

SYBASE®

Administration Guide

**Unwired Accelerator**

7.0

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# About This Book

## Audience

This guide is for system administrator who manages Unwired Accelerator and its configuration, and who work with developers to configure Unwired Accelerator.

## How to use this book

This book contains these chapters:

- Chapter 1, “Introduction” introduces Unwired Accelerator and its features.
- Chapter 2, “Getting Started” describes how to get started—starting up the Unwired Accelerator system and logging to the various Unwired Accelerator interfaces.
- Chapter 3, “User Accounts” describes how to set up and manage Unwired Accelerator accounts.
- Chapter 4, “Resources” describes how to set up and manage multiple Unwired Accelerator co-brands, or resources.
- Chapter 5, “Integrated Products” provides information for managing various products integrated with Unwired Accelerator, such as M-Business Anywhere, Answers Anywhere, and so forth.
- Chapter 6, “Security” provides information about Unwired Accelerator’s “native” security provisions.
- Chapter 7, “Performance and Tuning” provides useful information for tuning Unwired Accelerator for optimum performance in your environment.
- Chapter 8, “Troubleshooting” provides possible solutions to common Unwired Accelerator problems.
- Chapter 9, “Configuring Global Properties” provides information about configuration property settings in the *global.properties.xml* file.

## Related documents

**Unwired Accelerator documentation** The following Unwired Accelerator documents are available on the Getting Started with Unwired Accelerator CD:

- 
- The Unwired Accelerator installation guide for your platform explains how to install the Unwired Accelerator software.
  - The Unwired Accelerator release bulletin for your platform contains last-minute information not documented elsewhere.
  - The *Unwired Accelerator Quick Start Guide* shows how to deploy a Web and a database application to either a PDA or BlackBerry device.

**Unwired Accelerator online documentation** The Unwired Accelerator documentation set includes:

- The *Unwired Accelerator Developer's Guide* includes development topics for Unwired Accelerator components, Portal Interface applications, and Java Template Framework pages.
- The *Unwired Accelerator Administration Guide* (this document) provides administration topics for Unwired Accelerator and its configuration.
- The *Portal Interface User's Guide* describes the Portal Interface user interface and how to use Portal Interface to build and manage your enterprise's portal.
- The *Mobile Application Development Tutorial* provides tutorials that help you get started using Mobile WEB Studio to develop and deploy mobile applications.

**jConnect™ for JDBC™ documents** Unwired Accelerator 7.0 includes the jConnect for JDBC driver to allow JDBC access to Sybase database servers and gateways. The *Programmer's Reference jConnect for JDBC* is included on the SyBooks CD.

**Adaptive Server® Anywhere documents** Unwired Accelerator 7.0 includes the ASA database to store system information including security authentication and authorization information. The ASA document set is included on the SyBooks CD.

#### **Other sources of information**

Use the Sybase Getting Started CD, the SyBooks CD, and the Sybase Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.



- The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format.

Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.

Refer to the *SyBooks Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

To access the Sybase Product Manuals Web site, go to Product Manuals at <http://www.sybase.com/support/manuals/>.

### **Sybase certifications on the Web**

Technical documentation at the Sybase Web site is updated frequently.

#### **❖ Finding the latest information on product certifications**

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Select Products from the navigation bar on the left.
- 3 Select a product name from the product list and click Go.
- 4 Select the Certification Report filter, specify a time frame, and click Go.
- 5 Click a Certification Report title to display the report.

#### **❖ Finding the latest information on component certifications**

- 1 Point your Web browser to Availability and Certification Reports at <http://certification.sybase.com/>.
- 2 Either select the product family and product under Search by Product; or select the platform and product under Search by Platform.
- 3 Select Search to display the availability and certification report for the selection.

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❖ **Creating a personalized view of the Sybase Web site (including support pages)**

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click MySybase and create a MySybase profile.

**Sybase EBFs and software maintenance**

❖ **Finding the latest information on EBFs and software maintenance**

- 1 Point your Web browser to the Sybase Support Page at <http://www.sybase.com/support>.
- 2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.
- 3 Select a product.
- 4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the “Technical Support Contact” role to your MySybase profile.

- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

**Conventions**

The formatting conventions used in this manual are:

<b>Formatting example</b>	<b>To indicate</b>
commands and methods	When used in descriptive text, this font indicates keywords such as: <ul style="list-style-type: none"><li>• Command names</li><li>• C++ and Java method or class names</li></ul>

Formatting example	To indicate
<i>variable, package, or component</i>	Italic font indicates: <ul style="list-style-type: none"> <li>• Program variables, such as <i>myCounter</i></li> <li>• Parts of input text that must be substituted, for example:               <pre>Server.log</pre> </li> <li>• File names</li> </ul>
<code>SYBASE</code>	The variable in this manual used to represent the Sybase installation directory. In this guide, forward slashes are used for all path names, regardless of platform, unless an alternate location is used for another platform. For example, <code>SYBASE\tomcat</code> would be used for both Windows and Linux.
File   Save	Menu names and menu items are displayed in plain text. The vertical bar shows you how to navigate menu selections. For example, File   Save indicates “select Save from the File menu.”
<code>package 1</code>	Monospace font indicates: <ul style="list-style-type: none"> <li>• Information that you enter in Mobile Web Studio, on a command line, or as program text</li> <li>• Example program fragments</li> <li>• Example output fragments</li> </ul>

Environment variables associated with Unwired Accelerator include SYBASE, MBUSINESS\_SERVER, RIM, JAGUAR, CATALINA\_HOME, WorkRoot, and JAVA\_HOME.

- SYBASE refers to the Unwired Accelerator installation directory; for example, `C:\Sybase\UnwiredAccelerator70`.
- MBUSINESS\_SERVER refers to the M-Business Anywhere server installation directory; for example, `C:\MBiz`.
- RIM refers to the Research in Motion installation directory; for example, `C:\Program Files\Research In Motion` or `C:\RIM`.
- JAGUAR refers to the EAServer installation directory (if you are running Unwired Accelerator in EAServer). This document assumes EAServer is installed into the `SYBASE\UnwiredAccelerator70` directory. Not all versions of Unwired Accelerator are packaged for EAServer.
- CATALINA\_HOME refers to the Apache Tomcat application server installation directory. Unwired Accelerator integrates the Tomcat server in its installation directory (`SYBASE\tomcat`).

- 
- WorkRoot refers to the base working directory for Unwired Accelerator log files, trace files, and so forth; typically, *x:\tmp\logs*.
  - JAVA\_HOME refers to a valid JVM directory.

**If you need help**

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you cannot resolve a problem using the manuals or online help, please have the designated person contact Sybase Technical Support or the Sybase subsidiary in your area.

# Introduction

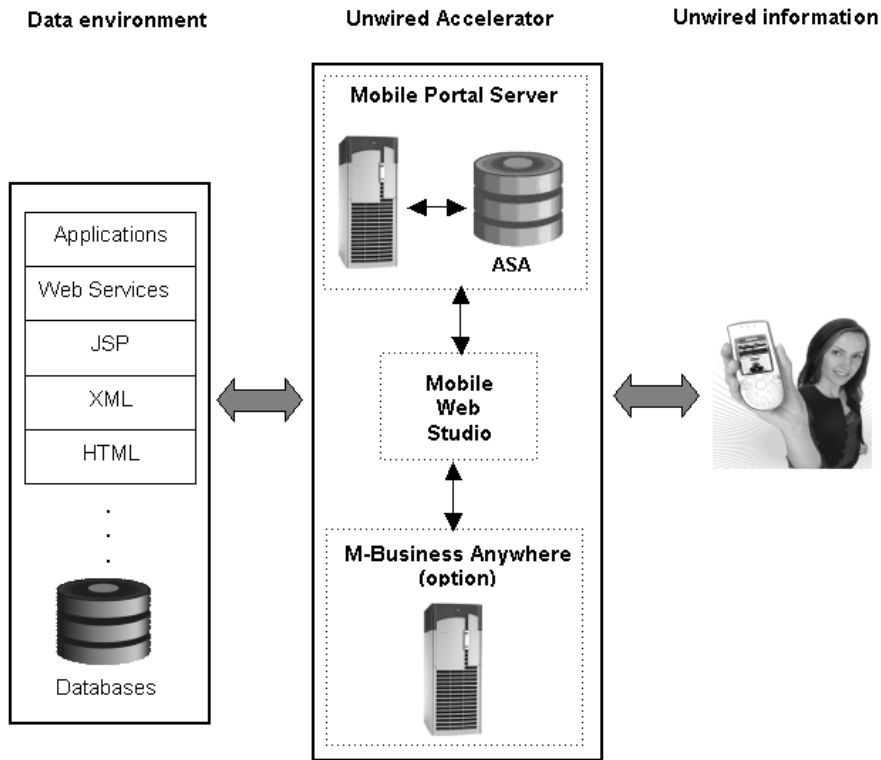
This guide provides instructions for the system administrator who configures and manages Unwired Accelerator.

<b>Topic</b>	<b>Page</b>
Architectural overview	1
Unwired Accelerator features	3

## Architectural overview

The Sybase Unwired Accelerator solution includes several proven technologies: the Mobile Web Studio, a powerful visual development tool; the Mobile Portal Server, a scalable mobile server; Content Capture, Sybase patented technology for repurposing Web applications and content without programming, and M-Business Anywhere, an optional component for delivering content in an occasionally connected model. With these integrated products, you can create secure, enterprise-wide, mobile applications.

**Figure 1-1: Architectural overview**



- |                      |  |
|----------------------|--|
| Mobile Web Studio    | Mobile Web Studio is a Web-based rapid development tool that uses patented technology for creating powerful and interactive mobile Web applications or for mobilizing existing Web applications or data sources like databases, XML, Web Services, HTML, JavaServer Pages (JSPs), and Active Server Pages (ASPs). Mobile Web Studio is a visual development tool with simple-to-use point-and-click functionality. |
| Mobile Portal Server | Mobile Portal Server delivers Web applications and content in a connected or disconnected environment, coordinating the communication between M-Business Anywhere and legacy back-end systems in an occasionally connected environment. Based on a scalable and distributed architecture, the Mobile Portal Server runs in the J2EE-compliant Web container, such as Tomcat.                                       |
| M-Business Anywhere  | M-Business Anywhere is a reliable, scalable, and secure platform for delivering Web-based applications and content to mobile devices in an occasionally connected model.   |

**Content Capture** Content Capture is a Sybase-patented technology for repurposing Web-based applications and content using an object-oriented scripting language. The Sybase capture engine analyzes Web content and stores the feature definition, or signature. At runtime, the Content Capture engine uses pattern matching to locate the same signature. Therefore, even if content has moved or changed, the engine is still likely to find the information.

## Unwired Accelerator features

Unwired Accelerator accelerates the mobilization of enterprise Web applications and data sources for continuous access, which means you can access the same information whether you are connected, disconnected, or occasionally connected to the network.

Unwired Accelerator provides rapid development tools to mobilize existing Web applications, or to create new mobile applications based on your enterprise's data sources without programming.

Unwired Accelerator is the best strategy for getting the most value possible out of your current information infrastructure by providing timely information on the correct device to the most valuable individuals in your enterprise. Mobilization extends the information contained in these systems to new channels, with anytime, anywhere access. Unwired Accelerator leverages your existing infrastructure to create new mobile business opportunities.

## Security features

Unwired Accelerator security features include:

- Authentication
- Role-based authorization
- Data confidentiality and integrity

See Chapter 6, "Security" for information about these features.

## Administrator features

Unwired Accelerator makes traditional system administration activities and tasks that control the behavior, content, and appearance of portals easy with features that include:

- Web-based access
  - User and role management.
  - M-Business server functions management.
  - Page management.
  - Point-and-click deployment.
  - The ability to import and export objects. See the *Unwired Accelerator Developer's Guide* for information.
- Alerts
  - Create alerts based on content or errors
  - Adapters – SMS, e-mail, database, file system, and so onSee the *Unwired Accelerator Developer's Guide* for information.
- The ability to define access to functions using roles. See Chapter 6, “Security” for information.
- Scalable and distributed architecture



This chapter provides instructions for starting and stopping Unwired Accelerator, and accessing Mobile Web Studio and the portal interfaces. The chapter also provides some basic information about the user interface to help with administering Unwired Accelerator.

Topic	Page
Starting and stopping Unwired Accelerator	5
Accessing Mobile Web Studio	8
Accessing Portal Interface	11
Accessing the mobile device interface	12

## Starting and stopping Unwired Accelerator

To start Unwired Accelerator, you must start both the Tomcat application server, and the Application Server Anywhere (ASA) database, and to stop UA you must stop both ASA and the Tomcat server.

### ❖ Starting Unwired Accelerator

- 1 Select Start | Programs | Sybase | Unwired Accelerator | Start Unwired Accelerator Studio. This starts the ASA database, the Tomcat application server, and an Internet Explorer browser window.

When the database starts, you see the icon for the Sybase ASA database in your taskbar.

When Tomcat starts, you see a series of messages in the Tomcat window, including the following:

On Windows:

```
Starting service Tomcat-Standalone
Apache Tomcat/4.1.29
```

On Linux:

```
Ping server successful
```

- 2 On Windows, when you see this message, minimize the Tomcat window (do not close the window). You can ignore the rest of the messages.

If you do not see this message, you can check the *datamanager.log*, located in *x:\tmp\logs*, for more information.

- 3 From the Internet Explorer window, you can log in to Mobile Web Studio or Portal Interface, as described in “Accessing Mobile Web Studio” on page 8 or “Accessing Portal Interface” on page 11.

#### ❖ **Stopping Unwired Accelerator**

- Select Start | Programs | Sybase | Unwired Accelerator | Stop Unwired Accelerator Studio. This stops the Tomcat application server and the ASA database, and closes the Tomcat window.

Typically, you leave the application server and database running, but you may need to stop and start the application server or database to modify the system or initialize a configuration change. If you need to stop and start the ASA database or Tomcat server independently, keep the following in mind:

- Start the components in this order:
  - a ASA database
  - b Application server
- Stop the components in this order:
  - a Application server
  - b ASA database

The sections that follow describe how to start and stop the ASA database and Tomcat application server independently.

## Starting and stopping the database

This section describes how to start and stop the Adaptive Server Anywhere database. The security provider—*portaldatabase* (or *PortalDB*)—is included with ASA as a default. Separate procedures are provided for Windows and Linux.

#### ❖ **Starting the ASA database (Windows)**

- 1 From a Command Prompt window, navigate to *SYBASE*.
- 2 Enter `startdb`, or double-click the file name in Windows Explorer.

This starts the Adaptive Server Anywhere database. When the database starts, the icon for the Sybase ASA database appears in your taskbar.

❖ **Shutting down the ASA database (Windows)**

- 1 From a Command Prompt window, navigate to *SYBASE*.
- 2 Enter `stopdatabase`, or double-click the file name in Windows Explorer.  
Alternatively, make sure Tomcat has been stopped, double-click the Adaptive Server Anywhere icon in the taskbar, then select Shutdown. Close any open browser windows.

❖ **Starting the ASA database (Linux)**

- 1 From a terminal window, navigate to *SYBASE*.
- 2 Enter `startdb.sh`.  
This starts the Adaptive Server Anywhere database. When the database starts, you see “Ping server successful.”

❖ **Shutting down the ASA database (Linux)**

- 1 From a terminal window, navigate to *SYBASE*.
- 2 Enter `stopdatabase.sh`.

## Starting and stopping the Tomcat application server

This section describes how to start and stop the Tomcat application server. Separate procedures are provided for Windows and Linux.

If you are running Unwired Accelerator in EAServer, see the EAServer documentation for procedures to start and stop the application server.

❖ **Starting the Tomcat application server (Windows)**

- 1 From a Command Prompt window, navigate to *SYBASE*.
- 2 Enter `starttomcat`, or double-click the file name in Windows Explorer.

When Tomcat starts, you see:

```
Starting service Tomcat-Standalone
Apache Tomcat/4.1.29
```

When you see this message, minimize the Tomcat window (do not close it). If you do not see this message, check the *datamanager.log* file, located in *x:\tmp\logs*.

❖ **Shutting down the Tomcat application server (Windows)**

- 1 From a Command Prompt window, navigate to *SYBASE*.
- 2 Enter `stoptomcat`, or double-click the file name in Windows Explorer.

❖ **Starting the Tomcat application server (Linux)**

- 1 From a terminal window, navigate to *SYBASE*.
- 2 Enter `starttomcat.sh`.

When Tomcat starts, you see:

```
Using CATALINA_BASE:  $SYBASE/infoedition/tomcat
Using CATALINA_HOME:  $SYBASE/infoedition/tomcat
Using CATALINA_TMPDIR: $SYBASE/infoedition/tomcat
                        /temp
Using JAVA_HOME:      ./jdk1.4
```

❖ **Shutting down the Tomcat application server (Linux)**

- 1 From a terminal window, navigate to *SYBASE*.
- 2 Enter `stoptomcat.sh`.

## Accessing Mobile Web Studio

Mobile Web Studio is a Web-based rapid development tool for creating mobile applications from existing Web applications or from datasources like databases, XML, Web Services, HTML, and JSPs/ASPs.

Mobile Web Studio also provides access to system administration tools for managing Unwired Accelerator user accounts, roles and permission, and resources; and M-Business Anywhere channels, groups, and user accounts. Use Internet Explorer to access Mobile Web Studio.

❖ **Logging in to the Mobile Web Studio**

When logging in to Mobile Web Studio as a system administrator, use an account with the StudioAdmin role. Unwired Accelerator provides a default StudioAdmin account called `masuper` (the password is `m8super`). Use this account to get started, then set up your own roles, permissions, and accounts as described in Chapter 6, “Security.”

- 1 Open a browser window and enter the following URL:

```
http://hostname.domain:port/onepage/index.html
```

For example, if your machine name is lab2k, your domain is sybase.com, and your port number is 4040, enter:

```
http://lab2k.sybase.com:4040/onepage/index.html
```

4040 is the default port number is you are using Tomcat as your application server. If you are using EAServer, the default port number is 8080.

---

**Note** In a development environment, your port number may be different, and in a production system, the port number may not be necessary at all if you are using port 80.

---

- 2 When the Mobile Web Studio Login window displays, log in with the user name `masuper` and password `m8super`, and click Login. These are the default entries for the Mobile Web Studio account with administrative privileges.

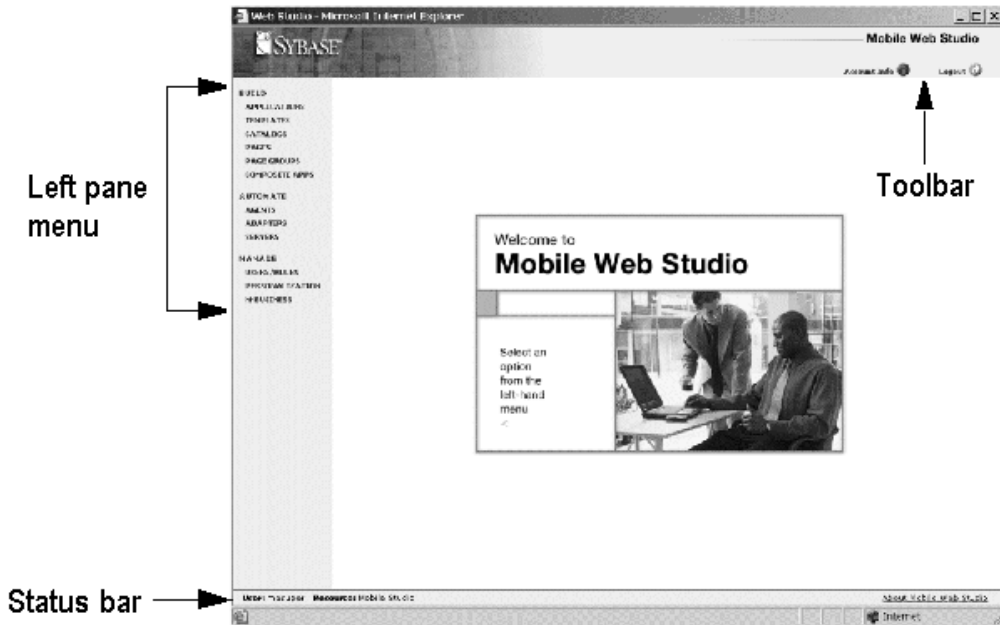
You see the Mobile Web Studio Welcome window shown in Figure 2-1.

---

**Note** If your browser session expires, you see *Session has expired*. You need to re-authenticate. Click OK to close the message window, start a new browser session, log in, and close the windows of the old session.

---

Figure 2-1: Mobile Web Studio Welcome window



The Welcome window displays the:

- Left pane menu – select from menu groupings that allow you to:
  - Build – create, edit, and manage applications, templates, catalogs, pages, page groups, and composite applications.
  - Automate – create agents to automatically process application content, or use adapters to write application content to an e-mail message, database, or file system.
  - Manage – manage Mobile Web Studio resources and create predefined application input fields or drop-down lists, which users can later personalize with their own values, and deploy applications to the M-Business Anywhere server.
- Status bar – always shows the user name of the person logged in to Mobile Web Studio (User), and the group of application pages available to this user (Resource).

- **Toolbar** – this is the Mobile Web Studio static toolbar. From this toolbar, you can view your account information, or log out of Mobile Web Studio. Once you make a selection from the left pane, an option-specific toolbar displays.

## Accessing Portal Interface

Portal Interface is a Web portal platform, that can also be used for creating personal Web applications. Applications developed through Mobile Web Studio can be deployed to the Portal Interface and accessed using a desktop browser, such as Internet Explorer.

### ❖ Logging in to Portal Interface

- 1 Open a browser window, and enter:

```
http://hostname.domain:port/onepage/mpindex.jsp
```

where:

- *hostname* – is the name of the machine where you installed Unwired Accelerator.
- *domain* – is the domain name where the installation is located.
- *port* – is the port number (the default is 4040 if you are using Tomcat, 8080 if you are using EAServer).

For example, enter:

```
http://1ab2k.sybase.com:4040/onepage/mpindex.jsp
```

- 2 Click Join Now.

### ❖ Entering your profile information

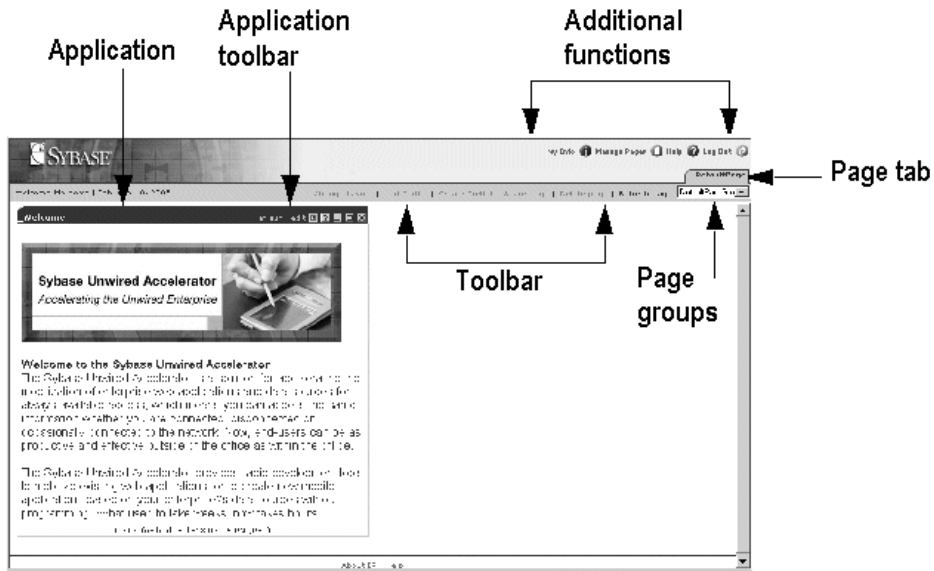
- 1 Enter your first name.
- 2 Enter your last name.
- 3 Enter your e-mail address.
- 4 Enter your telephone number.
- 5 Choose a member name.
- 6 Choose a password.

- 7 Confirm your password.
- 8 Select the PortalUser role.
- 9 Read the terms and conditions. If you agree, select the “I agree to the terms and conditions” box and click Done.

The Portal Interface window displays with the default page group, as shown in Figure 2-2. The default page group is created on Mobile Web Studio, and deployed to the Portal Interface.

For detailed information about using the interface, see the *Portal Interface User’s Guide*. For detailed information about creating and deploying other page groups, see the *Unwired Accelerator Developer’s Guide*.

**Figure 2-2: Portal Interface window**



## Accessing the mobile device interface

Unwired Accelerator provides browser access to the mobile device interface.



**Running applications  
in connected mode**

You can access mobile applications any time using your PDA or BlackBerry device. The URL for accessing mobile applications is:

```
http://hostname.domain/onepage/mp.jsp
```

For example, if the name of the machine where Unwired Accelerator is installed is named “ua,” and your domain is “sybase.com,” enter:

```
http://ua.sybase.com/onepage/mp.jsp
```

Each resource corresponds to an Unwired Accelerator co-brand. The index JSP (*mpindex.jsp*) accesses resource ID (RID) rid=21 from desktop browsers such as Internet Explorer. For more information about resource IDs, see Chapter 4, “Resources.” Users can switch to other resources.

In the Welcome window, enter your mobile portal user name and password. The next window (the home page) displays the navigation tree with mobile applications displayed as links. The navigation tree shows the names of the page groups, pages, and applications. Only those page groups that support the navigation style of the requesting device are listed in the home page. See the *Unwired Accelerator Developer’s Guide* for information about navigation styles. To see the content of an application, click the appropriate link in the home page.

**In disconnected mode**

You can run applications in disconnected (offline) mode with the M-Business Anywhere Client 5.7 for Symbian P900, PocketPC, and Palm devices. Install the M-Business Anywhere Client, and configure the server for sync operations. See the *Unwired Accelerator Installation Guide*, or your M-Business Anywhere documentation for instructions.

---

**Note** The only types of disconnected mode applications that you can use on the P900 are spidered Web-based applications. Spidered applications include data and link access as part of the capture definition.

---

❖ **Logging in to the mobile device interface**

- 1 On your browser or mobile device, enter this URL in your device’s browser:

```
http://hostname.domain:port/onepage/mpindex.jsp
```

For example, if your machine name is lab2k, your portal domain is sybase.com, and your port number is 4040, enter:

```
http://lab2k.sybase.com:4040/onepage/mpindex.jsp
```

- 2 Enter a mobile portal user name and password, and click Login.

The home page displays the navigation tree with the names of the mobile applications as links.

You can run applications in disconnected mode with the BlackBerry online client as well.

# User Accounts

This chapter describes how to manage user accounts in the Unwired Accelerator configuration.

Topic	Page
Overview	15
Mobile Web Studio accounts	16
Portal Interface accounts	20
M-Business Anywhere accounts	21
BlackBerry accounts	24
SAP accounts	26
Peoplesoft accounts	26

## Overview

You can easily set up a variety of individual or task-related accounts to meet the job and security needs of your organization. Most Unwired Accelerator access is managed through Mobile Web Studio, but some access may be managed through the M-Business Anywhere administrative console, depending on your configuration settings.

This chapter provides basic information for creating and managing accounts, but see Chapter 6, “Security” for an overall understanding of the security measures provided with Unwired Accelerator.

To manage Unwired Accelerator accounts, keep the following in mind:

- To manage user accounts through Mobile Web Studio, you must use an account with StudioAdmin privilege (for example, the `masuper` account). You may want to create a special security manager account for managing user accounts, as described in “Setting up a security manager account” on page 87.
- To create and manage Mobile Web Studio users, use Manage | Users/Roles.

- To create and manage Mobile Web Studio users of M-Business Anywhere, when Unwired Accelerator is configured for self-registration, use Manage | M-Business.

When Unwired Accelerator is not configured for self-registration, you must create M-Business Anywhere user accounts through the M-Business Anywhere administrative console as well through Mobile Web Studio. The accounts must be identical. See “M-Business Anywhere accounts” on page 21 for information.

- To manage users accounts through M-Business Anywhere, log in to the administrative console to set up users as described in “M-Business Anywhere accounts” on page 21.
- Portal Interface users can create an account from the Portal Interface Welcome window. The system administrator can reset the password from the Mobile Web Studio Manage | Users/Roles option.
- If you are using EAServer as the application server, see EAServer documentation for account maintenance procedures.

## Mobile Web Studio accounts

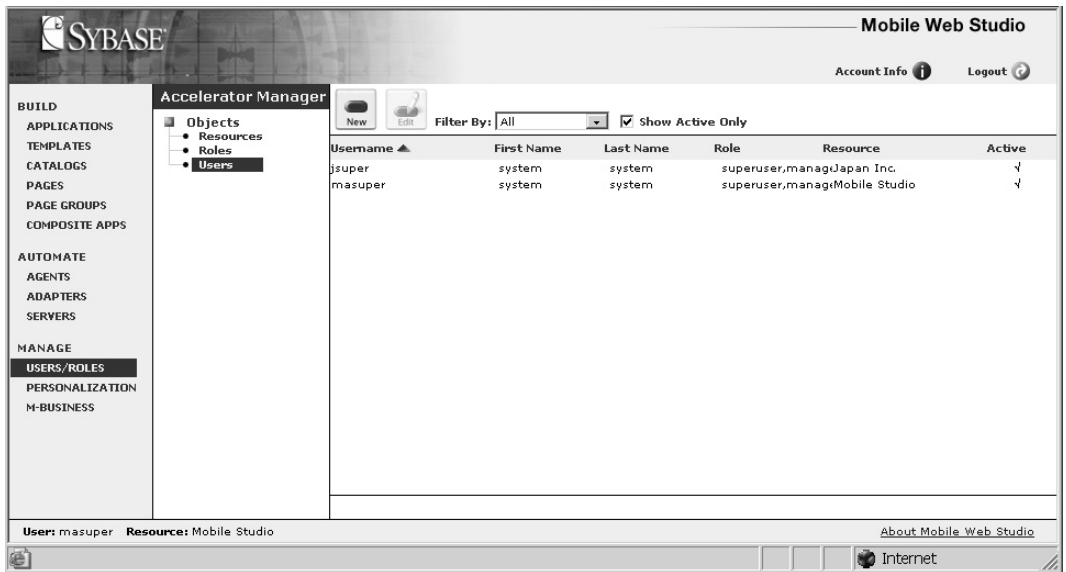
This section describes how to create, modify, and delete Mobile Web Studio, Portal Interface, and mobile device user accounts from Mobile Web Studio; and how to reset passwords.

You may want to work out a process for reset a password. By default, the Portal Interface user’s request is sent from the Portal Interface (Reset Password link) to the e-mail address or addresses listed in the *global.properties.xml* property, *resetPasswordEmail*. Once the request is received, use the procedure in “Resetting passwords for user accounts” on page 18 to reset the password.

### ❖ Creating new user accounts

- 1 Log in to Mobile Web Studio as StudioAdmin (such as the masuper account).
- 2 Select Manage | Users/Roles from the menu in the left pane, and select Users from the Accelerator Manager pane as shown in Figure 3-1.

Figure 3-1: Managing UA users



- 3 Select New from the toolbar.
- 4 When the Create New User window displays, complete the required fields.
  - Username – enter a user name, such as “jdoe” or “guest,” or “IT.” This will be the account name when logging on to Mobile Web Studio. All user names must be unique; if you have duplicate names, find a way to make the user name unique, such as adding an initial or a number.

---

**Note** Do not use “opsuper” or “masuper” for the Login Name.

---

- Active – make the account active. To set up accounts in advance, unselect this option to keep this account inactive, and then later select the option to activate the account.
- Default Resource – select a resource, such as Mobile Studio, from the drop-down list. When users log in, they will have access to objects in that resource, to which they have permission. See Chapter 4, “Resources” for information about resources.
- Available roles – select one or more roles and use Add, Add All, Remove, Remove All to move roles in and out of the Assigned roles column.

To set up additional roles, see “Administering roles” on page 89; to modify permissions for a role, see “Administering objects” on page 91.

- Assigned roles – the user can access any object that is assigned the roles in this column.
  - First name – enter the user’s first name (required).
  - Last name – enter the user’s last name (required).
  - E-mail – enter the user’s e-mail address (required). The password is sent to this e-mail address.
  - Work phone – enter the user’s work telephone number.
  - Home phone – enter the user’s home telephone number.
  - Zip code – enter the user’s five-digit zip code.
  - Notes – enter notes or reminders for the account.
- 5 Click Save. The new user displays in the list of available users.
  - 6 Log out of Mobile Web Studio.
  - 7 Log in as the new user to test the account. If you are logging on to another resource, specify the resource ID when logging in.
  - 8 Create some applications and pages to use the permissions that were granted to this user.

❖ **Modifying existing user accounts**

- 1 Log in to Mobile Web Studio as StudioAdmin (such as the `masuper` account).
- 2 Select Manage | Users/Roles from the menu in the left pane.
- 3 Select Users.
- 4 Select an existing user from the list of users, and select Edit from the toolbar.
- 5 When the User Editor window displays, complete the required fields.
- 6 Click Save. The updated user displays in the list of available users.

❖ **Resetting passwords for user accounts**

- 1 Log in to Mobile Web Studio as StudioAdmin (such as the `masuper` account).

- 2 Select Manage | Users/Roles from the menu in the left pane.
- 3 Select Users.
- 4 Select an existing user from the list of users, and select Edit from the toolbar.
- 5 When the User Editor window displays, select Password.
- 6 Select Yes to confirm.
- 7 Click Save, and click OK to confirm. The update user displays in the list of available users. An e-mail message is sent to the user with the new password.

❖ **Deleting user accounts**

- 1 Log in to Mobile Web Studio as StudioAdmin (such as the masuper account).
- 2 Select Manage | Users/Roles from the menu in the left pane.
- 3 Select Users.
- 4 Select an existing user from the list of users, and click Delete on the toolbar.
- 5 Click OK to confirm. The user is removed from the list of available users.

---

**Note** When you delete a Mobile Web Studio user, you do not delete templates, applications, pages, and so forth that are owned by the user. You must run the PortalCleanup utility to clean up these entries in the PortalDB.

---

❖ **Cleaning up the PortalDB**

When you delete a Mobile Web Studio user, you do not delete templates, applications, pages, and so forth that are owned by the user (in some cases you may not want to delete these things if they are use in applications used by other users). Over time you may want or need to clean up the database tables. Use the PortalCleanup utility to clean up these entries in the database tables.

- 1 Navigate to the *PortalCleanup.bat* script located in:  
*SYBASE\tomcat\webapps\onepage\config* if you are using Tomcat. If you are using EAServer, the script is located in  
*SYBASE\EAServer\Repository\WebApplication\onepage\config*.
- 2 Make sure the JAVA\_HOME environment variable is set; for example, set to *SYBASE\jdk.1.4*.

- 3 Execute this command, substituting a the user's login name for *user*:

```
% PortalCleanup -webapproot  
SYBASE\tomcat\webapps\onepage user
```

The script uses a com.sybase.ep.utils.PortalCleanup utility to access the PortalDB and remove all references to the given login name.

## Portal Interface accounts

Portal Interface users create an account when they access the Portal Interface and select Join Now. Once the account is set up, you can manage the account through Mobile Web Studio.

Portal Interface users can change their passwords by selecting the MyInfo tab, and providing the original and new passwords.

Portal Interface users can also request their password be reset, typically if they forget their password. You may want to work out a process for handling these requests. By default, the Portal Interface user's request is sent from the Portal Interface (Reset Password link) to the e-mail address or addresses listed in the *global.properties.xml* property, `resetPasswordEmail`. Once the request is received, use the procedure in "Resetting passwords for user accounts" on page 18 to reset the password.

To allow Portal Interface users to create personal channels, a property in the *global.properties.xml* file, `alwaysValidateSession`, must be set to false. Otherwise, permission is denied and the channel cannot be viewed from M-Business Anywhere or M-Business Client (a mobile device).

See the *Portal Interface User's Guide* for information about using the portal. The following procedures are provided as a convenience.

### ❖ Logging in to Portal Interface

- 1 Open a browser window, and enter:

```
http://hostname.domain:port/onepage/mpindex.jsp
```

where:

- *hostname* – is the name of the machine where you installed Unwired Accelerator.
- *domain* – is the domain name where the installation is located.



- *port* – is the port number (the default is 4040 if you are using Tomcat, 8080 if you are using EAServer).

For example, enter:

```
http://lab2k.sybase.com:4040/onepage/mpindex.jsp
```

- 2 Click Join Now. The self-registration window displays.

❖ **Entering profile information**

- 1 On the self-registration window, enter your first name.
- 2 Enter your last name.
- 3 Enter your e-mail address.
- 4 Enter your telephone number.
- 5 Choose a member name.
- 6 Choose a password.
- 7 Confirm your password.
- 8 Select the PortalUser role.
- 9 Read the terms and conditions. If you agree, select the “I agree to the terms and conditions” box and click Done.

The Portal Interface default page group displays as shown in Figure 2-2 on page 12.

## M-Business Anywhere accounts

This section describes how to create, modify, and delete M-Business Anywhere accounts from Mobile Web Studio and from M-Business Anywhere server. M-Business Anywhere accounts are needed to deploy applications to PDAs, such as PalmOS and PocketPC.

---

**Note** If you are deploying mobile applications through BES, see the BlackBerry Enterprise Server documentation for account instructions. If you are deploying mobile applications to BlackBerry devices using page groups, you must have a Mobile Web Studio account.

---

Unwired Accelerator integrates Mobile Web Studio and M-Business Anywhere. You can manage M-Business Anywhere accounts through Mobile Web Studio and M-Business Anywhere, but procedures may differ depending on how you have configured your system. Keep in mind the following:

- The *global.properties.xml* property, MB.AutoRegistration, determines how user accounts are handled when Unwired Accelerator and M-Business Anywhere are integrated.
  - If MB.AutoRegistration is set to true, when a user joins Portal Interface, or a user is added to Mobile Web Studio, the user automatically joins the M-Business Anywhere server with the same user name and password. See the *Unwired Accelerator Installation Guide* for information about changing the MB.AutoRegistration setting.
  - If MB.AutoRegistration is set to false, Mobile Web Studio does not self-register to M-Business Anywhere. The Studio Admin user can register a Mobile Web Studio user in M-Business Anywhere using Manage | User/Roles, and selecting “Create M-Business user.” See the *Unwired Accelerator Installation Guide* for information about changing the MB.AutoRegistration setting.
- For existing Mobile Web Studio users who do not have an account in M-Business Anywhere:
  - The M-Business Anywhere administrator can create an account for the user in M-Business Anywhere.
  - The Mobile Web Studio administrator can create an M-Business user in Mobile Web Studio by selecting Manage | Users/Roles, selecting a user and right-clicking, and selecting Create M-Business User.
  - The Mobile Web Studio user can self-register in M-Business server or in Mobile Web Studio (using Manage | M-Business); or the Mobile Web Studio.
- User names in Mobile Web Studio and M-Business Anywhere must match. Also, if you create a user in M-Business server, an account is not created for the user in Mobile Web Studio.
- To manage Mobile Web Studio users, use Manage | Users/Roles.
- To manage Mobile Web Studio users of M-Business Anywhere, use Manage | M-Business.
- To create M-Business Anywhere users, use M-Business Anywhere or use Mobile Web Studio (Manage | M-Business).

- If you delete a user from Mobile Web Studio, through Manage | Users/Roles, the user is not automatically deleted from M-Business Anywhere.

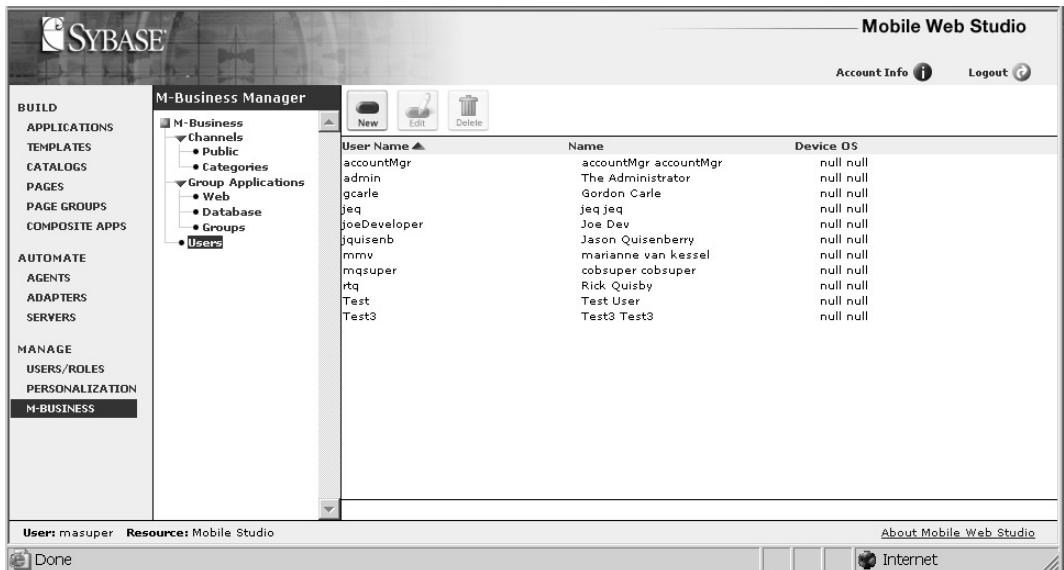
## M-Business user accounts (from Mobile Web Studio)

The Users list shows all M-Business Anywhere users. When you select the Users menu, then right-click a user name from the list, you can add, update, and delete users. You can also list the user's personal, public, and group channels (see the “M-Business Anywhere” on page 48 for information about working with groups and determining what the user subscribes to automatically through group membership). This section describes how to add, edit, and delete users.

### ❖ Adding new users

- 1 From Mobile Web Studio, select Manage | M-Business from the left pane, and select Users in the M-Business Manager pane. User name information displays in the detail pane as shown in Figure 3-2.

**Figure 3-2: Managing M-Business Anywhere users**



- 2 Click New in the toolbar. The New User window displays.
- 3 Create the new user:

- User name – enter the user name (required).
- First Name – enter the user’s first name.
- Last Name – enter the user’s last name.
- Password – enter a password, such as `password` (required).
- Confirm Password – enter the password again to confirm (required).

Click OK to save the new user.

- 4 In the confirmation pop-up window, click OK. The new users display in the User Name list. To deploy applications to the mobile device, you must set up a mobile application group, and associate the user with the group.

❖ **Editing users**

- 1 From the M-Business Manager menu, select Users, right-click the user name, and select Edit.
- 2 Update the User name field with your name, and click OK to save the change.
- 3 In the confirmation pop-up window, click OK.

❖ **Deleting users**

- 1 From the M-Business Manager menu, select Users, right-click the user, and select Delete.
- 2 In the confirmation pop-up window, click Yes to delete the user, and click OK to confirm.

---

**Note** You can delete more than one user at the same time by pressing the Ctrl key and selecting the users, then right-clicking any of the users and selecting Delete.

---

## BlackBerry accounts

This section describes how to set up a user on the BlackBerry device or simulator. You must first set up an account in Mobile Web Studio as described in “Mobile Web Studio accounts” on page 16, and then send the following information to the BlackBerry user:

- User name
- Password (generated when you create the Mobile Web Studio account; such as Kp17kj05.)
- Resource ID, such as 21
- UA server name, such as lab2k.sybase.com
- Port number, such as 4040 or 8080
- MDS/TCP – by default, the BlackBerry device is configured for an MDS connection. If your environment uses a TCP connection, inform the user to configure TCP on the BlackBerry device.

The BlackBerry user then must set up a profile on the BlackBerry device, using the Profile option on the trackwheel menu.

❖ **Setting up a user on BlackBerry device or simulator**

- 1 Make sure the BlackBerry offline client is running on the device. You should see the Unwired Accelerator icon in the application menu. If you do not, see “Installing the UA offline client” on page 61 for information about installing the offline client.
- 2 Select the Profiles option on the trackwheel menu.
- 3 Select the New Profile option from the trackwheel menu.
- 4 On the New Profile screen, enter the profile name, user name, password, resource ID, server name and domain, and port number. This example uses the masuper/m8super account.
  - Profile Name – the profile name for the account, such as mwsAdmin.
  - Username – the account user name, such as masuper.
  - Password – the account password, such as m8super.
  - Resource id – the default resource identifier (RID) for the account, such as 21 for Unwired Accelerator.
  - Server name – the server and domain on which Unwired Accelerator is running, such as lab2k.sybase.com.
  - Port number – the port used to access Unwired Accelerator, such as 4040 or 8080.
- 5 Select Save from the trackwheel menu, and save the settings.
- 6 Highlight the new profile, and select Set as Active from the trackwheel menu to make the profile active.

- 7 Return to the Unwired Accelerator screen.

Once you use Mobile Web Studio to create mobile applications, and synchronize, you see the applications on the mobile device.

## SAP accounts

Access to SAP applications can be through direct connection or connection pools, as described in the *Unwired Accelerator Installation Guide*.

## Peoplesoft accounts

See the Peoplesoft whitepaper for information about setting up web service connection.

# Resources

This chapter explains how to enable Unwired Accelerator to host multiple resources from one portal. A portal is the aggregated set of applications, pages, and page groups that are available within the UA product. A resource is portal content that you can configure to look the way you want.

Topic	Page
Overview	27
Creating resources	29
Implementing resources	34

## Overview

Unwired Accelerator includes a default resource (RID 21), which you see when you log in to Mobile Web Studio, Portal Interface, or a mobile device. Unwired Accelerator allows you to create additional resources with different logos, icons, text, colors, languages, and navigation styles.

Multiple resources allow you to create different looks for different audiences within a portal. For example, you might want to use different languages for different audiences, or to use a different look and navigation style for desktop and mobile device interfaces.

Applications can be deployed into multiple resources, and users are allowed to visit multiple resources in the same portal. A resource is also referred to as a co-brand.

---

**Note** Unwired Accelerator allows you to manage an unlimited number of portals, typical of Web hosting. You can configure each portal with different logos, icons, text, and colors. You can also create more complex portals by customizing portal component functionality such as global navigation buttons and self-registration forms.

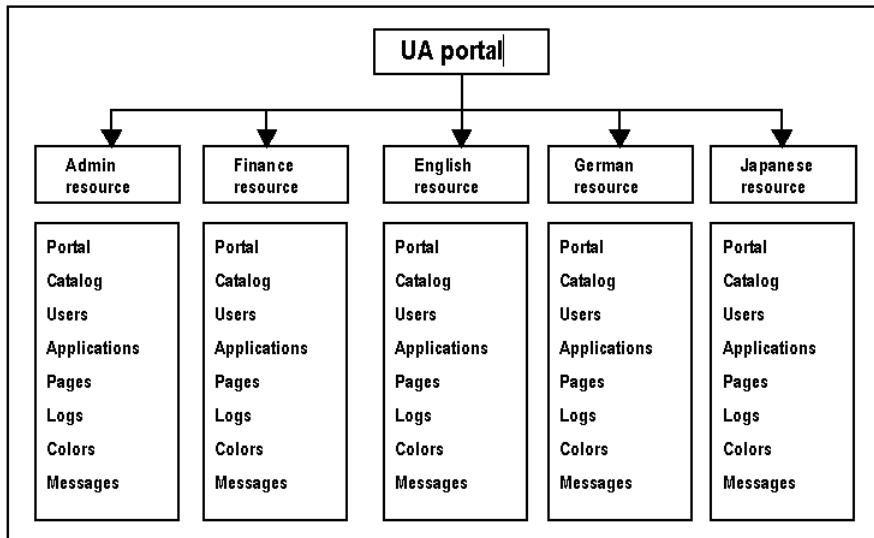
---

Each resource, or co-brand, has a row in the resources table, and that resource has a unique resource\_id assigned to it when the resource is created.

The users table has a resource\_id foreign key reference that identifies the default resource to which the user belongs if no resource is explicitly specified in the Portal Interface or mobile device URL. Upon login, the user works on objects in that resource.

Because each resource has its own text messages, image files, and JSPs that produce dynamic content for the portal, you can use resources to localize your portal, as illustrated in Figure 4-1, where Unwired Accelerator includes an Administrative resource and a Finance resource, as well as different resources for their English, German, and Japanese users.

**Figure 4-1: Multiple resources, one UA installation**



You can define resources to inherit attributes from other resources, which allows you to make minor user interface changes without having to reimplement large amounts of content. Inheritance is based on the <Cobrands> nesting structure in the *cobrands.xml* file, located in *SYBASE\tomcat\webapps\onepage\config* if you are using Tomcat. If you are using EAServer it is located in *SYBASE\EAServer\Repository\WebApplication\onepage\config*. Typically, the resource inherits from the *messages.xml* and *styles.xml* files in the associated *cobrand\\** directory. These contain text messages (*messages.xml*) and fonts, colors, and so forth (*styles.xml*) that appear on the Portal Interface.



Each portal corresponds directly to a Mobile Web Studio resource. When you add your domain, Mobile Web Studio creates a default resource with a resource ID. The resource ID (RID) is the unique key that Mobile Web Studio assigns to all portal objects associated with that resource.

The default UA resource directory is *unwired-accelerator-21*, located in *SYBASE\tomcat\webapps\onepage\fw\cobrands*. Other default resource directories you will see in the *cobrands* directory include:

- onepage – the source resource for Portal Interface.
- onepage-1 – the default resource for Portal Interface.
- japanese-11 – an example resource that uses the Japanese language.

There must be a definition for each resource in the *cobrand.xml* file. In addition, each resource subdirectory has its own set of configuration files that override the properties in the master configuration file.

The onepage default installation gets its configuration from the contents of the onepage subdirectories, for example, the *.JSP* login page is in *onepage\fw\baseApps\fwlogin*.

When you create a new resource, you must create or import portal objects before you can access the portal from a Web browser. You can move portal objects between resources by importing and exporting those objects within Mobile Web Studio (see the *Unwired Accelerator Developer's Guide* for information about importing, exporting, and deploying portal objects).

You can also use modify the default onepage configuration using information in this chapter. The default onepage installation is located in:

Tomcat:

*SYBASE\tomcat\webapps\onepage\fw\cobrands\onepage-1*

EAServer:

*SYBASE\EAServer\Repository\WebApplication\onepage\fw\cobrands\onepage-1*

## Creating resources

To create additional resources, repeat these steps for each resource you want to create. Each step references a procedure that gives detailed instructions.

- 1 Add a new resource. This step must be done by the StudioAdmin user. See “Adding resources” on page 30.
- 2 Create a directory for the new resource and edit the *cobrand.xml* file. This step can be done by the system administrator. See “Editing the cobrand.xml file” on page 31.
- 3 Copy resource-specific files to the new resource directory. This step can be done by the system administrator. See “Copying resource-specific files” on page 33.
- 4 Edit the resource-specific file to fit the new resource. The developer or system administrator can perform this step. See the *Unwired Accelerator Developer’s Guide* for information about changing the portal display characteristics.
- 5 Implement the resource as described in “Implementing resources” on page 34.

---

**Note** Users can have multiple concurrent sessions from different Web browsers displaying different resources in the same portal.

---

## Adding resources

To create a resource:

- 1 Log in to Mobile Web Studio using a StudioAdmin role, such as `masuper`.
- 2 Select Manage | Users/Roles from the Mobile Web Studio left pane.
- 3 Select Resources from the Accelerator Manager Objects menu.
- 4 Select New from the toolbar, or right-click in the detail view and select New Resource. The Resource Editor displays.
- 5 Complete these fields:
  - Resource Name – enter the resource name, for example `newResource`. This field becomes read-only once you save the resource.

- Active – indicates whether you have created the *cobrands* directory and modified the *cobrands.xml* file with the new resource. The default is Active, although the RID that is required to modify the *cobrands.xml* file is not actually generated until you finish adding the resource.
  - Portal Setup Complete – leave this option unselected for now. You must select this option, after you have completed the other steps necessary to activate the portal associated with this resource (that is, after you have updated *cobrands.xml*, copied configuration files to the resource directory, and so on).
  - Description – enter a description if desired; for example, “Test co-brands” or “Training division.”
  - Owner, Modified By, Date Created, Date Modified – these fields are filled in and updated automatically.
- 6 Click Save.
  - 7 When you see the “Resource saved” message, click OK. The new resource and resource ID display in the Studio Manager detail view.

## Editing the *cobrands.xml* file

The *cobrands.xml* file defines the active resources for your portal installation. When you add a new resource, you must manually add the resource information to *cobrands.xml*:

- 1 Navigate to the *cobrands* directory:

Tomcat:

*SYBASE\tomcat\webapps\onepage\fw\cobrands*

EAServer:

*SYBASE\EAServer\Repository\WebApplication\onepage\fw\cobrands*

- 2 Create a new folder using this naming format:

*resource\_name-resource\_ID*

where *resource name* is the name entered when you created the resource in Mobile Web Studio, and *resource ID* is the portal-assigned identification number. For example: *newResource-211*.

- 3 Navigate to the *config* directory:

Tomcat:

*SYBASE\Tomcat\webapps\onepage\config*

EAServer:

*SYBASE\EAServer\Repository\WebApplication\onepage\config*

- 4 Open *cobrand.xml* in any text editor and copy an existing <CobrandDef> section and paste it below the last <CobrandDef> section in the file before the </CobrandDef> tag. For example, copy and paste the Sybase section.
- 5 In the section you copied, update the information to reflect the new resource. Enter:
  - Rid – the resource ID generated by Mobile Web Studio; for example, 211.
  - Name – the resource name; for example, *newResource*.
  - Dir – the directory you created for the new resource where you copy the resource-specific files; for example, */fw/cobrand/newResource-211*.
  - Charset – the character set you want the resource to use.
  - EmailCharset – the character set you want the e-mail application to use.
  - EmailerSetting – indicates whether the Mobile Web Studio sends an e-mail message to the user when you create a new account. A setting of “1” indicates send an e-mail message; a setting of “0” (zero) indicates not to send a message.

---

**Note** If you do not have an SMTP server, or if you do not want an e-mail message to be sent, set the value of *emailerSetting* to “0.” An e-mail message is written to the *WorkRoot\email* directory.

The value of the *WorkRoot* property is specified in the *global.properties.xml* file (typically *x:\tmp*); see the *WorkRoot* entry in “Global property group” on page 129 for additional information. The *email* file name is the e-mail address of the user.

---

Your entry should look similar to this:

```

<CobrandDef rid='211' name='newResource'
  dir='/fw/cobrand/newResource-211'
  charset='ISO-8859-1'
  emailCharset='ISO-8859-1'
  emailerSetting='1' >
</CobrandDef>

```

- 6 Save and close the *cobrand.xml* file.

## Copying resource-specific files

In this step, configure new resources by copying and modifying default resource files. This section demonstrates the required changes for setting up the resource, but you can copy and modify other default files to override default values. For more information, study some of the example resources provided with Unwired Accelerator.

- 1 Navigate to:
  - Tomcat:
    - SYBASE\tomcat\webapps\onepage\fw\baseApps*
  - EAServer:
    - SYBASE\EAServer\Repository\WebApplication\onepage\fw\
 baseApps*
- 2 Copy *messages.xml* and *styles.xml* and paste them in the new resource folder you created in “Editing the cobrand.xml file” on page 31.
- 3 Create the subdirectory *fwdisplaystaticfile\style* in the new resource folder.
- 4 Navigate to the subdirectory *baseApps\fwdisplaystaticfile\style*.
- 5 Copy *css.css* and *css.jsp*, and paste them into the *\style* subdirectory that you just created for the new resource.
- 6 In a text editor, open the copied *css.jsp* file, and change the HREF location reference to the *css.css* file’s location in the *\style* subdirectory for the new resource. Your entry should look similar to this:

```
%>
```

```
<%@ taglib uri="http://www.sybase.com/taglib/syp"  
prefix="syp"%>  
<LINK REL="stylesheet" TYPE="text/css"  
HREF="<syp:appContext />/fw/cobrand/newResource-211/  
fwdisplaystaticfile/style/css.css">
```

- 7 Save and close the file.

## Editing resource-specific files

Edit the resource-specific files to create the interface you want for the new resource. The developer or system administrator can perform this step. See the *Unwired Accelerator Developer's Guide* for more information.

## Implementing resources

To implement a new resource, you must set up user accounts, and create portal objects in the new resource. The minimum requirement is that at least one guest page and page group is approved and active per resource.

### ❖ Implementing new resources

- 1 Restart the application server.
- 2 Open a Web browser, and log in to the Mobile Web Studio as a StudioAdmin user, such as masuper/m8super.
- 3 Either assign the new resource to an existing user account, or create a new account and assign the new resource. In either case, select the resource from the Default Resource drop-down list. The user account should be granted the StudioAdmin role to fully use the new resource.
- 4 Open another Web browser session, and log in to the Mobile Web Studio with the user account you created for the new resource.
- 5 Use the instructions in the *Unwired Accelerator Developer's Guide* to:
  - Build several applications.
  - Create a catalog, define some categories, and add the applications to it. Save and approve the catalog and make it Active.

- Build pages to create a guest page with an application.
- 6 To mark the process as completed, select Manage | Users/Roles from the Mobile Web Studio left pane, and select Resources in the Accelerator Manager pane.
  - 7 Right-click the Resource listing in the detail pane and select Edit Resource.
  - 8 When the Resource Editor displays, select Portal Setup Complete, then click Save.
  - 9 When the confirmation message appears, click OK, then click Close to exit the Resource Editor.
  - 10 When you finish, click Logout to exit Mobile Web Studio.





# Integrated Products

This chapter describes how to manage products that may be integrated with Unwired Accelerator.

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## Overview

This chapter provides information for managing Unwired Accelerator and the products integrated with Unwired Accelerator, such as devices, interfaces, applications, and so forth. It includes information about tools available for configuring, testing, managing, monitoring, and troubleshooting products used with UA. These topics do not replace vendor documentation, but help you use integrated products in the context of UA.

## Unwired Accelerator

Unwired Accelerator provides an environment for developing mobile applications, and deploying them to the desktop (Portal Interface) and to mobile devices (BlackBerry, PocketPC, PalmOS, and so forth).

Unwired Accelerator is configured with the Tomcat application server and Adaptive Server Anywhere (ASA) database server, and is integrated with M-Business Anywhere to deploy mobile applications, and Answers Anywhere to provide natural language search from a variety of interfaces. By default, security is provided through the Common Security Infrastructure (CSI) framework, and the PortalDB.

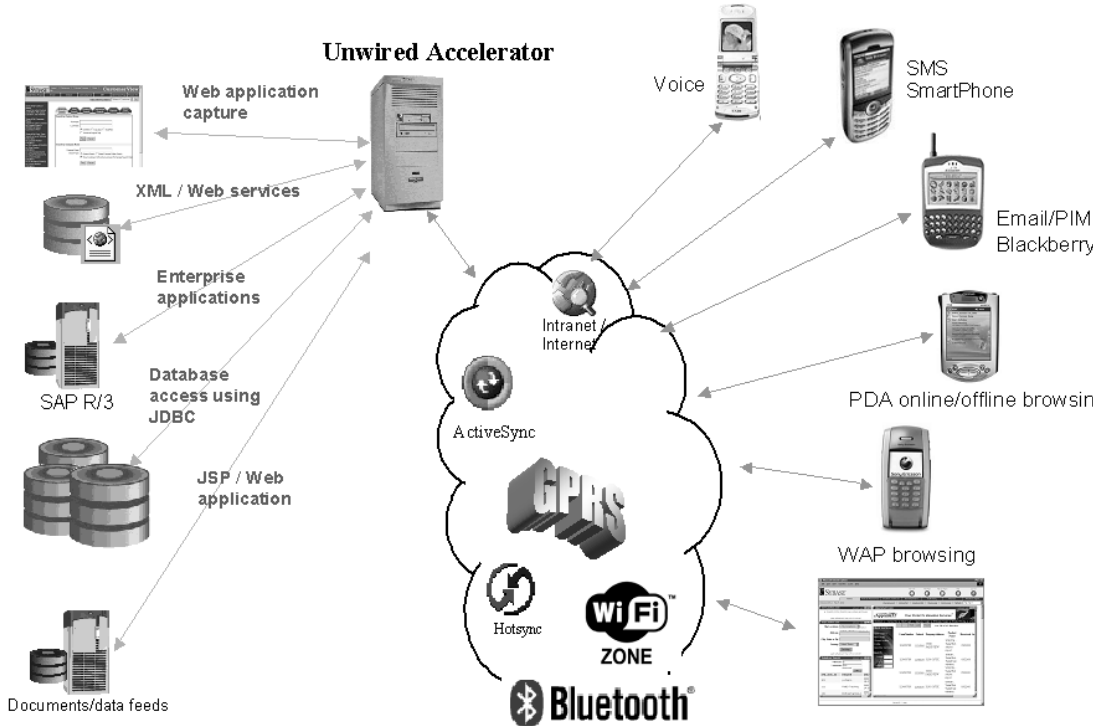
Alternatively, you can configure Unwired Accelerator to use:

- Adaptive Server Enterprise (Adaptive Server) for the database, instead of ASA
- EAServer for the application server, instead of Tomcat
- CSI with LDAP for authentication and authorization, instead of PortalDB
- Enterprise Security for security, instead of CSI
- Research in Motion BlackBerry Enterprise Server (BES), instead of M-Business Server
- Research in Motion Mobile Data Service (MDS), a component of BES, to deploy mobile applications to mobile devices, instead of M-Business Server or BES

## Architectural overview

Typically, all Unwired Accelerator components are installed on the UA server in a network domain. Figure 5-1 on page 39 shows a functional view of Unwired Accelerator.

Figure 5-1: Unwired Accelerator architecture



Unwired Accelerator components include:

- CSI framework – CSI uses profiles and roles stored in PortalDB to authenticate users and authorize their access to mobile applications and data.
- onepage application – the main Web application that contains the portal engine and Mobile Web Studio.

The Application Builder is the primary tool for: accessing element sources, whether database, Web or JSP application, Web service, file, or SAP and PeopleSoft applications; capturing applications; and manipulating the application for presentation on the mobile device.

Applications are stored in the PortalDB, and deployed to M-Business Anywhere server (or to BES/MDS if configured), or to Portal Interface. The Portal Interface is a desktop interface that can be used as a portal for Web applications.

- M-Business Anywhere server and client – mobile applications are stored in the AvantGo Database (AGDB). Users access the most current version of data and application upon logging in to their mobile devices, or upon synchronization.

Mobile applications can be accessed in online mode (either through direct cradle connection or wireless access), or in offline mode (cached in the mobile device's memory).

- Answers Anywhere – a default agent network is provided, which enables natural language search for information in mobile applications from various interfaces, including SMS, e-mail, and mobile device. The application developer can add search synonyms. If you already have a customized agent network, you can replace the default agent network with your customized version.
- Interfaces – mobile applications can be deployed to a variety of interfaces, including SMS, mobile devices, WAP enabled devices, and desktop, in both connected and disconnected modes.

## Mobile application sources

Following is brief information about mobile application sources. This information is provided to help you troubleshoot problems and advise developers. See the *Unwired Accelerator Developer's Guide* for detailed information.

- Web application – capture Web content and display it in an application. The captured content is updated dynamically as the source Web content changes. The Web element wizard guides you through creating a Web element and provides different capture strategies, which represent the different HTML objects that you can capture from Web pages.
- Database – query a back-end database and display the results in an application, or create and update records. When you create a database element, you can either enter a JNDI resource name or a JDBC connection URL for the datasource.
  - JNDI data source – use the Java Naming and Directory Interface (JNDI) to connect the application to the data source. The following default JNDI data source resources are included in Unwired Accelerator:
    - `java:/com/env/jdbc/portaldb` – connects to the portal database
    - `java:/com/env/jdbc/sampledb` – connects to the sample database

- `java:/com/env/jdbc/agdb` – connects to the M-Business Anywhere database
- `java:/com/env/jdbc/msales` – connects to the mobile sales demo database
- `java:/com/env/jdbc/mpharma` – connects to the mobile pharmacy demo database

In Mobile Web Studio, on the New Application Database Element Definition window, select the JNDI resource name from the drop-down list; for example, “portaldb” for portal database, or “sampledb” for the sample database. You can use these data sources, or add other data sources.

- JDBC connection cache – connection information is defined when the application server is set up, and available to application developers building JDBC applications. A disadvantage is that connection changes, which must be made through the application server, may cause applications to break.

In general, connection cache definitions are safer and easier to use, but if a connection to a database is required that is not available through a connection cache, you may have to either use the full JDBC specification, or to create the necessary connection cache definition through the application server.

- XML – capture an application that is XML-based rather than HTML-based. XML is used to describe data, while HTML is mainly used to display data. XML is a common tool for transmitting and manipulating data in Web development. This type of application is generally used by portal administrators who are familiar with XML to Extensible Stylesheet Language (XSLT) transformations.
- Web services – provide access to software that is available over the Internet and uses a standardized XML messaging system to invoke the service and supply the response. Web services are a useful way to provide data to a variety of consumers; for example, traffic reports, stock quotes, and travel services. This section provides basic introductory material about Web services and describes how to implement Web services in your portal.
- Enterprise applications (SAP, PeopleSoft) – provide access to enterprise applications using client interfaces. SAP requires an API that you can download and configure; see the *Unwired Accelerator Installation Guide* for details.

- JSP/ASP applications – capture Java Server Pages (JSP) Web applications and display them in an application.
- HTML – specify HTML code that you can arrange within an application with other element types.
- Document – create applications into which you load an application document (Microsoft Word, Microsoft Excel, PDF, and so on).
- File – create applications that are based on files. The file must contain data arranged in a format that can be mapped to grid data.

## Capture process

Following are important concepts for understanding the mobile application capture process in UA. This information is provided to help you troubleshoot problems and advise developers. See the *Unwired Accelerator Developer's Guide* for detailed information.

- Grid/table format – mobile applications that are to be deployed to BlackBerry devices must be in structured format, that is in a grid or table format.
- Spidering – in UA, a spidered application must be a data application that is in grid format, and can include server-side click across (SSCA) events or continuous capture. When the data application is captured, the SSCA links are also captured, packaged in an XML representation, and sent to M-Business Anywhere server as a “spidered application.” The spidered application is sent to the mobile device, and can be accessed on the PDA by a JavaScript application that displays the data on the PDA, and on the BlackBerry device by a Java program.
- CCL – content capture language is the markup code used for captured Web content.
- Templates – templates can be applied to mobile applications to change the way they look.

## Playback

Following are important concepts for understanding the mobile application playback process in UA. This information is provided to help you troubleshoot problems and advise developers.

- Playback is generated in the UA server, and the data is then sent through one of a number of possible routes to the mobile device.

- When playback is requested for a mobile application, the SSCA defined on an application can have a significant performance impact, as the full spidered data is generated before the data is returned to the mobile device. Using application caching in conjunction with agents can help improve performance.
- The same CCL code is used to retrieve data whether you access the data using a mobile device or using Web Studio. If there are problems with the data accessed through a PDA, try using Web Studio to view the same data to see if the problem lies with the PDA client side or the playback within UA.
- Use personalisation to control how a particular application's content is generated (in cases where content generation can be controlled by parameters).
- The Blackberry UA client and M-Business Server's database channels require grid data, and the application must have either a single element, or multiple elements mapped to a virtual grid using labels.
- For encoding issues on the PDA client, try adjusting the application encoding setting. In general, the best choice is probably UTF-8.

## Administrative tasks

Administrative tasks for UA include the topics included in this guide, as well as the following:

- Setting the session time out value in *web.xml*.
- Configuring web service connections for applications, such as SAP and Peoplesoft.
- Adding JNDI database connections in *web.xml* and *server.xml*, as described in "Creating a new JNDI data source resource" on page 45.
- Configuring datapool connections for other databases. See "Database property group" on page 150 and "Database property-specific parameters" on page 151 for ASA and ASE.
- Configuring Common Security Infrastructure (CSI) for your environment. See Chapter 6, "Security" for security information, and see the *Unwired Accelerator Installation Guide* for information about using LDAP, or a combination of CSI and LDAP.

- Clean up the PortalDB by removing agents/alerts associated with deleted users, as well as templates, applications, pages, and so forth. See “Cleaning up the PortalDB” on page 19.

#### ❖ **Setting session length**

Session information is controlled by Unwired Accelerator. If you are using BlackBerry, the MDS/BES server holds the cookies that contain the JSESSIONID that Tomcat uses to keep track of sessions.

- 1 Open *web.xml* in a text editor. This file is located in *SYBASE\tomcat\conf*.
- 2 Search for Default Session Configuration.
- 3 Change the `<session-timeout>` value to the desired number of minutes. The default is 30, meaning the session times out after 30 minutes of disuse.

```
<session-config>
  <session-timeout>30</session-timeout>
</session-config>
```

- 4 Save the file and close the text editor.
- 5 Restart the database server and the application server.

#### ❖ **Configuring web service connections**

You must also set the `WebServiceRoot` property in the UWP property group.

- 1 Open *webservices.properties.xml* in a text editor. This file is located in *SYBASE\tomcat\webapps\onepage\config* if you are using Tomcat. If you are using EAServer it is located in *SYBASE\EAServer\Repository\WebApplication\onepage\config*.
- 2 Search for these properties, and change them if you want:

- `ArraySize1` – the default array size.
- `WSCache` – indicates whether to use caching for processed complexTypes and definitions of wsdl
- `DefaultExpireLength` – the default expiration length for cached WS elements

Following are the defaults:

```
<Properties name="Properties">
  <Property name="ArraySize1" value="2"
    description="default array size"/>
```



```
<Property name="WSCache" value="true"
  description="(true/false)' true to turn on
  caching for processed complexTypes and
  definitions of wsdl"/>

<Property name="DefaultExpireLength"
  value="259200000" description="default expire
  length for cached WS element, e.g., 3 days"/>
```

- 3 Save and close the file.
- 4 Restart the application server to put the changes into effect.

## Creating a new JNDI data source resource

To add a new JNDI data source resource, you must make an entry must for the connection cache in the `<Resource name>` section of `server.xml` file located in `SYBASE\tomcat\conf` if you are using Tomcat. If you are using EAServer refer to the *EAServer System Administration Guide* for instructions on creating a new JNDI resource.

Here is the entry in `web.xml` for the portal database:

```
<resource-ref>
  <description>PortalDatabase</description>
  <res-ref-name>jdbc/portaldb</res-ref-name>
  <res-type>javax.sql.DataSource</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

There are several instances of `web.xml` in the Unwired Accelerator installation. The initial instance is located in `SYBASE\tomcat\conf` as part of the original Unwired Accelerator installation. Each subsequent instance of `web.xml` is created and configured when a Web application is deployed; for example, when Mobile Web Studio is deployed, `SYBASE\tomcat\webapps\onepage\WEB-INF\web.xml` is created and configured. Each deployed Web application has its own `web.xml` file in that application's associated `WEB-INF` directory.

---

**Note** All configured `web.xml` entries and resources are placed in the `java:comp/env` portion of the JNDI namespace.

---

❖ **Creating a new entry in web.xml**

- 1 Open *web.xml* in a text editor. This file is located in *SYBASE\tomcat\webapps\onepage\WEB-INF*.
- 2 Create a new `<resource-ref>` section. You may want to copy and paste another `<resource-ref>` section and edit the existing entries with the new information.
- 3 Save the file and close the text editor.
- 4 Restart the database server and the application server.

❖ **Creating a new entry in server.xml**

- 1 Open *server.xml* in a text editor. On Tomcat, this file is located in *SYBASE\tomcat\conf*. A resource description for each database is included in the file. Here is the entry for the portal database (PortalDB):

```
<Resource name="jdbc/portaldb" auth="Container"
type="javax.sql.DataSource"/>
<ResourceParams name="jdbc/portaldb">
  <parameter>
    <name>driverClassName</name>
    <value>com.sybase.jdbc2.jdbc.SybDriver</value>
  </parameter>
  <parameter>
    <name>driverName</name>
    <value>jdbc:sybase:Tds:localhost:4747?
ServiceName=portaldatabase</value>
  </parameter>
  <parameter>
    <name>user</name>
    <value>dba</value>
  </parameter>
  <parameter>
    <name>password</name>
    <value>SQL</value>
  </parameter>
  <parameter>
    <name>maxActive</name>
    <value>20</value>
  </parameter>
  <parameter>
    <name>maxIdle</name>
    <value>10</value>
  </parameter>
  <parameter>
    <name>maxWait</name>
    <value>20000</value>
  </parameter>
</ResourceParams>
```

---

**Note** On EAServer, use EAServer Manager to create the new entry. See the instructions in the *EAServer System Administration Guide*, in the section called “Database Access.”

---

- 2 Create a new entry for the database resource. To create a new entry, see the instructions at <http://jakarta.apache.org/tomcat/tomcat-4.1-doc/jndi-datasource-examples-howto.html>.
- 3 Save the file and close the text editor.

- 4 Restart the database server and the application server.

## **M-Business Anywhere**

Unwired Accelerator integrates M-Business Anywhere with Mobile Web Studio to deploy mobile applications to mobile devices, such as PocketPC and Palm OS. Mobile Web Studio provides menu access to M-Business Anywhere functionality; in fact, you should manage M-Business Anywhere through the Mobile Web Studio interface and not through the M-Business Anywhere interface.

All M-Business Client users require an M-Business Anywhere user account to receive mobile applications upon synchronization. Use Mobile Web Studio to create M-Business Anywhere accounts. See “M-Business Anywhere accounts” on page 21 for more information.

From Mobile Web Studio, you can deploy mobile applications either with channels or applications. Keep in mind these guidelines for determining which to use:

- Channels – HTML applications with a single HTTP request pointing back to the UA server. Channels on the PDA represent a set of HTML pages that are browsed by following the links on the page.
  - Channels can either be public channels (available to all users) or group channels (available to members of a group, or category, to which the channel is deployed).
  - Channels send spidered HTML to the mobile device through M-Business Anywhere server. Spidered HTML includes the captured content including embedded images and click-through links. You can specify the link depth (the level to which M-Business must spider for data starting at the first page), and the maximum size of the data (since spidering can cause data size to grow very quickly).
  - Typically, you need only channels if the mobile application generates images or HTML, or is not in structured, tabular format.

See “Managing channels” on page 50 for additional information and procedures.

- Applications – mobile applications that include three components: XML location (the URL to the data), XSD location (the URL to the schema or data definition), and the BLUI location (the URL to the business logic and user interface information).
  - Applications can be Web, database, or group applications.
  - A database table is created on the mobile device using the XSD and XML information, making it possible to perform JDBC like queries and operations, and perform a subset of SQL like operations on the table data.
  - Applications must be in structured or tabular format.
  - Applications provide more functionality than channels.

See “Managing applications” on page 54 for procedures.

To learn more about M-Business Anywhere, see the *M-Business Server Administration Guide* located at:

[http://localhost:8091/enterprise\\_doc/Admin\\_Mbiz.pdf](http://localhost:8091/enterprise_doc/Admin_Mbiz.pdf)

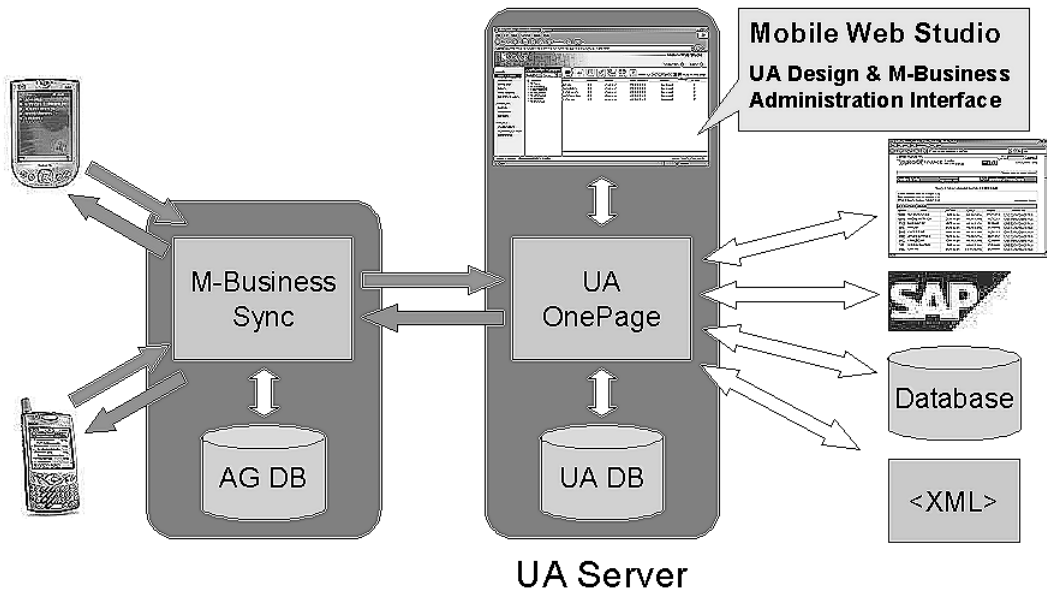
## Architectural overview

Typically M-Business Anywhere server is deployed on the same machine as Unwired Accelerator, as shown in Figure 5-2. If deployed on different machines, additional configuration steps are required so the two can communicate, as described in the *Unwired Accelerator Installation Guide*.

Mobile applications are deployed from Mobile Web Studio to M-Business Anywhere through channels or applications, as described in the previous section. The mobile applications are stored in the AGDB database, and deployed to mobile devices when the mobile device user logs in or initiates synchronization.

M-Business Client is deployed on a Windows machine for a particular mobile device type. Synchronization occurs between M-Business Client and the mobile device, either in connected or disconnected modes, depending on the mobile device capabilities.

Figure 5-2: M-Business Anywhere architecture



## Administrative tasks

Administrative tasks for M-Business Anywhere include:

- Managing M-Business Client user accounts – see “M-Business Anywhere accounts” on page 21
- Managing channels (public and group) – see “Managing channels” on page 50
- Managing applications (Web, database, and group) – see “Managing applications” on page 54

## Managing channels

Use the M-Business option on Mobile Web Studio to create, edit, and delete M-Business Anywhere channels used to deploy Web content to mobile devices. Channels are public (available to all users), or limited to categories (available only to those members of a group into which the channel is deployed).

## Working with channels

This section describes how to manage channels that you can display and access on an M-Business Client. Channels can be accessed by everyone (public) or by those who belong to specific groups (categories). Use the M-Business | Channels | Public option on Mobile Web Studio to create, edit, and delete M-Business Anywhere public channels.

### ❖ **Creating new channels**

Use this procedure to create a new public channel, or a new channel for a specific category of users. For the latter, you must first set up the category, as described in “Working with categories” on page 52.

- 1 Log in to Mobile Web Studio with a user login account that has administrator privileges for M-Business Anywhere (such as `masuper/m8super`).
- 2 Select M-Business from the left pane. The M-Business Manager menu displays.
- 3 Select Channels | Public, and click New in the toolbar. The New Public Channel window displays.
- 4 Enter a new public channel:
  - Title (required) – enter the name of your new channel.
  - Location (required) – enter the URL of the channel content.  
Click Preview to preview the channel content, then close the window.
  - Category – indicate whether this is a public channel or a channel for a specific group of users:
    - Public – for a public channel, select None from the drop-down list.
    - Category – for a specific group, select a category, such as “Search,” from the drop-down list. Only those users in this category can access this channel.
  - Description – enter a description of your new channel.
  - Channel Size Limit (KB) – enter the maximum size that the entire channel can consume, such as 100, for 100KB.
  - Link Depth – enter a number, such as “0” to indicate how many levels of hypertext links to traverse from the first page of the channel when downloading channel content to the device.

- Include Images – select this option to include all the images from the channel.
  - Follow Offsite Links – select this option if M-Business Anywhere server must fetch an HTTP address or other Web-based content from a server other than the one that hosts the channel.
  - Allow Binary Distribution – select this option if the channel is a binary file, for example, an *.exe* or *.dll* file.
  - Auto Subscribe For Users – select this option for all M-Business users to automatically subscribe to this public channel.
- 5 Click OK to save your new public channel, then OK to confirm.
  - 6 You see the new channel in the list of public channels. All M-Business Anywhere users have access to this channel.

❖ **Editing channels**

- 1 From the M-Business Manager menu, select Channels | Public. The list of public channels displays. Right-click the channel the list, and select Edit.
- 2 The Edit Public Channel window displays. Make the desired changes to the public channel, and click OK.  
  
Click Cancel to return to the originating page without saving the changes.

❖ **Deleting channels**

- 1 From the M-Business Manager menu, select Channels | Public. The list of channels displays. Right-click the channel in the list, and select Delete.
- 2 Click Yes in the confirmation pop-up to delete the channel.  
  
Click No to not delete the channel.

---

**Note** You can delete more than one public channel at the same time by pressing the Ctrl key and selecting the public channels, then right-clicking any of the selected channels and selecting Delete.

---

## Working with categories

You can create categories, or groups, for channels. Categories are only available to members of the group into which the channel is deployed.



**❖ Creating new categories**

- 1 Log in to Mobile Web Studio with a user login account that has administrator privileges for M-Business Anywhere (such as `masuper/m8super`).
- 2 Select M-Business from the left pane. The M-Business Manager menu displays.
- 3 Select Channels | Categories, and click New in the toolbar. The New Category window displays.
- 4 Enter a new category:
  - Name (required) – enter the name of the new category.
  - Description – enter the description of the new category.
  - Subcategory of – indicate whether the category is a subcategory of an existing category.
    - For a category, select the default of None (Miscellaneous) from the drop-down list.
    - For a subcategory, select the category under which it belongs from the drop-down list. This ability to nest categories enables you to further restrict access channels.
  - Click OK to save the new category.
  - Click OK in the confirmation window. The new category displays in the detail pane.

**❖ Editing categories**

- 1 From the M-Business Manager menu, select Channels | Categories, right-click the category, and select Edit. The Edit Category window displays.
- 2 Make your changes.
- 3 Click OK to save the category.
- 4 Click OK in the confirmation window. The new category description displays in the detail pane.

**❖ Deleting categories**

- 1 From the M-Business Manager menu, select Channels | Categories, click the category to select it, then click Delete in the toolbar.
- 2 Click Yes in the confirmation pop-up to delete the category.
- 3 Click Yes in the confirmation window.

- 4 Click Yes. The category no longer displays in the detail pane.

---

**Note** You can delete more than one category at the same time by pressing the Ctrl key and selecting the categories, then right-clicking any of the categories and selecting Delete.

---

## Managing applications

Use the M-Business option on Mobile Web Studio to create, edit, and delete M-Business Anywhere group applications.

### Working with groups

#### ❖ Creating new groups

You can create groups to manage how you assign channels to your users. By assigning users to a group, you automatically grant them access to all the channels assigned to the group account.

- 1 Log in to Mobile Web Studio.
- 2 Select M-Business from the left pane. The M-Business Manager menu displays.
- 3 Select Group Applications | Groups, and click New. The New Group window displays.
- 4 Create a new group:
  - Name – enter a group name.
  - Description – enter a description.
  - Type – select the group type from the drop-down list.
    - Managed – membership is not optional, so users can neither add nor remove themselves from managed groups. Administrators and group administrators can add users to or remove users from managed groups.
    - Optional – membership is available to all users. Users can add or remove themselves, as well as administrators and group administrators.

- Required – membership in required groups is not optional. Users become members of a required group automatically. If you create a required group before you add users, all users are automatically added to the group as they are added to the ASA database. If you create a required group after you add users, you have the option of having M-Business Server populate the group with all existing users.

See the *M-Business Anywhere Server Administrator Guide* for detailed information about these options.

Click OK.

- 5 In the confirmation pop-up window, click OK. The new group displays in the detail pane.

#### ❖ **Adding members to a group**

- 1 From the M-Business Manager menu, select Group Applications | Groups, right-click the group, and select Members. The Group Members window displays.
- 2 From Available Users, select Add All to add all available users to the group, or select one or more users.

Click OK.

- 3 In the confirmation pop-up window, click OK.

## **Working with Web channels**

You can list the Web channels in all groups. You can sort and filter the Web channels by groups.

#### ❖ **Adding new group Web channels**

- 1 Log in to Mobile Web Studio.
- 2 Select M-Business from the main menu in the Mobile Web Studio left pane. The M-Business Manager menu displays.
- 3 Select Group Applications | Web, and click New in the toolbar.
- 4 The New Group Web Channel window displays.
- 5 Create a Web channel:
  - Title – enter a Web channel name.
  - Location – enter the HTTP location.

- Group – select a group from the drop-down list.
- Channel Size Limit – select the channel size limit, or accept the default of 100. This is the maximum size, in kilobytes (KB), that the entire channel can consume.
- Link Depth – Enter a number, such as 1 to indicate number of hypertext link levels to traverse when downloading channel content to the device.
- Color Depth – select a value, such as “Automatic,” from the drop-down list.
- Refresh Rate – select a rate, or accept the default of “Every Sync.”

Click OK to save the new group Web channel.

6 Click OK on the confirmation window.

❖ **Editing group Web channels**

1 From the M-Business Manger menu, select Group Applications | Web. Right-click the channel to edit, and select Edit.

2 In the Edit Group Web Channel window, make changes and click OK.

Click Cancel to return to the originating window without making changes.

❖ **Deleting group Web channels**

1 From the M-Business Manger menu, select Group Applications | Web, right-click the channel to delete, and select Delete.

2 In the pop-up confirmation window, click Yes.

Click No to return to the originating window without deleting the group Web Channel.

---

**Note** You can delete more than one group Web channel at the same time by pressing the Ctrl key and selecting the group Web channels, then right-clicking any of the group Web channels and selecting Delete.

---

## Working with database channels

You can list the database channels in all groups. You can sort and filter the database channels by groups.

**❖ Adding new database channel lists**

- 1 Log in to Mobile Web Studio.
- 2 Select M-Business from the left pane. The M-Business Manager menu displays.
- 3 Select Group Applications | Database, and click New in the toolbar. The New Group Database Channel window displays.
  - Name – enter a name for the database channel, such as employees\_db.
  - Data URL – enter the default used in the *M-Business Server Administration Guide* (available from the M-Business Anywhere user interface):  

```
http://demo.avantgo.com/demos/db/test.xsd
```
  - Schema URL – enter the default used in the *M-Business Server Administration Guide*:  

```
http://demo.avantgo.com/demos/db/test.xsd
```
  - Format – select Attribute Based.
  - Group – select a group from the drop-down list.

Click OK to save, and OK to confirm.

**❖ Editing a group database channel**

- 1 From the M-Business Manager menu, select Group Applications | Database, right-click the database channel to edit, and select Edit.
- 2 In the Edit Group Database Channel window, make your changes, and click OK.  
  
Click Cancel to return to the originating window without making changes.

**❖ Deleting group database channels**

- 1 From the M-Business Manager menu, select Group Applications | Database, right-click the database channel to delete and select Delete.
- 2 In the pop-up confirmation window, click OK to delete the group database channel.

Click Cancel to return to the originating window without deleting the group database channel.

---

**Note** You can delete more than one group database channel at the same time by pressing the Ctrl key and selecting the group database channels, then right-clicking any of the group database channels and selecting Delete.

---

## BlackBerry

You can deploy mobile applications to BlackBerry devices using any of these methods:

- BlackBerry Enterprise Server (BES) – use BES documentation from Research in Motion to install BES and integrate with Unwired Accelerator. BES provides Internet and e-mail service.
- Mobile Data Service (MDS) – use the MDS component from Research in Motion to deploy mobile applications to BlackBerry devices. MDS provides Internet service, but no e-mail service.

The methods are available for deploying mobile applications from Mobile Web Studio to BlackBerry devices:

- Offline mode – make sure the Offline BlackBerry box is selected in the Properties Editor in Application Builder. Requires the UA Offline client on the BlackBerry device.
- Online mode – use pages and page groups to create a container for the mobile application. See the *Unwired Accelerator Developer's Guide* for more information.

Two BlackBerry clients are available for running mobile applications on the mobile device:

- UA Offline client – provides access to mobile applications developed in UA and deployed to the mobile device. UA Server stores the list of applications marked Offline BlackBerry. The BlackBerry Offline client sends a Sync All request to the UA Server for the list of applications that has the Offline BlackBerry attribute turned on. You select an application from the list, and Sync the application. The mobile application is cached in memory on the mobile device.

- BlackBerry browser – provides real-time access to mobile applications and data. If an application cannot be opened in UA Offline client, the BlackBerry browser is used.

Table 5-1 on page 59 describes the advantages and disadvantages for using UA Offline client and BlackBerry browsers. Use the information to troubleshoot mobile application problems.

**Table 5-1: UA client versus BlackBerry browser**

Option	Advantages	Disadvantages
UA Offline client	<ul style="list-style-type: none"> <li>• Has better table UI support. BlackBerry browser does not support tables. Has list/detailed view of records. We can control the columns in the list/detail view.</li> <li>• Provides offline access to data. The application data is stored in device memory.</li> <li>• Access content quicker since data is stored in memory.</li> </ul>	<ul style="list-style-type: none"> <li>• Battery dies, you will lose your data.</li> <li>• Not live application content.</li> <li>• Requires network connection to sync.</li> <li>• Has transfer size limits from MDS/BES.</li> </ul>
BlackBerry browser	<ul style="list-style-type: none"> <li>• Real time access to data. Application data is always up-to-date because it is always online.</li> <li>• No need to sync.</li> </ul>	<ul style="list-style-type: none"> <li>• Cannot access application content if you are out of range (no network connection). Need to be always connected.</li> <li>• Lack of table UI support. Columns are wrapped to the next line.</li> </ul>

## Architectural overview

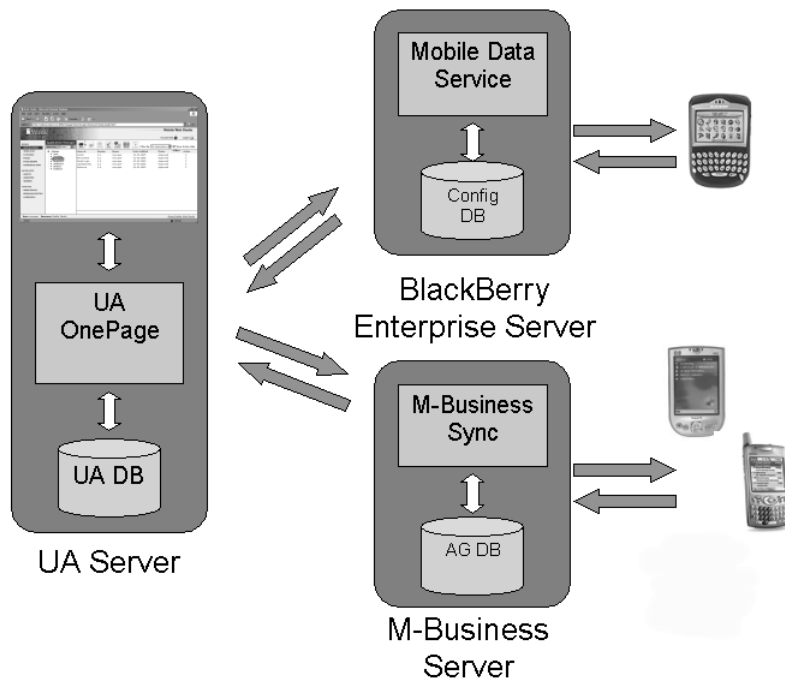
Use Mobile Web Studio to create mobile applications bound for BlackBerry devices. The Offline BlackBerry box in the Properties Editor must be selected to indicate that it is for a BlackBerry device in offline mode.

The mobile applications are deployed from Mobile Web Studio to either M-Business Anywhere (AGDB database), or to Mobile Data Service (Config database) as shown in Figure 5-3 on page 60. For BlackBerry, the mobile applications are stored in the Config database, and are deployed to mobile devices when the BlackBerry user requests synchronization.

An offline client program, which provides an interface to the mobile applications, must be installed on the user's BlackBerry device. The UA client enables the user to request synchronization; to use the downloaded mobile applications; to request, sort and manipulate data; and to clean out old data and applications. Mobile applications that cannot be viewed from the UA client are automatically opened in the Web browser.

The JVM on the BlackBerry device has an internal limitation of 128K for the amount of data it can process at a time. When syncing large applications, the application is parsed into smaller chunks, if the BlackBerry device has sufficient memory to handle the parsed chunks.

**Figure 5-3: BlackBerry architecture**



## Administrative tasks

Administrative tasks for managing UA and BlackBerry integration include:



- Make the offline client program available to BlackBerry users. Develop a process for downloading the *Uabbapp.alx* and *Uabbapp.cod* files to the user's BlackBerry Desktop Manager. The user must download the files to the BlackBerry device or simulator as described in "Installing the UA offline client" on page 61.
- Manage user accounts for BlackBerry users in Mobile Web Studio. Develop a process for instructing the user to set up a corresponding account on the BlackBerry device or simulator. See "BlackBerry accounts" on page 24.
- If you are using BES/MDS to deploy applications to BlackBerry devices, see the BES documentation for administrative tasks.

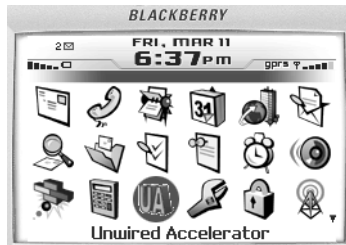
## Installing the UA offline client

This section shows how to install the Unwired Accelerator offline client application on a BlackBerry device or simulator. The offline client enables you to use the applications you create through Unwired Accelerator on your BlackBerry device in offline mode. Develop a process for making the offline client available for BlackBerry users.

### ❖ Installing an offline client on a BlackBerry device

- 1 Connect the BlackBerry device to the computer that contains your *Uabbapp.alx* and *Uabbapp.cod* files (Unwired Accelerator).
- 2 Run the BlackBerry Desktop Manager using RIM documentation.
- 3 Click Application Loader to start the wizard, then click Next. The Application Loader wizard displays.
- 4 Click Add, navigate to *SYBASE\tomcat\webapps\onepage\BlackBerry*, and select the *UAbbapp.alx* file.
- 5 Click Open. The application is listed on the Application Loader wizard.
- 6 Click Next to continue. The application is installed on your BlackBerry device.

- 7 Access your BlackBerry device. You see the Unwired Accelerator (UA) icon.



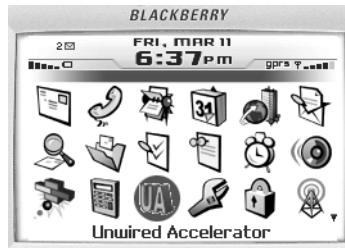
- 8 To run the Unwired Accelerator offline client, use the trackwheel to highlight the Unwired Accelerator (UA) icon, and open it. The Unwired Accelerator screen displays. The message starting with *Currently* there are no synchronized applications available displays.
- 9 Set up a user on the BlackBerry device as described in “BlackBerry accounts” on page 24.

#### ❖ Installing an offline client on a BlackBerry simulator

A BlackBerry simulator, installed on the desktop, can be a useful tool for testing and troubleshooting mobile applications during development.

- 1 Navigate to *SYBASE\tomcat\webapps\onpage\BlackBerry*.
- 2 Copy the *UAbbapp.alx* and *UAbbapp.cod* files into your BlackBerry simulator installation directory:  
*RIM\Research In Motion\BlackBerry JDE 3.7\simulator*
- 3 Select Start | Programs | Research In Motion | BlackBerry Java Development Environment 3.7 | MDS Simulator to start the BES simulator. You can minimize the Java.exe window.
- 4 Select Start | Programs | Research In Motion | BlackBerry Java Development Environment 3.7 | Device Simulator to start the BlackBerry device simulator. You can minimize the Device Simulator window.

- 5 Access the BlackBerry Handheld Simulator window. You see the Unwired Accelerator (UA) icon.



- 6 To run the UA offline client, highlight the Unwired Accelerator icon, and open it. The Unwired Accelerator window displays. The message starting with `Currently` there are no synchronized applications available displays.
- 7 Set up a user on the BlackBerry simulator as described in “BlackBerry accounts” on page 24.

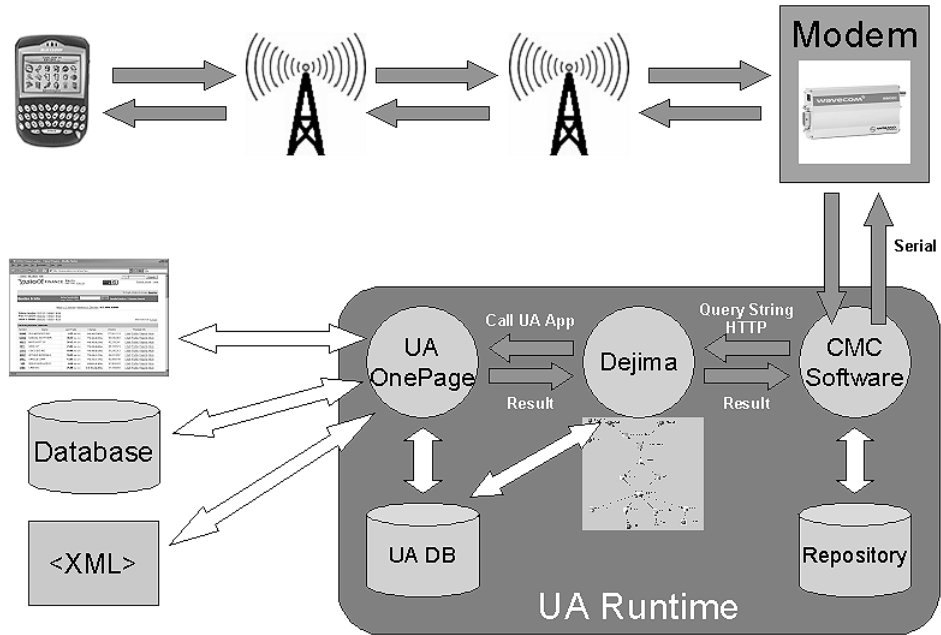
## Answers Anywhere and SMS

Unwired Accelerator integrates Answers Anywhere to provide natural language search capability from various interfaces, such as mobile device, SMS, and e-mail.

## Architectural overview

The Unwired Accelerator onepage application is integrated with Answers Anywhere (Dejima).

Figure 5-4: Answers Anywhere architecture



Answers Anywhere must be customized for your environment to provide natural language search capability from SMS and e-mail:

- SMS – CellularModemController (CMC) software provides an interface for Answers Anywhere to communicate with an SMS provider. Make configuration entries in the *CMCConfig.properties* file.
- E-mail – a dedicated e-mail account provides an interface for Answers Anywhere to communicate with a POP3 e-mail server. Make configuration entries in the *uadejima.properties* file.

The Answers Anywhere (Dejima) software uses a preconfigured agent network, which includes general search commands and parameters, to search mobile applications. You cannot customize the default agent network, but you can create additional search synonyms for the mobile applications you create. Additionally, you can load a custom agent network if your enterprise has one.

An Unwired Accelerator user sends a request, such as “get employee list for Bob,” from a devices in either an SMS format, or in e-mail format to the dedicated e-mail account. Answers Anywhere authenticates the user through the repository, accesses the desired information in PortalDB using the agent network, and returns a response. Authentication can be through the roles established for Unwired Accelerator.

## Administrative tasks

See the *Unwired Accelerator Installation Guide* for information about setting up the Answers Anywhere environment. Additional administrative tasks for managing UA and Answers Anywhere/SMS integration include:

- Setting an e-mail account for users to make queries – see the *Unwired Accelerator Installation Guide*
- Configuring additional features – see “Configuring CMC and SMS features” on page 65
- Loading a custom agent network – see “Loading a custom agent network” on page 67
- Informing users to register their SMS modem numbers – see “Registering SMS modems” on page 67
- Monitoring the health of SMS and CMC communications – see “Monitoring SMS and CMC communications health” on page 67
- Managing telephone number access (whitelist/blacklist) – see “Configuring CMC to allow access (whitelist)” on page 72 and “Configuring CMC to deny access (blacklist)” on page 73

## Configuring CMC and SMS features

After initially configuring CMC as described in the *Unwired Accelerator Installation Guide*, you will probably want to fine tune the configuration for your environment. See “CMC Admin GUI” on page 68 for information about the properties to configure for these categories:

- System performance, connectivity, basic processing:
  - baudRate
  - config
  - httpURL
  - instanceName
  - interval
  - messageHandler
  - modemDriver
  - serialPort

- simPin
- smscPhone
- configInterval
- Database access:
  - databaseDriver
  - databasePwd
  - databaseURL
  - databaseUser
  - initDatabase
- Security (roles):
  - httpAuthenticationURL
  - roleBasedAccess
- Grant/deny access by phone number:
  - accessChecker
  - blacklistFile
  - whitelistFile
- Access logs
  - accessLog.File
  - accessLog.Request
  - accessLog.Response
  - logFile
  - logLevel

See “Configuring CMC parameters” on page 71 for information about using the CMC Admin GUI to configure CMC parameters.

## Loading a custom agent network

This feature is an unsupported demo feature. If your enterprise has already developed an Answers Anywhere agent network for your environment, you can use it instead of the default agent network. Contact your Sybase representative for information about loading your custom agent network.

## Registering SMS modems

Each user must register their SMS modem number with Unwired Accelerator, by sending an SMS text message that includes user name and password to the SMS modem number. Otherwise, SMS requests do not work. Develop a process for informing users how to register their SMS modem.

### ❖ Registering the SMS modem with Unwired Accelerator

- 1 Obtain the SMS modem number.
- 2 Send an SMS text message with these three lines to the SMS modem number, substituting your Unwired Accelerator user name and password:

```
Register  
<user name>  
<password>
```

The user name and password values are entered in the `portaldatabase` table `users`, and the SMS modem number is entered in the `cell_phone_number` column.

If role-based access is used (see Table 5-2 on page 68 for information about the `roleBasedAccess` property), the CMC software checks the request to see whether the phone number for the requesting user is registered. If the number is not registered, the user is prompted to register it.

## Monitoring SMS and CMC communications health

If users complain of lost or slow searches, you may want to monitor SMS and CMC communications and make adjustments in the configuration files.

You can use the access log, available with the CMC Admin GUI to monitor access, look for trends, and make adjustments or recommendations for persistent problems. See “Displaying access logs” on page 72.

## CMC Admin GUI

This section describes the Admin GUI available for configuring the CMC software modem, and for monitoring CMC processing. The Admin GUI is an unsupported tool. If you choose to not use the GUI, see the *Unwired Accelerator Installation Guide* for command line procedures.

### ❖ Using the CMC Admin GUI

- 1 To access the interface, open a Web Browser and enter this URL:

```
http://hostname.domain:port/dejima/admin/home.jsp
```

For example:

```
http://lab2k.sybase.com:4040/dejima/admin/home.jsp
```

- 2 Log in using `masuper/m8super`.

The Home page displays. The Home page displays these options:

- **Configure** – configure the parameters for the selected configuration. See Table 5-2 on page 68 for values.
  - **Access Log** – view and manage access logs for the selected CMC configuration. See “Displaying access logs” on page 72.
  - **Whitelist** – identify telephone numbers that are allowed access. See “Configuring CMC to allow access (whitelist)” on page 72.
  - **Blacklist** – identify telephone numbers that are denied access. See “Configuring CMC to deny access (blacklist)” on page 73.
- 3 From the Current Configuration drop-down list, select an existing configuration to modify an existing CMC configuration file, or select “Create a new configuration” to establish a new CMC configuration file.
  - 4 Configure the parameters for the selected configuration. See Table 5-2 for values.
  - 5 Save your configuration changes. If you are creating a new CMC configuration, supply a name.

**Table 5-2: CMConfig.properties file settings**

Option name	Description	Default value
accessChecker	Fully qualified class name that implements the interface: com.sybase.cellmodem.AccessChecker	com.sybase.cellmodem.BlackWhiteListChecker
accessLog.File	Name of the file where access log data is kept.	None. If no file is specified, no access log is maintained.



Option name	Description	Default value
accessLog.Request	Boolean valued property (true or false). If true, the request body from each message received will be recorded in the access log.	true
accessLog.Response	Boolean valued property (true or false). If true, the response body sent back to uses is included in the access log.	true
accessLogger	Full qualified class name that implements the com.sybase.cellmodem.AccessLogger interface.	com.sybase.cellmodem.AccessLogger Impl
baudrate	Integer valued property. Specifies the bits per second communication rate to use with the serial port to which the modem is connected.	9600
blacklistFile	List of telephone numbers that are excluded from SMS service. When this list is specified and contains values, each message received is checked against the list. If the number is on the list, the message is not processed.	None. The file should have at least one telephone number if used.
config	Name of a ResourceBundle or a java.util.Properties formatted file containing any of the command line options defined in this table. Any options specified explicitly on the command line take precedence over values contained in this file.	com.sybase.cellmodem.CMCCConfig The default package includes com/sybase/cellmodem/CMCCConfig.p roperties file with default command line options. This file is packaged in the sybcmc.jar from which this entire package comes.
databaseDriver	Fully qualified class name of a java.sql.Driver implementation for connecting to a database.	com.sybase.jdbc2.jdbc.SybDriver
databasePwd	Password to use when connecting to the database.	SQL
databaseURL	JDBC URL to the database containing tables used by CMC.	None. If this option is not specified, CMC does not attempt to connect to, or use any database.
databaseUser	User name to use when connecting to the database.	dba
httpAuthenticationURL	When roleBasedAccess is true, and a user is trying to register their cell phone, Unwired Accelerator tests the user name and password against this URL.	http://localhost:4040/dejima/protected/ protected.jsp if you are using Tomcat. http://localhost:8080/dejima/protected/ protected.jsp if you are using EAServer.

Option name	Description	Default value
httpURL	<p>This is the HTTP URL that the HTTPClientMessageHandler class sends requests to with the request body message. This is the access point for Answers Anywhere processing.</p> <p>The sms.jsp page looks for an optional RID=&lt;N&gt; query parameter, where &lt;N&gt; is the resource ID number. For example, http://machine.sybase.com:4040/dejima/sms.jsp?rid=211. If this is not specified, the default RID configured in <i>uadejima.properties</i> is used.</p>	<p>http://localhost:4040/dejima.sms.jsp if you are using Tomcat.</p> <p>http://localhost:8080/dejima.sms.jsp if you are using EAServer.</p>
initDatabase	<p>Boolean property (true or false).</p> <p>If set to true and the databaseURL is specified, CMC tries to create the tables it uses in the database. This command line option is generally used only once to initialize the database.</p>	false
instanceName	<p>This is the name by which this instance of the CMC process and its modem are known. When you have more than one CMC, you must give each a distinct name, so the configuration data is kept separate and the respective access logs can be distinguished. When CMC is using a database, this name is used in searches and inserts.</p>	DefaultName
interval	<p>Integer valued property. Specifies in milliseconds how frequently CMC checks for new messages from the modem, and processes responses to return to users.</p>	15000 (every 15 seconds)
logFile	<p>Name of the error log for the CMC process. The name can have a pattern, as described in <code>java.util.logging.FileHandler</code> constructors.</p>	CMC%g.log
logLevel	<p>This determines the minimum severity level of messages that are placed in the log file. Valid values are described in <code>java.util.logging.Level</code>.</p>	WARNING
messageHandler	<p>Fully qualified class name that implements the <code>com.sybase.cellmodem.MessageHandler</code> interface.</p>	<code>com.sybase.cellmodem.HTTPClientMessageHandler</code>

Option name	Description	Default value
modemDriver	Fully qualified class name that implements com.sybase.cellmodem.CellModem interface.	com.sybase.cellmodem.CService Wrapper
roleBasedAccess	Boolean property (true or false). true – CMC attempts to match a sender’s phone number to a registered cell number in the user.cell_phone column of the portaldatabase. If a match is found, the login_name for that user is passed as a parameter to the httpURL for the Web application to use in applying access control. false – role-based access is not used.	false
serialPort	The name of the serial port to which the modem is connected.	com1
simPin	If the Subscriber Information Module (SIM) card in the modem requires a PIN to unlock it for use, specify that PIN with this property	none
smscPhone	Usually a SIM card stores its own telephone number for the SMS Service Center it contacts to send SMS messages. To override this telephone number, enter it here.	none
whitelistFile	List of telephone numbers that are allowed to use this SMS service. When this list is specified and contains values, each message received is checked against the list. If the number is not on the list, the message is not processed.	None. The file should have at least one telephone number per line if used.
maxResponseMessages	For SMS messages that need to be parsed into 160 character message packages, indicates the maximum number of messages to send when splitting the response.	1
configInterval	Number of millisecond periods that CMC should check for configuration changes.	0 (never)

#### ❖ Configuring CMC parameters

- 1 Select the Configure option. The properties described in Table 5-2 on page 68, and their values display in alphabetical order.
- 2 Click on a property value to view its configuration window. The configuration window provides:
  - Property Name - display only.

- Description – provides a brief description, and the default value.
  - Property value – displays the current value.
- 3 In Property Value, provide the new value, and select Save to save the change and return to the list of properties.

You can also select Delete to restore the default value, or select Cancel to exit the configuration window and return to the list of properties.

❖ **Displaying access logs**

The access logs enable you to monitor CMC processing of the Answers Anywhere user requests, and are a good troubleshooting tool.

- 1 Select the Access logs option. The first page of log file records display, from oldest to newest. Log file data includes:
- Request date (RqDate) – date and time the CMC received a user request, in the format **YYYY.MM.DDTHH:MM:SS**.
  - Response date (RsDate) – date and time the CMC sent a response to the user, in the format **YYYY.MM.DDTHH:MM:SS**.
  - User/phone – the user’s telephone number, in the format **+15555551212**.
  - Status – request sent by the user; for example, *Get quote for SY*.
  - Request – request processed by CMC; for example, *Phone number +15555551212 is not registered. If you would like to register it, send a message with 3 lines: Registration <your username>, and so forth.*
  - Reply – response returned by CMC; for example, *Denied*.
- 2 You can:
- Next – displays the next records in the log file.
  - Purge Logs to last date shown – trim the access log up to the currently displayed access records.
  - # Records – TBS
  - Purge all Access Logs – clear the log file of all records.

❖ **Configuring CMC to allow access (whitelist)**

Enables you to enter a list of telephone numbers that are allowed to use this SMS service. If used, each message received is checked against the list. Phone numbers that are not on the list are not processed.

- 1 Select the Whitelist option.
- 2 In User/phone, enter the telephone number in the format *555551212* (no punctuation), and click Add. The number is added to the User/phone list.

You can also select Delete to remove a specific phone number, or select Remove All Users to remove all phone numbers in the whitelist file.

---

**Note** If you want to use the list, you must include at least one phone number in the list.

---

#### ❖ **Configuring CMC to deny access (blacklist)**

Enables you to enter a list of telephone numbers that are denied access to SMS service. If used, each message received is checked against the list. Phone numbers that are on the list are not processed. These options enable this feature:

- accessChecker
- blacklistFile

- 1 Select the Blacklist option.
- 2 In User/phone, enter the telephone number in the format *555551212* (no punctuation), and click Add. The number is added to the User/phone list.

You can also select Delete to remove a specific phone number, or select Remove All Users to remove all phone numbers in the blacklist file.

---

**Note** If you want to use the list, you must include at least one phone number in the list.

---

## SAP

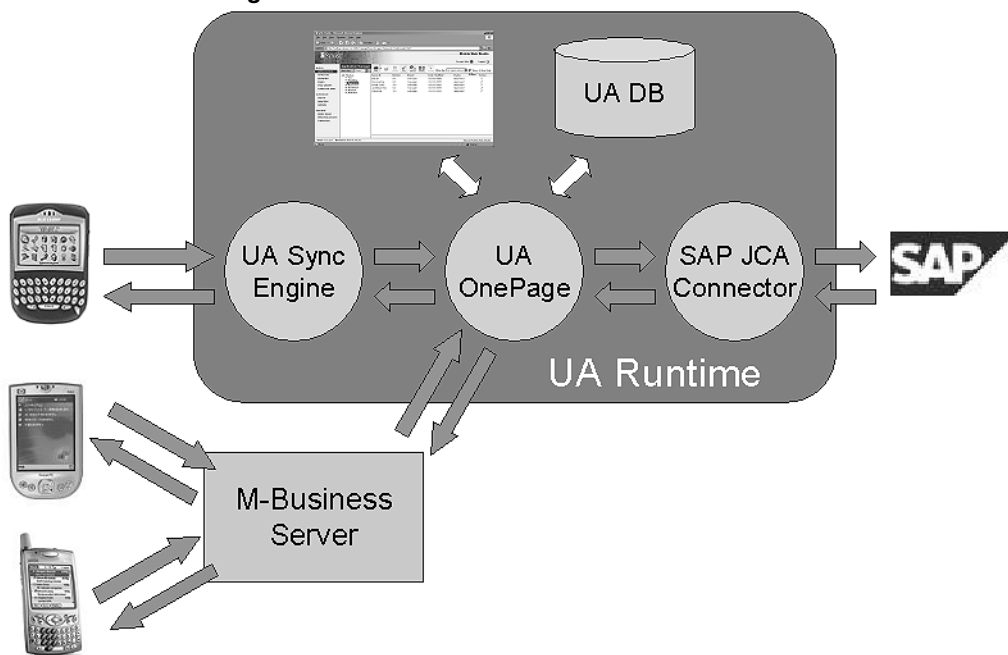
Unwired Accelerator enables you to establish a connection to an SAP environment, and access SAP data and application for building mobile applications. You must download the SAP Java Connector (SAP Jco) from the SAP Web site and then configure the Unwired Accelerator and SAP Jco connection as described in the *Unwired Accelerator Installation Guide*. You must be a registered SAP customer to download SAP Jco.

## Architectural overview

The SAP Jco provides an API for accessing SAP data and applications. See the Javadocs for methods and properties you can configure for the SAP connection.

The Unwired Accelerator onepage application uses connection pools to access the SAP Jco API.

**Figure 5-5: SAP architecture**



## Administrative tasks

Administrative tasks for managing UA and SAP integration include:

- Managing connection pools – see the *Unwired Accelerator Installation Guide* for information about setting up connection pools.

# Security

This chapter describes the security features included in Unwired Accelerator, and provides information for ensuring overall security for integrated products.

Topic	Page
Overview	75
Managing role-based security	86
Security utilities	93
Tightening portal security	96

## Overview

Unwired Accelerator uses the Common Security Infrastructure (CSI) security framework, with the PortalDB security provider. CSI features include:

- Authentication – based on user name and password authentication using the Java Authentication and Authorization Service (JAAS) model, and on single sign-on.
- Authorization – based on two primary authorization methods: role checks and resource access checks
- Data confidentiality and integrity – based on Secure Sockets Layer (SSL) protocol

Alternatively, you can use CSI with the LDAP security provider, or you can use both PortalDB and LDAP security providers. See the *Unwired Accelerator Installation Guide* for configuration information.

---

**Note** If you are using Enterprise Security with Unwired Accelerator, see the *Enterprise Security Administration Guide* for information.

---

## Understanding CSI

Common Security Infrastructure (CSI) is a security framework that enables Unwired Accelerator to work with an existing security system. A CSI realm works with a security provider to support authentication and authorization. The CSI realm component plugs in to a Tomcat 4.1.29 Web application container or an EAServer 5.2 application server.

A CSI realm is an abstract interface to security information such as user names, passwords, and role membership. When a user logs in to Unwired Accelerator, the user's name and password are verified against the data server, and if valid, role information is retrieved to provide Tomcat or EAServer with a list of the user's roles. The user's session is assigned a context identifier and logged in a table; retrieving the context identifier retrieves the context of the session.

CSI treats the security provider as a read-only store of security information. It does not expose any interfaces to allow for security administration and management. Because CSI provides a read-only view of security data, the Portal Interface or Mobile Web Studio do not make changes to the security data. Most messages are logged through the Jakarta-common logging framework and available through log files. Some messages, such as password expiration and similar warnings, are passed through to CSI.

The CSI realm can use either the PortalDB or the LDAP security provider. By default, CSI is configured with the PortalDB security provider and uses the portaldatabase (also known as PortalDB) to store security information. The LDAP security provider uses an LDAP server. The AuthenticationUsing property setting in the *global.properties.xml* file identifies the security provider used ("Database" for PortalDB, "CSI" for LDAP, or "EP Security" for Enterprise Security). See the *Unwired Accelerator Installation Guide* for information about reconfiguring the security provider used with CSI.

## Authentication

Unwired Accelerator uses the Java Authentication and Authorization Service (JAAS) API to secure client- and server-side Java applications. JAAS protects the system from users based on who runs the code and their permissions, and is compatible with various standard security mechanisms such as LDAP.

Unwired Accelerator accesses CSI interfaces indirectly through these standard J2EE security mechanisms:



- `HttpServletRequest.getUserPrincipal()` – returns the name of the current authenticated user. If the user has not been authenticated, the method returns null.
- `HttpServletRequest.isUserInRole(j2ee_Role)` – returns a Boolean value indicating whether the authenticated user is included in the specified logical “role.” If the user has not been authenticated, the method returns false.

#### CSI authentication with PortalDB security provider

If you are using CSI with the PortalDB security provider, Unwired Accelerator uses the following security management functions:

- Portal Interface:
  - Users establish a password when they click Join Now and set up a user profile.
  - Users can change their passwords from the MyInfo link.
  - Users can select Reset Password from the login screen to request a new password if they forget theirs. If a valid e-mail address is specified for the `resetPasswordEmail` property in `global.properties.xml` file, Unwired Accelerator notifies the PortalAdmin user. (If an e-mail address is not specified, an alternate procedure for notifying the PortalAdmin user must be in place).

The PortalAdmin user requests a new password in the User Editor screen (from Manage | Users/Roles | Users). Unwired Accelerator generates a new password and sends it to the user’s e-mail address.

- Mobile Web Studio:
  - The StudioAdmin user creates a user profile (from Manage | Users/Roles | Users). Unwired Accelerator generates a new password and sends it to the user’s e-mail address.
  - The StudioAdmin user changes a user’s password by selecting Password in the User Editor screen (from Manage | Users/Roles | Users). Unwired Accelerator generates a new password and notifies the users via an e-mail message.
  - Studio users can change their passwords from the Account Info link. Unwired Accelerator sends e-mail notification of the password change to the user’s e-mail address.

#### CSI authentication with LDAP security provider, or Enterprise Security

If you are using CSI with the LDAP security provider, Unwired Accelerator has the following limitations:

- cannot change the password from Portal Interface and Mobile Web Studio.

- cannot create users from Mobile Web Studio.
- cannot reassign roles for users from Mobile Web Studio.
- cannot use the Join Link in the Portal Interface login application. You can fix this manually by changing the following pages:
  - Portal Interface Guest page – disable the Join Now hyperlink. The Login application displayed on the Guest Page contains a Join Now link to enable self-registration. If you use another security provider, Unwired Accelerator cannot create a new user in the security system.
  - Portal Interface error page – remove the Join Now hyperlink. Likewise the Portal Interface error page shows the Join Now link in case a user login attempt fails. If you use another security provider, you must also remove that link, since Unwired Accelerator cannot create a new user in the security system.

If you are configured to use “CSI” or another security provider, remove the Join Now hyperlink from the two pages as described in “Removing the Join Now Link” on page 78.

You must manage these security functions from the LDAP security provider. When an existing LDAP users accesses Portal Interface or Mobile Web Studio, the user must enter account information, even though the information exists in the LDAP registers. The LDAP security provider carries out authorization and authentication.

---

**Note** If you are using Enterprise Security with Unwired Accelerator, see the *Enterprise Security Administration Guide* for information.

---

#### ❖ Removing the Join Now Link

Use these steps to remove the Join Now link that appears on the Portal Interface login window. This is necessary only if you are using CSI with LDAP or another security provider.

---

**Note** Likewise, if you have another process in place for requesting that passwords be reset, you can also remove the Reset Password link in the same way.

---

- 1 Modify the Portal Login application to remove the Join Now link from the Portal Login page:

- a Log in to Mobile Web Studio using an account with StudioAdmin permissions, such as the masuper account.
- b Select Applications from the menu in the left pane, and Approved from the Application Manager pane.
- c Select Portal Login and click Edit.
- d Under Element List, right-click PortalLogin, and select Edit | HTML.
- e Maximize the New Element HTML window to make it easier to see.
- f Under HTML, search for the HTML code that includes the text `doJoinNow`.
- g Delete or comment out the code as shown:

```
<Comment>
<TR><TD COLSPAN=2><a href="javascript:if(top.loginStorageFrame)
top.loginStorageFrame.doJoinNow(); "><nobr>
<SPAN STYLE="font-family:verdana;font-size:10px;font-weight:bold;">
Join Now<BR></SPAN></nobr></a></TD></TR>
</Comment>
```

- h Click Save.
  - i In Application Builder, click Save and click OK to confirm.
  - j Click Close to close the Application Builder window.
  - k Log out of Mobile Web Studio.
- 2 Modify the *login.jsp* file to remove the Join Now link from the second page that comes up if your login attempt from the Login application fails:

- a Navigate to the following directory:

```
SYBASE\tomcat\webapps\onepage\fw\baseApps\fwlogin
```

- b Open *login.jsp* in a text editor.
- c Search for the HTML code that includes the text “LP\_JOIN\_NOW.”
- d Delete or comment out the code as shown:

```
<Comment>
<a class=loginLink href="<syp:appContext/>/servlet/
FWControllerServlet?mvcapp=FWRegistration&rid=<%=rid%>"
target="_top"><%= (String) messages.get ("LP_JOIN_NOW") %></a>
</Comment>
```

- e Save the file and close it.

- 3 Stop and restart the Tomcat application server to initialize the change.
- 4 Open a Web browser window and access Portal Interface, using procedures in “Accessing Portal Interface” on page 11. The Join Now link should no longer display on the Portal Login window, or on the Portal Login error window that displays if you attempt to log in unsuccessfully.

## Role-based authorization

Unwired Accelerator allows users to see only those objects for which they have the necessary roles. For example, if Application\_1 is protected by Role\_A, and a user is not assigned Role\_A, when the user selects Build | Applications, Application\_1 does not display in the Application Manager list of applications.

This prevents Mobile Web Studio users from previewing an application they are not allowed to see in Portal Interface or from a mobile device.

---

**Note** If an object is assigned several roles, a user needs only one of the roles to access the object.

---

Controlling access to a data source is called access control; assigning permissions to users or groups of users to access secured objects is called authorization.

Table 6-1 describes Unwired Accelerator’s basic security infrastructure.

**Table 6-1: Unwired Accelerator security infrastructure**

Security item	Description
Roles (permissions)	<p>The StudioAdmin user creates and administers roles in Mobile Web Studio. Roles are based on J2EE roles, and are granted access permissions to objects, such as pages, applications, catalogs, and so on. Objects are mapped to operations, such as create, edit, manage, and so on.</p> <p>See Table 6-2 on page 86 for information about the J2EE roles used in Unwired Accelerator, and see Table 6-3 on page 91 for information about objects and their operations.</p>
Users (accounts)	<p>The StudioAdmin user creates and administers user accounts in Mobile Web Studio. Each user account is assigned one or more roles, which grants the user access to various objects with permission to carry out specific operations.</p> <p>Portal Interface users are created automatically when the users sets up an account from the Join Now link on the log in screen. Portal Interface users are not granted access to Mobile Web Studio objects.</p>

Security item	Description
Resources (co-brand)	<p data-bbox="389 251 1236 364">Users may be associated with one or more resource, or co-brand. Resources can represent companies, divisions, departments, languages, and so on. If a user is associated with more than one resource, the user must specify the resource identifier (RID) when logging in to Mobile Web Studio, Portal Interface, or a mobile device.</p> <p data-bbox="389 373 960 399">See Chapter 4, “Resources” for more resource information.</p> <p data-bbox="423 434 1243 590">To set up role-based security in the portal, an administrator logs in to Mobile Web Studio using the StudioAdmin account, such as masuper, and creates the appropriate security roles and users. For example, the StudioAdmin might create the StudioDeveloper, StudioDesigner, and PortalUser roles, and give the StudioDeveloper role “create” permissions on the “application” object.</p> <p data-bbox="423 607 1243 833">The StudioAdmin creates the user accounts and assigns each user the appropriate role. For example, the administrator assigns the StudioDeveloper and PortalUser roles to a user named “Smith.” When user Smith logs in to Mobile Web Studio, CSI verifies the user’s identity, and limits the information the user is allowed to see, modify, or execute. Smith creates an application, which is allowed because he is assigned the StudioDeveloper role that has that access right.</p> <p data-bbox="423 850 1243 1076">When Smith creates the application, he assigns roles to the application that a user must have to access it. Smith sees all of the roles defined in Mobile Web Studio, including those roles for which he does not have access. This allows him to assign roles that he does not have to protect the application. All users that have the roles assigned to the application, can access that application. See “Working with secure applications” on page 93 for more information about working with applications that use sensitive or confidential data.</p> <hr/> <p data-bbox="423 1119 1243 1215"><b>Note</b> Although Smith sees all J2EE roles when creating an object, he sees only the Mobile Web Studio objects that the StudioDeveloper and PortalUser roles have permission to see.</p> <hr/>

In summary, roles are assigned permissions to view and act on specified objects. User access to objects is controlled by the roles the user is assigned.

## Data confidentiality and integrity

Unwired Accelerator uses Secure Sockets Layer (SSL), a security protocol that provides communications privacy over the Internet when transmitting data between client and server. Unwired Accelerator uses HTTP or HTTPS, depending on the `secure_login` setting in `global.properties.xml`:

- If the parameter is set off, HTTP is enabled for Unwired Accelerator.
- If the parameter is set on, HTTPS is enabled for Unwired Accelerator, and HTTPS is used for login and registration.

If `secure_login` is set on (true), keep in mind the following:

- If you start your Portal Interface session using `https://host.domain:port/onepage/index.jsp` (note the `s` in `https`), your entire session remains under HTTPS all the time, even while retrieving things that do not need to be secured, such as images, CSS, and JavaScript files.
- If you start your Portal Interface session using `http://host.domain:port/onepage/index.jsp` (note `http` only), your browser is redirected to use HTTPS only when you are exchanging sensitive information like passwords and personalization data, or executing secure applications.

---

**Note** You must enable the HTTPS listener on your portal before you enable `secure_login`. To do so, set the `default_https_port` property in the `global.property.xml` file to the appropriate port number (the defaults are 4443 from the Tomcat listener, and 8081 for the EAServer listener), then enable `secure_login`.

---

To enable Web capture of HTTPS sites and creation of “secure” applications, set these parameters on in the `global.properties.xml` file:

- `secure` – indicates whether to enable HTTPS for the Web container (Mobile Web Studio and Portal Interface).
- `use_https` – indicates whether to enable secure navigation.

See “Global property group” on page 129 for more information about the `secure`, `secure_login`, `use_https` and `default_https_port` properties.

## Security and integrated products

This section provides security information for products that are integrated with or configured to use Unwired Accelerator. See Chapter 5, “Integrated Products” for more information about managing these integrated products in the context of Unwired Accelerator.

### BlackBerry/BES security

Unwired Accelerator uses Research in Motion (RIM) built in security for BlackBerry devices, including:

- Device security:
  - Password protection with screen saver.
  - Only a hash of the password is stored on the device, so even if a hacker can access device memory he or she cannot figure out the password.
  - Ten bad password attempts wipes out all user data.
  - Administrator can remotely command the BlackBerry to wipe all user data when the device is reported stolen.
  - Administrator can block access from BlackBerry if it is temporarily lost.
- Data security:
  - All communication between the BlackBerry over wireless and the Internet is 3DES-encrypted until it reaches the BlackBerry Enterprise Server (BES).
  - The shared keys for 3DES encrypt/decrypt is generated by random mouse movements monthly and stored in the BES and BlackBerry device.
- Virus/malicious application:
  - Administrators can control whether new applications are allowed to be downloaded to BlackBerry.
  - If application downloads are allowed, those applications can be controlled as to whether they are allowed to connect to the intranet, extranet addresses, both, or neither. A single application cannot then pull information from the intranet and push it to the extranet.

- Certain sensitive APIs are access controlled. An application cannot call those APIs unless the application's code has been digitally signed by RIM.
- Applications are explicitly sandboxed to prevent them from accessing data/memory from other applications.
- Unwired Accelerator access:
  - Synchronization of applications, or online browsing of Unwired Accelerator applications requires the user to login with a UA user name and password.
  - All the HTTP traffic is encrypted as described above, under Data Theft. The only place data is unencrypted is when it is behind the firewall and inside the corporate intranet.
  - For extra security, you can access UA over HTTPS and the data is always encrypted from end-to-end, and fine-grained access control to corporate data is guaranteed via the UA access controls.

To learn more about RIM security, or to find out how to change the default settings, see these guides:

- *BlackBerry Application Platform 4.0 Technical Overview* – available at the RIM online site:  
[http://www.blackberry.com/knowledgecenterpublic/livelink.exe/BlackBerry\\_Application\\_Platform\\_Technical\\_Overview.pdf?func=doc.Fetch&nodeId=695415&docTitle=BlackBerry+Application+Platform+Technical+Overview](http://www.blackberry.com/knowledgecenterpublic/livelink.exe/BlackBerry_Application_Platform_Technical_Overview.pdf?func=doc.Fetch&nodeId=695415&docTitle=BlackBerry+Application+Platform+Technical+Overview)
- *BlackBerry Security White Paper 4.0* – available at the RIM online site:  
[http://www.blackberry.com/knowledgecenterpublic/livelink.exe/BlackBerry\\_Security\\_White\\_Paper\\_version\\_4.0?func=doc.Fetch&nodeId=739746&docTitle=BlackBerry+Security+White+Paper+version+4%2E0](http://www.blackberry.com/knowledgecenterpublic/livelink.exe/BlackBerry_Security_White_Paper_version_4.0?func=doc.Fetch&nodeId=739746&docTitle=BlackBerry+Security+White+Paper+version+4%2E0)

## **PDA/M-Business Anywhere security**

Unwired Accelerator uses M-Business Anywhere built-in security for PDAs in offline and online modes:

- Offline mode – Unwired Accelerator is configured to access the M-Business Anywhere AGDB database to create channels for users from Mobile Web Studio (Manage | M-Business). All other security is based on M-Business Anywhere default settings.



To learn more about M-Business Anywhere security, or to find out how to change the default settings, see these guides:

- *Ensuring Mobile Security from the Device to the Datacenter* – available at the iAnywhere online site:  
[http://www.ianywhere.com/whitepapers/ensuring\\_security.html](http://www.ianywhere.com/whitepapers/ensuring_security.html)
- *M-Business Server Administrator Guide* – available at the following URL where M-Business Anywhere is installed:  
[http://localhost:8091/enterprise\\_doc/](http://localhost:8091/enterprise_doc/)
- *M-Business Client User's Guide* – available at the following URL where M-Business Anywhere is installed:  
[http://localhost:8091/enterprise\\_doc/](http://localhost:8091/enterprise_doc/)
- Online mode – Unwired Accelerator implements the PDA's use of HTTPS for online browsing, if you use HTTPS in the URL.

## Answers Anywhere security

Using a Web interface, the BlackBerry or PDA client, or SMS interfaces, you can force users to authenticate and thus apply the role-based access controls for accessing applications and data.

For SMS access, perform the following to set up role-based access controls:

- Set the `roleBasedAccess` configuration property true in the `CMCConfig.properties` file, initially located in `SYBASE\cmc\classes\com\sybase\cellmodem`.
- Set the `role.check` property true in the `uadejima.properties` file, located in `SYBASE\tomcat\webapps\dejima\WEB-INF\classes\`.

You cannot use security for e-mail access.

## SAP/PeopleSoft security

For both SAP and PeopleSoft, the user name/password for a direct connection to a datasource is stored in either the application definition file, or in the autofill adapter (personalization keys). See the *Unwired Accelerator Developer's Guide* or *Mobile Application Development Tutorial* for information about setting up a JDBC database connection, or an adapter/personalization key.

For SAP, the user name/password for a pooled connection to a datasource is stored in the `pool_name.properties` file, located in `SYBASE\tomcat\webapps\onepage\fw\properties`. See the *Unwired Accelerator Installation Guide* for information about setting up an SAP connection and creating connection pool property files.

## Managing role-based security

Unwired Accelerator implements role-based security. This section provides information about managing role-based security, in these topics:

- Setting up a security manager account
- Administering roles
- Administering objects
- Working with secure applications

When you install Unwired Accelerator, a default configuration enables you to log in to Mobile Web Studio and work with the Studio and its functionality. From the default configuration, you create and administer your enterprise's users, roles, and objects.

Table 6-2 describes the default J2EE security roles that Unwired Accelerator uses.

**Table 6-2: J2EE security roles**

Security role	Description
PortalAdmin	<p>A role for system or administrative users. If you want this user to represent your system administrator, grant this user the StudioAdmin and PortalAdmin roles.</p> <p>Unwired Accelerator lets you enable the deploy functionality for Mobile Web Studio users with the PortalAdmin role, as described in the <code>global.properties.xml</code> portal configuration file:</p> <pre>&lt;Property name="PortalAdministrationRole" value="PortalAdmin" description="The J2EE role required to administer the Portal performing export/import and update operations." menugroup="-1" /&gt;</pre> <hr/> <p><b>Warning!</b> This property is designed for a single role and not a list of roles. There is no parsing of the string to look for multiple roles.</p>

Security role	Description
PortalGuest	<p>A role for the UA guest account. The guest account allows users to log in to your portal. The login name for the guest account is “guest”; the password is also “guest”.</p> <hr/> <p><b>Warning!</b> Do not delete the guest account. It is required for Unwired Accelerator.</p> <hr/> <p>Unwired Accelerator automatically creates the PortalGuest role and grants the role to the guest account. The sole purpose of the PortalGuest role is to enable self-registration in Portal Interface. The guest account does not have permission to access any assets. The system can have only one guest role. The guest role is valid for an indefinite period.</p>
PortalUser	<p>A role for Portal Interface users. Users with this role can work with any Portal Interface object, but cannot access Mobile Web Studio objects.</p>
StudioAdmin	<p>A role for the Unwired Accelerator administrator. The StudioAdmin role is automatically defined when you install and configure Unwired Accelerator (opsuper for RID1, and masuper for RID21).</p> <p>By default, the StudioAdmin has complete access to Mobile Web Studio operations. Generally, the StudioAdmin sets up initial security for objects, roles, and users, but StudioAdmin can perform all other Mobile Web Studio functions.</p>
everybody	<p>A role required for all authenticated Portal Interface and Mobile Web Studio users, as determined by the RequiredRoles property in the <i>global.properties.xml</i> file. See “Global property group” on page 129 for information about this property.</p>
manager	<p>This role is not currently used. You can establish the manager role to meet the needs of your installation.</p>
superuser	<p>This role is not currently used. You can establish the superuser role to use in conjunction with the RoleBaseDisplaySeeAllRoles, and RoleBaseDisplay properties in the <i>global.properties.xml</i> file. See “Global property group” on page 129 for information about these properties.</p>

## Setting up a security manager account

Use these steps to create a system administration user to manage overall security from Mobile Web Studio. Optionally, you can hide this user account, or any other account, so it does not show up in Mobile Web Studio.

### ❖ Creating a new user to access Mobile Web Studio objects and security

- 1 Log in to Mobile Web Studio as StudioAdmin, such as the masuper account.
- 2 Select Manage | Users/Roles from the menu in the left pane.

- 3 Select Users and click New on the toolbar.
  - 4 When the Create New User window displays, complete the required fields.
    - Username – enter a user name, such as securityManager. This will be your account name when you log in to Mobile Web Studio.
- 
- Note** Do not use “opsuper” or “masuper” for the Login Name.
- 
- Active – make the account active.
  - Default Resource – select Mobile Studio from the drop-down list. If you set up multiple co-brands, set up a separate administrative user for each resource.
  - Available roles – select StudioAdmin and PortalAdmin.
  - First name – enter the user’s first name.
  - Last name – enter the user’s last name.
  - E-mail – enter the user’s e-mail address. The password is sent to this e-mail address.
- 5 Click Save. The new user displays in the list of available users.
  - 6 Log out of Mobile Web Studio.
  - 7 Log in as the new user to test the account. If you are logging on to another co-brand, specify the resource ID when logging in.
  - 8 Create some applications and pages to use the permissions that have been granted to this user.

❖ **Hiding a user account in Mobile Web Studio**

Optionally, with the PortalDB security provider, you can “hide” a user account so it does not display in the Mobile Web Studio list of user accounts. (This does not work with the LDAP security provider, or Enterprise Security).

- 1 From the command line, navigate to the following directory:

```
cd SYBASE\UAxx\asa\java
```

- 2 Access jisql using the command that follows. The command adds the jConnect JDBC driver to the class path.

```
java -classpath ..\..\tomcat\common\lib\
jconn2.jar;jisql.jar com.sybase.jisql.Jisql
```

The jisql login screen displays.

## 3 Log in:

- Username – user name for the database; for example, dba for ASA.
- Password – password for the database; for example, SQL for ASA.
- Hostname – Unwired Accelerator host name; for example, 1ab2K.
- Portnumber – database port; for example, 4747.
- Properties – optional database connection properties; for example, SERVICE\_NAME=portaldatabase.
- Language – Database language; for example, English.

Click Connect.

## 4 Use the following command to “hide” a user account:

```
UPDATE users set protected='true' where login_name='account'
```

For example, to hide the securityManager account from view in Mobile Web Studio, use:

```
UPDATE users set protected='true' where login_name='securityManager'
```

## 5 To verify the change, log in to Mobile Web Studio as a StudioAdmin user. Select Manage | Users/Roles, and select Users. The securityManager user should no longer appear in the list of available users.

---

**Note** To reveal a hidden user account, use:

```
UPDATE users set protected='false' where login_name='account'
```

---

## Administering roles

Roles are sets of permissions to access objects. The permissions assigned to a role define what a user with that role can do in the secured system. Each role can have multiple permissions assigned to it. Examples of permissions are create, update, administration, security, and management. You can create a new role, or you can create a role from an existing role. Roles span resources.

### ❖ Creating new roles

- 1 Select Manage | Users/Roles.

- 2 Select Roles. Mobile Web Studio has these default roles—PortalAdmin, PortalGuest, PortalUser, StudioAdmin, everybody, manager, and superuser, as described in Table 6-2 on page 86.
- 3 Select New to create a new role.
- 4 When the Role Editor window displays, complete the required fields.
  - Role name – enter the role name, such as StudioDeveloper.
  - Description – optionally enter a description for the role.
  - Under Object, select Portlets. A list of operations displays in the Available Operations column.

Select Add All to move all operations into the Assigned Operations column. You could also select specific operations.
- 5 Select Save, and click OK to confirm. The role displays in the list of roles, and can be selected when you set up a user account.

❖ **Creating a role from an existing role**

You can create a new role from an existing role, and change its properties.

- 1 Select Manage | Users/Roles.
- 2 Select Roles.
- 3 Select an existing role to use as your source. For example, select PortalUser, and select Edit.

Mobile Web Studio has these default roles—PortalAdmin, PortalGuest, PortalUser, StudioAdmin, everybody, manager, and superuser. See Table 6-2 on page 86 for information about the default roles. You can also use a role you created as a source role.
- 4 When the Role Editor window displays, click Save As.
- 5 In the Save Role As window, type a new role name, such as PortalTrainee. The new role displays in Mobile Web Studio.
- 6 Select the new role, and select Edit.
- 7 When the Role Editor window displays, complete the required fields
  - Role name – make sure the new role displays; in this case, PortalTrainee.
  - Description – update the description for the role.
- 8 Select Edit Details. Security details display.

- 9 Under Object, select an object. A list of operations displays in the Available Operations column.  
Select one or more operations. You can select Add All to move all operations into the Assigned Operations column.
- 10 Select Save, and click OK to confirm. The role displays in the list of roles, and can be selected when you set up a user account.

## Administering objects

Objects are any portal object to which you want to restrict access. An object can be a page, a portlet, a catalog, and so on. Typical access permissions include read, write, update, create, and delete. See Table 6-3 on page 91 for a list of predefined objects and their permissions.

### ❖ Modifying role objects

Objects are associated with roles, so you must select a role and modify its objects.

- 1 Select Manage | Users/Roles.
- 2 Select Roles.
- 3 Select the role to modify and select Edit. The Roles Editor displays.
- 4 Select Edit Detail. The Security detail information displays.
- 5 Under Object, select the object to edit. The Available Operations and Assigned Operations tables are populated with operations for that object.

When you install Unwired Accelerator, the predefined objects and permissions shown in Table 6-3 are created by default.

**Table 6-3: Predefined objects and permissions**

Objects	Permissions
Accounts	Create, Edit, Manage, SelectCompany, Delete
Adapters	Create, Delete, Edit, Manage, ViewLog, Find
Agents	Broken, Create, Deleted, Edit, Manage, Ready, Run, Stopped, ViewLog, Find
Applications	Approved, Archived, Broken, Create, Deleted, Display, Edit, Find, Manage, New, Pending, Properties, Refresh, Rejected, Shared, SkipWorkflow
Catalogs	Approved, Archived, Broken, Create, Deleted, Display, Edit, Find, GetShared, Manage, New, Pending, Preview, Properties, Rejected, SelectCompany, Shared, SkipWorkflow

Objects	Permissions
PageGroups	Approved, Archived, Broken, Create, Deleted, Display, Edit, Find, Manage, New, Pending, Properties, Refresh, Rejected, Shared, SkipWorkflow,
Pages	Approved, Archived, Broken, Create, Deleted, Display, Edit, Find, Manage, New, Pending, Properties, Refresh, Rejected, Shared, SkipWorkflow
Personalize	Create, Delete, Edit, Manage
Portal	Deploy, Export, Import, Manage, UpdateCatalog, UpdatePage
Portlets	Active, Approved, Archived, Broken, Create, Deleted, Display, Edit, Element, Find, GetShared, Manage, New, Pending, Preview, Properties, Publish, Rejected, Replace *, SelectCompany, Shared, SkipWorkflow
	<p><b>Note</b> * The Replace permission is not used. To have the Replace button display for a user in Mobile Web Studio, the user must be in the RoleBaseDisplaySeeAllRoles security role as specified in <i>global.properties.xml</i>.</p>
Resources	Create, Delete, Edit, Manage, Undelete
Roles	Create, Delete, Edit, Manage, Undelete
Servers	Broken, Create, Delete, Deleted, Edit, Find, Manage, Ready, Stopped, ViewLog
Studio	Manage
Templates	Active, Approved, Archived, Broken, Create, Deleted, Edit, Manage, New, Pending, Preview, Rejected, Shared, SkipWorkflow
Users	Edit, Delete, Manage

- 6 Use the Add, Add All, Remove, and Remove All buttons to move operations into the appropriate columns for the object.
- 7 Click Save to save the changes.
- 8 Click Close to exit the Role Editor and return to Mobile Web Studio.



## Working with secure applications

This section provides information for administrators or developers who are asked to develop mobile applications that use sensitive or confidential content, to which their roles do not allow access. For example, suppose you are a Studio developer for an executive portal and your assignment is to create a new application that shows projected financial results for the next quarter. You know that only one group of portal users (financial officers) is allowed to see this information, and that your role does not permit you to see the application content.

First, build a new application based upon some dummy data of the right general format (for example, a PDF document). Actual content replaces this data when the application is deployed to the production system.

Next, assign the correct role to protect this application. You need not know the UA role that will be used on the production portal. In Mobile Web Studio, select **Manage | Users/Roles** to see if any existing roles meet your needs. If not, create a new role (for example, CFO). The next time you log in to Mobile Web Studio, you have that role.

Finally, create the application with the dummy data, assign the CFO role to it, and save it. At this point, if you have not created the CFO role mapping to a role you do have, the application disappears from your view in Mobile Web Studio. Assuming you do have the appropriate role, you continue with testing, debugging, and so on, and eventually export the content and send it to the administrator to import into the production portal.

When the application is imported to the production portal, the administrator creates the correct mapping of the J2EE role reference CFO to the actual FinancialOfficer security role.

## Security utilities

Unwired Accelerator provides several command line tools to for managing security:

- `csi-tool.jar` utility – used to manage CSI. The `encmessage` argument enables you to encrypt a text string.

- `encode_passwd.bat` (Windows) or `encode_passwd.sh` (UNIX/Linux) utility – enables you to encrypt a password at the command line; then you can cut and paste the password into a destination, such as in the *global.properties.xml* file. Decryption software deciphers the password.

## Using the `csi-tool.jar` utility

The `csi-tool.jar` is a command line utility to manage CSI security. Use arguments to carry out various activities. For example, you can use the `encmessage` argument to encrypt a text string.

### ❖ Using `csi-tool.jar`

- 1 Navigate to the following directory:

```
SYBASE\tomcat\webapps\onepage\WEB-INF\lib
```

If `csi-tool.jar` is executed directly, you must be in this directory, because it must be in the same directory as *commons-logging.jar*.

- 2 Run the tool using one of these methods:

```
java -jar csi-tool.jar
```

or

```
java -classpath csi-tool.jar com.sybase.security.tools.CSITool
```

Usage instructions for all task names display on the window. Alternatively, you can enter the following to get detailed argument descriptions for a specific task name:

```
java -jar csi-tool.jar taskname help
```

- 3 Issue your command, using the usage information. Table 6-4 shows required and optional arguments.

**Table 6-4: `csi-tool.jar` arguments**

Argument name	Argument description	Argument type	Argument default value
<b>Required arguments</b>			
<code>keyStoreAlias</code>	Specify the alias name in the keystore	string	
<code>keyStoreAliasPassword</code>	Specify the alias password	password	
<code>keyStoreLocation</code>	Specify the path to a keystore	readable file	

Argument name	Argument description	Argument type	Argument default value
keyStorePassword	Specify the password to access the keystore	password	
text	The text to be encrypted or decrypted	string	
encmessage	Encrypt a text string		
<b>Optional arguments</b>			
cipherMode	Indicate encrypt or decrypt operation (encrypt/decrypt)	choice	encrypt
cipherProvider	Specify the name of cipher provider	string	
cipherTransformation	Specify the transformation to be used by cipher	string	AES
cipherStoreProvider	Specify the keystore provider	string	
keyStoreType	Specify the keystore type	string	
useCertificate	Specify whether the key or certificate associated with an alias in the keystore is to be used	boolean	false

#### ❖ **Encrypting a string using `csi-tool.jar`**

Use the `encmessage` argument to encrypt a string of text using specified options. This is useful for encrypting and decrypting sensitive configuration parameters in the CSI configuration file.

- 1 Set up the `csi-tool.jar` environment and run the tool using instructions in “Using `csi-tool.jar`” on page 94.
- 2 Issue your command, using the usage information in Table 6-4. For example, to encrypt the following message string:

```
encmessage text user_password
```

An encrypted message string displays.

- 3 You can cut and paste the encrypted message string into the destination file.

## **Encrypting a password (`encode_passwd`)**

Use the `encode_passwd` utility to encrypt a property value or a file. If operating on a file, the caller can optionally specify a character set for the file; if it is not specified, the JVM’s default character set is used. You must copy the generated encryption and place it into the configuration file.

❖ **Encrypting passwords**

- 1 Navigate to the directory of the destination file, for example:

Tomcat:

```
SYBASE\tomcat\webapps\onepage\config
```

EAServer:

```
SYBASE\EAServer\Repository\WebApplication\onepage\config
```

- 2 Run the `encode_passwd` utility; for example, use the following to encrypt the current password:

```
encode_passwd.bat password
```

An encrypted value displays; for example, following is the encrypted password:

```
990990D99ED8DFDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDD
```

- 3 Copy the encrypted value from the command line.
- 4 In a text editor, open the destination file, such as *global.properties.xml*, and paste the encrypted value into the file, replacing the hard-coded value. For example, replace this hard-coded value:

```
password="su"
```

with this value:

```
password="990990D99ED8DFDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDD"
```

A user looking into the *global.properties.xml* file, sees the encrypted password rather than the actual value. The login process accepts the actual password and decrypts it.

## Tightening portal security

Currently, Unwired Accelerator does not encrypt the user name and password used to log in to the RDBMS server containing the portal database tables. If anyone knows the database user name and password, they can use ISQL to access the database tables directly. To safeguard portal security, you can:

- Change the DBA password.
- Optionally create a whole new database user to own the portal database.

- Update the *global.properties.xml* files with the new database connection information.
- Limit access to the *global.properties.xml* file, so that only appropriate people can view it and see the passwords.
- Change the password in the *server.xml* file, and limit access so that only appropriate people can view it and see the passwords.

#### ❖ **Changing the password, and optionally the PortalDB table owner**

The simplest safeguard is to change the database password, using the ISQL GUI. The ISQL GUI requires the jConnect JDBC driver, which is packaged separately under the *SYBASE\tomcat\common\lib* directory.

Optionally, another safeguard is to create a custom database user to own the portal database tables, rather than using the dba user (ASA) or the sa user (Adaptive Server). This prevents unauthorized users from using ISQL directly into your database to look at PortalDB tables. If you create the custom database owner, also change the default database user name found in *global.properties.xml*. Coordinate these changes between the PortalDB and the *global.properties.xml* file.

- 1 From the command line, navigate to the following directory:

```
cd SYBASE\asa\java
```

- 2 Access isql using the command that follows. The command adds the jConnect JDBC driver to the class path.

```
java -classpath ../../tomcat\common\lib\
jconn2.jar;jisql.jar com.sybase.jisql.Jisql
```

The jisql login screen displays.

- 3 Log in, and change the dba or sa password from the defaults (“SQL” for ASA and “ ” for Adaptive Server).

```
// Change the password.
```

```
sp_password <oldpassword>, <newpassword>
```

- 4 Optionally, use isql to create a new database user in the portal database and make this user the owner of PortalDB. Here is the input using isql:

- For ASA:

```
// Create a user portalowner/portalowner.
```

```
GRANT CONNECT TO portalowner IDENTIFIED BY portalowner
```

```
go

// Change the DBA password.

GRANT CONNECT TO DBA IDENTIFIED BY <newpassword>
go

// Make the "dba" account a group

GRANT GROUP to DBA

// Make the portalowner a member of the group, enabling portalowner
// to access the tables/views of the database without having to prefix
// everything with "dba."

GRANT MEMBERSHIP IN GROUP DBA TO portalowner
```

- For Adaptive Server:

```
// Create a user portalowner/portalowner whose default database
// is the portaldatabase.

sp_addlogin portalowner, portalowner, portaldatabase
go

// Make this user the owner of portaldatabase.

use portaldatabase
go

sp_changedbowner portalowner, true
go

// Change the DBA password.

sp_password <oldpassword>, <newpassword>
```

- 5 Open the *global.properties.xml* file in a text editor, and search for the data pool entry you are using, either `op_portal_asa` (for ASA) or `op_portal_ase` (for Adaptive Server).
- 6 Change the database user name and password entries in the data pool entry, from the default to the values you established in “Changing the password, and optionally the PortalDB table owner” on page 97.
  - For ASA:

```
<DataPool name="op_portal_asa"
  class="com.onepage.db.DbConnectionBroker"
  driver="com.sybase.jdbc2.jdbc.SybDriver"
  url="jdbc:sybase:Tds:hostname:port?ServiceName=
    portaldatabase"
  user="portalowner"
  password="newpassword"
  password_encrypted="false"
  minConnections="1"
  maxConnections="50"
  unusedtimer="360"
  checkouttimer="60"
  reuse="30"
  debug="true" />
```

- For Adaptive Server:

```
<DataPool name="op_portal_ase"
  class="com.onepage.db.DbConnectionBroker"
  driver="com.sybase.jdbc2.jdbc.SybDriver"
  url="jdbc:sybase:Tds:hostname:port/portaldatabase?
    IS_CLOSED_TEST=INTERNAL"
  user="portalowner"
  password="newpassword"
  password_encrypted="false"
  minConnections="1"
  maxConnections="50"
  unusedtimer="360"
  checkouttimer="60"
  reuse="30"
  debug="false" />
```

See the “Database property-specific parameters” on page 151 section for information about user and password in the `op_portal_asa` and `op_portal_ase` data pool sections.

- 7 Optionally, encrypt the password in the `global.properties.xml` file using the `encode_passwd.bat` (Windows) or `encode_passwd.sh` (UNIX) utility:
  - a If you are using Tomcat, navigate to:
 

```
SYBASE\tomcat\webapps\onepage\config
```

 For EAServer:
 

```
SYBASE\EAServer\Repository\WebApplication\onepage\config
```
  - b Run the `encode_passwd` utility with the current password, for example:

```
encode_passwd.bat password
```

An encrypted password displays on the window, for example:

```
990990D99ED8DFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDD
```

c In *global.properties.xml*, make these changes:

- password="" – copy the encrypted password, and paste it into the password attribute; for example:

```
password="990990D99ED8DFFDDFFDDFFDDFFDDFFDDFFDDFFDDFFDD"
```

- password\_encrypted="false" – change this value to true.

---

**Warning!** Keep in mind that there is no comparable step for encrypting the password in the *server.xml* file.

---

8 Save and close the *global.properties.xml* file.

❖ **Limiting *global.properties.xml* access to the portal server owner**

Another safeguard is to make the *global.properties.xml* file readable only by the computer user the portal server (Tomcat) runs in.

1 Make the *global.properties.xml* file readable only by the computer user for the portal server.

- If you are using Tomcat:

From Windows Explorer, navigate to *SYBASE\tomcat\webapps\onepage\config*, right-click the *global.properties.xml* file, and choose Properties.

For EAServer:

```
SYBASE\EAServer\Repository\WebApplication\onepage\config
```

Select the Security tab and:

- In the top window, add the user/group that will be running the portal, and grant them Full Control on the file.
- Click Everyone, unselect the “Allow inheritable permissions” check box and click the Deny check box next to Full Control.

This prevents anyone but the specified users from reading the file and seeing the password.

- On UNIX:



If you run the portal as the “root” user, issue these commands to make *global.properties.xml* owned by root, and readable only by root:

```
% su
>chown root global.properties.xml
>chmod 400 global.properties.xml
>exit
```

- 2 Modify database account information in the *server.xml* file, and limit access to the file.

❖ **Modifying database account information in server.xml**

As a final safeguard, modify the database account information in the *server.xml* file, then limit access to the *server.xml* file as you did in the preceding procedure.

---

**Note** These instructions are for Tomcat. If you are using EAServer, use EAServer Manager to open the folder of PortalDB connection pools, and edit the database account information.

---

- 1 In Windows Explorer, navigate to the following directory:

```
cd SYBASE\tomcat\conf
```

- 2 In a text editor, open *server.xml*.
- 3 Search for “Global JNDI resources.” This section defines a Java Naming and Directory Interface (JNDI) connection pool to the PortalDB. The XML looks like:

```
<!-- Global JNDI resources -->
<GlobalNamingResources>
<Resource name="jdbc/portaldb" auth="Container"
    type="javax.sql.DataSource"/>
<ResourceParams name="jdbc/portaldb">
  <parameter>
    <name>driverClassName</name>
    <value>com.sybase.jdbc2.jdbc.SybDriver</value>
  </parameter>
  <parameter>
    <name>url</name>
    <value>jdbc:sybase:Tds:localhost:4747?ServiceName=
      portaldatabase</value>
  </parameter>
  <parameter>
    <name>username</name>
    <value>dba</value>
  </parameter>
  <parameter>
    <name>password</name>
    <value>SQL</value>
  </parameter>
</ResourceParams>
</GlobalNamingResources>
```

- 4 Change the user name and password parameters to the new database user owner and password that you set up.
- 5 Save and close the *server.xml* file.
- 6 Make the *server.xml* file readable only by the computer user for the portal server (Tomcat).

- On Windows:

From Windows Explorer, navigate to *SYBASE\tomcat\conf*, right-click the *server.xml* file, and choose Properties.

Select the Security tab and:

- In the top window, add the user/group that will be running the portal, and grant them Full Control on the file
- Click Everyone, unselect the “Allow inheritable permissions” check box and click the Deny check box next to Full Control.

This prevents anyone but the specified users from reading the file and seeing the password.

- On UNIX:

If you run the portal as the “root” user, issue the following commands to make *server.xml* owned by root, and readable only by root:

```
% su
>chown root server.xml
>chmod 400 server.xml
>exit
```

- 7 Restart the application server to apply the changes you made to *global.properties.xml* and *server.xml*.



# Performance and Tuning

This chapter provides performance and tuning information for Unwired Accelerator.

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## Overview

You can improve Unwired Accelerator performance in the following areas:

- Tomcat application server connectors
- Adaptive Server Anywhere cache sizing
- Navigation
- PortalDB datapools

## Connectors

This section covers the most relevant information for performance and size tuning the Tomcat 4.1.29 Servlet/JSP Container. Most of this information is available at the Apache Software Foundation Web site, <http://jakarta.apache.org/tomcat/tomcat-4.1-doc/index.html>.

A Connector is the representation of a communications endpoint by which requests are received from a Tomcat client. This object and its attributes are defined in the *server.xml* file, located in *SYBASE\tomcat\conf*. The following configurable properties are available for the HTTP/1.1 connector protocol. For simplicity only sizing relevant properties are included.

- **acceptCount** – defines the maximum queue length of incoming connections that have not yet been accepted. The default for this attribute is 10 connections. This parameter corresponds to the TCP parameter *backlog*. The TCP parameter *backlog* dictates the number of requests that are allowed to queue up on the TCP stack waiting to be accepted. Once a client reaches the server and is placed in the backlog, the client side browser indicates that the server has been contacted and that the current request is in progress. If the backlog has been exceeded or is set to 0, the browser indicates that the server cannot be reached.

In general, modifying the *backlog* parameter is unnecessary; data has shown that a moderately busy Web server has an empty completed connection queue most of the time, while the incomplete connection queue needs 15 or fewer entries 98% of the time.

- **bufferSize** – defines the input buffer size created by this Connector. The default for this attribute is 2048 Bytes. Increasing the buffer size improves performance, but at the expense of higher memory usage.
- **maxProcessors** – defines the maximum number of request processing threads to be created by this Connector. Each incoming request requires a thread for the duration of that request. If more simultaneous requests are received than can be handled by the currently available request processing threads, additional threads are created up to the configured value of **maxProcessors**. Once the **maxProcessors** attribute is exceeded, any additional simultaneous requests are stacked inside the server socket created by the Connector, up to the configured maximum **acceptCount** attribute. Once the **acceptCount** value is exceeded, additional simultaneous requests receive “connection refused” errors, until resources are available to process them. The configuration of the property should reflect the maximum average load expected. Use the **acceptCount** property to handle any additional load spikes.
- **minProcessors** – defines the number of request processing threads that are created upon server startup when this Connector is first initialized. The default value for this attribute is 5. This value should always be less than the value defined by **maxProcessors**.

## Server command line switches

This section covers the most common performance and size related tuning for Adaptive Server Anywhere. Most of this information is also available at the Sybase Web site: [http://sybooks.sybase.com/onlinebooks/group-sas/awg0702e/dbrfen7/@Generic\\_\\_BookTextView/1359;pt=2447/\\*](http://sybooks.sybase.com/onlinebooks/group-sas/awg0702e/dbrfen7/@Generic__BookTextView/1359;pt=2447/*)

The server command line switches allows for the configuration of ASA at start up. For simplicity, only sizing relevant properties are included. Cache sizing options are not included since Adaptive Server Anywhere provides automatic resizing of the database cache that minimizes the impact to system resources by requesting memory only when it is required and returning memory to the system when it is not being used.

- `-gm` – defines the number of concurrent database connections to the server. This option should reflect the number of database connections defined in *global.properties.xml*. The syntax is:

[dbsrv8 | dbeng8] -gm integer...

- `-gn` – sets the maximum number of execution threads to be used in the database server. Each connection uses a thread for each request, and when the request is completed, the thread is returned to the pool for use by other connections. Increase this option if the number of total requests (active + unscheduled) is often larger than the number specified by the `-gn` option. The syntax is:

[dbsrv8 | dbeng8] -gn integer...

## Global properties settings

This section discusses information related to sizing the UA Web application.

### global.properties.xml

The *global.properties.xml* file defines the start up properties for the UA Web application. For simplicity, only sizing relevant properties are discussed. The *global.properties.xml* file is located in `SYBASE\tomcat\webapps\onepage\config` if you are using Tomcat. If you are using EAServer it is located in `SYBASE\EAServer\Repository\WebApplication\onepage\config`.

## Performance tuning parameters for UWP

This section contains information on property settings for maximizing the Universal Window (application) Player (UWP). This refers to navigation in Mobile Web Studio.

- `ObjectCacheMaxEntries` – defines the maximum number of entries in the `UWPOjectCache` object. This is used for `clickthru_cache`, `windows_def_omt_cache`, and the `parsed_template_cache`. The default for this property is 250.
- `ObjectCacheLRUReductionSize` – defines the number of entries removed at a time from the `UWPOjectCache` object when implementing the LRU policy, which is a page-replacement policy that removes from main memory the pages that show the least amount of recent activity. This is also used for `clickthru_cache`, `windows_def_omt_cache`, and the `parsed_template_cache`. The default is 5.
- `ContentCacheMaxEntries` – sets the maximum number of entries in the Portlet `ContentCache` object. This object is used to cache the resolved application contents.
- `ContentCacheLRUReductionSize` – like the `ObjectCacheLRUReductionSize` property, this property defines the number of entries removed at a time from the Portlet `ContentCache` object when implementing the Least Recently Used (LRU) policy, which is a page-replacement policy that removes from main memory the pages that show the least amount of recent activity. This property is used in conjunction with the resolved application content cache.

## Tuning the portal datapools

The datapool properties define the database connections from the Web application to the PortalDB.

- `minConnections` – defines the minimum number of database connections that should be maintained at all times. This number should be set to a value that reflects the minimum expected user load for the UA 7.0 application.
- `maxConnections` – defines the maximum number of database connections to be created. If additional connections are requested that exceed the `maxConnections` property, the additional connections are put into a wait state until an available connection is returned to the pool.



# Troubleshooting

This chapter describes how to troubleshoot Unwired Accelerator system and configuration problems. Troubleshooting information is also provided for application development and production problems where a change to the system configuration is required.

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## Overview

To troubleshoot configuration and operational problems:

- View log files, typically found in `x:\tmp\logs`
- View error messages
- Run trace to obtain detailed information
- Check the configuration
- Test connections

## Log files

Log files are a useful source of troubleshooting information. Log files include:

- *uwp.err* – error log for UWP.
- *ds.err* – error log for document servers.
- *portal.err* – error log for the portal development environment.
- *as.err* – error log for agent servers. Agents are used for events.
- *transaction.log* – log file for agent transactions. Agents are used for events.
- *nav.log* – log file for navigation servers, which create the CCL for one-click capture. If tracing is enabled, debugging information is also logged in the log file.
- *capture.log* – log file for capture output and fatal error messages. If tracing is enabled, debugging information is also logged in the log file.
- *datamanager.log* – log file for database output, such as connection handling, database access, etc.
- *aa.log* – log file for Answers Anywhere output.

Log files are written to the *WorkRoot\logs* directory, typically *x:\tmp\logs*. The *WorkRoot* directory is created automatically during installation, but can be changed in the *global.properties.xml* file. See “Global property group” on page 129 for information about the *WorkRoot* property.

## Trace files

The trace feature is another useful source of troubleshooting information. Typically, the trace feature should not be enabled in a production system, because the extra trace processing can be detrimental to system processing. But you may want to enable tracing briefly to gather information, then disable it. Trace files includes:

- *uwp.trc* – trace file for UWP.
- *ds.trc* – trace file for document servers.
- *portal.trc* – trace file for the portal development environment.
- *as.trc* – trace file for the agent server.

The TraceFile property in the *global.properties.xml* file establishes the trace file name and location, and the TraceOn property establishes whether tracing is enabled. The trace file location is relative to the *WorkRoot* directory, typically *x:\tmp\logs*. The VerboseTrace property enables you to enable detailed levels of tracing.

You can enable trace for a particular portion of the system, to reduce overall impact on the system. See the following sections for information about enabling trace:

- UWP – “Global property group” on page 129.
- Doc Servers – “Docservers property group” on page 144.
- Portal development environment – “Portal property group” on page 146.
- Agent server (alerts and transactions) – “Agents property group” on page 147.
- Navigation (CCL and one-click capture) – “Nav property group” on page 148.
- Capture output – “Capture logging properties” on page 149.
- Database (connection, access, etc.) – “Database property group” on page 150.

## Unwired Accelerator setup

Table 8-1 identifies common Unwired Accelerator configuration problems and provides useful troubleshooting information.

**Table 8-1: Troubleshooting Unwired Accelerator problems**

Problem	Try this
Cannot start ASA database: Connection error: Unable to initialize requested communication links	If you receive this error when trying to start the ASA database using <code>startdb</code> , check the <i>global.properties.xml</i> and <i>server.xml</i> files to make sure you changed the ASA port number to the correct value. The default is 4747. If you changed the value, it must be the same in both places.  You can also check the <i>datamanager.log</i> file, located in <i>x:\tmp\logs</i> , for database-related error messages.

Problem	Try this
Cannot start the Portal Interface: File Not Found 404 error	If you receive this error when trying to start Portal Interface, make sure you: <ul style="list-style-type: none"> <li>• Ran <i>config</i> to change <i>localhost</i> to your machine name (such as <i>lab2k</i>) and to set other values as described in <i>Unwired Accelerator Installation Guide</i>.</li> <li>• Changed the machine name and domain name for your network as described in <i>Unwired Accelerator Installation Guide</i>.</li> <li>• Entered the URL correctly to access Portal Interface as described in “Accessing Portal Interface” on page 11.</li> <li>• Are using the correct port number; for example, 4040 when running in Tomcat, and 8080 (required) when running in EAServer.</li> </ul>
Cannot start Mobile Web Studio	If you cannot start Mobile Web Studio, verify that you are using: <ul style="list-style-type: none"> <li>• Internet Explorer and not Netscape.</li> <li>• The correct version of Internet Explorer as described in <i>Unwired Accelerator Installation Guide</i>.</li> <li>• The correct port number, for example, 4040 when running in Tomcat, and 8080 (required) when running in EAServer.</li> </ul>
Mobile Web Studio window does not display	If the Mobile Web Studio window does not display, but the browser window with the Close button does display, after entering the following in the Web browser: <pre>http://hostname.domain:port/onepage/index.html</pre> you may have disabled pop-ups in the Web browser. The Mobile Web Studio application requires pop-ups. <p>You can:</p> <ul style="list-style-type: none"> <li>• Enable pop-ups in your Web browser.</li> <li>• Alternatively, if you do not want to enable pop-ups, you can access Mobile Web Studio by entering the following in the Web browser:</li> </ul> <pre>http://hostname.domain:port/onepage/loader.jsp</pre>
Cannot log in to Mobile Web Studio or EAServer, after deploying a mobile application	Assuming the mobile application works and was deployed correctly from Mobile Web Studio, check the <i>uwp.err</i> file, located in WorkRoot, for clues. If you see a message similar to the following, your <i>localhost</i> listener is probably not working: <pre>HTTPUtils - getHTTPResponse: connection error: java.net.ConnectException: Connection refused: connect.</pre> Verify that your EAServer has a <i>localhost:8080</i> listener as well as the <i>host.domain:8080</i> listener.

## Troubleshooting resource configuration

Table 8-2 identifies common Unwired Accelerator resource configuration problems and provides troubleshooting information.

**Table 8-2: Troubleshooting resource problems**

Problem	Try this
<p>The following error displays in the <i>uwp.err</i> log:</p> <pre>ERROR Id='211' is NOT defined for OEM resources, defaulting to OEM rid 1</pre>	<p>If there are no other signs that the resource is set up incorrectly, this indicates the resource name is misspelled.</p> <p>Verify that the <code>\cobrands</code> directory name you created, and the co-brands name in the <i>cobrand.xml</i> file (located in <code>...\onepage\config</code>) are the same. See “Adding resources” on page 30 for information.</p>
<p>The following error displays when you try to access the new resource in a Web browser:</p> <pre>Resource id = '211' is NOT configured for Portal usage. Usage of this new resource in portal and tools requires explicitly configuring the '/onepage/config/cobrands. xml'</pre>	<p>Check the <i>cobrands.xml</i> file, located in <code>...\onepage\config</code>, and verify:</p> <ul style="list-style-type: none"> <li>• There are no duplicate entries for the resource specified.</li> <li>• The resource entry is entered correctly.</li> </ul>
<p>Applications are not showing up in my new resource</p>	<p>When you build applications in Mobile Web Studio, you build them as a user in a particular resource. For example, if you log in as a <code>masuper/m8super</code> user, you build applications in RID 21 by default. If you build a new resource, such as RID 211, you must export the applications to the new resource. To do so:</p> <ol style="list-style-type: none"> <li>1 Log in to the resource where you created the applications.</li> <li>2 Export the applications.</li> <li>3 Log out of the resource.</li> <li>4 Log in to the new resource.</li> <li>5 Import the applications.</li> </ol> <p>For information about resources, see Chapter 4, “Resources.” For information about exporting and importing objects, see the <i>Unwired Accelerator Developer’s Guide</i>.</p>

## Unwired Accelerator login problems

Table 8-3 identifies common Unwired Accelerator login problems and provides troubleshooting information.

**Table 8-3: Troubleshooting Unwired Accelerator problems**

Problem	Try this
Cannot log in to Mobile Web Studio - blank screen after entering user name and password	<p>After you enter your user name and password to log in to Mobile Web Studio, you see a mostly blank screen prompting you to enter the user name and password again and you see in this text in the status bar:</p> <pre>User: HARDCODED Resource: HARDCODED Company: HARDCODED</pre> <p>Option 1 – Browser. Configure the browser to accept cookies.</p> <ol style="list-style-type: none"> <li>1 In Internet Explorer, select Tools   Internet Options.</li> <li>2 In the Internet Options window, select the Privacy tab, then click Advanced.</li> <li>3 Verify that the options are set to accept cookies. Click OK to exit the window.</li> <li>4 Click OK to close the Internet Options window.</li> </ol>
	<p>Option 2– Browser. Remove any special characters from the host name or domain name. Some browsers cannot properly store and retrieve cookies for a site with special characters in the site’s name, so the browser never sends back cookies to that site.</p> <p>Change the name of the machine, or change the browser’s character encoding to a character set that does contain special characters.</p>

Problem	Try this
	<p>Option 3 – EAServer. Change the Web container’s proxy settings. During container login, the Web container uses HTTP 302 redirects to display the login form, authenticate the user, then take the browser to protected content. A cookie must be passed along with these 302 redirects, so it is important that you configure the Web container so that the 302 redirects appears to be identical to the URL address that set the cookie.</p> <ol style="list-style-type: none"> <li>1 Start and connect to EAServer Manager.</li> <li>2 Once you connect, select EAServer Manager   Servers.</li> <li>3 Right-click Jaguar and select Server Properties.</li> <li>4 When the Server Properties window displays, select the HTTP Config tab.</li> <li>5 In the Domain Name field, enter the host name + domain.</li> <li>6 Verify that the Proxy HTTP Port and the Proxy HTTPS Port match the listeners configured for EAServer (Jaguar) and in <i>global.properties.xml</i>.</li> <li>7 Click OK.</li> <li>8 Right-click Jaguar and select Refresh to implement any changes you made.</li> <li>9 Select File   Exit to close Jaguar Manager.</li> </ol>
Cannot log in to Mobile Web Studio – persistent problem	Check the <i>security.log</i> file for more details. Change the logging level from INFO to DEBUG in <i>JAGUAR\java\classes\log4j.properties</i> , restart EAServer and try to log in into Mobile Web Studio. Debug output in the <i>security.log</i> file should point to the cause of the failure.
User forgets password – Portal Interface users	<p>If you are using CSI with the PortalDB security provider, instruct users to select Reset Password on the Portal Interface login screen.</p> <ul style="list-style-type: none"> <li>• If a valid e-mail address is provided for the <i>resetPasswordEmail</i> property in <i>global.properties.xml</i>, the PortalAdmin user is notified. The PortalAdmin user requests a new password for the user through Mobile Web Studio, and UA generates a new password and notifies the users via an e-mail message.</li> <li>• If a valid e-mail address is not provided, you must have a manual process in place to notify the PortalAdmin user to request a new password for the user.</li> </ul> <p>If you are using CSI with LDAP, you must manage security from the LDAP security provider, and then duplicate the change in Mobile Web Studio.</p> <p>If you are using Enterprise Security, you must manage security from EAServer Manager.</p>

Problem	Try this
User forgets password – Mobile Web Studio users	<p>If you are using CSI with PortalDB:</p> <ul style="list-style-type: none"> <li>• Mobile Web Studio users can change their passwords from the Account Info link in Mobile Web Studio. Unwired Accelerator sends an e-mail notification to the user’s e-mail address.</li> <li>• StudioAdmin users can request a new password for a user through Mobile Web Studio. Unwired Accelerator sends an e-mail notification to the user’s e-mail address.</li> </ul> <p>If you are using CSI with LDAP, you must manage security from the LDAP security provider, and then duplicate the change in Mobile Web Studio.</p> <p>If you are using Enterprise Security, you must manage security from EAServer Manager.</p>

## M-Business Anywhere setup

Table 8-4 identifies common M-Business Anywhere configuration problems and provides useful troubleshooting information.

**Table 8-4: Troubleshooting M-Business Anywhere setup problems**

Problem	Try this
M-Business Anywhere and Unwired Accelerator are not communicating	<p>If you installed M-Business Anywhere server on a different Windows server than Unwired Accelerator, verify that you modified these files correctly:</p> <ul style="list-style-type: none"> <li>• <i>gridlayout1.jsp</i></li> <li>• <i>server.xml</i></li> </ul> <p>See the <i>Unwired Accelerator Installation Guide</i> for correct settings.</p>
Cannot use the Manage M-Business option from Mobile Web Studio	<p>This may be a configuration problem. Check the <i>server.xml</i> file to make sure the jdbc/agdb JNDI datasource is configured properly for the container as described in the <i>Unwired Accelerator Installation Guide</i>.</p>
<p>Application looks fine in Mobile Web Studio, but displays this message on the mobile device:</p> <pre>database pod, xxx_db is null upon sync</pre>	<p>Make sure the application was captured in grid format, and then check the <code>sync_error.log</code>, located in <code>MBUSINESS/logs</code>, for clues.</p>



## BlackBerry Enterprise Server setup

Table 8-5 identifies common BlackBerry Enterprise Server (BES) setup problems and provides useful troubleshooting information.

**Table 8-5: Troubleshooting BES setup problems**

Problem	Try this
Unwired Accelerator cannot connect to the BlackBerry Desktop Manager	Verify that the BlackBerry Desktop Manager is version 3.6 SP3a, the version required by Unwired Accelerator.
Receiving a Sync has failed message, even though everything seems to be OK	BlackBerry Enterprise Server, with BlackBerry device 1.8.3. Perform a manual reset on the mobile device to overcome this problem. Remove the back cover of the BlackBerry device, and use a paper clip to press the reset button.

## Mobile device setup

Table 8-6 identifies common mobile configuration problems and provides useful troubleshooting information.

**Table 8-6: Troubleshooting mobile device setup problems**

Problem	Try this
Cannot create a personal channel	Check the <i>global.properties.xml</i> file to make sure the <code>alwaysValidateSession</code> parameter is set to false. See “Global property group” on page 129.
Cannot access mobile application: Your submission has been recorded and will be sent during the next Synchronization	If you see this message when trying to access an application on a mobile device, check the <code>alwaysValidateSession</code> parameter in the <i>global.properties.xml</i> file. The parameter is probably set to true, but should be set to false to enable personal channels to work. See “Global property group” on page 129.
Cannot use mobile application: avantgo.db is not installed, please install the db pod	This message indicates the M-Business Anywhere client requires one or more database PODs to authenticate mobile applications. See the <i>Unwired Accelerator Installation Guide</i> for POD information.

Problem	Try this
<p>Mobile application does not appear on the mobile device</p>	<p>Verify that:</p> <ul style="list-style-type: none"> <li>• The mobile application is deployed to the group. In Mobile Web Studio, select Manage   M-Business   Groups, and check the groups.</li> <li>• The user belongs to the group to which the mobile application is deployed.</li> <li>• The M-Business Anywhere user name/password and server properties are set correctly in M-Business Client. M-Business Clients use M-Business users, not Mobile Web Studio users. See “M-Business Anywhere accounts” on page 21 and the <i>Unwired Accelerator Installation Guide</i>.</li> <li>• For BlackBerry devices, make sure the Offline BlackBerry option is selected for the application, and that the application is in a grid format.</li> </ul>
<p>The UA logo does not appear on the BlackBerry device</p>	<p>Verify that you installed the offline client on the BlackBerry device (or BlackBerry simulator), as described in “Installing the UA offline client” on page 61.</p>
<p>Large applications hang the BlackBerry device</p>	<p>If applications exceed 128K, they are parsed and sent to the BlackBerry in chunks. If the BlackBerry device does not have enough memory, it cannot handle the reparsing. Check the available and used memory on the BlackBerry device.</p>
<p>Sync has failed Response code returned 0 This UA application cannot be used with server version <i>version</i>.</p>	<p>Somehow the Unwired Accelerator server and BlackBerry version strings are out of sync. Search the <i>global.properties.xml</i> file for the <i>portal.version</i> property, and make sure it is set to 7.0. See Chapter 9, “Configuring Global Properties” for information.</p>
<p>On the device simulator, too many applications display after using Sync All to obtain the list of applications (even some that do not have Offline BlackBerry set).</p>	<p>The BlackBerry device simulator is useful for testing applications during development, but it does need maintenance. On the BlackBerry device, try selecting Delete All from the trackwheel menu, and then use Sync All again. If the problem persists, run the <i>clean.bat</i> script:</p> <ol style="list-style-type: none"> <li>1 Navigate to <i>RIM\BlackBerry JDE 3.7\bin</i>.</li> <li>2 Double-click <i>clean.bat</i>.</li> <li>3 Navigate to <i>RIM\BlackBerry JDE 3.7\simulator</i>.</li> <li>4 Delete <i>UAbbapp.alx</i> and <i>UAbbapp.cod</i>.</li> <li>5 Copy new <i>UAbbapp.alx</i> and <i>UAbbapp.cod</i> files into the simulator directory again as described in the <i>Unwired Accelerator Installation Guide</i>.</li> </ol>

## Answers Anywhere/SMS setup

Table 8-7 identifies common Answers Anywhere, and Answers Anywhere with SMS setup problems and provides useful troubleshooting information.

**Table 8-7: Troubleshooting Answers Anywhere/SMS setup problems**

Problem	Try this
Unwired Accelerator cannot communicate with the SMS provider	<p>Check the <i>CMC0.log</i> file, located in <i>SYBASE\cmc</i>, to see whether Unwired Accelerator and Answers Anywhere software are communicating with your cell modem properly.</p> <p>Check the following Answers Anywhere software configuration:</p> <ul style="list-style-type: none"> <li>• Make sure the CellularModemController (CMC) software, used by Unwired Accelerator to communicate with your SMS provider, is configured properly as described in the <i>Unwired Accelerator Installation Guide</i>.</li> <li>• If you did not do so, stop and start the Tomcat application server to initialize the changes to the <i>CMCConfig.properties</i> file, as described in the <i>Unwired Accelerator Installation Guide</i>. See “Starting and stopping the Tomcat application server” on page 7 for Tomcat application server restart instructions.</li> <li>• If you installed the CMC software on a machine other than the one on which Unwired Accelerator is installed, make sure you copied the <i>CMCConfig.properties</i> file to the new location.</li> <li>• If you set up multiple resources, make sure you configured a different instance of CMC for each resource in the <i>CMCConfig.properties</i> file.</li> </ul>

Problem	Try this
<p>Error when trying to run CMCModem (run.bat):</p> <pre>WARNING: Bad status response from modem -20</pre>	<p>Check the following hardware and environment settings:</p> <ul style="list-style-type: none"> <li>• Verify that the modem is working: <ol style="list-style-type: none"> <li>1 Select Start   Settings   Control Panel   Phone and Modem Options   Modems tab   Properties   Diagnostics tab.</li> <li>2 Select the modem and click Query Modem.</li> </ol> <p>Alternatively, select Computer Management   Device Manager   Modem   Properties   Diagnostics   Query Modem.</p> </li> <li>• If no modem is installed, install it. To do so, access Control Panel   Phone and Modem Options, select the Modems tab, select Add, and install the modem using the Add/Remove Hardware wizard. Supply the manufacturer, model, and port number. Make sure the port number is not already used.</li> <li>• Verify that the SIM card is working. To do so, take out the SIM card, put it into a mobile phone, and check to see that the phone works. If so, the SIM card is working.</li> <li>• Check for modem port conflicts. If you are running the emulator, shut it down, since it may be using the same port as the modem. Make sure no other applications are using the modem port number.</li> <li>• Check for modem hardware setting problems. To do so, access Control Panel   Add/Remove Hardware; select Add/Troubleshoot Device; from the list of devices, select the modem. Look for any irregularities that might explain the modem problems.</li> <li>• Verify the CMC modem software is installed. To do so, access Control Panel   Add/Remove Programs, and find the CMC software in the list. Look for any irregularities that might explain the modem problems.</li> <li>• If you have not already done so, check the <i>CMC0.log</i> file, located in <i>SYBASE\cmc</i>, to see whether Unwired Accelerator and Answers Anywhere software are communicating with your cell modem properly.</li> </ul>
<p>Answers Anywhere does not work from a mobile device</p>	<p>Make sure users register the SMS modem number with Unwired Accelerator as described in <i>Unwired Accelerator Installation Guide</i>. If role-based access is used, the user may not have sufficient privilege to access the information requested.</p>

Problem	Try this
Answers Anywhere does not work properly with e-mail	<p>If you set up Answers Anywhere for e-mail, check the following configuration settings:</p> <ul style="list-style-type: none"> <li>• Verify the dedicated e-mail account, such as “askua,” is set up for Unwired Accelerator, and that your e-mail system provides POP3 access to the e-mail account.</li> <li>• Verify that the <i>uadejima.properties</i> file is configured properly, as described in the <i>Unwired Accelerator Installation Guide</i>.</li> </ul>
Exclude/include telephone number feature (blacklist/whitelist) does not work	<p>If you use the blacklist or whitelist feature to exclude or include specific telephone numbers, you must have at least one telephone number listed for the option. See the <i>Unwired Accelerator Installation Guide</i> for information on the blacklist and whitelist options.</p>

## SAP connection setup

Table 8-8 identifies common SAP connection problems and provides useful troubleshooting information.

**Table 8-8: Troubleshooting SAP connection problems**

Problem	Try this
Cannot download the SAP Java connector from SAP	<p>You must be a registered SAP customer to download the SAP Java connector from the SAP Service Marketplace Web site.</p>
Unwired Accelerator cannot connect with the SAP environment	<p>Check the following configuration settings:</p> <ul style="list-style-type: none"> <li>• Verify that you configured the SAP Java connector correctly, using information in the <i>Unwired Accelerator Installation Guide</i>. Specifically, make sure the <i>sapjco.jar</i>, <i>librfc32.dll</i>, and <i>sapjcorfc.dll</i> files are in the correct location, and that the connection pools are defined in the <i>sapjco.properties</i> file.</li> <li>• Check the <i>global.properties.xml</i> file and make sure the connection pools are defined as described in the <i>Unwired Accelerator Installation Guide</i> and “SAP property group” on page 140.</li> <li>• Verify that a properties file is defined for each connection pool entry in the <i>global.properties.xml</i> file, as described in the <i>Unwired Accelerator Installation Guide</i>.</li> </ul>

## Mobile application development problems

Table 0-1 provides troubleshooting information for common mobile application development problems, especially those that may require a change to the Unwired Accelerator configuration. See the *Unwired Accelerator Developer's Guide* for application development information.

**Table 0-1: Troubleshooting mobile application problems**

Problem	Try this
<p>A Web application that was created for offline mode does not display on the PDA. The following error displays in the <i>UWP.err</i> file:</p> <pre>UWPWindowsApp::CreateMAppData: application definition is not compatible with MAPP GRID generation</pre>	<p>Check the following:</p> <ul style="list-style-type: none"> <li>• Verify that UA, M-Business Anywhere, and M-Business Client are configured properly as described in the <i>Unwired Accelerator Installation Guide</i>.</li> <li>• Verify that you can sync between M-Business Client on your PDA and M-Business Anywhere.</li> <li>• Verify that you captured the application as a “grid” style application in Mobile Web Studio. Mobile applications can be sent offline to a PDA only when they have been captured as grid-style applications. See the <i>Unwired Accelerator Developer's Guide</i> for procedures.</li> </ul>
<p>Attempted to change the application border color in <i>styles.xml</i>, by setting <code>tileBorderColor="#D9A996"</code>; but the color used for each application defaults to #CCCCCC.</p>	<p>The application border color is actually set in the Page properties through Mobile Web Studio. See the <i>Unwired Accelerator Developer's Guide</i> for information about editing Page properties. In the Page Properties window, you must select “Enable Applications Border,” and replace the default color CCCCCC with the color you prefer, such as D9A996, in hexadecimal format.</p>
<p>Problems capturing Web applications that use Java script.</p>	<p>Try using a more robust capture strategy, such as ActiveX (requires Windows). Another approach is to ignore the JavaScript errors (for example, you can turn off the error reporting in Internet Explorer during the capture process). Sometimes the errors display during capture, but not during playback. See the <i>Unwired Accelerator Developer's Guide</i> for information about advanced capture strategies that might work.</p>
<p>Not sure whether a new record was created or an existing record updated from BlackBerry for SAP</p>	<p>The output from the new record is converted to a string and returned to the BlackBerry device. Select Logs from the trackwheel and scroll down to the item associated with the new record. If the sync was successful, the log will contain the string.</p>
<p>The drop-down list feature in an application does not work on the BlackBerry device</p>	<p>On the UA client, the value of a parameter always uses the default unless you assigned it to a personalization key. Unlike the BlackBerry browser, you can enter parameter values. Data for each item on the list is synchronized.</p>

Problem	Try this
Unable to access Portal Interface from a WAP browser	<p>The phone (user agent) is probably not listed in the <i>UserAgentMapping.xml</i> file.</p> <ol style="list-style-type: none"> <li>1 Identify the user-agent string for your browser. In a browser window, go to:  <code>http://<b>host.domain.com</b>:<b>port</b>/onepage/snoop.jsp</code>            Look for the agent string, which should be similar to:  <code>user-agent=Mozilla/5.0 (<b>yourDeviceBrowser</b>;            U; <b>Windows Mobile</b>; en-US; rv:1.7.3)            Gecko/20040910</code></li> <li>2 Make note of the browser (<i>yourDeviceBrowser</i>) and platform (<i>Windows Mobile</i>) values.</li> <li>3 In a text editor, open the <i>UserAgentMapping.xml</i> file, located in <i>SYBASE\tomcat\wepapps\onepage\fw\properties</i>, and add an entry for the browser and platform, similar to:  <pre>&lt;UserAgent clientpattern="<b>YourDeviceBrowser</b>" platform="<b>Windows Mobile</b>"&gt;   &lt;NavStyle name="Phone-WML"/&gt;   &lt;Content name="WAP-WML" type="text/" vnd.wap.wml"/&gt; &lt;/UserAgent&gt;</pre></li> <li>4 Save and close the file, and try again.</li> </ol>
Having problems capturing HTTPS applications	<p>Edit <i>global.properties.xml</i> (see Appendix 9, “Configuring Global Properties”):</p> <ul style="list-style-type: none"> <li>• Set the <code>secure</code> property to on.</li> <li>• Set the <code>use_https</code> property to on.</li> </ul> <p>See “Data confidentiality and integrity” on page 82 for more information.</p>
Created a Web service application, but it does not show up on a Blackberry device	<p>Check the parameters and make sure the Enable Grid Rule check box is selected. Also, when you select Enable Grid Rule, you must select or define a content XSLT and provide input parameters. See the Unwired Accelerator Developer’s Guide for information about creating Web service applications.</p>

Problem	Try this
How do I use the ACX option when building portlets using a UNIX/Linux UA installation?	<p>To use the ACX option on UNIX when you create one-click capture applications, the ActiveX processing must be delegated to a remote Windows machine that has UA installed. Specifically:</p> <ol style="list-style-type: none"> <li>1 Install UA on a Solaris box. See the <i>Unwired Accelerator Installation Guide</i>.</li> <li>2 Install UA on a Windows machine. See the <i>Unwired Accelerator Installation Guide</i>.</li> <li>3 Edit <i>global.properties.xml</i> (see Appendix 9, “Configuring Global Properties”): <ul style="list-style-type: none"> <li>• Set the <i>acx</i> property to remote. On UNIX, this property defaults to none, and on Windows, the default is local.</li> <li>• Set <i>acx.host</i> to the URL of the host (for example, <code>http://lab2k.sybase.com:4040</code> on Tomcat, or <code>http://lab2k.sybase.com:8080</code> on EAServer. Leave the <i>acx.servlet.url</i> property as is (default is <i>/onepage/servlet/ACX</i>).</li> <li>• Restart the UNIX UA installation.</li> </ul> </li> </ol> <p>Now you can use the ACX option when building applications using the UNIX UA installation. See the <i>Unwired Accelerator Developer’s Guide</i>.</p>

## Production problems

Table 8-9 provides troubleshooting information for common Unwired Accelerator production problems. Topics include performance and security problems.

**Table 8-9: Troubleshooting production problems**

Problem	Try this
Agent (alert) response time is very slow	<p>The agent transaction logging fills up the database too fast and the View Log or other agent functionality seems slow. Check the database logs to see if the database is out of space. You may see an error like this:</p> <pre style="margin-left: 40px;">Tasks are sleeping waiting for space to become available in the log segment for database tempdb</pre> <p>Increase the database size. For Adaptive Server Anywhere, see the <i>ASA Database Administration Guide</i> for instructions.</p>



Problem	Try this
Chart text displays incorrectly (EAServer)	<p>If your chart text displays incorrectly, use this procedure to resolve the problem:</p> <ol style="list-style-type: none"> <li>1 Start EAServer Manager, select Tools   Connect   Jaguar Manager, then enter: <ul style="list-style-type: none"> <li>• User Name – jagadmin</li> <li>• Password – leave blank.</li> <li>• Host Name – the name of your local machine.</li> <li>• Port Number – 9000</li> </ul> Click Connect. </li> <li>2 Expand the Servers folder, right-click the Jaguar tree node, and select Server Properties.</li> <li>3 Select the Static Page Caching tab and do either of the following: <ul style="list-style-type: none"> <li>• Unselect the Enable Static Page Caching option so no static pages or items are cached; or</li> <li>• Prevent caching of items stored in <i>/onepage/jspfilter</i> by entering the following into the Exclude WebApp Files text box: <pre style="text-align: center;">(onepage/jspfilter, *.*)</pre> </li> </ul> </li> <li>4 Select File   Refresh Static Cache.</li> <li>5 Exit EAServer Manager, then restart EAServer.</li> </ol> <p>Charts are no longer cached.</p>
User cannot access a page 403 error	<p>The 403 error indicates the user does not have the permissions required to access the page. Specifically, the “everybody” role is required.</p> <p>On Tomcat, from Mobile Web Studio, access Manage   Users/Roles   Users, select the user, and make sure the “everybody” role is granted. See “Mobile Web Studio accounts” on page 16 for account maintenance information, and “Role-based authorization” on page 80 for role information.</p> <p>On EAServer, the “everybody” role is granted to the user by default, so this error should not occur unless the account is changed.</p>



# Configuring Global Properties

The *global.properties.xml* file is the master configuration file for Mobile Web Studio and Portal Interface. This appendix describes properties in *global.properties.xml*.

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## Overview

This appendix describes the key configuration properties in *global.properties.xml*, provides tips on using this file, and documents procedures for changing property values.

As you set up Unwired Accelerator and modify *global.properties.xml*, note that:

- In a default UA installation, *global.properties.xml* is located in:
  - Tomcat – *SYBASE\tomcat\Webapps\onepage\config*
  - EAServer – *SYBASE\EAServer\Repository\WebApplication\onepage\config*
- You must have a separate *global.properties.xml* file for each portal installation. See Chapter 4, “Resources.”
- When you change the contents of *global.properties.xml*, you must restart the application server to implement the changes.

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**Note** Some of the remarks in the *global.properties.xml* file are no longer applicable. Use the information in this appendix instead.

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## Viewing *global.properties.xml* contents

Once you install Unwired Accelerator, there are several properties in *global.properties.xml* that you can modify.

The contents of *global.properties.xml* are organized into these property groups:

- Global property group – properties for general portal settings.
- Audit property group – properties for Portal Interface and Mobile Web Studio auditing.
- Mobile Web Studio property group – properties for mobile applications.
- M-Business property group – properties for integrating M-Business Anywhere with Unwired Accelerator.
- SAP property group – properties for connecting to an SAP system from Mobile Web Studio.
- UWP property group – application playback engine settings.
- Product-configuration property group – file name configuration.
- Docservers property group – Mobile Web Studio application settings.
- ProductConfiguration property group – Mobile Web Studio feature settings.
- Portal property group – properties for the portal framework.
- Agents property group – agent configuration properties.
- Clickthru property group – click-through settings. Not included in this document.
- Nav property group – properties specific to Web element application navigation.
- Operation events – not included in this document; legacy property settings that are not used.
- Capture logging property group – properties for capture logging events. Not included in this document.
- Database property group – properties for the data servers the portal is using.

The *global.properties.xml* file includes a section for each property group in the preceding list. Property groups and properties that are not discussed in this appendix are either not used, or use a default value that you should not change.

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**Note** The strings “*eashost*”, “*asehost*”, “*hostname*”, “*aseport*”, and “*domain*” in *global.properties.xml* are replaced by the appropriate values during the installation of Unwired Accelerator. When configuration is successful, the administrator sees the actual values for these properties instead of the above string variables.

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## Global property group

This group contains general settings, including server names, addresses, mail properties, and portal properties. For ease of reference, properties are listed in alphabetical order.

Global property name	Default value	Description
alwaysValidateSession	true	<p>(true/false) When this value is set to true, the user’s portal session is validated on every request. There is a slight performance penalty for this. When this value is set to false, the session is checked only when security configuration requires an explicit authorization.</p> <hr/> <p><b>Note</b> For personal channels to work properly on a mobile device or Portal Interface, set this value to false. Otherwise, you see a message similar to “Your submission has been recorded and will be sent during the next Synchronization” when you try to access an application.</p> <hr/>
Anonymous.Roles	everybody,PortalGuest	<p>Lists the J2EE role values for anonymous users. Values are comma separated. See Chapter 6, “Security” for information about roles in Unwired Accelerator.</p>

Global property name	Default value	Description
catalog_cache_refresh_list	Tomcat – 127.0.0.1:4040/onepage EAServer – 127.0.0.1:8080/onepage	<p>Keep the default entry for a single-machine installation.</p> <p>For a multimachine installation, enter the list of machines with catalogs that should be refreshed when a cache refresh is triggered. Use commas to separate entries in the list.</p> <p>If you use the machine name, there must be a DNS entry inside the machine to resolve the entry.</p> <p>This comma-separated list should consist of machine names that are internally addressable from within the servers themselves and should include the port number followed by the name of the Web application. For example, on Tomcat:</p> <pre>"catalog_cache_refresh_list= demo1.\$DOMAIN:4040/onepage, demo2.\$DOMAIN:4040/onepage"</pre> <hr/> <p><b>Note</b> If the <code>xml_catalog_serialize</code> property is set to yes, you must also set a value for <code>catalog_cache_refresh_list</code>.</p>
changeMyInfo	true	(true/false) When this value is set to false, the MyInfo links for Change Password, Personal Information, and Join Now do not display.
client_virtual_path	/onepage/	Used for JSP forward/include; for example: BEA=/onepage/ iplanet=/onepage/
default_http_port	Tomcat – 4040 EAServer – 8080	<p>The application server port number. You provide the initial value at installation.</p> <p>This value must match the default application server HTTP port number and must be the same as the application server settings.</p> <hr/> <p><b>Note</b> If you change EAServer listener port numbers, you must also change this value to match. For EAServer, you must also assign a localhost listener on this port.</p>

Global property name	Default value	Description
default_https_port	Tomcat – 4443 EAServer – 8081	The application server HTTPS port number. This value must match the default application server HTTP port number and must line up with the application server settings.  <b>Note</b> If you change listener port numbers, you must also change this value.
default_tile_href	" "	Default HREF that appears on application title bars. The default is none. If you wanted the same HREF to display on most application title bars, enter that HREF here. You can override this value during application development.
DefaultResourceID	1	The resource ID (RID) that is used if one is not included in a request.
DefaultUserID	1	The user ID that is used if one is not included in a request.
deferupdate	on	(on/off) This value should always be set to on (true). This property handles the updates of applications, pages, and page groups when Mobile Web Studio user clicks the Update page button. After clicking this button, the user's view will be updated when the user logs in to the Portal Interface (including the online BlackBerry and Pocket PC on Pocket IE).
disableAutomaticReauthentication	false	(true/false) This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
DocumentRoot	/tmp/PortletDocs	Identifies the directory where application documents reside, when you create a file element and upload a document. See the <i>Unwired Accelerator Developer's Guide</i> for information about creating a file element using a document file.
domain	subdomain.domain	The DNS name of your portal Web server in the format “.xxx.xxx”. Include any subdomain. This value is used by the portal's servers. If you change your installation's domain, you must change the value here to the new domain name.

Global property name	Default value	Description
EclipseMode	false	(true/false) Indicates whether Unwired Accelerator is running under Eclipse. For stand-alone UA, leave this set to false.
ep_security_eas_guest_pwd	guest	This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
ep_security_eas_url	iiop://hostname.domain:9000	This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
https.playback	on	(on/off) Enables secure bypass for Web applications. Turn off when you are using Oracle as the portal database. Oracle is not supported in Unwired Accelerator.
javascript.domain	domain	DNS name of your portal JavaScript Web server in the same format as the “domain” without the leading period (.). Included any subdomain. This value is used by the browser from which you are running the portal.
LicenseFile	/config/license.txt	The location of the Unwired Accelerator license file. The evaluation software has a temporary license that expires, and the Unwired Accelerator product has a permanent license that does not expire. If you change this default, the portal will not run.
mail.host	10.22.97.100	Fully qualified DNS name or IP address of the mail server. This should be a server that is internally available to you.  <b>Note</b> You must change this value after installation to enter your own mail.host. The default entry is not a valid mail host.
mail.transport.protocol	smtp	(smtp/imap) Identifies the mail transport protocol used. This property and mail.host are passed as initialization properties to javax.mail.Session.
markupNoJSFile	/config/noJavascriptOcMarkup.txt	If you cannot navigate through a Web site because of JavaScript, enter that site here and Mobile Web Studio ignores or removes the JavaScript.
maxPageName	25	Maximum number of characters allowed per tab/page name.
maxTabSetChar	5000	Maximum number of characters per tabset.



Global property name	Default value	Description
maxTabSets	99	Maximum number of page groups (tabsets) allowed. Valid range is 1– 99.
multipleGuestPages	true	(true/false) Controls the number of guest pages to display. Set to true to display multiple guest pages; set to false to display only one guest page.
page.group	on	(off/on) Set to on to enable page groups in the portal.
passwordExpirationWarning Window	30	This property is not used for Unwired Accelerator; accept the default.
PortalAdministrationRole	PortalAdmin	The J2EE role required to administer the portal, perform export/import and update operations. See Chapter 6, “Security” for information about roles in Unwired Accelerator.  <b>Warning!</b> This property is designed for a single role and not a list of roles. There is no parsing of the string to look for multiple roles.
portal.build_number	<i>MMDDYYYY</i>	The Unwired Accelerator version number, in date format.
portal.defaultRID	1	Default resource ID (RID) for the portal. If a request does not include a RID, the systems falls back to the RID specified here. When you add a new resource in Web Studio, you may want to change the value here.
portal.epSecurity	false	(true/false) This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
portal.host	<i>hostname</i>	Host name of the page playback server. The initial value is supplied at installation.
portal.portlet_create_lock	E,T,U	Lists the page types on which you cannot create, add, and move applications: E – default T – catalog U – guest page
portal.version	7.0	The Unwired Accelerator version number.

Global property name	Default value	Description
proxy	off	(on/off) Set this value to on only if you are planning to use a HTTP proxy server, and this proxy server is installed and configured. See “Enabling proxy servers” on page 157, and the <i>Unwired Accelerator Installation Guide</i> for more information.
proxy.bypass_list	127.0.0.1   localhost	Value – host1 host2 The addresses and host names of Unwired Accelerator machines that must bypass the proxy server. When there are machines that cannot go through the proxy server (typically for internal sites), create the list of machines names; separate machine names using a bar ( ).  <b>Note</b> See the HTTPConnection Javadocs for information on dontProxyFor() method.
proxy.host	127.0.0.1	IP address of the proxy server. Enter this value only if the proxy property is set to on.
proxy.password	DefaultProxyUser Password	Configure this property only if the proxy property is set to on and the user exists on the proxy server
proxy.port	3128	Port number of the proxy server cache. Configure this property only if the proxy property is set to on and the user exists on the proxy server.
proxy.user	DefaultProxyUserName	Configure this property only if the proxy property is set to on and the user exists on the proxy server
redirfile	/config/redirlist.txt	The location and content to which a user is redirected if he or she enters a URL that does not exist or is unavailable.
registration.organization	o=Sybase Inc,c=us	This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
registration.userJ2EERoles	PortalUser,PortalGuest, PortalAdmin,manager, everybody	Lists the J2EE role values. Values are comma-separated. See Chapter 6, “Security” for information about roles and security in Unwired Accelerator.
resetPasswordEmail	pso@yourCompany. com	A semicolon-delimited list of e-mail addresses to which reset password notifications are to be sent. Change the default to e-mail addresses of people who manage the portal security system.

Global property name	Default value	Description
secure	off	<p>(off/on) Indicates whether to enable HTTPS for the Web container (Mobile Web Studio and Portal Interface). Set to off to disable HTTPS. If enabled, HTTPS is used for log in and registration.</p> <p>To enable Web capture of HTTPS sites and creation of “secure” applications, set secure and use_https properties to on.</p> <p>See “Data confidentiality and integrity” on page 82 for more information.</p>
SecureHostname	<i>LoadBalanceSecure Serverhost.domain</i>	Fully qualified host name for the load-balanced secure publish/subscribe server used by Mobile Web Studio and the application playback server (UWP or UPP).
secure_login	off	<p>(off/on) Indicates whether to enable secure navigation. Set to off to have Portal Interface and Mobile Web Studio use HTTP during login and self-registration.</p> <p>Set to on to have Portal Interface and Mobile Web Studio use HTTPS during login and self-registration.</p> <p>See “Data confidentiality and integrity” on page 82 for more information.</p> <hr/> <p><b>Note</b> Before setting this value to on, you must enable the HTTPS listener on your portal.</p> <hr/>
secure.tile.host	<i>hostname</i>	Host name of the secure HTTPS application playback server. The initial value is supplied at installation. This value should be the same as tile.host.

Global property name	Default value	Description
send.mail	true	<p>(true/false) Set this value to true to send SMTP-based e-mail messages when you create a new accounts in Mobile Web Studio, or when Portal Interface users register for the first time or request to change their password.</p> <p>If set to false, e-mail content is written to the <i>WorkRoot/e-mail</i> directory. See the <i>WorkRoot</i> property, later in this table, for information about <i>WorkRoot</i>.</p> <hr/> <p><b>Note</b> You can leave this value set to true, then set the value to false for individual portals in the <i>cobrand.xml</i> file. See Chapter 4, “Resources” for detailed information.</p> <hr/>
server_virtual_path	/	Used for JSP forward/include; for example: BEA=/ JRun=/ iplanet=/onepage/
sharePage	on	(on/off) Enables page sharing in Portal Interface.
SOAPServer	127.0.0.1	The SOAP server machine name.
tabingChar	4	The number of characters that tabs use for the corners.
tabset	on	(off/on) Indicates whether to enable use of page groups. Set to on to enables use of page groups.
<b>Note</b> Tabset is synonymous with page groups.		
tile.host	<i>hostname</i>	Host name of the application playback server. The initial value is supplied at installation.
<b>Note</b> Tile is synonymous with application.		

Global property name	Default value	Description
tile_style	3	<p>(1/ 2/ 3) Indicates the default application style:</p> <p>1 &lt;IFRAME&gt; tag only. Defines an inline frame for the inclusion of external objects including other HTML documents. Unlike frames created using &lt;FRAMESET&gt; and &lt;FRAME&gt;, &lt;IFRAME&gt; creates a frame that sits in the middle of a regular nonframed Web page. &lt;IFRAME&gt; works like &lt;IMG&gt;, only instead of putting a picture on the page, it puts another Web page on the page.</p> <hr/> <p><b>Note</b> Internet Explorer versions 5.x and 6.x support &lt;IFRAME&gt;. Netscape 6 supports &lt;IFRAME&gt; but not all of the attributes. Versions of Netscape earlier than version 6 do not support &lt;IFRAME&gt;.</p> <hr/> <p>2 &lt;DIV&gt; tag only. The &lt;DIV&gt; tag has a single attribute—align—with four possible values—left, center, right, and justify. The &lt;DIV&gt; tag is used primarily to create divisions that require the same alignment attribute within an HTML document.</p> <hr/> <p><b>Note</b> Does not work on Netscape 7, which does not support Web data within &lt;DIV&gt; tags.</p> <hr/> <p>3 Mixed mode. The application is formatted using either an &lt;IFRAME&gt; or a &lt;DIV&gt; tag, depending on which tag is more appropriate to the application's content.</p>
turnOffSecurePassword	false	<p>(true/false) Toggles use of secure password prompt by Portal Interface when using HTTPS applications created from Mobile Web Studio. The default is false, which means you are prompted for an additional password to view secure applications. If you change the value to true, you are not prompted for an additional password, and cannot view secure applications.</p>

Global property name	Default value	Description
use_https	on	(on/off) Indicates whether to use secure navigation. Set to off to disable secure navigation. To enable Web capture of HTTPS sites and creation of “secure” applications, set secure and use_https properties to on. See “Data confidentiality and integrity” on page 82 for more information.
versioning	off	(on/off) Indicates whether to use versioning of applications and catalogs. Set to on to save versions of applications and catalogs.
WebServiceRoot	/ws	This property indicates the location for generated Web service files when publishing applications to the UDDI registry. There are two ways to enter this information: <ul style="list-style-type: none"> <li>• Enter an absolute location. For example, if you enter <i>d:\work\service\ws</i> on Windows or <i>/work0/service/ws</i> on UNIX, the system adds files directly to the specified location. You must ensure that the location can be accessed from a URL, like <i>http://localhost:4040/onepage/ws</i>.</li> <li>• Enter a relative location. For example, if you enter <i>service\ws</i> on Windows or <i>service/ws</i> on UNIX, the system adds files to the location relative to the current Web application; specifically, <i>root/work0/tomcat/webapps/onepage/service/ws</i> (on UNIX). You must ensure that the location can be accessed from a URL, like <i>http://localhost:4040/onepage/service/ws</i>.</li> </ul>
wireless_portal	off	(on/off) This property is not used for Unwired Accelerator; accept the default.
WorkRoot	/tmp	Base working directory to which the portal can write log files, upload files, and so on.
xml_catalog_serialize	yes	(yes/no) Enter “yes” to create local serialized objects of the XML catalog in your local <i>/onepage/lib</i> directory. This allows a quicker-loading catalog. Enter “no” to disable catalog serialization.

Global property name	Default value	Description
XmlValidation	off	(on/off) Indicates whether to enable runtime XML validation for application, page, and template definitions. Set to on to enable runtime xml validation.  <b>Note</b> Set this property to on in a development environment; and, to improve performance, set it to off in production environment.

## Audit property group

This group contains properties for configuring auditing. Properties are listed in alphabetical order.

Audit property name	Default value	Description
auditEnabled	false	(true/false) This property is not used for Unwired Accelerator; accept the default.
auditPortletPlayback	false	(true/false) This property is not used for Unwired Accelerator; accept the default.
auditRoleFilter	false	(true/false) This property is not used for Unwired Accelerator; accept the default.

## Mobile Web Studio property group

This group lists obsolete Mobile Web Studio settings.

Mobile application property name	Default value	Description
MS.Enabled	false	(true/false) This property is not used for Unwired Accelerator; accept the default.

## M-Business property group

This group lists M-Business Anywhere settings. Properties are listed in alphabetical order.

Mobile application property name	Default value	Description
AA.CustomAgent Network	false	(true/false) Enables display of the Answers Anywhere Custom Agent Network feature.
Blackberry.MaxNumber OfKBytes	128	The maximum number of bytes to check during sync to BlackBerry device.
MB.AutoRegistration	false	<p>(true/false) Indicates how user accounts are handled when Unwired Accelerator and M-Business Anywhere are integrated.</p> <ul style="list-style-type: none"> <li>• If set to true, when a user joins the Portal Interface, or when a user is added to Mobile Web Studio, the user automatically joins the M-Business Anywhere server with the same user name and password.</li> <li>• If set to false, Mobile Web Studio does not self-register to M-Business Anywhere. A user with the Studio Admin role—such as opsuper or masuper—can register a user with M-Business Anywhere (using the M-Business   User/Roles option).</li> </ul> <p>See Chapter 3, “User Accounts” for more information about managing user accounts, and see the <i>Unwired Accelerator Installation Guide</i> for more information about integrating Unwired Accelerator and M-Business Anywhere.</p>
MB.Enabled	false	(true/false) Indicates whether to enable connection from Mobile Web Studio to the M-Business Anywhere database, AGDB. If you are using M-Business Anywhere server to deploy applications to mobile devices, set this value to true.

## SAP property group

This group lists SAP settings. Properties are listed in alphabetical order.

SAP property name	Default value	Description
ConnectionPools	sapjco	Comma-separated list of connection pool names available for SAP connection. For each connection pool name given in the ConnectionPools property, there must be a corresponding <code>&lt;pool-name&gt;.properties</code> file in the <code>... onepage WEB-INF classes</code> directory. The default value points to a <code>sapjco.properties</code> file in the directory. See the <i>Unwired Accelerator Installation Guide</i> for information about configuring ConnectionPools.



SAP property name	Default value	Description
DefaultConnectionPool Name	sapjco	Identifies the default connection pool name to use for an SAP connection, from the list of available connection pools. The user name provided here must have access rights to call a number of RFMs for metadata repository access (Authorization Object: S_RFC, ACTVT: 16, FUGR).

## UWP property group

UWP is the Universal Window (application) Player, also referred to as UPP—Universal Portlet Playback engine. This is the application content handling framework that provides a uniform mechanism for application execution. UWP provides an application container and a personalization engine. Properties are listed in alphabetical order.

UWP property name	Default value	Description
CacheRefreshList	127.0.0.1	Comma-separated list of internally addressable machine names to refresh the cache. <b>Example:</b> CacheRefreshList= machine1.\$DOMAIN, machine2.\$DOMAIN  <b>Note</b> Update this list for a multimachine UA configuration. See “Configuring multimachine installations” on page 155 for additional information about configuring multimachine UA configurations.
ContentCacheMaxEntries	250	The maximum number of entries in the application ContentCache object. This is used for caching resolved application contents.
ContentCacheLRU ReductionSize	5	The number of entries removed at time from the Portlet ContentCache object when implementing the least recently used (LRU) policy. This is used with caching content of resolved applications.

UWP property name	Default value	Description
DefaultTemplateName	Template1	<p>The default template used for single-element application. See the <i>Unwired Accelerator Developer's Guide</i> for information about templates. You can change this to any template you want. For example, if you wanted every application to use the same header logo or footer, create that template and enter that template's name here.</p> <p>When you change the template name here, it changes the default template for all resource IDs.</p>
ErrorFile	<i>/logs/uwp.err</i>	Location and name of the file to log UWP error messages, relative to the value for WorkRoot.
ObjectCacheLRUReduction Size	5	<p>The number of least recently used (LRU) entries removed at a time from the UWPObjectCache object when implementing the LRU policy.</p> <hr/> <p><b>Note</b> The LRU policy is a page-replacement policy that removes from main memory the pages that show the least amount of recent activity. This policy is based on the assumption that these pages are the least likely to be used again in the immediate future.</p> <hr/> <p>This value is used for <code>clickthru_cache</code>, <code>windows_def_omt_cache</code>, and <code>parsed_template_cache</code>.</p>
ObjectCacheMaxEntries	250	Every object that goes into and out of the database gets cached. This value is the maximum number of entries allowed in the UWPObjectCache object. This value is used for <code>clickthru_cache</code> , <code>windows_def_omt_cache</code> , and <code>parsed_template_cache</code> .
StorageConnector	onpage-generic	<p>Values – <code>onpage-instantdb</code>, <code>onpage-generic</code>, <code>onpage-cloudscape</code>, <code>onpage-cloudscape-iplanet</code>.</p> <hr/> <p><b>Warning!</b> Do not change this value.</p> <hr/>
ThisMachineName	127.0.0.1	The host name or IP address of this machine. If this machine is also a cache server, the value of ThisMachineName and UWPCacheServer must match.
TraceFile	<i>/logs/uwp.trc</i>	Location and name of the file to log trace messages, relative to the value for WorkRoot.
TraceOn	false	<p>(true/false) Indicates whether to enable basic tracing.</p> <hr/> <p><b>Note</b> Set this value to off in a production environment.</p> <hr/>

UWP property name	Default value	Description
UsePreCompiledJSP	false	(true/false) Indicates whether to use precompiled JSP. Set to true to have the application use precompiled JSP that is built ahead of time (.WAR file mode).
UWPCacheServer	127.0.0.1	The cache server is used for clickthru. If this machine is also a cache server, the value of ThisMachineName and UWPCacheServer must be the same.  <b>Warning!</b> Do not change this value.
UWPIntegrationHost	<i>localhost.domain</i>	Used by BEA/Yahoo integrations to make requests for application playback, edit screens, and returning to the OEM portal screens. This name must be visible from outside the firewall.
UWPWebServiceHost	<i>localhost.domain</i>	This property must be the actual name of the machine that is a server for the Web services WSDL files. This name must be visible from outside the firewall.
VerboseTrace	false	(true/false) Indicates whether to enable detailed tracing.  <b>Note</b> Set this value to false in a production environment.

## Product-configuration property group

This group describes where to register configuration file names. Properties are listed in alphabetical order.

Audit property name	Default value	Description
epsecurity.xml	false	(true/false) Indicates whether to enable Enterprise Security. Since Enterprise Security is not included with Unwired Accelerator, set this value to false. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
epstudio.xml	true	(true/false) Indicates whether to display the Build, Automate, and Manage menu sections in the left pane of Mobile Web Studio. These menu sections provide access to Unwired Accelerator functionality; accept the default setting or Mobile Web Studio does not run properly.

## Docservers property group

Docservers retrieve application content from the portal database (portalDB). Properties are listed in alphabetical order.

Docservers property name	Default value	Description
AuthenticationUsing	Database	<p>(CSI/Database/EP Security) Identifies the authentication technique to use. Options include:</p> <ul style="list-style-type: none"> <li>• CSI – use the Common Security Infrastructure framework with the LDAP provider for authentication. See the <i>Unwired Accelerator Installation Guide</i> for detailed information about configuring the LDAP provider.</li> <li>• Database – use the CSI framework with the PortalDB provider for authentication (default). See the <i>Unwired Accelerator Installation Guide</i> for additional information about this option.</li> </ul> <hr/> <p><b>Note</b> Select Database if you use Tomcat JDBC realm.</p> <hr/> <ul style="list-style-type: none"> <li>• EP Security – use Enterprise Security for authentication. See the <i>Enterprise Security Administration Guide</i> for information.</li> <li>• None – use EAServer default security (without CSI). This disables most of the security administration functions in Mobile Web Studio. See the <i>Unwired Accelerator Installation Guide</i> for EAServer information.</li> </ul>
CacheRefreshList	127.0.0.1	<p>Comma-separated list of internally addressable machines on which to refresh the cache; for example:</p> <pre>CacheRefreshList= demo1 . \$DOMAIN, demo2 . \$DOMAIN</pre>
DBLookUpDocument Caching	true	<p>(true/false) Indicates whether to cache documents that are typically database lookups, but change only with manual updates to the database; for example, category, subcategory. Change this value to false when someone makes changes to database settings using something other than Mobile Web Studio.</p>
DeployHost	<i>hostname.domain</i>	Real name of the machine used for import, export, and deploy functions. This name must be visible from outside the firewall.
EPSecurityHost	<i>hostname.domain</i>	This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.

Docservers property name	Default value	Description
EPSecurityHostPortNumber	9000	This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
ErrorFile	/logs/ds.err	Location and name of the file in which to log error messages, relative to the value of WorkRoot.
FrequentlyChangable DocumentCaching	true	(true/false) Indicates whether to cache documents that change because of changes to other documents.
MailOn	false	(true/false) Indicates whether to use a mail server for Agent servers.
MaxBytesForDocuments ToCache	3000000	The maximum number of bytes cached. 3000000= 3MB.
MaxNumberOfDocuments ToCache	100	The maximum number of documents cached.
NonfrequentlyChanged DocumentCaching	true	(true/false) Whether to cache documents that are updated infrequently; for example, a list of resources. The default maximum number of documents cached is 100.
TraceFile	/logs/ds.trc	Location and name of the file in which to log trace messages, relative to the value of WorkRoot.
TraceOn	false	(true/false) Indicates whether to enable basic tracing.  <b>Note</b> Set this value to off in a production environment.
UseAccessControl	true	(true/false) Indicates whether to apply access control.  <b>Warning!</b> Do not change this value.
UseStudioDatabase	true	(true/false) This property is not used for Unwired Accelerator; accept the default. See the <i>Enterprise Security Administration Guide</i> for information about Enterprise Security.
VerboseTrace	false	(true/false) Indicates whether to enable detailed tracing.  <b>Note</b> Set this value to false in a production environment.

## ProductConfiguration property group

This group lists portal settings for several Mobile Web Studio features. Properties are listed in alphabetical order.

Product property name	Default value	Description
ClickacrossOn	true	(true/false) Indicates whether to expose the click-across user interface.
RequiredRoles	everybody	Lists required J2EE role values in conjunction with roles specified in <i>web.xml</i> . Values are comma-separated. See Chapter 6, “Security” for information about roles and security in Unwired Accelerator.
RoleBaseDisplay	true	(true/false) Indicates whether listings should show objects with only the same role as the user.
RoleBaseDisplaySeeAll Roles	superuser	Identifies one or more J2EE roles that supersede the RoleBaseDisplay property. Any roles listed here see every item as if RoleBaseDisplay was set to false. Values are comma-separated.
WebServiceOn	true	Indicates whether to enable Web service element creation. When this value is set to true, the Web service user interface displays and you can create Web service elements.

## Portal property group

This group lists portal settings for the development environment. Properties are listed in alphabetical order.

Portal property name	Default value	Description
ErrorFile	<i>/logs/portal.err</i>	Location and name of the file in which to log error messages, relative to WorkRoot.
TraceFile	<i>/logs/portal.trc</i>	Location and name of the file in which to log trace messages, relative to WorkRoot.
TraceOn	false	(true/false) Indicates whether to enable basic tracing.  <b>Note</b> Set this value to off in a production environment.
VerboseTrace	false	(true/false) Indicates whether to enable detailed tracing.  <b>Note</b> Set this value to false in a production environment.

## Agents property group

This group contains agent server settings. Properties are listed in alphabetical order.

Agents property name	Default value	Description
AgentServerID	0	Default Agent Server ID. See the <i>Unwired Accelerator Developer's Guide</i> for information about creating and using Unwired Accelerator agents.
ErrorFile	<i>/logs/as.err</i>	Location and name of the file in which to log error messages, relative to WorkRoot.
HeartBeat	30000	Sets the default heartbeat time in millions of seconds. Heartbeat is the time to sleep between agent tasks. The default, 30000, is equivalent to 30 seconds.
MaxLogRows	150	Sets the maximum number of data (rows) returned from the database to the browser for log information on a view log request. Set to zero for all.
PushAgentLog	2	Sets the interval for pushing the agent transaction log to the Mobile Web Studio server. The interval multiplied by the heartbeat establishes when to push the agent transaction log. If the heartbeat is 30000 (30 seconds) and the push is 2, the agent log is pushed every minute (2 * 30).
PSHost	<i>hostname.domain</i>	Fully qualified name of the Mobile Web Studio/agent server machine.
PSPort	Tomcat – 4040 EAServer – 8080	Port on which the PSHost server is listening for requests.
StatusUpdateFreq	10	Sets the status report/update frequency for gathering statistics about agents. The frequency multiplied by the heartbeat establishes when to gather the statistics. If the heartbeat is 30000 (30 seconds), and the frequency is 10, the statistics are gathered every five minutes (10 * 30).
TimeZone	PST	Time zone for the Publish Server (database).
TraceFile	<i>/logs/as.trc</i>	Location and name of the file in which to log trace messages, relative to WorkRoot.
TraceOn	false	(true/false) Indicates whether to enable basic tracing.  <b>Note</b> Set this value to off in a production environment.
TransactionFile	<i>/logs/transaction.log</i>	File to log agent execution events, relative to the directory in the WorkRoot property.
VerboseTrace	false	(true/false) Indicates whether to enable detailed tracing.  <b>Note</b> Set this value to false in a production environment.

## Nav property group

This group contains one-click capture properties. The navigation server creates the Content Capture Language (CCL) statements that define applications in Application Builder. Properties are listed in alphabetical order.

Nav property name	Default value	Description
acx	local	<p>(local/remote/none) Identifies the ActiveX (ACX) control location.</p> <p>Set this value to none to disable ActiveX support completely, and to remove the option from the application capture wizard interface.</p> <p>For Windows, this value is best set to “local” so that ActiveX support is carried out on the local machine. However, you can set it to remote if you require remote support.</p> <p>For UNIX, setting ACX to local causes errors to appear in the application server’s log file, and causes capture and playback to fail.</p> <p>To use the ActiveX component during capture and playback on UNIX, set this property to <i>remote</i> and set <i>acx.host</i> and <i>acx.servlet.url</i> properties. The request to use ActiveX is delegated to a remote Unwired Accelerator installation on Windows that handles the request and returns the result. Set <i>acx.remote</i> to point to the host and port where the ActiveX support servlet is located; for example:</p> <pre>http://demo.sybase.com:4040/</pre> <p>The URL must be a Windows machine with Unwired Accelerator installed.</p> <p>The <i>acx.servlet.url</i> property is set to <i>/onepage/servlet/ACX</i> and should remain that value unless you are directed to change the value by a qualified Sybase support engineer.</p>
acx.host	<i>http://hostname.domain:port</i>	Indicates the host/domain/port where ACX servlet is located.
acx.servlet.url	<i>/onepage/servlet/ACX</i>	<p>Indicates the URL of the ACX servlet.</p> <hr/> <p><b>Warning!</b> Sybase recommends that you change this property only with the guidance of a Sybase support engineer.</p> <hr/>
includelistfile	<i>/config/includelist.txt</i>	This property is not used for Unwired Accelerator; accept the default.
log	<i>logs/nav.log</i>	Location and name of the navigation log, relative to the value of <i>WorkRoot</i> .



Nav property name	Default value	Description
LogAllNav	off	(on/off) Indicates whether to enable tracing. Set this value to on to turn on tracing for nav, HTTP, navigate, and clickthru.  <b>Note</b> When this value is set to on, all other loggers in the Nav property group are also set on.
nav.general.host	<i>hostname</i>	Value – http://<host>.<subdomain> Host name of the fully qualified DNS name of the aliased general host for all nav servers.
nav.general.secure.host	https:// <i>hostname</i>	Value – https://<host>.<subdomain> Host portion of the fully qualified DNS name of the aliased general HTTPS content capture secure server.
nav.host	<i>hostname</i>	Value – http://<host>.<subdomain> The host portion of the DNS name of the server when HTTP is used.
nav.secure.host	<i>hostname</i>	Value – https://<host>.<subdomain> The host portion of the DNS name of the server when HTTPS is used.
NavTraceOn	off	(off/on) Indicates whether to perform navigation tracing.  <b>Note</b> Set this value to off in a production environment.
use_include	off	Set this value to on to limit navigation scope.

## Capture logging properties

This group contains properties for capturing log files and enabling tracing. Properties are in alphabetical order.

Capture logging property name	Default value	Description
CaptureTraceOn	off	(on/off) Indicates whether to enable tracing. Set this value to on for tracing.  <b>Note</b> Fatal and error levels are always logged. Setting this property value to on sets the trace level to debug. Sybase recommends that you set TraceOn to off in a production environment.
LogFile	<i>/logs/capture.log</i>	Location and name of the log file for capture output, relative to the value of WorkRoot.

## Database property group

This group contains the database properties for each server. Properties are listed in alphabetical order.

Property name	Default value	Description
databaseimpl	sybase-javaprocs	(sybase-javaprocs, oracle-javaprocs) Identifies the database implementation. See “Database property-specific parameters” on page 151 for detailed information about the database implementation, and associated data pool.  <b>Note</b> Currently, only sybase-javaprocs is supported.
defaultservice	home	(home/auth/tools/uwp) Identifies the service to which unnamed access layer calls default.
enable.tracing	false	(true/false) Indicates whether to enable tracing. Set this value to true to write traces to a log file.  <b>Note</b> Set this value to false in a production environment.
initservices	auth,home,tools,uwp	List of services to initialize, including home, auth, tools, and uwp. Do not change the default setting.
logfile	<i>/logs/datamanager.log</i>	Location and name of the logfile for database output, relative to the value of WorkRoot.

## Database property-specific parameters

This group contains database-specific properties. Currently, the Sybase database, with the ASA data pool, is supported. Alternatively, you can use the Adaptive Server data pool.

**Table 0-2: Sybase database details**

Property name	Default value	Description
DatabaseImpl value = "sybase-javaprocs"	Sybase database implementation:	Sybase database implementation, with ASA data pool (op_portal_asa). The data pool is identified for each of the data services – home, auth, tools, and uwp.

```
<DatabaseImpl name="sybase-javaprocs" vendor="sybase">
<DatabaseService name="home" pools="op_portal_asa"
balancer="com.onepage.db.UserDistrib"
stored_proc_handler="com.onepage.db.JavaProcHandler"
platform_handler="com.onepage.db.ASEPlatformHandler" description="service
descript" />
<DatabaseService name="auth" pools="op_portal_asa" balancer=""
stored_proc_handler="com.onepage.db.JavaProcHandler"
platform_handler="com.onepage.db.ASEPlatformHandler" description="service
descript" />
<DatabaseService name="tools" pools="op_portal_asa" balancer=""
stored_proc_handler="com.onepage.db.JavaProcHandler"
platform_handler="com.onepage.db.ASEPlatformHandler" description="service
descript" />
<DatabaseService name="uwp" pools="op_portal_asa" balancer=""
stored_proc_handler="com.onepage.db.JavaProcHandler"
platform_handler="com.onepage.db.ASEPlatformHandler" description="this is for
UWP connectors" />
</DatabaseImpl>
```

Property name	Default value	Description
Data pool value = op_portal_asa, or op_portal_ase	ASA or Adaptive Server data pool implementation:	<p>The default data pool implementation for Unwired Accelerator is op_portal_asa (Adaptive Server Anywhere).</p> <p>Alternatively, you can use Adaptive Server Enterprise by changing all instances of “op_portal_asa” to “op_portal_ase,” and configuring the op_portal_ase data pool.</p> <hr/> <p><b>Note</b> Do not change the names of the data pools. Use “op_portal_asa” or “op_portal_ase” only or users will receive a NullPointerException when they save an application in Mobile Web Studio.</p>

```
<DataPool name="op_portal_asa"
  class="com.onepage.db.DbConnectionBroker"
  driver="com.sybase.jdbc2.jdbc.SybDriver"
  url="jdbc:sybase:Tds:hostname:port"
  user="dba"
  password="SQL"
  password_encrypted="false"
  minConnections="1"
  maxConnections="50"
  unusedtimer="360"
  checkouttimer="60"
  reuse="30"
  debug="true" />
```

```
<DataPool name="op_portal_ase"
  class="com.onepage.db.DbConnectionBroker"
  driver="com.sybase.jdbc2.jdbc.SybDriver"
  url="jdbc:sybase:Tds:hostname:port/portaldatabase?IS_CLOSED_TEST=
INTERNAL"
  user="sa"
  password=""
  password_encrypted="false"
  minConnections="1"
  maxConnections="50"
  unusedtimer="360"
  checkouttimer="60"
  reuse="30"
  debug="false" />
```

Property name	Default value	Description
class	DbConnectionBroker	The Java class used to manage database connections. The full class name is: com.onepage.db.DbConnectionBroker
driver	SybDriver	JDBC driver used to connect to the database. The default driver connects to the portal database. The full name is: com.sybase.jdbc2.jdbc.SybDriver
url	ASA: localhost:4747 Adaptive Server: localhost:5000	Identifies the JDBC connection URL used to connect to the database. The default URL connects to the portal database. The full name is: jdbc:sybase:Tds:localhost:4747
user	ASA: dba Adaptive Server: sa	The user name for the database.
password	ASA: SQL ASE: " " (no password)	The password for the database.
password_encrypted	false	(true/false) Indicates whether to encrypt the database password, based on the password provided. <ul style="list-style-type: none"> <li>If set to true, you must put the encrypted version of the password into the password property parameter in the “datapool” tag. During allocation of the data pools, the password specified is decrypted and used. See “Changing the password, and optionally the PortalDB table owner” on page 97 for information about encrypting passwords.</li> <li>If set to false (or not set), the default password specified in <i>global.properties.xml</i> is used.</li> </ul>
minConnections	1	Minimum database connections allowed.
maxConnections	50	Maximum database connections allowed. You may need to increase this value if you see errors in the <i>datamanager.log</i> file saying there are no more connections. The file is located in the default log file directory, typically, x:\tmp\logs.
unusedtimer	360	This property is not used for Unwired Accelerator; accept the default.

Property name	Default value	Description
checkouttimer	60	Indicates how long in seconds to keep a connection open in the connection pool when it has not been used. This value enables a mechanism for shrinking the connection pool after a busy period.
reuse	30	This property is not used for Unwired Accelerator; accept the default.
debug	ASA: true Adaptive Server: false	(true/false) Indicates whether to enable debugging. When set to false, debugging is turned off.  <b>Note</b> Set this value to false in a production system.

## Updating global properties

The *global.properties.xml* file is the master configuration file for Mobile Web Studio and Portal Interface. After you install Unwired Accelerator, there are properties you must change to suit your enterprise. The *Unwired Accelerator Installation Guide* describes changes to make to the *global.properties.xml* file for the Unwired Accelerator host, domain, and port configuration; Mobile Web Studio and M-Business Anywhere integration; and proxy server (if used). This section describes additional changes you must make to configure Unwired Accelerator.

Read through all the procedures in this section to determine which properties you must change. After changing each property, save the file, but do not close it, until you have made all of the necessary changes. When you are finished, save and exit the file, close the text editor, then stop and restart the application server.

### ❖ Sending e-mail to a file

The `send.mail` property, by default, is set to `true`, which means that SMTP-based e-mail is sent when a new user account is created. If you do not have SMTP-based e-mail, set this value to `false`, which writes the e-mail content to `<WorkRoot>/e-mail`. See “Global property group” on page 129 for information about the `send.mail` property.

- Use any text editor to open *global.properties.xml*, which is located in:
  - Tomcat – `SYBASE\tomcat\Webapps\onepage\config`

- EAServer – *SYBASE\EAServer\Repository\WebApplication\onepage\config*

- 2 Search for the `send.mail` property and change the value to `false`.
- 3 Save the file but do not close it.

#### ❖ **Sending e-mail to users**

If you have an SMTP-based e-mail host and leave the `send.mail` value set to `true`, you must change the `mail.host` property value for this functionality to work.

- 1 Search for the property called `mail.host`. See “Global property group” on page 129 for information about the `mail.host` property.
- 2 Change the value to the name of your company’s SMTP-based e-mail host server.
- 3 Save the file.

#### ❖ **Configuring multimachine installations**

If you installed UA on multiple machines, there are several properties in *global.properties.xml* that you must update to reflect this configuration.

- 1 Search for the `catalog_cache_refresh_list` property in the Global properties section of the configuration file.
- 2 Enter a comma-separated list of machines with catalogs that must be refreshed when a cache refresh is triggered. If you use the machine name, there must be a DNS entry inside the machine to resolve the entry.

This list must be machines that are internally addressable from within the servers themselves and must include the port number, followed by the Web application name, which is “`onepage`.” For example, using Tomcat:

```
"catalog_cache_refresh_list=
demo1.$DOMAIN:4040/onepage,
demo2.$DOMAIN:4040/onepage"
```

See the table in Global property group for information about the `catalog_cache_refresh_list` property.

- 3 Search for the `CacheRefreshList` property in the UWP properties section of the configuration file.

Enter a comma-separated list of internally addressable machines names to refresh the cache. If you use the machine name, there must be a DNS entry inside the machine to resolve the entry.

This list must be machines that are internally addressable from within the servers themselves and must include the port number, followed by the Web application name, which is “onepage.” For example, using Tomcat:

```
"CacheRefreshList=  
demo1.$DOMAIN:4040/onepage,  
demo2.$DOMAIN:4040/onepage"
```

See “UWP property group” on page 141 for information about the CacheRefreshList property.

- 4 Search for the CacheRefreshList property in the Docserver properties section of the configuration file.

Enter a comma-separated list of internally addressable machines names to refresh the cache. If you use the machine name, there must be a DNS entry inside the machine to resolve the entry.

This list must be machines that are internally addressable from within the servers themselves and must include the port number, followed by the Web application name, which is “onepage.” For example:

```
"CacheRefreshList=  
demo1.$DOMAIN:4040/onepage,  
demo2.$DOMAIN:4040/onepage"
```

See “Docservers property group” on page 144 for information about the CacheRefreshList property.

#### ❖ **Configuring different machines and ports for the same domain**

This example illustrates the settings used to configure a different machine and port for the same domain as other machines in your UA installation.

- 1 Search for *hostname* and replace it with the name of the Tomcat or EAServer machine host name that is on a different port, for example, “lab2k”. *hostname* is the machine name entered at installation.
- 2 Change the value of the default\_http\_port property to the new port for the different machine hosting Tomcat or EAServer:

```
<Property name="default_http_port" value="new http port"  
description="the application server port" menugroup="10"/>
```

See “Global property group” on page 129 for information about the default\_http\_port property.

- 3 Verify that the value to which you changed the default\_http\_port property is the value for which the application server is configured.



In either Tomcat or EAServer, the portal requires a listener configured for both the IP address 127.0.0.1 and the new port that you configured for the default\_http\_port property:

```
hostname.domain    new http port
127.0.0.1          new http port
```

- 4 Stop and restart the application server.

#### ❖ **Turning trace functionality off for production**

If you are running the portal in a production environment, you may want to turn off the trace settings, which are turned on by default, to improve performance.

- 1 In the UWP properties section, set TraceOn and VerboseTrace to false. See “UWP property group” on page 141 for information about the TraceOn and VerboseTrace properties.
- 2 In the Docservers properties section, set TraceOn and VerboseTrace to false. See “Docservers property group” on page 144 for information about the TraceOn and VerboseTrace properties.
- 3 In the Portal properties section, set TraceOn and VerboseTrace to false. See “Portal property group” on page 146 for information about the TraceOn and VerboseTrace properties.
- 4 In the Capture properties section, set CaptureTraceOn to off. See “Capture logging properties” on page 149 for information about the CaptureTraceOn property.

#### ❖ **Enabling proxy servers**

If you are using a HTTP proxy server, there are several settings in *global.properties.xml* that you must modify.

- 1 In the Global properties section, set the proxy property to true.
- 2 Set the remaining proxy properties (proxy.host, proxy.port, proxy.bypass\_list) to the correct values for your proxy configuration. See “Global property group” on page 129 for information about the proxy properties, and the *Unwired Accelerator Installation Guide* for detailed.
- 3 Save and exit the file, close the text editor, then stop and restart Tomcat or EAServer.



# Glossary

<b>access control</b>	Controlling access to a data source.
<b>AGDB</b>	AvantGo Database. M-Business Anywhere database used to store mobile applications. When a user log in to the mobile devices, or synchronizes, mobile applications are deployed to the device.
<b>Answers Anywhere</b>	The Answers Anywhere product enables you to retrieve Unwired Accelerator application data using natural-language-like questions. You can use a variety of client interfaces, including e-mail, short message service (SMS), Web, and M-Business Client, to request information.
<b>API</b>	Application Program Interface. A set of routines, protocols, and tools for building software applications that enable programs to communicate with each other.
<b>ASP</b>	Active Server Pages. An open, compile-free application environment in which Web developers can combine HTML, scripts, and reusable Active Server components. ASP technology enables server-side scripting for IIS with native support for both Visual Basic Scripting Edition and JScript.
<b>adapter</b>	A component that provides an interface between an internal application and external applications or messaging systems. An adapter detects events and validates event contents.
<b>application</b>	A software program that runs on any computing device, such as a computer or a mobile device. In this guide, mobile application is used to describe an application specifically designed to run on a mobile device.
<b>Application Builder</b>	An Unwired Accelerator wizard used to define applications. A succession of windows shows you how to create, configure, and customize the application. You need not use all the windows to define your application; the windows needed vary depending on the type of application you are creating (for example, Web, HTML, JSP, database, document, and so forth).
<b>authorization</b>	Assigning permissions to users or groups of users to access secured objects.

<b>BES</b>	BlackBerry Enterprise Server. A Research in Motion platform for delivering applications to BlackBerry mobile devices rapidly and cost-effectively. An alternate solution is M-Business Anywhere, which is available with Unwired Accelerator.
<b>BlackBerry device</b>	A handheld device from Research in Motion that combines computing, telephone/fax, Internet, and networking features. In this document, the term BlackBerry device is used to distinguish between other PDAs, such as PalmOS and PocketPC.
<b>CCL</b>	Content Capture Language.
<b>channel</b>	Web content that is optimized for and delivered to mobile devices by M-Business Anywhere server. Channels are defined by a base URL and by other parameters such as channel size, link depth, image preferences, and frequency of refresh. M-Business Anywhere server automatically delivers new information from the specified URL to M-Business Client on the connecting mobile device.
<b>click-across</b>	An Unwired Accelerator feature that enables you to connect related or unrelated applications in a flow using events.
<b>client/server</b>	<p>A network architecture in which one or more computers (servers) accept requests for services from one or more workstations (clients).</p> <p>This may also refer to a back-end application (server) that accepts requests for information from a front-end application (client).</p>
<b>client-side click-across</b>	Click-across feature when it is captured from the client side. In Unwired Accelerator, all linked mobile applications are created with server-side click-across.
<b>co-brand</b>	Synonymous with resource. Resource definitions are located in <i>SYBASE\tomcat\webapps\onepage\fw\cobrands</i> .
<b>Configure Parameters window</b>	Application Builder window used to customize the parameters, or variables, used to capture the grid. This enables application end users to customize or personalize parameter values when they view the application.
<b>connected mode</b>	Describes the connection mode that a device—such as a desktop computer, laptop, or a mobile device—uses to access applications and data. In connected mode, the device has physical or wireless connection to the source. Applications and data are accessed in real time. See also disconnected mode.

<b>connection pooling</b>	Connection pooling is a performance optimization based on using collections of preallocated resources, such as objects or database connections. Pooling results in more efficient resource allocation.
<b>connectionless communications</b>	Communications that do not require a dedicated connection or session between applications.
<b>continuous capture</b>	An Unwired Accelerator feature that enables you to capture a set of Web pages from a remote site, and define how to extract the content for display.
<b>CSI</b>	Common Security Infrastructure. The native security framework included with Unwired Accelerator. The default security provider is the portaldatabase (PortalDB); optionally, you can configure the LDAP security provider. An Enterprise Security product is available for those using EA Server as the application server, instead of Tomcat.
<b>Continuous Capture window</b>	Application Builder window used to capture a set of Web pages from a remote site and define how to extract the content for display.
<b>Define window</b>	Application Builder window used to define the grid layout of an application.
<b>disconnected mode</b>	Describes the connection mode that a device—such as a desktop computer, laptop, or a mobile device—uses to access applications and data. In disconnected mode, the device has no physical or wireless connection to the source. Applications and data may be cached in memory, or unavailable. See also connected mode.
<b>enterprise</b>	A reference to all aspects of a large business organization—from manufacturing to finance, marketing to human resources. This term can also refer to an organization plus its partners, vendors, suppliers, and customers.
<b>EP</b>	An acronym for Enterprise Portal. An enterprise portal integrates all aspects of an organization's IT infrastructure and offers customers, partners, vendors, and employees a broad array of resources and services, including personalized information, online purchasing, e-mail, forums, and product support.
<b>event</b>	An event is a notification that occurs in response to some action. It can be a change in state or as a result of the user clicking or moving the mouse, pressing a key, or other actions that are focus-related, element-specific, or object-specific. Developers write code that responds to these actions. An event can also be an object that is imported, passed between processors, and exported to an external database.
<b>event definition</b>	A set of criteria that is used to determine the contents of events.

<b>Filter window</b>	Application Builder window used to identify which rows, columns, and fields to include in the application and which to exclude; and to define additional grid rules.
<b>Finish window</b>	Application Builder window used to configure the application for use.
<b>grid rules</b>	The Unwired Accelerator feature for manipulating the content and format of an application for display on a mobile device.
<b>HTTP</b>	HyperText Transport (or Transfer) Protocol is the set of rules that governs the exchange of text, graphic, sound, and video files on the World Wide Web.
<b>HTTPS</b>	The secure version of HTTP.
<b>Internet</b>	A global network connecting millions of computers.
<b>intranet</b>	A private network within an organization.
<b>JDBC</b>	JDBC is a data access interface based on <b>ODBC</b> and used with the <b>Java</b> programming language.
<b>J2EE</b>	Sun software: Java 2 platform, Enterprise Edition.
<b>Java</b>	Developed by Sun Microsystems, Java is an object-oriented programming language, similar to C++. Java-based applications, or applets, can be quickly downloaded from a Web site and run using a Java-compatible Web browser such as Microsoft Internet Explorer or Netscape Navigator. Java applets are the most widespread use of Java on the Web.
<b>LDAP</b>	Lightweight Directory Access Protocol. LDAP is a software protocol that allows anyone to locate organizations, individuals, and other resources (files, devices, etc.) on the Internet or on a corporate intranet. The CSI framework can be configured to work with an LDAP security provider, instead of PortalDB.
<b>LRU</b>	Least recently used. The LRU policy is a page-replacement policy that removes from main memory the pages that show the least amount of recent activity. This policy is based on the assumption that these pages are the least likely to be used again in the immediate future.
<b>M-Business Anywhere</b>	A server platform for delivering applications to mobile devices rapidly and cost-effectively. An alternate solution is BlackBerry Enterprise Server (BES), which is available from Research in Motion.
<b>M-Business Client</b>	The browser client for M-Business Anywhere. The client can be installed on a desktop, or a mobile device. If you use M-Business Anywhere to deploy mobile applications, you can synch data from the browser or mobile device to receive updated applications.

<b>MDS</b>	Mobile Data Service. Research In Motion service used to deploy mobile applications to mobile devices. MDS provides internet service, but no e-mail service, where BES provides e-mail service.
<b>metadata</b>	Data that describes other data. Any file or database that holds information about another database's structure, attributes, processing, or changes.
<b>mobile application</b>	An application that is specifically designed to run on a mobile device, such as a BlackBerry device or a PDA. Mobile applications are usually smaller, lighter, and more focused.
<b>mobile device interface</b>	The mobile device interface to Unwired Accelerator that can be used for using mobile applications. See also Portal Interface.
<b>mobile device</b>	A generic term used for any handheld device, such as a BlackBerry device or a PDA. In this document, the term "mobile device" indicates a concept that applies to any device, not a specific device.
<b>Mobile Web Studio</b>	A platform for developing applications for mobile devices. Mobile Web Studio is a Web-based rapid development tool for creating powerful and interactive mobile Web applications or for mobilizing existing Web applications or data sources like databases, XML, Web Services, HTML, and JSPs/ASPs.
<b>New Element window</b>	Application Builder window used to create the element of your choice, including elements for Web, XML, HTML, JSP, database, document, and so forth.
<b>ODBC</b>	Open Database Connectivity. ODBC is a Windows standard API that is used for SQL communication to connect applications to a variety of data sources. Access is generally provided through the Control Panel, where data source names (DSNs) can be assigned to use specific ODBC drivers.
<b>offline mode</b>	Describes the mode in which a device—such as a desktop computer, laptop, or a mobile device—has access to applications and data. In offline mode, the device is physically disconnected from the source. Applications and data may be cached in memory, or unavailable. See also online mode.
<b>online mode</b>	Describes the mode in which a device—such as a desktop computer, laptop, or a mobile device—has access to applications and data. In online mode, the device is physically connected to the source. Applications and data are available through a physical or wireless connection. See also offline mode.
<b>PDA</b>	Personal Digital Assistant. Handheld devices from various manufacturers that combines computing, telephone/fax, Internet, and networking features. In this document, the term PDA is usually used in conjunction with specific devices such as PalmOS and PocketPC, to distinguish from BlackBerry devices.

<b>portal</b>	The entire aggregated set of applications, pages, page groups that are available within Unwired Accelerator. The portal content is divided into different resources (also known as co-brands) where each resource can be configured with a different look and feel, and navigation style. Any given application can be deployed into as many different resources as you want.
<b>PortalDB</b>	The portaldatabase included with Unwired Accelerator that is used to store user information (authentication and access), and applications you create through Mobile Web Studio.
<b>Portal Interface</b>	The computer desktop interface to Unwired Accelerator that can be used for creating personal Web applications. See also mobile device interface.
<b>portlet</b>	Synonymous with application. Typically, a mobile application that can be deployed to Portal Interface (a desktop interface), or to mobile devices.
<b>resource</b>	A division of portal content that can be configured with a different display and navigation style. Applications can be deployed into multiple resources. Resources are also known as co-brands.
<b>searchable index</b>	TBS
<b>server</b>	A computer or software package that provides specific capabilities to client software running on other computers.
<b>server-side click-across</b>	Click-across feature when it is captured from the server side. In Unwired Accelerator, server-side click-across can be captured from Mobile Web Studio (server side), but not from Portal Interface or mobile devices (client side). All linked mobile applications are created with server-side click-across.
<b>servlet</b>	<p>A servlet is a small, persistent, low-level program that runs on a server. The term was coined in the context of the Java applet, a small program that is sent as a separate file along with a Web (HTML) page.</p> <p>Some programs that access databases based on user input need to be on the server. These programs were most often implemented using a Common Gateway Interface (CGI) application. However, if a Java virtual machine is running in the server, servlets can be implemented in Java. A Java servlet can execute more quickly than a CGI application. Instead of creating a separate program process, each user request is invoked as a thread in a single daemon process, so that the system overhead for each request is slight.</p>



<b>SOAP</b>	<p>Simple Object Access Protocol. SOAP provides a way for applications to communicate with each other over the Internet, independent of platform. Remote objects can give a program almost unlimited power over the Internet, but most firewalls block non-HTTP requests. SOAP, an XML-based protocol, avoids this limitation to provide intraprocess communication across machines.</p> <p>In Unwired Accelerator, the implementation of SOAP is intended to provide businesses with a way to expose corporate software functionality to their customers with minimal firewall constraints, platform dependencies, or complex development implementations involving DCOM or CORBA.</p> <p>SOAP was developed by Microsoft, DevelopMentor, and Userland Software and has been proposed to the Internet Engineering Task Force (IETF) as a standard.</p>
<b>Split window</b>	<p>Application Builder window used to add parameters for splitting rows and columns in a grid. Split rules are defined for rows and columns; for delimiters; and for personalization adapters.</p>
<b>spidered application</b>	<p>A spidered application refers to data collected from a Web site within an URL structure, with the intent to create a searchable index.</p>
<b>SQL</b>	<p>Structured Query Language. Set of commands to access and manipulate data stored in a database.</p>
<b>SSL</b>	<p>Secure Sockets Layer. SSL is a standard for providing encrypted and authenticated service over the Internet. Using the Rivest Shamir and Adleman (RSA) public key, a public-key cryptography for Internet security, specific TCP/IP ports can be encrypted. Primarily used for handling commerce payments, SSL is a general-purpose encryption standard for the Internet.</p>
<b>sockets</b>	<p>A portable standard for network application providers on TCP/IP networks.</p>
<b>stored procedure</b>	<p>A program that creates a named collection of SQL or other procedural statements and logic that is compiled, verified, and stored in a server database.</p>
<b>style sheet</b>	<p>General term for software that transforms XML documents based on one XML vocabulary into XML documents based on a different XML vocabulary. Example style sheets are JavaServer Pages (JSPs) and XSLT style sheets.</p>
<b>TCP/IP</b>	<p>Transmission Control Protocol/Internet Protocol—the network protocol for the Internet that runs on virtually every operating system. IP is the network layer and TCP is the transport layer.</p>

<b>Unwired Accelerator</b>	A software solution that accelerates the mobilization of enterprise Web applications and data sources for constant access. Unwired Accelerator is comprised of Mobile Web Studio, M-Business Anywhere, and Answers Anywhere.
<b>UWP</b>	The Universal Window (application) Player, also referred to as UPP— Universal Portlet Playback engine. This refers to the navigation in Mobile Web Studio.
<b>WAP</b>	Wireless Application Protocol. A protocol designed to show internet contents on wireless clients, like mobile phones. WAP uses the markup language WML. WAP uses a microbrowser to fit into a small mobile device.
<b>Window Preview window</b>	Application Builder window used to view the element and give it a name.
<b>WML</b>	Wireless Markup Language. WML is used to create pages that can be displayed in a WAP browser. WML is a markup language inherited from HTML, but is based on XML.
<b>workflow</b>	Software used to automatically route events or workitems from one user or program to another. Workflow is synonymous with process flow, although traditionally has been used in the context of person-to-person information flows.
<b>XML</b>	<p>eXtensible Markup Language—a simplified subset of Standard Generalized Markup Language (SGML)—is a way to that provides a file format for representing data, a method for describing data structure, and a mechanism for extending and annotating HTML with semantic information.</p> <p>As a universal data format, XML provides a standard for the server-to-server transfer of different types of structured data so that the information can be decoded, manipulated, and displayed consistently and correctly. In addition, it enables the development of three-tier Web applications, acting as the data transfer format between the middle-tier Web server and the client.</p>

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