

SYBASE®

Installation Guide

Unwired Accelerator

7.0

Linux on POWER

DOCUMENT ID: DC00457-01-0700-01

LAST REVISED: April 2006

Copyright © 2000-2006 by Sybase, Inc. All rights reserved.

This publication pertains to Sybase software and to any subsequent release until otherwise indicated in new editions or technical notes. Information in this document is subject to change without notice. The software described herein is furnished under a license agreement, and it may be used or copied only in accordance with the terms of that agreement.

To order additional documents, U.S. and Canadian customers should call Customer Fulfillment at (800) 685-8225, fax (617) 229-9845.

Customers in other countries with a U.S. license agreement may contact Customer Fulfillment via the above fax number. All other international customers should contact their Sybase subsidiary or local distributor. Upgrades are provided only at regularly scheduled software release dates. No part of this publication may be reproduced, transmitted, or translated in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without the prior written permission of Sybase, Inc.

Sybase, the Sybase logo, ADA Workbench, Adaptable Windowing Environment, Adaptive Component Architecture, Adaptive Server, Adaptive Server Anywhere, Adaptive Server Enterprise, Adaptive Server Enterprise Monitor, Adaptive Server Enterprise Replication, Adaptive Server Everywhere, Adaptive Warehouse, Afaia, Answers Anywhere, Anywhere Studio, Application Manager, AppModeler, APT Workbench, APT-Build, APT-Edit, APT-Execute, APT-Translator, APT-Library, AvantGo Mobile Delivery, AvantGo Mobile Inspection, AvantGo Mobile Marketing Channel, AvantGo Mobile Pharma, AvantGo Mobile Sales, AvantGo Pylon, AvantGo Pylon Application Server, AvantGo Pylon Conduit, AvantGo Pylon PIM Server, AvantGo Pylon Pro, Backup Server, BizTracker, ClearConnect, Client-Library, Client Services, Convoy/DM, Copernicus, Data Pipeline, Data Workbench, DataArchitect, Database Analyzer, DataExpress, DataServer, DataWindow, DataWindow .NET, DB-Library, dbQueue, Developers Workbench, DirectConnect, DirectConnect Anywhere, Distribution Director, e-ADK, E-Anywhere, e-Biz Impact, e-Biz Integrator, E-Whatever, EC Gateway, ECMAP, ECRTIP, eFulfillment Accelerator, Embedded SQL, EMS, Enterprise Application Studio, Enterprise Client/Server, Enterprise Connect, Enterprise Data Studio, Enterprise Manager, Enterprise SQL Server Manager, Enterprise Work Architecture, Enterprise Work Designer, Enterprise Work Modeler, eProcurement Accelerator, EWA, Financial Fusion, Financial Fusion Server, Gateway Manager, GlobalFIX, iAnywhere, iAnywhere Solutions, ImpactNow, Industry Warehouse Studio, InfoMaker, Information Anywhere, Information Everywhere, InformationConnect, InternetBuilder, iScript, Jaguar CTS, jConnect for JDBC, M2M Anywhere, Mach Desktop, Mail Anywhere Studio, Mainframe Connect, Maintenance Express, Manage Anywhere Studio, M-Business Anywhere, M-Business Channel, M-Business Network, M-Business Suite, MDI Access Server, MDI Database Gateway, media.splash, MetaWorks, mFolio, Mirror Activator, MySupport, Net-Gateway, Net-Library, New Era of Networks, ObjectConnect, ObjectCycle, OmniConnect, OmniSQL Access Module, OmniSQL Toolkit, Open Biz, Open Client, Open ClientConnect, Open Client/Server, Open Client/Server Interfaces, Open Gateway, Open Server, Open ServerConnect, Open Solutions, Optima++, PB-Gen, PC APT Execute, PC DB-Net, PC Net Library, Pharma Anywhere, PocketBuilder, Pocket PowerBuilder, Power++, power.stop, PowerAMC, PowerBuilder, PowerBuilder Foundation Class Library, PowerDesigner, PowerDimensions, PowerDynamo, PowerScript, PowerSite, PowerSocket, Powersoft, PowerStage, PowerStudio, PowerTips, Powersoft Portfolio, Powersoft Professional, PowerWare Desktop, PowerWare Enterprise, ProcessAnalyst, QAnywhere, Rapport, RemoteWare, RepConnector, Replication Agent, Replication Driver, Replication Server, Replication Server Manager, Replication Toolkit, Report-Execute, Report Workbench, Resource Manager, RFID Anywhere, RW-DisplayLib, RW-Library, Sales Anywhere, SDF, Search Anywhere, Secure SQL Server, Secure SQL Toolset, Security Guardian, SKILLS, smart.partners, smart.parts, smart.script, SOA Anywhere, SQL Advantage, SQL Anywhere, SQL Anywhere Studio, SQL Code Checker, SQL Debug, SQL Edit, SQL Edit/TPU, SQL Everywhere, SQL Modeler, SQL Remote, SQL Server, SQL Server Manager, SQL SMART, SQL Toolset, SQL Server/CFT, SQL Server/DBM, SQL Server SNMP SubAgent, SQL Station, SQLJ, STEP, SupportNow, S.W.I.F.T. Message Format Libraries, Sybase Central, Sybase Client/Server Interfaces, Sybase Financial Server, Sybase Gateways, Sybase IQ, Sybase MPP, Sybase SQL Desktop, Sybase SQL Lifecycle, Sybase SQL Workgroup, Sybase User Workbench, SybaseWare, Syber Financial, SyberAssist, SybFlex, SyBooks, System 10, System 11, System XI (logo), SystemTools, Tabular Data Stream, TradeForce, Transact-SQL, Translation Toolkit, UltraLite, UltraLite.NET, UNIBOM, Unilib, Uninull, Unisep, Unistring, URK Runtime Kit for UniCode, VisualWriter, VQL, WarehouseArchitect, Warehouse Control Center, Warehouse Studio, Warehouse WORKS, Watcom, Watcom SQL, Watcom SQL Server, Web Deployment Kit, Web.PB, Web.SQL, WebSights, WebViewer, WorkGroup SQL Server, XA-Library, XA-Server, XcelleNet, and XP Server are trademarks of Sybase, Inc. 10/05

Unicode and the Unicode Logo are registered trademarks of Unicode, Inc.

All other company and product names used herein may be trademarks or registered trademarks of their respective companies.

Use, duplication, or disclosure by the government is subject to the restrictions set forth in subparagraph (c)(1)(ii) of DFARS 52.227-7013 for the DOD and as set forth in FAR 52.227-19(a)-(d) for civilian agencies.

Sybase, Inc., One Sybase Drive, Dublin, CA 94568.

Contents

About This Book	v	
CHAPTER 1	Overview	1
	Product summary	1
CHAPTER 2	Installation Procedures	3
	System requirements	3
	Unwired Accelerator default values	4
	Preinstallation tasks	5
	Installation tasks	7
	Post-installation tasks	10
	Verifying the installation	10
	Setting the mail.host property	11
	Configuring for a proxy server	12
	Updating digital certificates	13
	Installing RIM BlackBerry server and client software	13
	Installing Unwired Accelerator .NET client software	18
	Setting up a SAP connection	27
	Configuring Tomcat for LDAP	31
	Uninstalling Unwired Accelerator (from Tomcat)	31
CHAPTER 3	Getting Started	33
	Getting started with Portal Interface	33
	Getting started with Mobile Web Studio	35
	Starting and stopping the system	38
	Starting and stopping Adaptive Server Enterprise	39
	Starting and stopping the Tomcat application server	39
CHAPTER 4	Troubleshooting	41
	Overview	41
	Unwired Accelerator setup	42
	BlackBerry Enterprise Server setup	42

	Mobile device and client setup	43
	SAP setup	43
APPENDIX A	Setting Up Authentication and Authorization	45
	Overview	45
	Configuring the CSI realm	46
	Configuring the Tomcat realm	46
	Configuring the security provider	47
	Configuring the LDAP provider.....	47
	Restore the PortalDB provider configuration.....	54
	Index	57

About This Book

Audience

This guide is for Sybase® system administrators and other professionals who are familiar with their system's environment, networks, disk resources, and media devices.

How to use this book

This book contains the following chapters:

- Chapter 1, "Overview," is the overview of the Unwired Accelerator installation.
- Chapter 2, "Installation Procedures," describes how to install Unwired Accelerator on your system, how to perform special installation and upgrade procedures, and how to uninstall Unwired Accelerator.
- Chapter 3, "Getting Started," describes how to start using Portal Interface and Mobile Web Studio, and how to stop and start system components.
- Chapter 4, "Troubleshooting," provides information for some common installation problems.
- Appendix A, "Setting Up Authentication and Authorization," describes how to set up authentication and authorization using Tomcat, and either the portal database or a Lightweight Directory Access Protocol (LDAP) server.

Related documents

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

- The Unwired Accelerator release bulletin for your platform contains up to date information not documented elsewhere.

A more recent version of the release bulletin may be available on the World Wide Web. To check for critical product or document information that was added after the release of the product CD, use the Sybase Products Manuals Web site.

- The Unwired Accelerator installation guide (this document) contains installation instructions.

-
- The *Unwired Accelerator Quick Start Guide* shows how to deploy a Web and database application to either a PDA or BlackBerry device.
 - *Adaptive Server® Enterprise documents* – Unwired Accelerator 7.0 includes the Adaptive Server Enterprise database to store system information including security authentication and authorization information.
 - The *SyBooks Installation Guide* describes how to install SyBooks™.
 - The *jConnect for JDBC Release Bulletin* – Unwired Accelerator 7.0 includes the jConnect™ for JDBC™ driver to allow JDBC access to Sybase database servers and gateways.

Unwired Accelerator online documentation The following Unwired Accelerator documents are available on the SyBooks CD:

- The *Unwired Accelerator Developer's Guide* includes developer-related topics for Unwired Accelerator components, Portal Interface applications, and Java Template Framework pages.
- The *Unwired Accelerator Administration Guide* provides administration topics for Unwired Accelerator and its components.
- 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 provide examples of how you can use 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.

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 Click Certification Report.
- 3 In the Certification Report filter select a product, platform, and timeframe and then click Go.
- 4 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 Base Product; or select the platform and product under Search by Platform.
- 3 Select Search to display the availability and certification report for the selection.

❖ **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 syntax conventions used in this manual are:

Key	Definition
commands and methods	Command names, command option names, utility names, utility flags, Java methods/classes/packages, and other keywords are in lowercase Arial font.
<i>variable</i>	Italic font indicates: <ul style="list-style-type: none">• Program variables, such as <i>myServer</i>• Parts of input text that must be substituted, for example: <code>Server.log</code>• File names

Key	Definition
\$SYBASE	Variable used to represent the Sybase Unwired Accelerator installation directory on UNIX systems.
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.”
package 1	<p>Monospace font indicates:</p> <ul style="list-style-type: none"> • Information that you enter in a GUI interface, a command line, or as program text • Sample program fragments • Sample output fragments

Note The installation and post-installation instructions frequently refer to these variables:

\$SYBASE refers to the Unwired Accelerator installation directory; for example, */opt/sybase/UA70*. In this document, \$SYBASE/ASE indicates the location where Adaptive Server Enterprise is installed.

%RIM% refers to the Research in Motion installation directory; for example, *C:\Program Files\Research In Motion* or *C:\RIM*.

\$CATALINA_HOME refers to the Apache Tomcat application server installation directory. Unwired Accelerator integrates the Tomcat in its installation directory, so \$CATALINA_HOME is equivalent to *\$SYBASE/UA70/tomcat*.

\$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.



This guide explains how to install, and configure Sybase Unwired Accelerator running in Tomcat.

Topic	Page
Product summary	1

Product summary

This installation guide is for Sybase Unwired Accelerator, which is compatible with these platform and operating system configurations:

- Red Hat Enterprise Linux Advanced Server 4.0
- SuSE Linux Enterprise Server (SLES) 9.0
- Mobile device, online access:
 - PocketPC 2003 (Windows CE)
 - Motorola MPx200 (Windows Mobile OS)
 - HandSpring Treo 600 (PalmOne OS 600)
 - RIM BlackBerry (including Proximus and Vodafone)
- Mobile device, offline access:
 - PocketPC
 - RIM BlackBerry (including Proximus and Vodafone)

Unwired Accelerator mobilizes enterprise applications and data, which allows users to be productive and effective inside or outside the office. They can access the same applications and tools anytime, anywhere on a mobile device.

Unwired Accelerator enables users to rapidly mobilize existing enterprise Web applications and data sources, such as databases and Web services for both online and offline Web access. Users need not rewrite or modify existing applications or infrastructure.

This chapter describes how to install Unwired Accelerator with Linux on POWER.

Topic	Page
System requirements	3
Unwired Accelerator default values	4
Preinstallation tasks	5
Installation tasks	7
Post-installation tasks	10
Uninstalling Unwired Accelerator (from Tomcat)	31

System requirements

Table 2-1 on page 4 lists system requirements for using either Red Hat Linux, or SuSE Linux.

Note Go to the SyBooks Product Manuals Web site at <http://www.sybase.com/support/manuals>, or see the release bulletin for your platform for components that require operating system patches.

Table 2-1: System requirements

Platform and OS	Release level	RAM	Disk space	Network protocol	Web browser
Red Hat Enterprise Linux	Advanced Server 4.0	512MB minimum, 1G recommended	500MB minimum, 1G recommended	TCP	To access Portal Interface, use Internet Explorer 5.5+ or Netscape Navigator 7.01+. To access Mobile Web Studio, use Internet Explorer versions 5.5 and 6.0.
SuSE Linux Enterprise Server (SLES)	SLES 9.0	512 MB minimum, 1G recommended	500MB minimum, 1G recommended	TCP	To access Portal Interface, use Internet Explorer 5.5+ or Netscape Navigator 7.01+. To access Mobile Web Studio, use Internet Explorer versions 5.5 and 6.0.

Sybase Unwired Accelerator installed on Red Hat Enterprise Linux Advanced Server is designed to act as the “server.” Windows client browsers are used to access both the Portal Interface and Mobile Web Studio applications, so a PC running Windows is required.

Unwired Accelerator default values

Table 2-2 lists the default values for the user names, passwords, and port numbers for Unwired Accelerator.

Table 2-2: Unwired Accelerator default installation values

Component	Default values	Description
<i>Local Host Machine</i>		
Local host machine name	(demo)	The machine name; for example, “lab2k.”
Unwired Accelerator port	4040	
Unwired Accelerator HTTPS port	4443	

Component	Default values	Description
<i>Adaptive Server Enterprise 15.0, Enterprise Edition</i>		
ASE database port number	5000	
ASE administrator user name	sa	This is the user name used to log in to Adaptive Server Enterprise.
ASE administrator password	"" (no password)	This is the password used to log in to Adaptive Server Enterprise.
<i>Mobile Web Studio 7.0</i>		
User name/password (uses mobile application terms)	masuper/m8super	Created automatically during installation. If you are installing Unwired Accelerator, use this user account to see mobile application terminology.
User name/password (uses Enterprise Portal terms)	opsuper/Opsuper (the first character is a zero)	Created automatically during installation. If you are upgrading from Enterprise Portal to Unwired Accelerator, use this user account to see EP terminology; for example, "portlets" instead of "applications."

Preinstallation tasks

Before you install Unwired Accelerator, you must:

- Install Adaptive Server Enterprise, Enterprise Edition. See the Adaptive Server Enterprise 15.0 installation guide and release bulletin for procedures. The Adaptive Server Enterprise guides are located on the Getting Started CD.

See the Adaptive Server Enterprise documentation on the Getting Started CD for more information about Adaptive Server Enterprise commands and performance tuning.

- Create an Adaptive Server Enterprise data device and log device to act as a data store for Unwired Accelerator. You can use any method you like to create the devices, including using your own scripts, but you must use these exact device names and minimum sizes:
 - portalData – name for the data device (minimum size 400MB)
 - portalLog – name for the log device (minimum size 100MB)

See the Adaptive Server Enterprise documentation for information, and see the Adaptive Server Enterprise performance and tuning documentation for additional information.

- Start Adaptive Server Enterprise before you start the Unwired Accelerator installation.
- Verify that there is a “.” (dot) in the PATH environment variable.
- Verify the \$JAVA_HOME environment variable points to a valid JVM directory.
- Verify that you have write permission on your login home directory, the directory where you install the software, and the */tmp/logs* directory. If the *logs* directory does not exist, one is automatically created during installation.
- Verify that you have 500MB free space in your temporary directory; otherwise, the installation fails.

If you do not have enough space in your */tmp* directory, redirect the installer to use a different directory for temporary space.

Note The temporary directory to which you are redirecting must exist before you set the environment variable.

To redirect your temporary directory, enter:

```
./setupLinux.bin -is:tempdir /work/tmp
```

where */work/tmp* is the directory of your choice.

- Know the domain name of the machine where you are installing Unwired Accelerator. To find your domain name, contact your system administrator, or at a command prompt, enter:

```
domainname
```

Your domain displays, for example, *sybase.com*.

- Install any Sybase EBFs listed in the release bulletin.

Installation tasks

This section discusses installing Unwired Accelerator in a network environment. Installation takes five to ten minutes, depending on the speed of your machine.

❖ Installing Unwired Accelerator

Typically you can use any account to install Unwired Accelerator in Tomcat. However, if you plan to use port 80 (HTTP) and port 443 (HTTPS), you must log in as root to install Unwired Accelerator.

- 1 Insert the Installation CD.
- 2 Launch the installer by running *setupLinux.bin*. This may take a few moments. The Sybase splash screen displays, followed by the Welcome window.
- 3 Click Next. The End-User License window displays.
- 4 Select the license agreement appropriate for the country or region where you are installing the software, from the drop-down list. The license displays.

Read the license agreement and select “I do agree to the terms of the Sybase license, for the install location specified.” Click Next.

- 5 In the next window, accept the default installation directory, or enter the directory in which to install Unwired Accelerator. For example, enter */opt/sybase/UA70*. The installation directory is referred to as *\$SYBASE* in this guide.
- 6 The installer checks for available disk space. If there is not enough disk space, the installer reports the problem and closes. You must free up disk space and start again.
- 7 In the next window, enter host and domain information, or accept the default values:
 - Host Name – the installer inserts the name of the machine on which you are installing Unwired Accelerator; for example, *1ab2k*.
 - Domain Name – the installer inserts the name of the domain (and subdomain if used) of the machine on which you are installing Unwired Accelerator; for example, *sybase.com*.

Click Next.

- 8 In the next window, enter Unwired Accelerator server port numbers, or accept the defaults:
 - HTTP Port – by default, the installer inserts 4040 for the Unwired Accelerator HTTP port (see Table 2-2 on page 4). Accept the default or provide a new value. Note that UA configuration files use 4040 as the default Unwired Accelerator HTTP port.
 - HTTPS Port – by default, the installer inserts 4443 for the Unwired Accelerator HTTPS port (see Table 2-2 on page 4). Accept the default or provide a new value.

Click Next.

- 9 In the next window, enter Adaptive Server Enterprise database parameters, or accept the defaults:
 - ASE Database Host – enter the name of the machine on which the Adaptive Server Enterprise database is installed; for example, myASE.
 - ASE Database Port – by default, the installer inserts 5000 for the Adaptive Server Enterprise database (see Table 2-2 on page 4). Accept the default or provide a new value.
 - ASE Database Username – enter the Adaptive Server Enterprise user name; for example, the default is sa.
 - ASE Database Password – enter the Adaptive Server Enterprise user password; for example, the default for sa is blank (no password).

- 10 In the same window, indicate how to handle database and log devices:
 - If you created Adaptive Server Enterprise data and log devices as part of the “Preinstallation tasks” on page 5, click Next to proceed. The installation wizard verifies that the data and log file devices exist.

If they do, the installation proceeds. If they do not, an error message displays:

```
The devices portalData and portalLog were not
found on the database server. Please create the
devices before proceeding. Consult the
Installation Guide for instructions.
```

- If you did not create Adaptive Server Enterprise data and log devices in advance, you must create them at this time. To do so:
 - a Connect to the Adaptive Server Enterprise server, \$SYBASE/ASE.

- b Create the devices using information in “Preinstallation tasks” on page 5.
 - c In the installer window, click Next to proceed.
- 11 The Installation Progress window displays. During installation, these files are updated with the configuration information you supplied:
 - *global.properties.xml* – changes the default host name and domain name to the machine name and domain name that you provided. The *global.properties.xml* file is located in:
\$\$SYBASE/tomcat/webapps/onepage
 - *domain.js* – changes the default domain name to the name you provided. The *domain.js* file is located in:
\$\$SYBASE/tomcat/webapps/onepage/javascript
 - *server.xml* – changes the default port number to the number you provided. The *server.xml* file is located in:
\$\$SYBASE/tomcat/conf/

The Installation Summary window displays and reports success or failure of the installation.

- 12 Click Finish.
- 13 In the terminal window, from *\$\$SYBASE*, enter `starttomcat.sh`. This starts the Tomcat application server.

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

```
Using CATALINA_BASE:   $$SYBASE/tomcat
Using CATALINA_HOME:   $$SYBASE/tomcat
Using CATALINA_TMPDIR: $$SYBASE/tomcat/temp
Using JAVA_HOME:       ./JDK1.4.2_06
```

- 14 The Unwired Accelerator installation is complete. See “Verifying the installation” on page 10 to verify the network installation works correctly. If you cannot connect to the application, go to *\$\$SYBASE/tomcat/logs* and check the *catalina.out* file for errors.

Post-installation tasks

This section describes post-installation tasks. Only perform the procedures for the features needed in your installation. Topics include:

- Verifying the installation
- Configuring for a proxy server
- Updating digital certificates
- Installing RIM BlackBerry server and client software
- Installing Unwired Accelerator .NET client software
- Setting up a SAP connection
- Configuring Tomcat for LDAP

Note In this section, the Tomcat version of path names is used, such as *\$SYBASE/tomcat/webapps/onepage*.

Verifying the installation

Verify your Unwired Accelerator installation by checking the Portal Interface and Mobile Web Studio installations.

❖ Checking the Portal Interface installation

- 1 To verify the Portal Interface installation, open an Internet Explorer browser window, and enter the Unwired Accelerator address in the following format:

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

where:

- *hostname* – is the name of the machine where you installed Unwired Accelerator; for example, “lab2k.”
- *domain* – is the domain name where the installation is located; for example, “sybase.com.”
- *port* – is the Unwired Accelerator port number (the default is 4040 for Tomcat).

For example:

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

The Portal Interface Welcome window displays.

- 2 Click Join Now to set up a new user profile. Select the PortalUser role. See “Getting started with Portal Interface” on page 33.

❖ Checking the Mobile Web Studio installation

- 1 To verify the Mobile Web Studio installation, open another browser window and navigate to:

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

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

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

Note Mobile Web Studio is accessible only through Microsoft Internet Explorer 5.5 and 6.0.

The Mobile Web Studio window opens. (If a window with a Close button opens, minimize the window, but do not close it).

If the Mobile Web Studio window does not display, see Table 4-1 on page 42 for information.

- 2 In Mobile Web Studio, log in using `masuper` as the user name, and `m8super` as the password. See “Getting started with Mobile Web Studio” on page 35.

Setting the mail.host property

When you create a new user in Mobile Web Studio, a verification e-mail with the user’s password is sent to you. You must change the mail.host property in the *global.properties.xml* file to your SMTP host.

- 1 Navigate to `$SYBASE/tomcat/webapps/onepage/config`, and open the *global.properties.xml* file with a text editor.
- 2 Locate the Property name=“mail.host” value=“**xx.xx.xx.xxx**” line and change the value to the IP address of the SMTP host of your mail server.

Configuring for a proxy server

If you are using a proxy server, you must configure Unwired Accelerator with the appropriate proxy settings. Make changes in the *global.properties.xml* file, located in *\$SYBASE/tomcat/webapps/onepage/config*. The settings include:

- `proxy` – enables a proxy server, if a squid type HTTP proxy is available.
- `proxy.host` – identifies the proxy server name or IP address.
- `proxy.port` – identifies the proxy server port number.
- `proxy.bypass_list` – identifies a list of IP addresses or host names that should bypass the proxy server.

Note See the *Unwired Accelerator Administration Guide* for more information about the *global.properties.xml* file and setting up a proxy server.

❖ Using Unwired Accelerator behind a proxy server

- 1 Navigate to *\$SYBASE/tomcat/webapps/onepage/config*.
- 2 In a text editor, open *global.properties.xml* and change the proxy value to “on.” For example:

```
Property name="proxy" value="on"
description="(on/off). on ONLY if a http proxy
server is installed/available" menugroup="10"/
```

- 3 Change the `proxy.host` value to the IP address or host name of the proxy server. For example, if your proxy server host name is “`proxy.hostname.com`,” the line looks like this:

```
Property name="proxy.host"
value="proxy.hostname.com"
description="(127.0.0.1). configure only if
proxy=on. IP of the http proxy server"
menugroup="100"/
```

- 4 Change the `proxy.port` value to the port number on which the proxy server is running. For example, if the port is 3128, the line looks like this:

```
Property name ="proxy.port" value="3128"
description= "(3128). configure only if proxy=on.
port where http proxy server is running"
menugroup="100"/
```

- 5 To the `proxy.bypass_list` value, add the IP addresses or host names that should bypass the proxy server. You must keep the loopback address and local host in the bypass list. For example, if you want requests for URLs that end with “`sybase.com`” or start with “`syberspace`” to bypass the proxy server, enter:

```
Property name="proxy.bypass_list" value
="127.0.0.1|localhost" description="(host1|host2) .
please read HTTPConnection javadocs for info on
dontProxyFor() method for more info"
menugroup="100"/
```

Updating digital certificates

User authentication for the portal uses HTTPS, which uses Secure Sockets Layer (SSL) for posting the user names and passwords that users enter in an encrypted form over a secure channel. SSL and HTTPS rely on the usage of digital certificates, which are typically verified and signed by third-party trusted authorities.

Unwired Accelerator uses a certificate that is created using the `keytool` utility that ships with Java Development Kit (JDK) 1.4.x. This certificate is not signed by any trusted authority; therefore, you see the Security Alert pop-up when you sign in with your user name and password. Replace the `.keystore` file in the product folder with your certificate file of the same name.

Installing RIM BlackBerry server and client software

This section provides the following information for setting up Research In Motion’s (RIM) BlackBerry server and client software, which are used to deploy mobile applications to BlackBerry mobile devices:

- Guidelines for setting up the RIM BlackBerry server and client software, if you are using RIM’s BlackBerry Enterprise Server (BES) to deploy applications.
- Procedures for setting up the Unwired Accelerator offline client software for the RIM BlackBerry mobile device or device simulator.
- Procedures for setting up an Unwired Accelerator user on the BlackBerry device.

Alternatively, you can use the .NET client to deploy mobile applications to Windows Mobile PDAs. See “Installing Unwired Accelerator .NET client software” on page 18.

Note The RIM BlackBerry server is available only on Windows.

Guidelines for installing BlackBerry server and client software

If you plan to use BES to deploy applications to BlackBerry devices, you must make sure of the following before you install the offline client on the BlackBerry device:

- The RIM BES software is installed and configured correctly, using RIM’s installation documentation. The installation directory is referred to as %RIM% in this guide.
- The RIM BlackBerry Desktop Manager software is installed and configured correctly. Unwired Accelerator’s minimum requirement for the BlackBerry Desktop Manager software is version 3.6 SP3a.
- The BlackBerry device has connectivity with BES that you can synchronize between BES and the BlackBerry device.

Note If you do not have a BlackBerry device, a simulator is available for download from RIM at <http://www.blackberry.net/developers>. Under Downloads, select the BlackBerry Device Simulators link. Select the simulators or simulator packages to download. You can also download the *Simulator Guide 3.6*, located under Resources on the same page.

Guidelines for setting up BlackBerry users

This section provides information for helping BlackBerry mobile device users to get set up to use Unwired Accelerator. For each user, set up a user account through Mobile Web Studio, and supply the following information to the user:

- Location of UA offline client – each user must install the UA offline client on the BlackBerry device. You will need to develop a process for making the *Uabbapp.alx* and *Uabbapp.cod* files available to users.
- User name – the user account you created through Mobile Web Studio.
- Password (generated when you created the Mobile Web Studio account; such as Kp17kj05).

- Resource ID, such as 21.
- UA server name, such as `lab2k.sybase.com`.
- UA HTTP port number, such as 4040.

Note Alternatively, users can log in to Portal Interface and use Join Now to set up an account, and then set up the user account on the BlackBerry device. See “Getting started with Portal Interface” on page 33.

Installing offline client on BlackBerry device

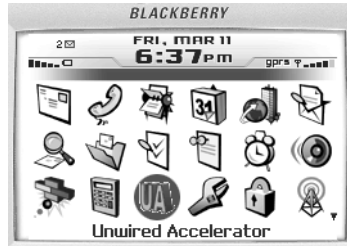
This section shows how to install the Unwired Accelerator offline client application on a BlackBerry device. The offline client enables you to use the applications you create through Unwired Accelerator on your BlackBerry device in offline mode.

Information is also provided for setting up the offline client on the BlackBerry simulator, which is available for download from Research in Motion.

❖ Installing an Unwired Accelerator offline client

- 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 instructions in BlackBerry documentation.
- 3 Click Application Loader to start the wizard, then click Next. The Application Loader wizard displays.
- 4 Click Add, navigate to 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.

Figure 2-1: 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 “Setting up an Unwired Accelerator user on the BlackBerry device” on page 17.

Installing offline client on the BlackBerry simulator

This section shows how to install an Unwired Accelerator offline client application on a BlackBerry simulator. See “Guidelines for installing BlackBerry server and client software” on page 14 for information about downloading the simulator from RIM to your desktop.

❖ Installing a UA offline client on the simulator

This procedure is for BlackBerry 3.7.

- 1 Navigate to `$SYBASE/tomcat/webapps/onepage/Blackberry`.
- 2 Locate the `UAbbapp.alx` and `UAbbapp.cod` files, and copy them 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` and `Radio Simulation Control Panel` windows.
- 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 screen 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 “Setting up an Unwired Accelerator user on the BlackBerry device” on page 17.

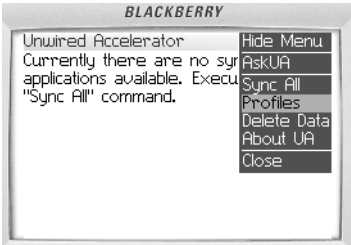
Setting up an Unwired Accelerator user on the BlackBerry device

This describes how to set up a user on the BlackBerry device or simulator.

❖ **Setting up a UA user on BlackBerry**

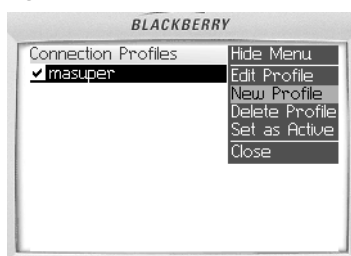
- 1 Make sure the BlackBerry offline client is running on the device. You should see the Unwired Accelerator icon in the application menu.
- 2 Select the Profiles option on the trackwheel menu.

Figure 2-2: Profiles option



- 3 From Connection Profiles, select the New Profile option from the trackwheel menu.

Figure 2-3: New Profile option



- 4 On the New Profile window, enter your profile name, username, password, resource id, server name and domain, and port number. This example creates a second masuper/m8super account, mwsAdmin.
 - 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 the Unwired Accelerator server, such as `4040`.
- 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 Select Close from the trackwheel menu to return to the Unwired Accelerator screen.

Once you use Mobile Web Studio to create mobile applications, and synchronize, you will see the applications on the mobile device. To create mobile applications, see these Unwired Accelerator documents:

- *Quick Start Guide*
- *Mobile Application Development Tutorial*
- *Development Guide*

Installing Unwired Accelerator .NET client software

This section provides the following information for setting up the .NET client software on a Windows mobile PDA:

- Requirements for using the .NET client software on a Windows device with Unwired Accelerator to deploy mobile applications to the device.
- Procedures for installing and setting up the Unwired Accelerator .NET client software on the mobile device.
- Procedures for setting up Unwired Accelerator .NET user profiles on a mobile device.

Alternatively, you can use the BlackBerry client to deploy mobile applications to BlackBerry devices. See “Installing RIM BlackBerry server and client software” on page 13.

Understanding .NET client requirements

These are the requirements for deploying mobile applications from the Unwired Accelerator server to a Windows Mobile PDA using .NET client software:

- Any of these operating systems (with, or without, telephone features):
 - Windows Mobile 2003
 - Windows Mobile 2003 Second Edition
 - Windows Mobile 5.0

Note Windows Smartphone devices (like the Motorola MPx220) are not supported. If you are unsure of your device's operating system, see "Determining the device's operating system" on page 20.

- Approximately 20 MB of free storage space to install the following components (installers for these components are included with the Unwired Accelerator 7.0 .NET client).
 - NET Compact Framework 1.0 Service Pack 3 – this must be installed to the device's memory; it cannot be stored to a memory card. The Service Pack is not included in the release, but can be downloaded from the Microsoft Web site at <http://www.microsoft.com>.

Note If you are unsure of your device's service pack, see "Determining the device's operating system" on page 20.

- Adaptive Server Anywhere for Windows CE (ASA for CE) database – ASA for CE is included in the release. this can be installed to a removable memory card, if your device is low on storage space and supports one.
- Unwired Accelerator 7.0 .NET client – this should be installed to the device memory for optimal performance. The .NET client can be installed to a removable memory card, if your device is low on storage space and supports one, but it is not recommended because frequent accesses to the database file degrade performance noticeably. The .NET client is included in the release.
- An Unwired Accelerator 7.0 server installation with which to connect (described in "Installation tasks" on page 7).

- Network connection that allows the PDA to communicate with the Unwired Accelerator server. Possible network connections include:
 - ActiveSync – share your laptop/desktop network connection by connecting the PDA to the PC using ActiveSync. You can download ActiveSync from the Microsoft Website.
 - 802.11 wireless network – requires that your device has a wireless network antenna.
 - GPRS connection – requires that your device access the Internet via GPRS, and that your Unwired Accelerator server is publicly accessible on the Internet.

Determining the device's operating system

You can determine the operating system of your device by checking the About window.

❖ **Checking the About window**

- 1 On the mobile device, click the Start menu and select Settings.
- 2 Click the System tab.
- 3 Click the About icon.
- 4 Click the Version tab if it is not already selected.
- 5 Check the version information (the Microsoft flag logo in the upper left corner of the Start menu indicates the version visually):
 - Windows Mobile 2003 – the text states Microsoft Pocket PC and Version 4.20 (the Microsoft flag logo is outlined in white).
 - Windows Mobile 2003 Second Edition – the text states Windows Mobile 2003 Second Edition and Version 4.21 (the Microsoft flag logo is not outlined in white).
 - Windows Mobile 5.0 – the text states Microsoft Windows Mobile Version 5.0 (the Microsoft flag logo is not outlined in white, and the OK button in the upper right corner is square in shape).

Installing the .NET software

This section provides information for helping .NET client mobile device users set up to use Unwired Accelerator. Use Mobile Web Studio to set up an account for each user, and supply the following information to the user:

- Location of downloads – each user must install the .NET Compact Framework, ASA for CE, and Unwired Accelerator .NET client on his or her mobile device. Develop a process for making the version and location information available to users.
- User Name – the user name for the profile, such as `masuper`.
- Password – the password for the profile, such as `m8super`.
- Server – the server and domain on which the Unwired Accelerator server is running, such as `lab2k.sybase.com`.
- Port – the port used to access the Unwired Accelerator server, such as `4040`.
- RID – the default resource identifier (RID) for the account, such as `21` for Unwired Accelerator.

Each user must install the following software on a Windows mobile PDA:

- .NET Compact Framework
- ASA for Windows CE
- Unwired Accelerator 7.0 .NET client

Installing the .NET Compact Framework

Install the .NET Compact Framework 1.0 Service Pack 3 on your device. You may want check to see whether the required .NET Compact Framework is already installed. If it is not installed, download the Service Pack from the Microsoft Web site and install it.

❖ Checking the .NET Compact Framework version

In this step, verify the Service Pack installed on your mobile device. Skip this procedure if you already know you need to install .NET Compact Framework 1.0 SP3 on your device.

- 1 Open the File Explorer application on the device.
- 2 Browse to the `\Windows` folder.
- 3 Locate and click once on the file `cgacutil`. If there is no `cgacutil` file, the .NET Compact Framework is not installed.

A pop-up window displays the version number of the installed .NET Compact Framework. Use the information below to determine which version or versions of the .NET Compact Framework is installed.

Table 2-3: .NET Compact Framework versions

Version number	Software version
1.0.2268.0	.NET Compact Framework 1.0 RTM
1.0.3111.0	.NET Compact Framework 1.0 SP1
1.0.3226.0	.NET Compact Framework 1.0 SP2 Recall
1.0.3227.0	.NET Compact Framework 1.0 SP2 Beta
1.0.3316.0	.NET Compact Framework 1.0 SP2 Final
1.0.4177.0	.NET Compact Framework 1.0 SP3 Beta
1.0.4292.0	.NET Compact Framework 1.0 SP3
2.0.4037.0	.NET Compact Framework 2.0 (part of VS2005 CTP May)
2.0.4135.0	.NET Compact Framework 2.0 (part of VS2005 Beta 1)
2.0.4317.0	.NET Compact Framework 2.0 (part of VS2005 CTP November)
2.0.4278.0	.NET Compact Framework 2.0 (part of VS2005 CTP December)
2.0.5056.0	.NET Compact Framework 2.0 (BETA 2)
2.0.5238.0	.NET Compact Framework 2.0 Release

- 4 If you do not see version 1.0.4292.0 or higher, install .NET Compact Framework Service Pack 3.

Note You may see multiple version numbers in the pop-up window, meaning that multiple CFs are installed, such as CF 1 and CF 2. This is acceptable, as long as 1.0.4292.0, the version number for .NET Compact Framework 1 Service Pack 3, is included in the list of installed versions.

❖ **Downloading .NET Compact Framework Service Pack 3**

In this step, download the Service Pack from the Microsoft download Web site to your PC. Skip this procedure if .NET Compact Framework SP3 is installed on your mobile device.

- 1 Navigate to:

```
http://www.microsoft.com/downloads/details.aspx
?FamilyId=A5A02311-194B-4C00-B445-F92BEC03032F&
displaylang=en
```

- 2 Review the download instructions on the Microsoft Web site.
- 3 Download the Service Pack to your PC, according to the instructions.

❖ Installing .NET Compact Framework Service Pack 3

In this step, download the Service Pack from your PC to your mobile device, and install the Service Pack on the mobile device. Skip this procedure if .NET Compact Framework SP3 is installed on your mobile device.

- 1 Use ActiveSync to connect your mobile device to your PC.
- 2 On your PC, with your mobile device connected, run the Service Pack installer. The installer detects your device operating system, copies the appropriate configuration file to your device, and installs it.

- If the device already has this version of the .NET Compact Framework installed, this prompt displays:

```
Microsoft .NET Compact Framework is already
installed. Reinstall?
```

Click Cancel and proceed to “Installing ASA for Windows CE” on page 23 to install the database. Or, click OK to reinstall.

- If you continue with the installation, and if a memory card is plugged into your mobile device, you may be prompted to select the installation destination for the .NET Compact Framework.

Note Select the device memory as the installation destination, not the memory card.

Installing ASA for Windows CE

Install the Adaptive Server Anywhere for Windows CE (ASA for CE) database on your mobile device. The database is used for persistent storage of system and mobile application data.

The CABinet (CAB) file for ASA for CE is located in:

\$SYBASE/tomcat/webapps/onepage/PocketPC

If you cannot access the Unwired Accelerator file system, or if you are WiFi-enabled, you can obtain the CAB file at:

`http://hostname.domain:port/onepage/PocketPC/`

Note To install a CAB file into any folder other than the default destination, use a CAB file installer, such as the freeware tool CabInstl, that allows you to browse for a CAB file, then select where to install it.

CabInstl is available from <http://s-k-tools.com/util.html> (or go directly to <http://s-k-tools.com/freeware/cabinl.zip> to obtain the downloadable zip file). The zip file includes three versions of the tool—English, German, and Russian. Other similar tools are available on the Internet.

If you are using CabInstl, manually create the folders to which you want to extract the CAB file content, before you unpackage the CAB file.

❖ Installing ASA for CE

In this step, install ASA for CE on your mobile device. Since the CAB file is quite large (about 9MB), you may want to use ActiveSync to copy the file from Unwired Accelerator to the mobile device. Skip this procedure if ASA for CE is already installed on your device.

- 1 Use ActiveSync to connect your mobile device to your PC.
- 2 Use File Explorer to navigate to `$SYBASE/tomcat/webapps/onepage/PocketPC`.
- 3 Explore the mobile device and copy the `asa_ce.ARM.30.CAB` file to the device.
- 4 Use File Explorer on the device to browse to where you placed the `asa_ce.ARM.30.CAB` file.
- 5 Tap on `asa_ce.ARM.30.CAB` once to start the installation.

If you have a memory card plugged into the device, you may be prompted to install the database to the device or the memory card. Optimally, select the device memory as the installation destination for faster runtime performance.

However, if your device is running low on storage space, you can select the memory card.

Note On Windows Mobile 2003 devices, create the destination folder on the memory card, `\Storage Card\Program Files\Sybase\ASA9`, then use the CAB installer to extract the files into this folder.

On Windows Mobile 5, the operating system is designed to create the destination folder automatically.

Installing the Unwired Accelerator 7.0 .NET client

In this step, install the Unwired Accelerator .NET client on your mobile device. The client is used to synchronize with the Unwired Accelerator server.

❖ Installing the .NET client

- 1 Use ActiveSync to connect your mobile device to your PC.
- 2 Use File Explorer to navigate to `$SYBASE/tomcat/webapps/onepage/PocketPC`.
- 3 Copy the `UnwiredAcceleratorClient_PPC.ARMV4.CAB` file to the mobile device.
- 4 Use File Explorer on the device to browse to where you placed the `UnwiredAcceleratorClient_PPC.ARMV4.CAB` file.
- 5 Tap on `UnwiredAcceleratorClient_PPC.ARMV4.CAB` once to start the installation.

If you have a memory card plugged into the device, you may be prompted to install the database to the device or the memory card. Sybase recommends that you install to device memory for optimal runtime performance.

Note If you do install to memory card, performance will be very slow, since the .NET client frequently accesses the ASA database, and file access on the memory card is slower than file access on the main device memory.

To install to a memory card on Windows Mobile 2003 devices, create the destination folder on the memory card, *\Storage Card\Program Files\Sybase\ASA9*, and then use the CAB installer to extract the files into this folder.

On Windows Mobile 5, the operating system is designed to create the destination folder automatically.

Getting started with the .NET client

This section describes the tasks for getting started with the .NET client. Tasks include:

- Starting the .NET client
- Setting up the .NET user

See the *Unwired Accelerator 7.0 Linux on POWER Release Bulletin* for more information about using and customizing the .NET client.

Starting the .NET client

This section describes how to start the .NET client on the mobile device.

❖ Starting the .NET client application

- 1 On your mobile device, open the Start menu and select Programs.
- 2 Locate the Unwired Accelerator icon, and tap it once. The ASA for CE database is loaded, and then the Unwired Accelerator 7.0 .NET client runs. You need a user profile to log in to the .NET client.

Setting up the .NET user

This section describes how to set up a user profile for .NET client. The user account must be set up in advance through Mobile Web Studio before the .NET user profile connects to an Unwired Accelerator 7.0 server.

Note Alternatively, users can log in to Portal Interface and use Join Now to set up an account, then set up the user account on the PDA. See “Getting started with Portal Interface” on page 33.

❖ Setting up a .NET user profile

- 1 Click the Menu in the lower left corner of the screen.
- 2 Click Profiles to view the Profiles Manager screen. Initially no profiles are listed on the screen.
- 3 Click Menu and select New Profile to open the Profile Editor screen.
- 4 Enter the details for the Unwired Accelerator 7.0 server to which you will be connecting.
 - Profile Name – the profile name for the account, such as `myUAServer`.
 - User Name – the user name for the profile, such as `masuper`.
 - Password – the password for the profile, such as `m8super`.
 - Server – the server and domain on which the Unwired Accelerator server is running, such as `lab2k.sybase.com`.
 - Port – the port used to access the Unwired Accelerator server, such as `4040`.
 - RID – the default resource identifier (RID) for the account, such as `21` for Unwired Accelerator.
- 5 Click the Menu and select Save. The Profile Manager screen displays. The new profile is listed on the screen.
- 6 Click on the Menu and select Close to return to the main screen.

Setting up a SAP connection

This section describes how to set up a SAP connection, if you plan to develop mobile applications using the SAP framework.

To set up the SAP connection you must:

- Configure the SAP connection using the SAP Java Connector (SAP JCo). SAP JCo is a toolkit that allows a Java application to communicate with any SAP system. The SAP Java Connector can be downloaded from the SAP Service Marketplace Web site by a registered SAP customer.
- Modify the *global.properties.xml* file to enable SAP and identify ConnectionPools.
- Create a property file for each ConnectionPool, and configure connection properties.

Details for each of these steps are provided in the procedures that follow. Once you have set up the SAP connections, you can create SAP elements in the Mobile Web Studio Application Builder. See the *Unwired Accelerator Developer's Guide* for information about using the SAP element.

❖ **Configuring the SAP Java connector**

- 1 Open a Web browser window and enter the SAP Marketplace URL, which currently is:

```
https://websmp204.sap-ag.de/swdc
```

The Client Authentication window displays.

- 2 Select the certificate to use when connecting, and click OK. The Enter Network Password window displays.
- 3 Enter your registered SAP customer user name and password in the User Name and Password fields, and click OK. The SAP Software Distribution Center window displays.
- 4 In the You Are Here navigation bar on the left side of the page, navigate to Download | SAP Connectors | SAP Java Connector | Tools and Services. Click the link for SAP JCo Release 2.0.12 to download the SAP Java Connector.
- 5 Follow the installation instructions provided by SAP. When prompted, copy the *.jar* and *.dll* files to these locations:

- Copy *sapjco.jar* to:

Tomcat

\$SYBASE/sapjco

- Copy *librfccm.so* and *libsapjcorfc.so* to:

Tomcat

\$SYBASE/sapjco

- 6 Close the Web browser.
- 7 Change to the following directory:
Tomcat
\$SYBASE/tomcat/webapps/onepage
/WEB-INF/classes
- 8 As a backup, save a copy of the *sapjco.properties* file to a name such as *template.sapjco.properties*.
- 9 Using a text editor, open the *sapjco.properties* file and edit it for your environment. The SAP wizard uses information in the *sapjco.properties* file to connect to your SAP system.

Check the documentation that comes with the JCO package for information about the 30-40 properties you can set to define a SAP connection. Specifically see the Javadocs for the *JCO.createClient* (*java.util.Properties*) method. The six most commonly used properties are included in the file as a sample (for example, *jco.client.client=400*).
- 10 Save the file and close it.
- 11 Restart the Tomcat application server, using information in “Starting and stopping the Tomcat application server” on page 39.

❖ **Modifying the *global.properties.xml* file for SAP**

Modify the SAP-related properties in *global.properties.xml*.

- *ConnectionPools* – a comma-separated list of connection pool names. Each connection pool must have a *poolname.properties* file defined as described in “Creating ConnectionPool property files” on page 30.
 - *DefaultConnectionPoolName* – identifies the connection pool to use for the default SAP connection.
- 1 In a text editor, open *global.properties.xml*, located in *\$SYBASE/tomcat/webapps/onepage/config* if you are using Tomcat.
 - 2 Search the file for *SAPGroup*.
 - 3 Look for: `<Property name="ConnectionPools".` By default, *ConnectionPools* is set to “sapjco.”


```
<Property name="ConnectionPools" value="sapjco"
    description="Comma separated list of connectionpool
    names." menugroup="100" />
</PropertyGroup>
```

The default ConnectionPool “sapjco” has a corresponding property file *sapjco.properties* in which SAP connection properties are defined. Each ConnectionPool name in the list must have its own property file, as described in “Creating ConnectionPool property files” on page 30.

Identify the ConnectionPools you need for SAP connection, using SAP documentation, and change the value as necessary.

- 4 Look for: `<Property name="DefaultConnectionPoolName" .`

By default, DefaultConnectionPoolName is set to “sapjco.”

```
<Property name="DefaultConnectionPoolName"
value="sapjco"
    description="connection pool name for the default
    SAP connection" menugroup="100" />
</PropertyGroup>
```

Determine which ConnectionPool to use as the default SAP connection from the list, and change the value as necessary.

- 5 Save the file and close it.

❖ **Creating ConnectionPool property files**

For each ConnectionPool listed in the *global.properties.xml* file, there should be a *poolname.properties* file in *\$SYBASE/tomcat/onepage/WEB-INF/classes*. Use the *sapjco.properties* file (or *template.sapjco.properties* file) as a base, and modify the ConnectionPool connection properties, using information in the JCO package Javadocs as a guide.

- 1 In a text editor, open *sapjco.properties* (located in *\$SYBASE/tomcat/webapps/onepage/config*).
- 2 Save the file in the same directory, using the following naming format:

```
poolname.properties
```

Substitute one of the ConnectionPool names you established in the *global.properties.xml* file for *poolname*.

- 3 Modify the file by setting up the connection properties for the SAP connection. The following properties are included in the file as an example. Check the Javadocs for information about these properties, and many more.

```
jco.client.client=400
jco.client.user=sap
jco.client.passwd=lsap
```



```
jco.client.lang=EN
jco.client.ashost=sap.try.sybase.com
jco.client.sysnr=00
```

- 4 Save the file and close it.

Configuring Tomcat for LDAP

Tomcat comes preconfigured with Common Security Infrastructure (CSI) and PortalDB security provider. To configure Tomcat to use the Lightweight Directory Access Protocol (LDAP) security provider, see Appendix A, “Setting Up Authentication and Authorization.”

Currently, a user created in LDAP server must log in to the Portal Interface to activate their profile (see the release bulletin for information about CR #359766).

See the *Unwired Accelerator Administration Guide* for information about CSI and its security features.

Uninstalling Unwired Accelerator (from Tomcat)

This section provides instructions for uninstalling Unwired Accelerator from Tomcat using the Uninstaller.

❖ Removing Unwired Accelerator

- 1 Shut down Tomcat, by opening a terminal window, navigating to `$SYBASE`, and entering `stoptomcat.sh`.
- 2 Navigate to `$SYBASE/Uninstaller`.
- 3 At the command line, type the following to launch the Unwired Accelerator Uninstaller:

```
java -jar uninstallUA70.jar
```

Note Use a real Java VM (such as the one located in `$SYBASE/JDK1.4.2_06/bin/java`), and not the GNU Compiler for Java (GJC) that is typically located in `/usr/bin`.

- 4 Answer the Uninstaller prompts. The Uninstaller removes Unwired Accelerator, and drops `sampledb` and `portalDatabase`.
- 5 Delete the Adaptive Server Enterprise database and log devices using instructions in the Adaptive Server Enterprise manuals. In summary:

- a Log in to Adaptive Server Enterprise.
- b Type the following to drop the databases and devices:

```
use master
go
sp_dropdevice portalData
go
sp_dropdevice portalLog
go
```

Note You can also drop `portalDatabase` and `sampledb` manually by issuing these commands:

```
drop database portalDatabase
go
drop database sampledb
go
```

Typically the Uninstaller drops these databases as part of the uninstall.

- c Remove the physical files associated with `portalData` and `portalLog`, for example:
 - `$$SYBASE/ASE/data/portalData`
 - `$$SYBASE/ASE/data/portalLog`
- d Remove the UA log directory, `UALogs<user_login>`, for example, `/tmp/UALogsmarkusb`.

This chapter describes how to start using the Portal Interface and Mobile Web Studio.

Topic	Page
Getting started with Portal Interface	33
Getting started with Mobile Web Studio	35
Starting and stopping the system	38

Getting started with Portal Interface

This section provides a quick tutorial for using Portal Interface. In this tutorial, create a basic application using an existing Web application. For detailed information, see the *Portal Interface User's Guide*.

❖ Logging in to Portal Interface

- 1 From 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 for Tomcat).

For example, enter:

```
http://lab2k.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.

You see the Portal Interface Welcome window. This initial window is the Default Page Group. To add pages and portlets, you must first add a new page group.

❖ **Creating new page groups**

- 1 Click Manage Pages.
- 2 In the Manage Pages window, click Add Page Group.
- 3 In the Add Page Group window, enter a name for the page group, such as `myTest`.
- 4 For navigation styles, select the PocketPC/PDA device from the Available list, then click the right arrow to move them to the Assigned list. The navigation style allows you to specify how you navigate pages based on your operating system and browser.

Note To remove a navigation style from the Assigned list, select the style and click the left arrow to move it back to the Available list.

- 5 Click Done.

You see the first page of the page group you just created. The first page of the new group is automatically assigned the same name as the page group.

The new page group now appears in the page group as a tab and as a selection in the toolbar drop-down list.

❖ **Creating new pages**

- 1 Select the page group `myTest`, and click Add Page at the top of the window.

2 Select “Add page,” and enter `myTest2`. Page names must be unique; if the page name already exists within the current page group, you cannot create the new page.

3 Select the Page Layout 30/70, and click Done.

Your new page name appears in the page tabs, at the far right. You can change the order of the page tabs using the Manage Pages option at the top of the window and editing the page group.

❖ **Creating a portlet**

1 With the `myTest` tab selected, click Create Portlet.

2 In the Create Portlet wizard URL field, enter:

`www.google.com/news`

3 Click Go.

4 Click Next in the upper-right corner.

5 After the preview refreshes, click Top Stories in the left pane. The cursor flag gives instructions.

6 After the preview refreshes, click the second Add button, next to the list of Top Stories, which includes news categories such as World, U.S., Business, and so forth. The Google Top Stories list is added to your page. (You can close any pop-up windows).

7 You can click a link to access news stories for a category, such as World, then close the window when you are finished.

8 Either log out, or minimize the window. If the browser session expires, you must log in again when prompted.

Getting started with Mobile Web Studio

This section provides a quick tutorial for using the Mobile Web Studio. In this tutorial, create an interactive application using an existing Web application. For detailed information, see the *Unwired Accelerator Developer's Guide*, and the *Mobile Application Development Tutorial*.

Note You must use Internet Explorer 6.0 to access Mobile Web Studio.

❖ **Logging in to Mobile Web Studio**

- 1 From a new browser window, enter:

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

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 for Tomcat).

For example, enter:

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

The log in window displays.

- 2 In the User Name field, enter:

```
masuper
```

- 3 In the Password field, enter:

```
m8super
```

The Mobile Web Studio window displays.

Note If the Mobile Web Studio window does not display, see Table 4-1 on page 42 for information.

❖ **Creating an interactive application (stock quote)**

- 1 Select Applications in the left pane.
- 2 Select New from the Application Manager Status menu, and click the New button to open Application Builder.
- 3 Select the down-arrow next to Add, and select Web Element from the drop-down list, or click Add to open the Web Element wizard.
- 4 In the Location field, enter `cbs.marketwatch.com`, and click Find or press Enter.
- 5 If necessary, click the “Direct to `cbs.marketwatch.com`” link to bypass the ads.
- 6 In the Enter Symbols field in the left pane, enter `SY`, and click the Quote/News arrow.

- 7 Click Next in the upper-right corner.
- 8 After the preview refreshes, click the word “Last” in the quote table. The cursor flag provides instructions.
- 9 After the preview refreshes, click Select next to the option that displays the entire quote table (typically the fourth one). You can scroll up and down to view other presentation formats.
Click Next in the upper-right corner.
- 10 In the Configure Parameters window, click the Variable box that is next to the “symb” parameter. The parameter “jumps” to the bottom of the list.
- 11 In the Display Name field, change `symb` to `Symbol`, and in all other fields, accept the defaults.
Click Next in the upper-right corner.
- 12 After the preview refreshes, enter `Quote` in the Element Name field.
Click Next.
- 13 In the Continuous Capture window, click Finish to close the Application Builder wizard. (You can close any pop-up windows).
- 14 In the Application Builder preview pane, test the application by entering `IBM` in the Symbol field, and clicking Update, or pressing Enter.

❖ Saving the application

- 1 In Application Builder, click Save in the upper-left corner.
- 2 In the Finish window, make these changes (accept all other defaults):
Content tab Enter `StockQuote` (no space) in the Name field, and click In Context.
Administration tab From the Category and Subcategory drop-down lists, select Business and Investing.
- 3 Click Finish in the upper-right corner.
- 4 In the confirmation pop-up, click OK.
- 5 Click Close in the upper-right corner to close the Application Builder.

❖ Approving the application

- 1 Click Applications in the left pane, and click New in the Application Manager Status menu. The new application loads in the detail pane.

- 2 Right-click the StockQuote application in the detail pane, and select Approval Status | Approved.
- 3 In the confirmation pop-up, click OK. The application is now listed under the Approved Status menu.
- 4 To confirm, click Applications in the left pane, and click Approved in the Application Manager Status menu. The approved Stock Quote application displays in the detail pane (you may need to page forward if you have multiple pages of approved applications).

❖ **Previewing the application**

- 1 Click Applications in the left pane, and click Approved in the Application Manager Status menu.
- 2 In the detail pane, click the StockQuote application and click the Preview button.
- 3 In the preview window, enter `ORCL` in the Symbol field and click OK. Information for Oracle Corporation displays.
- 4 Close the preview window.
- 5 Either log out, or minimize the browser window. If the browser session expires, you must log in again when prompted.

Starting and stopping the system

This section describes how to start and stop the Adaptive Server Enterprise database and the Tomcat application server.

Stop the applications in this order:

- 1 Application server (Tomcat)
- 2 Database (ASE)

Start the applications in this order:

- 1 Database (ASE)
- 2 Application server (Tomcat)

Starting and stopping Adaptive Server Enterprise

Typically Adaptive Server Enterprise is left running. If you need to stop and start Adaptive Server Enterprise, see the Adaptive Server Enterprise documentation for instructions.

Starting and stopping the Tomcat application server

This section describes how to start and stop the Tomcat application server.

Note If you plan to use the charting feature, see the release bulletin for information about modifying the `starttomcat.sh` script before starting Tomcat [CR #422932].

❖ Starting the Tomcat application server

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

When Tomcat starts, you see:

```
Using CATALINA_BASE:  $$SYBASE/tomcat
Using CATALINA_HOME:  $$SYBASE/tomcat
Using CATALINA_TMPDIR:  $$SYBASE//tomcat/temp
Using JAVA_HOME:      ./JDK1.4.2_06
```

❖ Shutting down the Tomcat application server

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

Troubleshooting

This chapter describes how to troubleshoot installation and configuration problems for Unwired Accelerator and various integrated products.

Topic	Page
Overview	41
Unwired Accelerator setup	42
BlackBerry Enterprise Server setup	42
Mobile device and client setup	43
SAP setup	43

Overview

Use the following resources to help troubleshoot installation and configuration problems:

- Viewing error log device output
- Viewing log files, typically found in */tmp/logs*
- Viewing error messages
- Checking port numbers
- Checking configuration files (especially *global.properties.xml*, *server.xml*)
- Testing connections
- Running the Portal Interface and Mobile Web Studio
- Running the .NET client
- Running the BlackBerry client
- Running mobile device applications

Unwired Accelerator setup

Table 4-1 identifies common Unwired Accelerator configuration problems and provides useful troubleshooting information.

Table 4-1: Troubleshooting Unwired Accelerator problems

Problem	Try this
Cannot start the application server	<p>This can happen if you are using ports 80 (HTTP) and 443 (HTTPS) with Netscape, and you did not install Unwired Accelerator with root privileges, which are required to start these ports in the production system.</p> <ul style="list-style-type: none"> • Check the <i>catalina.out</i> file, located in <i>\$\$SYBASE/tomcat/logs</i>, for errors. <p>Try uninstalling and then reinstalling Unwired Accelerator. Log in as root as described in “Installation tasks” on page 7 (Tomcat application server).</p>
Cannot start the Portal Interface: File Not Found 404 error	<p>If you receive this error when trying to start Portal Interface:</p> <ul style="list-style-type: none"> • Check to make sure you entered the URL correctly to access Portal Interface as described in “Verifying the installation” on page 10. • Check to make sure you are using the correct port number; for example, 4040 when running in Tomcat. • Check the <i>catalina.out</i> file, located in <i>\$\$SYBASE/tomcat/logs</i>, for errors.
Cannot start Mobile Web Studio	<p>If you cannot start Mobile Web Studio:</p> <ul style="list-style-type: none"> • Verify that you are using Internet Explorer and not Netscape. • Verify that you are using the correct version of Internet Explorer as described in Table 2-1 on page 4. • Verify that you are using the correct port number, for example, 4040 when running in Tomcat.

BlackBerry Enterprise Server setup

Table 4-2 identifies common BlackBerry Enterprise Server (BES) setup problems and provides useful troubleshooting information.

Table 4-2: Troubleshooting BES 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.

Mobile device and client setup

Table 4-3 identifies common mobile device and client configuration problems, and provides useful troubleshooting information.

Table 4-3: Troubleshooting mobile device and client problems

Problem	Try this
The UA icon does not appear on the BlackBerry mobile device	Make sure that you installed the offline client on the BlackBerry device (or BlackBerry simulator), as described in “Installing offline client on BlackBerry device” on page 15 (or “Installing offline client on the BlackBerry simulator” on page 16).
The UA icon does not appear on the Windows mobile device	Make sure that you installed the .NET client on the Windows device, as described in “Installing Unwired Accelerator .NET client software” on page 18.
Mobile application does not appear on the mobile device	<ul style="list-style-type: none"> For BlackBerry devices, verify the configuration is correct, as described in “Installing RIM BlackBerry server and client software” on page 13. Also check Mobile Web Studio to make sure the Offline BlackBerry option is selected for the application, and that the application is in a grid/table format. For .NET devices, verify the configuration is correct, as described in “Installing Unwired Accelerator .NET client software” on page 18.

SAP setup

Table 4-4 identifies common SAP connection problems and provides useful troubleshooting information.

Table 4-4: Troubleshooting SAP connection problems

Problem	Try this
Cannot download the SAP Java connector from SAP	You must be a registered SAP customer to download the SAP Java connector from the SAP Service Marketplace Web site.

Problem	Try this
Unwired Accelerator cannot connect with the SAP environment	<p data-bbox="516 232 928 255">Check the following configuration settings:</p> <ul data-bbox="516 270 1153 604" style="list-style-type: none"><li data-bbox="516 270 1153 413">• Verify that you configured the SAP Java connector correctly, using information in “Configuring the SAP Java connector” on page 28. 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 data-bbox="516 428 1153 508">• Check the <i>global.properties.xml</i> file and make sure the connection pools are defined as described in “Modifying the <i>global.properties.xml</i> file for SAP” on page 29.<li data-bbox="516 524 1153 604">• Verify that a properties file is defined for each connection pool entry in the <i>global.properties.xml</i> file, as described in “Creating ConnectionPool property files” on page 30.

Setting Up Authentication and Authorization

This chapter describes how to set up authentication and authorization for Unwired Accelerator 7.0, and either the portal database or a Lightweight Directory Access Protocol (LDAP) server security provider.

Preconfigured for PortalDB This version of Unwired Accelerator is preconfigured to support authentication and authorization using the PortalDB security provider. If you plan to use Tomcat and PortalDB, you need not perform any of the configuration steps described in this chapter.

Topic	Page
Overview	45
Configuring the CSI realm	46
Configuring the security provider	47

Overview

In this version of Unwired Accelerator, a Common Security Infrastructure (CSI) realm works together with a security provider, either PortalDB or LDAP, to support authentication and authorization. The CSI realm is a component that plugs in to a Tomcat 4.1.29 Web application container. To support authentication and authorization, the PortalDB provider uses the Unwired Accelerator database `portaldatabase`; the LDAP provider uses an LDAP 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 with a list of the user's roles.

You can also use both security providers at the same time. If your system is configured to use both the LDAP provider and the PortalDB provider, a user's name and password are first passed to the LDAP provider for authentication, then they are passed to the PortalDB provider. If authentication succeeds with either provider, the user is authenticated. If the user cannot be authenticated with either the LDAP or PortalDB provider, the user is not authenticated. Similarly, when performing authorization role checks, both providers are queried to see whether either of them grants the specified role to the user.

Note For development, you may want to use the preconfigured PortalDB provider, as it can simplify debugging.

Configuring the CSI realm

Unwired Accelerator supports authentication and authorization for the Tomcat Web application container. UA 7.0 is preconfigured to use Tomcat.

Configuring the Tomcat realm

The Tomcat CSI realm plugs in to a Tomcat 4.1.29 Web application container. Its purpose is to delegate authentication and authorization checks to the security provider.

To enable debugging in the Tomcat CSI realm, create a file called *log4j.properties* in *\$CATALINA_HOME/server/classes*, where *\$CATALINA_HOME* represents the Tomcat root installation directory, and insert the following text:

```
# sample log4j.properties
# SecurityAppender for security packages only
log4j.appender.SecurityAppender=org.apache.log4j.DailyRollingFileAppender
log4j.appender.SecurityAppender.DatePattern='.'yyyy-MM-dd
log4j.appender.SecurityAppender.File=/opt/sybase/UA70/tomcat/logs/
    security_debug.log
log4j.appender.SecurityAppender.layout=org.apache.log4j.PatternLayout
log4j.appender.SecurityAppender.layout.ConversionPattern=%d{ISO8601}
    %-5p %-25c{1} %x - %m%n
log4j.category.com.sybase.security=DEBUG, SecurityAppender
```



```
# make sure security messages stay in the security log
log4j.additivity.com.sybase.security=false

# other packages go to the root appender
log4j.appender.RootAppender=org.apache.log4j.ConsoleAppender
log4j.appender.RootAppender.layout=org.apache.log4j.PatternLayout
log4j.appender.RootAppender.layout.ConversionPattern=%d{ISO8601}
    %-5p %-25c{1} %x - %m%n
log4j.rootCategory=INFO, RootAppender
```

The debugging output is written to the file whose name and location are specified by the `log4j.appender.SecurityAppender.File` property; in the example above, `/opt/sybase/UA70/tomcat/logs/security_debug.log`.

Initially, the Tomcat CSI realm is configured to use the PortalDB provider. To use the LDAP provider, see “Configuring the LDAP provider” on page 47.

Configuring the security provider

Unwired Accelerator includes two security providers, the PortalDB provider and the LDAP provider. Initially, Unwired Accelerator is configured to use the PortalDB provider. You can use the LDAP provider instead of the PortalDB provider, or you can use both providers concurrently. To configure a security provider, see:

- “Configuring the LDAP provider” below, or
- “Restore the PortalDB provider configuration” on page 54.

Configuring the LDAP provider

Unwired Accelerator LDAP support includes authentication, attribution, and authorization services. The LDAP provider authenticates users when they log in using credentials that can be validated on the LDAP server.

- 1 To use both the LDAP provider and the PortalDB provider, go to step 2.

To use only the LDAP provider:

- a Change to the location of the `global.properties.xml` file:
 - Tomcat – `$$SYBASE/tomcat/webapps/onepage/config`, where `$$SYBASE` is the installation directory of your Sybase software.

- b Using a text editor, open *global.properties.xml*, and change the value of the AuthenticationUsing property to “CSI”.

- 2 Change to the location of the *csi.xml* file:

`$CATALINA_HOME/conf$CATALINA_HOME/conf`

where `$CATALINA_HOME$CATALINA_HOME` represents the Tomcat root installation directory.

- 3 Using a text editor, open *csi.xml*, and edit the values appropriate for your system.

The sample *csi.xml* file that is installed with Unwired Accelerator contains the following LDAP provider definitions, which are commented out. Remove the comment delimiters:

```
<!--
<config:authenticationProvider
  name="com.sybase.security.ldap.LDAPLoginModule"
  controlFlag="optional">
  <config:options name="ServerType" value="sunone5" />
  <config:options name="ProviderURL" value="ldap://localhost:389" />
  <config:options name="DefaultSearchBase" value="dc=sybase,dc=com" />
</config:authenticationProvider>

-->

<!-- LDAP attributer - commented out
  <config:provider name="com.sybase.security.ldap.LDAPAttributer"
    type="attributer" />
-->
```

- 4 Comment out the following PortalDBAttributer definition. To comment out the definition, insert “<!--” at the beginning of the definition, and “-->” at the end of the definition.

```
<config:provider name="com.sybase.security.portaldb.PortalDBAttributer"
  type="attributer" />
```

Table A-1 defines the complete list of options that you can use to configure the authentication provider. You can enable any of the options by adding the option name and value to *csi.xml*, using the same syntax as illustrated in step 3. You must add new option definitions within the authenticationProvider definition; that is, between the following two lines:

```
<config:authenticationProvider
  name="com.sybase.security.ldap.LDAPLoginModule">
```

```
...
</config:authenticationProvider>
```

Table A-1: LDAP configuration options

Configuration option	Default value	Definition
AuthenticationFilter	Most LDAP servers: (&(uid={uid}) (objectclass=personal) Microsoft ActiveDirectory: (&(userPrincipalName={uid}) (objectclass=user))	The filter to use when authenticating users. When performing a user name/password-based authentication, this filter is used to determine the LDAP entry that matches the supplied user name. The string “{uid}” in the filter is replaced with the user name.
AuthenticationMethod	simple	The authentication method to use for all LDAP authentication requests. The supported methods are: <ul style="list-style-type: none"> • “simple” – clear text authentication. • “DIGEST-MD5” – more secure, hashed password authentication. Passwords must be stored in plain text on your LDAP server, and you must use JRE 1.4 or higher.
AuthenticationScope	onelevel	Can be set to either “onelevel” or “subtree.” If set to “onelevel,” only the AuthenticationSearchBase is searched used to search for user records; if set to “subtree,” the AuthenticationSearchBase and its subtree are searched.
AuthenticationSearchBase		The location of user records. If not specified, the DefaultSearchBase is used.
BindDN		The DN to bind to when creating the initial LDAP connection. This DN must identify a user who has read capability on all records that are accessed when users authenticate using the login module. This property also defines the credentials that are used to perform anonymous attribution operations when LDAP authentication has not occurred. If this property is not specified, anonymous binding is used, which works on most servers.
BindPassword		The password to bind to when creating the initial LDAP connection. You must specify this only when the BindDN property is specified.

Configuration option	Default value	Definition
DefaultSearchBase		<p>The search base that is used if no other LDAP search base is specified for authentication, roles, or attribution. Use either of the following two syntax options, and verify that the syntax you choose matches what is configured on the LDAP server:</p> <pre>dc=<domain_name>,dc=<top_level_domain> o=<company_name>,c=<country_code></pre> <p>For a machine in the Sybase organization, the previous two syntax options map to:</p> <pre>dc=sybase,dc=com o=Sybase,c=us</pre>
InitialContextFactory	com.sun.jndi.ldap.LdapCtxFactory	Specifies the JNDI provider to use. If you are using a Sun Java VM version 1.3 or higher, the default value should work. If you are using an IBM or other third-party VM, adjust this value accordingly.
ProviderURL	ldap://localhost:389	The URL to connect to the LDAP server. The default value should work if the LDAP server is located on the same machine as the portal and listens on port 389.
RoleFilter	<p>SunONE: (&(objectclass=ldapsubentry) (objectclass=nsroledefinition))</p> <p>Netscape Directory Server: ((objectclass=groupofnames) (objectclass=groupofunique names))</p> <p>Microsoft ActiveDirectory: ((objectclass=groupofnames) (objectclass=group))</p>	The role filter, which when used with the RoleSearchBase and RoleScope, returns the complete list of roles from the LDAP server.
RoleMemberAttributes	Netscape Directory Server: member,uniquemember	<p>A comma-delimited list of one or more role attributes that define the DNs for users who have the role. The DNs are used to determine which roles the user has. This property may be helpful if you use LDAP groups as placeholders for roles.</p> <hr/> <p>Note The default value applies only to Netscape Directory Server; no default exists for other servers.</p>
RoleNameAttribute	cn	The attribute that identifies the common names of roles. If a role name value is “dn,” the role name is assumed to be the full DN of the role.

Configuration option	Default value	Definition
RoleScope	onelevel	Can be set to either “onelevel” or “subtree.” If set to “onelevel,” only the RoleSearchBase is used to search for roles; if set to “subtree,” the RoleSearchBase and its subtree are searched.
RoleSearchBase		The search base used to retrieve a list of roles. If not specified, the DefaultSearchBase is used.
ServerType		<p>The type of LDAP server you are connecting to; supported server types are:</p> <ul style="list-style-type: none"> • “msad2k” – Microsoft ActiveDirectory. Windows 2000—see “Caveats when using Microsoft ActiveDirectory LDAP servers” on page 53. • “nsds4” – Netscape Directory Server 4. • “sunone5” – SunONE Directory Server 5. <p>This value is not required, but if provided, establishes default values for the following configuration properties:</p> <ul style="list-style-type: none"> • AuthenticationFilter • RoleFilter • RoleMembershipAttributes • UserRoleMembershipAttributes
UserFreeformRoleMembershipAttributes		<p>The “free-form” role membership attribute list. Users who have attributes in this comma-delimited list are automatically granted access to roles whose names match the attribute value. For example, if the value of this property is “department” and the user’s LDAP record has the values “sales” and “consulting” for the department attribute, then the user is granted roles whose names are “sales” and “consulting.”</p> <p>If you are using a SunONE Directory Server 5:</p> <ol style="list-style-type: none"> 1 From the LDAP Administration console’s Generic Editor, add a multivalue attribute called “department” for the user. 2 Highlight “department,” click Add Value, and enter “sales.” 3 Click Add Value again, and enter “consulting.”

Configuration option	Default value	Definition
UserRoleMembership Attributes	SunONE: nsRoleDN Microsoft ActiveDirectory: memberOf	Defines a user attribute to store the list of role DN's for all the roles a user has been granted. These role DN's are cross-referenced against the roles retrieved using the RoleSearchBase and RoleFilter to get a complete list of a user's roles.
		Note For servers other than SunONE and Microsoft ActiveDirectory, there is no default value.

Role computation

Role computation techniques are used to list roles for both authenticated and unauthenticated users. The LDAP provider performs access control using roles, and supports three types of role constructs; each may be used independently, or all three may be used at the same time:

- User-level role attributes – this is the most efficient role definition format, and is supported by SunONE and ActiveDirectory. Using this technique, a user's roles are enumerated by a read-only attribute in the user's LDAP record, which is managed by a directory server. The advantages of this technique are the efficiency with which role memberships can be queried, and the ease with which they can be managed using the native LDAP server's management tools. To use this option, configure the following LDAP properties, which are described in Table A-1 on page 49:
 - RoleFilter
 - RoleNameAttribute
 - RoleSearchBase
 - RoleScope
 - UserRoleMembershipAttributes
- LDAP group role definitions – supported by almost all LDAP servers and a common construct in older LDAP servers. This technique may be useful if you want to use the same LDAP schema across multiple LDAP server types. Unlike the user-level role attributes, LDAP group memberships are stored and checked on a group-by-group basis. Each defined group has an attribute that lists all the members in the group. Groups are typically in one of two object classes, either groupofnames or groupofuniquenames.

To use this option, configure the following properties in the *csi.xml* file:

- RoleFilter
- RoleMemberAttributes
- RoleNameAttribute
- RoleScope
- RoleSearchBase

See Table A-1 on page 49 for more information. The value of RoleMemberAttributes is a comma-delimited list of attributes, each of which defines members of the group. An example value for this property is “uniquemember,member,” which represents the membership attributes in the groupofnames and groupofuniquenames object classes.

- Free-form role definitions – unique in that the role itself does not have an entry in the LDAP data store. To create a free-form role definition, begin by defining one or more user-level attributes. When roles are calculated for a user, the collective values of the attributes—which can have multiple values—are added as roles of which the user is a member. This technique requires less administrative overhead than either of the two previously described techniques.

As an example, assign a free-form role definition that is equivalent to the department number of a user. A role check performed on a specific department number is satisfied only by users who have the appropriate department number attribute value. To use free-form role definitions, configure the UserFreeformRoleMembershipAttributes property—see Table A-1 on page 49.

Caveats when using Microsoft ActiveDirectory LDAP servers

If you are using the Microsoft ActiveDirectory Windows 2000 server, the following restrictions apply:

- The DIGEST-MD5 authentication mode is not supported.
- The value of DefaultSearchBase must match exactly the value set for the directory server, including case.
- If you set the value of DefaultSearchBase to “DC=epstg,DC=com,” you must set the values of both AuthenticationSearchBase and RoleSearchBase to “CN=Users,DC=epstg,DC=com.”

- Anonymous binding is not permitted. You must specify a BindDN/BindPassword that identifies a user who can view all other users and groups; for example, specify “mtester@epstg.com” as the BindDN and “secure123” as the BindPassword.
- From the ActiveDirectory Users and Computers console, you must create users and groups, then add users to the groups so they are authorized to perform tasks in Unwired Accelerator. Create the following groups, then add users to these groups:
 - everybody
 - PortalAdmin
 - PortalGuest
 - PortalUser
 - StudioAdmin
 - superuser

Restore the PortalDB provider configuration

Initially, Unwired Accelerator is configured to use the PortalDB security provider. If your system was changed to use the LDAP security provider, you can restore the PortalDB configuration using the following procedure.

- 1 Change to the location of the *global.properties.xml* file:
 - Tomcat – `$$SYBASE/tomcat/webapps/onepage/config`, where `$$SYBASE` is the root installation directory of your Sybase software.
- 2 Using a text editor, open *global.properties.xml*, and set the value of the AuthenticationUsing property to “Database”.
- 3 Change to the location of the *csi.xml* file:
 - Tomcat – `$$CATALINA_HOME/conf`, where `$$CATALINA_HOME` represents the Tomcat root installation directory.
- 4 Open *csi.xml*, and verify that the PortalDB provider definitions are not commented out. The sample *csi.xml* file that is installed with Unwired Accelerator contains the following PortalDB provider definitions:

```
<config:authenticationProvider
  name="com.sybase.security.portaldb.PortalDBLoginModule"
  controlFlag="optional">
```



```

    <config:options name="DatasourceName"
        value="java:comp/env/jdbc/portaldb" />
</config:authenticationProvider>

<config:provider name="com.sybase.security.portaldb.PortalDBAttributer"
    type="attributer" />

```

The value of `DatasourceName` defines the name that is passed to the `javax.naming.InitialContext().lookup(datasourceName)` method to retrieve a connection to the portal database. The default value is “`java:comp/env/jdbc/portaldb`,” and Unwired Accelerator creates this JNDI name automatically during deployment. If the `DatasourceName` configuration option is missing, the default value is used.

- 5 To use the PortalDB provider only, comment out the LDAP provider definition in *csi.xml*. To comment out the definition, insert “`<!--`” at the beginning of the definition, and “`-->`” at the end of the definition. In the following example, the LDAP provider definition is commented out:

```

<!--
<authenticationProvider
name="com.sybase.security.ldap.LDAPLoginModule">
    <options name="ServerType" value="sunone5"/>
    <options name="DefaultSearchBase" value=""/>
    <options name="ProviderURL" value="ldap://localhost:389"/>
    <options name="AuthenticationMethod" value="simple"/>
    <options name="AuthenticationScope" value="subtree"/>
    <options name="AuthenticationSearchBase" value=""/>
    <options name="RoleScope" value="subtree"/>
    <options name="RoleSearchBase" value=""/>
</authenticationProvider>
-->

```

To use both the PortalDB provider and the LDAP provider, verify that neither of the provider definitions is commented out.

Index

Symbols

- #, beginning comment lines in properties file 46
- & (ampersand), Boolean operator 49, 50
- < and > (angle brackets)
 - <!-- ... -->, XML comment delimiters 55
 - <? ... ?>, in XML processing instructions 55
- around XML tags 48
- | (vertical bar)
 - Boolean operator 50

A

- Adaptive Server Enterprise
 - installing 5
 - start and stop order 38
 - stopping 39
- ASA for Windows CE
 - CabInstl tool 24
 - described 23
 - installing 23
- ASE
 - configuring for Unwired Accelerator 8
 - data and log devices 6
 - start and stop order 38
 - starting 6, 39
 - stopping 39
- authentication and authorization, setting up 45
- authentication providers
 - LDAP 47
 - PortalDB 54
- AuthenticationFilter, LDAP configuration option 49
- AuthenticationMethod, LDAP configuration option 49
- AuthenticationScope, LDAP configuration option 49
- AuthenticationSearchBase, LDAP configuration option 49

B

- BindDN, LDAP configuration option 49
- BindPassword, LDAP configuration option 49
- BlackBerry device
 - installing an offline client application 15
 - setting up a user 17
 - troubleshooting 43
- BlackBerry simulator
 - downloading from RIM 14
 - installing an offline client application 16
 - troubleshooting 43

C

- CabInstl tool
 - downloading freeware 24
 - used to install CABs 24
- catalina.out* file 9, 42
- CATALINA_HOME environment variable ix, 46
- certificates 13
- cgacutil* file 21
- commands
 - domainname** 6
 - startomcat.sh** 9, 39
 - stoptomcat.sh** 39
- component default values 4
- configuring
 - CSI with LDAP (Tomcat) 31, 48
 - LDAP security provider 47
 - PortalDB security provider 54
 - proxy server 12
 - SAP connection 27
 - Tomcat CSI realm 46
- CSI
 - LDAP provider 31, 48
 - PortalDB provider (default) 31
 - restoring PortalDB provider 54
- CSI realm

Index

- configuring 46
- defined 45
- csi.xml*, security provider configuration file
 - LDAP provider definition 48
 - PortalDB provider definition 54

D

- default values 4
- DefaultSearchBase, LDAP configuration option 50
- digital certificates 13
- disk space requirements 4
- displaying
 - domain name 6
- documentation
 - .NET client 26
 - jConnect for JDBC vi
 - RIM BlackBerry 14
 - SAP Javadocs 29, 30
 - Unwired Accelerator vi
- domain name 6
- downloading
 - CabInstl tool 24
 - RIM BlackBerry simulator 14
 - SAP Java Connector 28

E

- environment variables
 - CATALINA_HOME ix, 46
 - JAVA_HOME ix
 - RIM ix
 - SYBASE ix, 47

F

- files
 - catalina.out* file 9, 42
 - cgacutil* file 21
 - csi.xml* file 48
 - global.properties.xml* file 12, 29
 - librfc32.dll* file 28
 - log4j.properties* file 46

- sapjco.jar* file 28
- sapjco.properties* file 29
- sapjcorfc.dll* file 28

G

- getting started
 - Mobile Web Studio 35
 - Portal Interface 33
 - starting and stopping UA 38
- global.properties.xml*
 - configuring a proxy server 12
 - configuring a SAP connection 29
 - configuring for the LDAP provider 47
 - configuring for the PortalDB provider 54

I

- InitialContextFactory, LDAP configuration option 50
- installation
 - Adaptive Server Enterprise 5
 - error log 9
 - installation tasks 7
 - post-installation tasks 10
 - pre-installation tasks 5
- installing
 - .NET client on Windows device 21
 - ASA for Windows CE 24
 - offline client application on BlackBerry device 15
 - offline client application on BlackBerry simulator 16
 - SAP connection 27
 - Unwired Accelerator 3, 7

J

- JAVA_HOME environment variable ix

L

- LDAP security provider
 - configuration options 49

- csi.xml* configuration file 48
- global.properties.xml* 47
- role computation 52
- setting up 47
- librfc32.dll* file 28
- Lightweight Directory Access Protocol. *See* LDAP
 - security provider
- log files
 - catalina.out* 9
 - default location 41
 - log4j.properties* 46
 - log4j.properties* file 46

M

- masuper
 - Mobile Web Studio account 36
- member name 34
- Microsoft ActiveDirectory server, restrictions 53
- Mobile Web Studio
 - logging in 35

N

- network configuration
 - server.xml* 9

O

- operating system, requirements 4
- overview
 - authentication and authorization 45
 - Unwired Accelerator product 1

P

- passwords
 - choosing 34
 - default values 4
- Portal Interface
 - logging in 33
- PortalDB security provider

- configuring 54
- defined 45
- global.properties.xml* file 54
- ports
 - 4040 (UA HTTP, in Tomcat) 10
 - 443 (HTTPS) 7, 42
 - 80 (HTTP) 7, 42
 - ASA 5
 - default values 4
 - Unwired Accelerator 4
- post-installation tasks
 - configuring a proxy server 12
 - configuring Tomcat for LDAP 31
 - installing .NET client 18
 - installing RIM BlackBerry server/client 13
 - overview 10
 - setting up a SAP connection 27
 - updating digital certificates 13
 - verifying the installation 10
- pre-installation tasks 5
 - creating data device 6
 - creating log device 6
 - installing Adaptive Server Enterprise 5
 - knowing the domain name 6
 - overview 5
- ProviderURL, LDAP configuration option 50
- proxy server 12

R

- redirecting 6
- requirements
 - operating system 4
- resource
 - user profile 17
- RIM environment variable ix
- role computation for LDAP 52
- RoleFilter, LDAP configuration option 50
- RoleMemberAttributes, LDAP configuration option 50
- RoleNameAttribute, LDAP configuration option 50
- RoleScope, LDAP configuration option 51
- RoleSearchBase, LDAP configuration option 51

S

SAP

- creating ConnectionPool property files 30
- described 27
- downloading SAP JCo 28
- global.properties.xml* properties 29
- SAP Java Connector (SAP JCo) 28
- setting up a SAP connection 28
- SAP Java Connector (SAP JCo) 28
- SAP JCo 28
- sapjco.jar* file 28
- sapjco.properties* file 29
- sapjcorfc.dll* file 28
- security
 - .NET accounts 20, 27
 - BlackBerry accounts 14
 - CSI with LDAP provider 31, 48
 - CSI with PortalDB provider 31
 - restoring CSI with PortalDB provider 54
- server.xml*
 - configuring UA for your network 9
- ServerType, LDAP configuration option 51
- setting up a BlackBerry user 17
- setting up authentication and authorization 45
- starting
 - Adaptive Server Enterprise 39
 - Tomcat application server 39
- starttomcat.sh** command 9, 39
- stopping
 - Adaptive Server Enterprise 39
 - Tomcat application server 39
- stoptomcat.sh** command 39
- SYBASE environment variable ix, 47
- system requirements
 - disk space 3
 - network protocols 3
 - overview 3
 - system release level 3

T

- temporary directory 6
- Tomcat
 - configured with CSI and PortalDB provider 31
 - configuring CSI realm 46

- configuring LDAP 31
- debugging CSI realm 46
- installation directory 46
- path name 10
- starting the application server 39
- stopping the application server 39
- troubleshooting
 - cannot connect with SAP 44
 - cannot start Mobile Web Studio 42
 - cannot start Portal Interface 42
 - File Not Found 404 error 42
 - mobile application does not appear on PDA 43
 - resources 41
 - UA cannot connect to BlackBerry Desktop Manager 42
- tutorial
 - Mobile Web Studio 35
 - Portal Interface 33

U

- uninstalling
 - Unwired Accelerator from Tomcat 31
- Unwired Accelerator
 - network protocol for 4
 - overview 1
 - ports 4
 - product description 1
 - verifying the installation 10
- updating, digital certificates 13
- user name
 - default values 4
- UserFreeformRoleMembershipAttributes, LDAP
 - configuration option 51
- UserRoleMembershipAttributes, LDAP configuration
 - option 52