wasinst
    > Tells the command which instance of the Web application server to configure.

    –wpusrid
    > Tells the command what WebSphere Portal administrative user ID to use to make the configuration change.

    -wppwd
    > The password for the user ID entered with the WPUSRID parameter.

    –wpurl
    > Access the WebSphere Portal configuration servlet so that the configuration changes can be made.

    -wpdftpag
    > Tells the command to create the default iSeries Access portlet pages and deploy portlets to those pages.

    For help on this command and the parameters, specify the -? parameter.

    4) Several messages similar to these will be displayed:

    ```
    Configuring iSeries Access for Web

    Preparing to perform the configuration changes.

    Calling Portal Server to perform the configuration changes.

    Refer to the following log file for additional success/failure information:
    /QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwa.log

    Refer to the following log file for additional success/failure information:
    /QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwapage.log

    iSeries Access for Web command has completed.
    ```

5) Press F3 when the command completes to exit the QShell session.

g. 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

/QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwa.log
Details deploying portlets.

Note: This file might be in EBCDIC.

/QIBM/UserData/Access/Web2/wp50/iwawps5/logs/cfgwps50iwapage.log
Details creating portal pages.

Note: This file might be in EBCDIC.

h. Signoff the 5250 session window.

i. Close the 5250 session window.

4. Use a browser to access iSeries Access for Web

a. Open a web browser to the following addresses to access WebSphere Portal and iSeries Access for Web portlets: http://*<server_name>*:2038/wps/portal.

b. Log in to WebSphere Portal using wpsadmin for the user ID and password.

c. The Portal page opens. Select the My iSeries tabbed page. You might need to move the tab bar to the right to see the My iSeries tab.

d. Navigate to the various sub-pages of the My iSeries tabbed page.

e. Close the browser window.

By following these steps, you completed these tasks:

- Created a WebSphere application server named iwawps5.
- Deployed the WebSphere Portal to the iwawps5 WebSphere Web application server.
- Created an HTTP server named IWAWPS5.
- Configured iSeries Access for Web portlets to WebSphere Portal.
- Verified that iSeries Access for Web portlets can be accessed from a web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related information

CL command finder

Configure WebSphere Portal - Express for Multiplatforms V5.0.2 (iSeries) with Single sign-on:

This example is for users that are not familiar with the Web serving environment. It describes all the steps necessary to get iSeries Access for Web running in a WebSphere Portal web serving environment with single sign-on (SSO) enabled. It also describes how to verify that the setup is working.

When configuration is completed, the default setting for the iSeries Access portlets authentication option is **Use authenticated WebSphere credential**. This option enables iSeries Access portlets to automatically access i5/OS resources using the authenticated WebSphere Portal user. It is not necessary to configure i5/OS credentials (user profile name and password) for each of the iSeries Access portlets when this type of SSO environment is enabled. iSeries Access portlets use Enterprise Identity Mapping (EIM) to map the

| authenticated WebSphere Portal user to an i5/OS user profile. The mapped i5/OS user profile is used to
| authorize the user to i5/OS resources using standard i5/OS object level security.

| Configuring your portal environment consists of these steps:
| • Configure the EIM environment. See the ""Configure Enterprise Identity Mapping" on page 9" topic
| for information about how to do this.
| • Start the IBM Web Administration for iSeries interface (also known as IBM HTTP Server for iSeries).
| See step 1.
| • Create an HTTP Web server, create a WebSphere Application Server V5.0 for iSeries Web application
| server, and deploy WebSphere Portal. See step 2.
| • Configure iSeries Access for Web. See step 3 on page 110.
| • Use a browser to access iSeries Access for Web. See step 4 on page 112.

| **Steps to configure the portlet environment:**
| 1. Start the IBM Web Administration for iSeries interface.
| a. Start a 5250 session to the server.
| b. Sign on with a user profile that has at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Run the following server command to start the web administration interface job: STRTCPSVR
| SERVER(*HTTP) HTTPSVR(*ADMIN)
| d. Minimize the 5250 session.
| 2. Create an HTTP web server, create a WebSphere Application Server V5.0 for iSeries Web application
| server, and deploy WebSphere Portal:
| a. Open a browser to: http://<*server_name*>:2001
| b. Log in with a user profile that has, at least these special authorities: *ALLOBJ, *IOSYSCFG,
| *JOBCTL, and *SECADM.
| c. Select **IBM Web Administration for iSeries**.
| d. Select the **Setup** tabbed page.
| e. Under Common Tasks and Wizards, select **Create WebSphere Portal**.
| f. The Create WebSphere Portal page opens. Select **Next**.
| g. The Create a WebSphere Application Server for the Portal - Specify Name page opens. In the
| **Application server name** field, enter iwawps5sso, then 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**, specify IWAWPS5SSO.
| • For **Port**, specify 4038.

| After entering the values, select **Next**.
| j. The Specify Internal Ports Used by the Application Server page opens. For **First port in range**,
| change the default value to 41038, then select **Next**.
| k. The Create DB2 Database for Portal page opens. Select **Next**.
| l. The Specify User to Own the Portal Database page opens. The page defaults to use an existing user
| profile, wpsdbuser.
| • If you know the password for this user profile, enter it.
| • Otherwise, select **Create a new user on this local system** and follow the prompts.

| In this example, we assume you use the existing user (default option). After specifying the user
| profile, select **Next**.

m. The "Create a default URL path, portal path, and personalized path" page opens. Leave the default values for the fields displayed. Select **Next**.

n. The Configure Proxy Information for Content Access Service page opens. Select **Next**.

o. The Deploy Default Portlets page opens. Select **Business portlets** for deployment. De-select all other optional portlets, including **iSeries Access portlets**. Select **Next**.

p. The Secure Application Server and WebSphere Portal with LDAP page opens. Select **Yes, secure this server using LDAP**, then specify these values:

   • For LDAP server host name, specify the fully qualified host name of the LDAP server to contain the WebSphere active user registry. For example, MYISERIES.MYCOMPANY.COM

   • For LDAP Port, specify the port number of the LDAP server to contain the WebSphere active user registry. For example, 389.

   Select **Next**.

q. The LDAP Authentication page opens. Specify these values:

   • 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**.

r. The LDAP Configuration Parameters page opens. Select **Next**.

s. The LDAP Administrative Group and Administrative User page opens. For **Password** and **Confirm Password**, enter the desired password for the portal administrator user id.

   Select **Next**.

t. The Web Server Single Signon (SSO) Configuration Parameters page opens. Specify one of these:

   • If no other servers are part of the SSO domain, select **Limit SSO domain to this Web server's hostname**.

   • If other servers are part of the SSO domain, select **Include other Web servers in your SSO environment** and provide your SSO domain name, for example, MYCOMPANY.COM.

   Select **Next**.

u. If an SSO domain name was provided on the previous page, the "Configure Lightweight Third Party Authentication (LTPA) for Web Server Single Signon (SSO) Environment" page opens. For **LTPA password** and **Confirm Password**, enter the desired password for LTPA authentication.

   Select **Next**.

v. The Configure Identity Token SSO for Web to i5/OS Access page opens. Select **Configure Identity Tokens** then specify the following 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, MYISERIES.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**.

w. The Configure Identity Token EIM Domain Information page opens. Specify these values:

   • 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**.

x. The Configure Look-Aside Database page opens. Select **Next**.

y. The Summary page opens. Select **Finish**.

z. The Web page is re-displayed. The **Manage → Application Servers** tabbed page is active. Under Instance/Server, iwawps5sso/iwawps5sso – WAS, V5 (portal) is listed with a status of Creating. From this Web page, you can manage the WebSphere application server.

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

When the process completes, the status is updated to Running.

Minimize the browser window.

3. Configure iSeries Access for Web

a. Restore the 5250 session window.

b. To see the WebSphere application server running, Enter this server command: WRKACTJOB SBS(QEJBAS5)

c. Verify that IWAWPS5SSO is listed as a job running under the QEJBAS5 subsystem. iSeries Access for Web requires WebSphere Portal to be running before it can be configured.

d. To see the HTTP server running, run this server command: WRKACTJOB SBS(QHTTPSVR)

e. Verify that IWAWPS5SSO is listed as a running job. There will likely be multiple jobs of this name running.

f. iSeries Access for Web portlets are configured using a command provided by the software product. Two different commands are provided, a CL command and a QShell script command. Both commands provide and perform the same function. Use the command you prefer.

   • **To use the CL command, follow these steps:**

     1) Configure iSeries Access for Web portlets using the following command:

```
CFGACCWEB2 APPSVRTYPE (*WP50) WASINST(iwawps5sso)
           WPUSRID(wpsadmin) WPPWD(wpsadmin)
           WPURL('<server_name>:4038/wps/config') WPDFTPAG(*CREATE)
```

These are the parameters used:

APPSVRTYPE
Tells the command which Web application server environment to configure.

WASINST
Tells the command which instance of the Web application server to configure.

WPUSRID
Tells the command what WebSphere Portal administrative user ID to use to make the configuration change.

WPPWD
The password for the user ID entered with the WPUSRID parameter.

WPURL
Access the WebSphere Portal configuration servlet so that the configuration changes can be made.

WPDFTPAG
Tells the command to create the default iSeries Access portlet pages and deploy portlets to those pages.

For help on this command and the parameters, press F1.

     2) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.
Preparing to perform the configuration changes.
```

```
Calling WebSphere to perform the configuration changes.

iSeries Access for Web command has completed.

Refer to the following log file for additional success/failure information:
/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwa.logRefer to the
following log file for additional success/failure information:
/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwapage.log

iSeries Access for Web command has completed.
```

   3) Press F3 or Enter when the command completes to exit the display session.

- **To use the QShell script command, follow these steps:**

   1) Start the QShell environment using the following server command: QSH

   2) Make the iSeries Access for Web directory the current directory. Run this server command:

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

   3) Configure iSeries Access for Web portlets using the following command:

```
cfgaccweb2 -appsvrtype *WP50 -wasinst iwawps5sso –wpusrid wpsadmin
          -wppwd wpsadmin –wpurl <server_name>:4038/wps/config
          -wpdftpag *CREATE
```

These are the parameters used:

-appsvrtype
     Tells the command which Web application server environment to configure.

-wasinst
     Tells the command which instance of the Web application server to configure.

–wpusrid
     Tells the command what WebSphere Portal administrative user ID to use to make the configuration change.

-wppwd
     The password for the user ID entered with the WPUSRID parameter.

–wpurl
     Access the WebSphere Portal configuration servlet so that the configuration changes can be made.

-wpdftpag
     Tells the command to create the default iSeries Access portlet pages and deploy portlets to those pages.

For help on this command and the parameters, specify the -? parameter.

   4) Several messages similar to these will be displayed:

```
Configuring iSeries Access for Web.

Preparing to perform the configuration changes.

Calling WebSphere to perform the configuration changes.

iSeries Access for Web command has completed.

Refer to the following log file for additional success/failure information:
/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwa.logRefer to the
following log file for additional success/failure information:
/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwapage.log

iSeries Access for Web command has completed.
```

   5) Press F3 when the command completes to exit the QShell session.

g. 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

/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwa.log
> Details deploying portlets.

> **Note:** This file might be in EBCDIC.

/QIBM/UserData/Access/Web2/wp50/iwawps5sso/logs/cfgwps50iwapage.log
> Details creating portal pages.

> **Note:** This file might be in EBCDIC.

h. Signoff the 5250 session window.

i. Close the 5250 session window.

4. Use a browser to access iSeries Access for Web

   a. Open a web browser to the following addresses to access WebSphere Portal and iSeries Access for Web portlets: http://*<server_name>*:4038/wps/portal.

   b. Log in to WebSphere Portal using the wpsadmin for the user ID and password.

   c. The Portal page opens. Select the My iSeries tabbed page. You might need to move the tab bar to the right to see the My iSeries tab.

   d. Navigate to the various sub-pages of the My iSeries tabbed page.

   e. Close the browser window.

By following these steps, you completed these tasks:

- Configured an EIM environment to enable mapping of WebSphere Portal user identities to i5/OS user profiles.
- Created a WebSphere application server named iwawps5sso.
- Deployed the WebSphere Portal to the iwawps5sso WebSphere Web application server.
- Created an HTTP server named IWAWPS5SSO.
- Configured iSeries Access for Web portlets to WebSphere Portal.
- Verified that iSeries Access for Web portlets can be accessed from a web browser.

In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more information about using all the iSeries Access for Web CL commands, use the CL command finder.

Related concepts

"Single sign-on considerations" on page 8
This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

Related information

CL command finder

Examples for configuring an existing portal environment

These examples provide instructions for configuring iSeries Access for Web within an existing portal environment. They assume that an HTTP server and Web application server exist and that WebSphere Portal has been deployed. Before using these examples, ensure you have completed the plan, install, and configure checklist.

Configure WebSphere Portal - Express for Multiplatforms Version 5.0.2 (iSeries):

Use this information to configure iSeries Access for Web for WebSphere Portal - Express for Multiplatforms Version 5.0.2 (iSeries).

To configure iSeries Access for Web for WebSphere Portal - Express for Multiplatforms Version 5.0.2 (iSeries), do the following:

1. Sign on to your server.
2. Start the WebSphere Portal Web serving environment:
   a. Run the server command STRTCPSVR *HTTP HTTPSVR(*ADMIN).
   b. Open your browser to http://:2001.
   c. Select IBM Web Administration for iSeries.
   d. Navigate to your HTTP server and start it if it is not already running.
   e. Navigate to your WebSphere Portal server and start it if it is not already running.
   f. Wait for the application server to show a status of **running**.
   g. Minimize the browser window.
3. Use the appropriate iSeries Access for Web configuration command.
   - To use the CL command, run this command:

     ```
     QIWA2/CFGACCWEB2 APPSVRTYPE(*WP50) WASINST(was_instance_name)
          WPUSRID(wp_user_ID) WPPWD(wp_password)
          WPURL('your_server_name:port/wps/config') WPDFTPAG(*CREATE)
     ```
   - To use the script command, run these server commands:

     ```
     STRQSH
     cd /QIBM/ProdData/Access/Web2/install
     cfgaccweb2 -appsvrtype *WP50 -wasinst was_instance_name
                -wpusrid wp_user_ID -wppwd wp_password
                -wpurl your_server_name:port/wps/config -wpdftpag *CREATE
     ```

   The configuration commands use these variables:

   was_instance_name
   > The name of the WebSphere Express application server instance you are using.

   wp_user_id
   > the WebSphere Portal user ID that has administrator-level authority to perform configuration changes to WebSphere Portal.

   wp_password
   > The password for the user ID specified in the WPUSRID parameter.

   your_server_name:port/wps/config
   > The universal resource locator (URL) to access the WebSphere Portal configuration servlet.

   *CREATE
   > Tells the command to create the default iSeries Access for Web portal pages and add iSeries Access for Web portlets to those pages.

   For more information about any of these values, refer to the help text for the appropriate field.
4. Return to the Web administration browser interface window you minimized in step 2g. Stop and restart the WebSphere Portal application server.
5. Open your browser to http://<*your_server_name*>:port/wps/portal. Be sure the case matches the example.
6. Sign on to portal.
7. Select the new My iSeries tabbed page.
8. Navigate through the displayed iSeries Access for Web pages and portlets.

| In this example, only the CFGACCWEB2 command is used to configure iSeries Access for Web. For more
| information about using all the iSeries Access for Web CL commands, use the CL command finder.

| **Related information**
| CL command finder

Customize iSeries Access for Web in a portal environment

The following topics provide information on customizing iSeries Access portlets in a portal environment.

Create pages

When configuring iSeries Access portlets for WebSphere Portal, default WebSphere Portal pages can be
created and populated with the iSeries Access portlets. The default pages created consist of a main page
entitled "My iSeries" and multiple sub-pages under the main page. The sub-pages group similar
functional portlets on the same page.

The sub-pages created are as follows:
* 5250
* IFrame Portlets
* Files
* Print
* Database
* Command
* Other

The default iSeries Access portlet pages can be created in one of two ways:
1. Specify the WPDFTPAG(*CREATE) parameter when deploying the portlets with the CFGACCWEB2
   CL command.
2. Select the iSeries Access portlets option from the "Deploy Default Portlets" page of the Create
   WebSphere Portal wizard.

For information on managing pages in WebSphere Portal, see **Administrating your portal** → **Managing**

pages, layout and content in the WebSphere Portal information center .

Related reference
"Configure iSeries Access for Web in a portal environment" on page 102
Follow the steps necessary configure iSeries Access for Web in a portal environment.

Customize portlets

| iSeries Access portlets are customized using edit mode settings. Most of the iSeries Access portlets require
| edit mode settings to be configured before they can be used.

| However, edit mode is not available for all portlets and edit mode for a portlet can also be disabled by an
| administrator. If edit mode is available for a portlet, the pencil icon is displayed on the title bar of the
| portlet window. Select the pencil icon to access the edit mode settings.

| There are common configuration options available with most of the iSeries Access for Web portlets. Many
| portlets also have portlet unique settings. For iSeries Access portlets that access secured iSeries resources,
| the server and authentication edit mode settings must be configured.

| Online help for each of the edit mode settings for a portlet is available while in edit mode.

Portal roles

In WebSphere Portal, access to portlets is controlled by roles. A role defines a set of permissions to a resource, such as a portlet, for a specific user or group. By default, the *Privileged user* role is assigned to the iSeries Access portlets, for the *All Authenticated Users* group, when these portlets are deployed.

This role and group assignment allows iSeries Access portlets to be accessible by any authenticated (logged in) WebSphere Portal users. In addition, edit mode capability is also permitted. To change the default role assignment provided by iSeries Access portlets, use the **Administration** → **Access** → **User and Group Permissions administration interface**.

For information on roles, access rights and group permissions in WebSphere Portal, see **Securing your portal** → **Security Concepts** in the WebSphere Portal information center .

> **Related concepts**
>
> "Security considerations" on page 6
> Learn about security considerations with iSeries Access for Web.

Use iSeries Access for Web in a portal environment

The following topics give you information about using iSeries Access for Web in a portal environment.

iSeries Access for Web functions

A list of functions that can be performed in a portal environment follows. Select a function from the list to see the supported tasks, usage considerations, and restrictions.

5250: The iSeries Access portlets provide support for starting and using 5250 sessions.

The list of available portlets is shown below.

iSeries 5250 Session
> A 5250 session can be started to any server running i5/OS. The server to access is not required to have iSeries Access for Web installed. Options are provided to customize the appearance and behavior of the session. Keyboard support is available for some JavaScript™ enabled browsers.

Considerations

The keyboard enter key is supported with most browsers that have JavaScript enabled. See Restrictions for information about browsers that are not supported.

The keyboard page up, page down and function keys are supported with the following browsers when JavaScript is enabled.
- Microsoft Internet Explorer (version 5.0 and later)
- Netscape (version 6.0 and later)
- Mozilla
- Firefox

There is no support for macros.

All 5250 sessions for a user are stopped when they log out or are automatically logged out of WebSphere Portal.

Restrictions

Keyboard support is not available for the following browsers:
- Opera version 6.x or earlier (version 7.0 and later are supported)

| • Konqueror

Command:

iSeries Command:
> The iSeries Command portlet provides support for running batch type CL commands on an iSeries server.

Considerations

Interactive CL commands may be run, but the output will not be displayed.

Restrictions

None.

Database: iSeries Access for Web provides support for accessing database tables on an iSeries server.

The list of available portlets is shown below:

iSeries Database Table
> iSeries Database Table displays a list of database table records. An SQL wizard is provided to help filter the list of records displayed. From the list, table records can be inserted, updated, or deleted. Options are provided to customize how the insert and update forms are displayed.

iSeries Dynamic SQL
> iSeries Dynamic SQL runs SQL statements and displays the results in a paged table or in a supported client file format. This portlet is not restricted to query statements. Any SQL statement supported by the IBM Toolbox for Java JDBC driver can be run.

iSeries SQL Query
> iSeries SQL Query displays the results of an SQL query in a paged table or in a supported client file format. An SQL wizard is provided to help build the query statement. The wizard can also build prompted queries using parameter markers.

iSeries SQL Requests
> iSeries SQL Requests is used to display and manage a list of saved SQL requests. The list can contain requests for the current WebSphere Portal user or requests with a specified share name. From the list, requests can be created, updated and deleted. Requests can also be sent to the iSeries SQL Results - Viewer portlet where the statement is run and the SQL results are displayed. See Database considerations for required configuration information.

iSeries SQL Results - Viewer
> iSeries SQL Results - Viewer can receive a request from user interaction with the iSeries SQL Requests portlet, run the statement specified in the request, and display the SQL results using the request output settings.

> **Related concepts**
> "Cooperative portlets" on page 101
> Learn about sharing information between portlets.

Database considerations:

The following considerations apply to using the iSeries Access for Web database functions in a portal environment.

Cross-site scripting

Statements containing greater than (>) or less than (<) characters fail with the default configuration of WebSphere Portal. See Cross-site scripting for information about how to handle this.

iSeries SQL requests

The SQL requests created and managed by the iSeries SQL Requests portlet are stored in a back-end database table. A WebSphere data source must be configured to provide access to a database server for storing this information. This data source must meet these requirements:

- The data source cannot be version 4.
- The data source JNDI name must be set to jdbc/iwads.
- The data source must have a container-managed alias set.

If any of these requirements are not met, the portlet displays a message stating the required configuration has not been performed.

Note: iSeries Access for Web is tested using the IBM Toolbox for Java JDBC driver. Using a different driver will likely work, but this is an untested and unsupported environment.

The database table is created in a schema named QUSRIWA2. If this schema does not exist, it is created. If this schema exists, the user identified by the data source authentication alias must have read and write access to the schema.

The default table name is QIWADTA. It might be necessary to override this value if, for example, multiple WebSphere Portal instances target the same back-end database server. The iSeries Access for Web web Module (iwawps.war) defines the **dataTable** parameter to configure the table name. The WebSphere Portal administration interface provides a way to modify this parameter value. See the WebSphere Portal documentation for more information.

Important: Ensure there are no active users of the iSeries Access for Web Data Store or the iSeries SQL Requests portlets while the **dataTable** parameter is being modified.

If the configured table does not exist, it is created. If it does exist, the user identified by the data source authentication alias must have read and write access to the table.

It is possible to share database requests among multiple WebSphere Portal instances. This is done by configuring the jdbc/iwads data source for each instance to the same back-end database server and by using the same database table name for each instance. The authentication settings for the database requests must also be configured to facilitate sharing among multiple WebSphere portal instances as follows:

- Use credential specific to this request: A request configured with this authentication option can only be used from the instance where it was created.
- Use credential set with iSeries Credentials portlet and Use system shared credential set by administrator: Requests created with either of these authentication options can be used from multiple instances, provided a credential with the selected name exists for each instance.
- Use authenticated WebSphere credential and Use WebSphere Portal identity: Requests created with either of these authentication options can be used from multiple instances, provided each instance is correctly configured for the selected environment.

Database restrictions:

This topic describes restrictions involved in using the database function in a portlet environment.

If you use Microsoft Internet Explorer and OpenOffice.org and you get an error when displaying SQL output in OpenDocument spreadsheet format, try one of the following:

- Ensure you have the latest version of OpenOffice.org.
- Uninstall the OpenOffice.org ActiveX option.
- Use a different browser.

Files:

The iSeries Access portlets provide support for accessing files on i5/OS.

The list of available portlets is shown below.

iSeries File List

> iSeries File List displays a list of files and directories for navigating the integrated file system on i5/OS. From the list, files can be viewed, downloaded and deleted. Files can be sent to the iSeries File List - Editor and iSeries File List - Viewer portlets for editing and viewing. New directories can be created. Files can be uploaded from the local workstation file system to the i5/OS integrated file system. Options are provided to control how the list is displayed and which actions are available.

iSeries File List - Editor

> iSeries File List - Editor can receive a file from user interaction with the iSeries File List portlet and edit the file. Changes can be saved or discarded.

iSeries File List - Viewer

> iSeries File List - Viewer can receive a file from user interaction with the iSeries File List or iSeries Zip File portlets and view the file. An option is provided to allow binary files to be viewed in a separate browser window. A list of recently viewed files can also be displayed.

iSeries File Viewer

> iSeries File Viewer displays the content of a file in the integrated file system of i5/OS. An option is provided to allow binary files to be viewed in a separate browser window.

iSeries Zip File

> iSeries Zip File can receive a zip file from user interaction with the iSeries File List portlet and view the contents. A new zip file can also be created. Files within the zip file can be viewed or deleted. Files can also be added. The zip file can be extracted to the integrated file system of i5/OS. A list of recently viewed zip files can also be displayed.

Related concepts

"Cooperative portlets" on page 101
Learn about sharing information between portlets.

File considerations:

The following are considerations for files.

Editing files containing > and < characters

> Files edited with iSeries File List - Editor will have greater than (>) and less than (<) characters changed to '>' and '<' with the default configuration of WebSphere Portal. See the Cross site scripting topic for information on how to handle this.

Files not locked while editing

> iSeries File List - Editor does not lock files while editing. Other users could edit a file while it is being edited in iSeries File List - Editor.

Document Library Services (QDLS) file system enrollment

> A user must be enrolled in the system directory in order to access the Document Library Services (QDLS) file system with iSeries Access for Web. The steps needed to enroll a user are listed below. If the user has previously been enrolled or does not need access to the QDLS file system, these steps are not necessary. A user can still use the File function of iSeries Access for Web without having access to the QDLS file system.
>
> 1. Enter GO PCSTSK at the iSeries command prompt. This display screen is shown:

```
#

+----------------------------------------------------------------------+
| PCSTSK                       Client Access Tasks                     |
|                                                    System:   SYSTEM1 |
|  Select one of the following:                                        |
|                                                                      |
|    User Tasks                                                        |
|       1. Copy PC document to database                                |
|       2. Copy database to PC document                                |
|                                                                      |
|    Administrator Tasks                                               |
|      20. Work with Client Access administrators                      |
|      21. Enroll Client Access users                                  |
+----------------------------------------------------------------------+
```

Figure 3. Client Access Tasks (GO PCSTSK)

2. Select the Enroll Client Access Users option. This display screen is shown:

```
+----------------------------------------------------------------------+
|                       Enroll Client Access Users                     |
|                                                                      |
| Type choices, press Enter.                                           |
|                                                                      |
|   User profile . . . . . . . .   AARON            Name               |
|   User identifier:                                                   |
|     User ID  . . . . . . . . .   AARON            Character value    |
|     Address  . . . . . . . . .   SYSTEM1          Character value    |
|   User description . . . . . .   AARON B.                            |
|   Add to system directory  . .   *NO              *NO, *YES          |
+----------------------------------------------------------------------+
```

Figure 4. Enroll Client Access Users display

3. Enter the appropriate information for these values:

   User profile
   > Name of user

   User ID
   > Usually the same as the User profile name

   User address
   > Usually the same as the system name

   User description
   > A description of the user

   Add to system directory
   > Use *YES if you want to use the QDLS file system

   See the online help for a complete description of the entry fields.
4. Repeat the above steps to enroll other users in the Directory Entry Database.

Related concepts

"Cross-site scripting" on page 102
Learn what cross site scripting is and why you might need to disable it.

File restrictions:

The following restrictions apply to using the iSeries Access for Web functions in a portal environment.

| ## Restrictions

| **File size**: There is currently a 2 147 483 647 byte (approximately 2 GB) size limit for files created on the
| server.

IFrame:

The iSeries Access for Web IFrame portlet provides the ability to access iSeries Access for Web servlet functions from a portal environment.

iSeries Access for Web IFrame:
The IFrame portlet provides the ability to access iSeries Access for Web servlet functions from a portal environment. The iSeries Access for Web application must be installed and configured, on the iSeries server, before accessing functions with the IFrame portlet. The first time the IFrame portlet accesses a servlet, the browser prompts for the i5/OS user and password.

| **Note:** If the iSeries Access for Web application has been configured to participate in a WebSphere
| Single sign-on (SSO) environment, the browser may not need to prompt for an i5/OS user
| and password. See "Single sign-on considerations" for more information.

Considerations

None.

Restrictions

Tasks restricted in the Web application server environment, through Customize policies, are also restricted in the portal environment.

Related concepts

"Single sign-on considerations" on page 8
This topic lists considerations for Single sign-on (SSO) with iSeries Access for Web in the Web application server and portal environments.

Other: iSeries Access for Web provides a set of utility portlets that can be useful when working with the other functions of iSeries Access for Web.

The list of available portlets is shown below.

iSeries Credentials
| iSeries Credentials is used to display and manage a list of saved credentials. Credentials define a
| specific user name and password combination. From the list, credentials can be created, updated
| and deleted. Credentials created with this portlet are available as a selection when configuring
| the authentication option for iSeries Access portlets. In addition, an option is available to change
| i5/OS user profile passwords and automatically update currently defined credentials with the
| new password value.

iSeries Related Links
iSeries Related Links displays links to information relating to the iSeries Access portlets.

iSeries Welcome
iSeries Welcome displays a summary of available iSeries Access portlets. Additional product information links are also provided.

| **iSeries Access for Web Data Store**
| iSeries Access for Web Data Store displays a list of data stored by iSeries Access portlets. From
| the list, items can be renamed and deleted. The access to stored data items can also be changed.
| The data items are stored in a back-end database. See Database considerations for required
| configuration information.

Considerations

None.

Restrictions

None.

Related concepts

"Database considerations" on page 116
The following considerations apply to using the iSeries Access for Web database functions in a portal environment.

Print: iSeries Access for Web provides support for accessing print related resources on an iSeries server.

The list of available portlets is shown below.

iSeries Printer Output

iSeries Printer Output displays a list of printer output files. Individual files can be modified, moved to a different printer or output queue, deleted, viewed, or printed. To view a printer output file, the iSeries Printer Output - Viewer portlet needs to be on the same portal page as the iSeries Printer Output portlet.

iSeries Printer Output - Viewer

iSeries Printer Output Viewer displays an SCS, AFPDS, or ASCII printer output file. Options exist to display the file in the current window, or to provide a link to view the file in a new window. The iSeries Printer Output - Viewer portlet will display a printer output file when requested to do so by user interaction with the iSeries Printer Output portlet.

iSeries Printers

iSeries Printers lists the printers on your server. Individual printers can be started or stopped.

iSeries Printer Output Queues

iSeries Printer Output Queues displays the list of output queues on your server. Individual output queues may be held or released.

Considerations

None.

Restrictions

None.

Related concepts

"Cooperative portlets" on page 101
Learn about sharing information between portlets.

NLS considerations

The iSeries Access portlets display information from a variety of sources. Some of these sources are able to provide information in more than one language, or format information in a language-specific manner. Such language-specific information includes forms, error messages, help, formatted dates and times, and sorted lists.

The sources of information displayed by portlets include:
- i5/OS
- JDBC driver
- portal server
- iSeries Access portlets

The iSeries Access portlets use the language selected for the user by the portal server to influence the language and format of information from the other sources. However, there is no guarantee that the information from a specific source will be in the selected language, or that all the information will be in the same language.

Messages and help which originate from i5/OS may not be in the selected language, depending on which language versions are installed for i5/OS. If the selected language is not installed, then i5/OS messages displayed by the iSeries Access portlets will be in the primary language of i5/OS.

For information on the language support in WebSphere Portal, refer to **Administering your portal** → **Language support** in the WebSphere Portal information center.

The iSeries Access portlets support languages that WebSphere Portal does not support by default. For information about configuring WebSphere Portal to support additional languages, see **Administering your portal** → **Language support** → **Supporting a new language** in the WebSphere Portal Information Center.

WebSphere Portal language selection

For information on how WebSphere Portal selects the language for displaying portal content and instructions for affecting the language selection process for a user, see **Administering your portal** → **Language support** → **Selecting and changing the language** in the WebSphere Portal Information Center.

Information in multiple languages (multilingual)

Because the information displayed by the iSeries Access portlets comes from a variety of sources, there is the possibility that the information is in more than one language. When multiple languages are displayed in a browser simultaneously, a multilingual character set, such as UTF-8, may be required to display all the characters correctly. For information on the character set used by WebSphere Portal to display portal content and for instructions on changing the character set, see **Administering your portal** → **Language support** → **Changing the character set for a language** in the WebSphere Portal Information Center.

CCSIDs and i5/OS messages

To ensure that information is displayed properly, make certain that the Coded Character Set ID (CCSID) setting for the user profile is appropriate for messages originating from i5/OS.

> **Related information**
>
> WebSphere Portal information center

Save and restore iSeries Access for Web in a portal environment

iSeries Access for Web can be propagated to other iSeries servers but there are considerations that need to be reviewed before saving and restoring it.

You can save iSeries Access for Web and restore it to other iSeries servers using the SAVLICPGM and RSTLICPGM commands. Using these commands has the same effect as installing iSeries Access for Web using the install media (CD) but the advantage of using the commands is that any PTFs that have been applied are saved from the source server and restored to the target server.

To configure iSeries Access for Web, refer to the Plan, install, and configure checklist. The checklist contains steps to install iSeries Access for Web on the server using the install media (CD-ROM). At the point in the checklist that installation is addressed, run the `SAVLICPGM`/`RSTLICPGM` commands to save from the source server and restore to the target server. After completing the `SAVLICPGM`/`RSTLICPGM` process, continue with steps in the checklist to complete the required configuration steps.

SAVLICPGM and RSTLICPGM will not save any user-generated data. In the WebSphere Portal environment, all user configuration settings and user generated data are stored within the WebSphere Portal environment. Refer to WebSphere Portal documentation for saving and restoring user configuration settings and data. WebSphere Portal documentation can be found at the WebSphere portal for

multiplatforms library page .

Related concepts

"Checklist: Plan, install, and configure" on page 12
Use this checklist to guide you through the steps necessary to plan, install, verify, and configure a simple iSeries Access for Web environment. These steps do not take into account other Web applications or more complex Web environments.

Delete iSeries Access for Web

To delete iSeries Access for Web, follow these steps:

1. Sign on to the server.
2. Enter QIWA2/RMVACCWEB2 for all Web application server instances and all portal configurations that were configured to run iSeries Access for Web. If you do not know what configuration has been performed, see the /QIBM/ProdData/Access/Web2/config/instances.properties file for a list of Web application server instances and portal configurations in which iSeries Access for Web has been configured to run.
3. Follow any instructions displayed by the RMVACCWEB2 command.
4. Enter GO LICPGM, option 12.
5. Page down through the list of installed licensed programs and locate 5722-XH2. Enter 4 to delete 5722-XH2.
6. Press **Enter** to delete the licensed program.

Note: The directory and library where user-generated data was stored while using iSeries Access for Web, /QIBM/UserData/Access/Web2, will not be deleted from the server. The library for the user-generated data is QUSRIWA2.

Related information

RMVACCWEB2 CL command

Related information

These Web sites contain information related to iSeries Access for Web.

iSeries Access information

- IBM iSeries Access for Web home page (http://www.ibm.com/eserver/iseries/access/web/) Visit this site to learn more about iSeries Access for Web.
- iSeries Access for Web Service Packs (PTFs) Available. (http://www.ibm.com/eserver/iseries/access/web/servicepacks.htm). This Web page contains links to the service packs available for iSeries Access for Web.
- iSeries Access for Web Information APARs

   (http://www.ibm.com/eserver/iseries/access/web/infoapars.htm) An information authorized program analysis report (information APAR) is an electronic document that is used to communicate information not found in publications, online information, critical fix information, or other sources.
- iSeries Access for Web readme file

   (http://www.ibm.com/eserver/iseries/access/web/readme.htm) Refer to this site for important information or technical changes to the product.

- IBM iSeries Access home page (http://www.ibm.com/eserver/iseries/access) This Web site includes online product information about iSeries Access.

HTTP Server and ASF Tomcat information

- HTTP server documentation
  (http://www.ibm.com/servers/eserver/iseries/software/http/docs/doc.htm). This Web page has links to documentation for the HTTP Server and ASF Tomcat.

WebSphere information

- IBM WebSphere Application Server documentation
  (http://www.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/) This Web page has links to information about all versions of WebSphere Application Server.

- WebSphere Portal Enable for iSeries (http://www.ibm.com/software/genservers/portaliseries/) Get an overview of WebSphere Portal Enable for iSeries.

- WebSphere Portal information center

  (http://publib.boulder.ibm.com/pvc/wp/502/smbi/en/InfoCenter/index.html)

- WebSphere Portal on iSeries (http://www-03.ibm.com/servers/eserver/iseries/software/websphere/portal/documentation.html) This page has links to product documentation for WebSphere Portal on iSeries.

iSeries information

- IBM eServer iSeries support (http://www-03.ibm.com/servers/eserver/support/iseries/index.html) Technical support and resources for iSeries and AS/400 servers.

- IBM iSeries home page (http://www.ibm.com/eserver/iseries) Learn about the iSeries family of servers.

Manuals and publications

- IBM Publications Center
  (http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi) Search this site for manuals published by IBM.

- IBM Redbooks™ home page (http://www.redbooks.ibm.com) See this site for documents that explore integration, implementation, and operation of realistic customer scenarios.

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