WebSphere<sup>®</sup> Partner Agreement Manager



# **Installation Guide**

Version 2 Release 2

GC34-5964-02

WebSphere<sup>®</sup> Partner Agreement Manager



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GC34-5964-02

Note: Before using this information and the product it supports, read the information in Notices on page 97.

#### Third Edition (July 2001)

This edition applies to version 2, release 2 of WebSphere Partner Agreement Manager (product number 5724-A85) and to all subsequent releases and modifications until otherwise indicated in new editions.

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VI 
INSTALLATION GUIDE

## Welcome to the Installation Guide

This document describes WebSphere<sup>®</sup> Partner Agreement Manager (PAM) 2.2 and explains how to install the PAM components, how to upgrade from PAM 1.1 to PAM 2.2, and how to install and configure DB2 for use with Partner Agreement Manager.

#### To install Partner Agreement Manager:

- 1 Ensure that your system meets the prerequisites and requirements identified in *About installing Partner Agreement Manager* on page 3.
- **2** If you are installing PAM for the first time, see *Installing and configuring DB2* on page 29, for instructions about preparing the database.
- **3** Decide which components to install:
  - To install all components of PAM—the Process Server, the Adapter Server, the Process Manager, and the Adapter Manager—see *Installing the Process Manager* on page 64.
  - To install just the Process Manager, see *Installing the Process Manager* on page 64.
  - To install just the Adapter Manager, see *Installing the Adapter Manager* on page 68.
- **4** If you are upgrading from PAM 1.1 to PAM 2.2, see *Upgrading to PAM 2.2* on page 87.

### Who should use this information

This information is for those who need to install and configure DB2, install Partner Agreement Manager, and upgrade Partner Agreement Manager.

### **RELATED INFORMATION**

For additional information see the following:

- The readme.htm file. This file may contain information that became available after this book was published. Before installation, the readme.htm file is located in the root directory of the product CD-ROM. After installation, the readme.htm file is located in the root directory of the Partner Agreement Manager installation.
- The StartHere.htm file. This file contains links to the Partner Agreement Manager readme.htm file and Installation Guide. Before installation, the StartHere.htm file is located in the root directory of the product CD-ROM. After installation, the StartHere.htm file is located in the root directory of the Partner Agreement Manager installation.
- The *Partner Agreement Manager Administrator's Guide*, form number BIAAAB02, which describes how to set up, configure, and administer Partner Agreement Manager after you install it.
- The Partner Agreement Manager User's Guide, form number BIAAAC02, which describes how to start a Partner Agreement Manager session, design public and private processes, define element definition sets, create business objects, and manage process distribution.
- The Partner Agreement Manager Adapter Developer's Guide, form number BIAAAD02, which describes how to develop and administer adapters using the Partner Agreement Manager Adapter Development Environment.
- The *Partner Agreement Manager Script Developer's Guide*, form number BIAAAE02, which describes how to write scripts used in Partner Agreement Manager private processes and elsewhere.
- The *Partner Agreement Manager External API Guide*, form number BIAAAF02, which describes principles behind the Partner Agreement Manager External API. See also the Javadoc for the External API, which is installed in the Partner Agreement Manager Docs folder.

- The *Partner Agreement Manager Adapters for MQSeries User's Guide*, form number BIAAAG02, which describes how to install, configure, and run the Partner Agreement Manager Adapters for MQSeries.
- The *Partner Agreement View User's Guide*, form number GC34-5965-02, which describes how to install, configure, and use webApp Channel.

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## SUMMARY OF CHANGES

This edition includes these changes since the previous, second, edition:

- *External APIs. Partner Agreement Manager* 2.2 provides added flexibility to external applications through additional APIs. These APIs allow third-party applications to take advantage of the Partner Agreement Manager partner management and process engine through programmatic access. The API is distributed as a set of Java classes that the external application can import. Communication between the API classes and the Process Server is through RMI, but in the future can be swapped out for HTTP or SOAP. Specifically, APIs have been added to the following functional areas:
  - Session Service API
  - Admin Service API
  - Document Service API
  - Partner Service API
  - Adapter Service API
  - Process Service API

- LDAP Support. Partner Agreement Manager 2.2 provides centralized user authentication and administration through an LDAP directory. Partner Agreement Manager can retrieve user information—such as name, e-mail address, phone, and fax—stored in an LDAP directory. Updating this information is done in a single place, through the LDAP management tool. Users are authenticated through the same directory, giving them single-sign-on capabilities across enterprise applications.
- Double-byte character sets (DBCS) and National Language Support (NLS). Double-byte character sets are now supported in Partner Agreement Manager 2.2. Double-byte and multibyte data can be transferred and operated on in business objects and adapters. NLS lets Partner Agreement Manager display user interface text in other languages.
- Improved XML Support. The Partner Agreement Manager 2.2 engine fundamentally changes the way it interacts with business objects by replacing proprietary parsers with a third-party parser. This simplifies support of DTD 1.0 and the support of XML schemas when the standard is finalized.

The Business Object and Script API have been extended with new classes and methods. The new classes and methods let you work with business objects as W3C Documents.

- Adapter Asynchronous Callback. An additional Adapter API allows adapters to be more efficient with long-running adapter operations. The Asynchronous Callback method tells the Adapter Server that an operation will be long-running, that system resources should be freed while the adapter waits for a response from the end system, and that another method will be called when the response arrives. The Asynchronous Callback method frees the adapter developer from using the request-retry method that makes the Adapter Server responsible for polling the end system for the response.
- Script API Changes. The script API now provides access to the PartnerGroupContext and the Public and Private Process Contexts. Through these contexts, you can get information such as partner group binding, a reference to the process, inputs to the process (which contain a reference to the sender, the ID of the sending node, and the variable name), and unique node and loop IDs.

- Certificate Support. Partner Agreement Manager 2.2 is able to request and import certificates from certificate authorities like VeriSign. This lets organizations use their existing certificate, or request a new one if their partners do not accept self-signed certificates. Partner Agreement Manager 1.1 supported only self-signed certificates.
- Outbound Proxy Support. Partner Agreement Manager 2.2 channels that use HTTP communication can work with outbound proxies that use authentication. Outbound proxy authentication is used within *internal* networks to ensure that only people and applications that are authenticated may communicate with an *external* network. Authentication in the outbound proxy is done with a standard user name and password combination. You can turn on the outbound proxy feature after installation. Thereafter, all outbound HTTP communication will use the same user name and password combination for the proxy.
- **NOTE:** Note that this feature is only used by channels using HTTP communication; it does not apply to channels that use the built-in Partner Agreement Manager proxy.

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## INTRODUCING PARTNER Agreement Manager

CHAPTER

Welcome to WebSphere Partner Agreement Manager. This guide provides the information you need for installing Partner Agreement Manager 2.2. You can install the Partner Agreement Manager servers on a Windows NT, Windows 2000, Solaris, or AIX system. You can install the Partner Agreement Manager clients on Windows NT or Windows 2000.

Read this chapter for information about meeting product prerequisites, meeting system requirements, and installing supporting software.

This chapter includes these sections:

- About Partner Agreement Manager on page 2.
- About installing Partner Agreement Manager on page 3.
- Installation worksheet on page 8.

## About Partner Agreement Manager

Using Partner Agreement Manager, an enterprise can communicate with its business partners using fully integrated, real-time connections. Partner Agreement Manager facilitates the flow of business information between partners in a controlled, secure environment. You and your trading partners can work together effectively, yet maintain organizational independence when you need it.



The key components of Partner Agreement Manager are:

- Partner Agreement Manager (core) supports the execution of public and private processes. This is where you design processes and create business objects that manage the transfer of information. Within Partner Agreement Manager:
  - The Process Server is the engine that powers Partner Agreement Manager.

- You use the Process Manager to design public and private processes, design formats for sharing business information, and manage processes. You use the Public Process and Private Process windows to build public and private processes. Public processes define the flow of actions and information between partners. Private processes determine the actions that each partner takes for its step in the public process.
- **NOTE:** In earlier releases of Partner Agreement Manager, the Process Manager window was called the Partner Agreement Manager window, or the Explorer window.
- The Integration Manager provides the connection and takes care of data transformation when you need to exchange information with back-end or other systems within your organization. Within the Integration Manager:
  - The Adapter Server is the engine that powers integration.
  - You use the Adapter Manager to add, remove, start, and stop adapters.
  - You use the Adapter Designer to create or modify adapter types that provide connectivity to end systems. Depending on the end system, you might also be able to use integration wizards to create adapters.
  - Individual adapters provide for integration with specific back-end systems. Examples are the adapters for MQSeries.
- The Channel Manager supports the configuration and management of the channels Partner Agreement Manager uses to connect you to your partners. Each channel has its own characteristics and capabilities. An example is Channel for RosettaNet.

## ABOUT INSTALLING PARTNER AGREEMENT MANAGER

This installation guide is divided into sections that include chapters for web servers, databases, and operating systems. It is not designed to be read sequentially. After you read this introduction chapter, links in these overview steps and the *What's next* section on page 10 take you to the appropriate sections, where you can read the chapters for the web server and database you use. The last section includes information for installing Partner Agreement Manager on all supported operating systems.

#### These are the steps for installing Partner Agreement Manager:

**STEP 1** Make sure that your system meets the hardware and software requirements for installing Partner Agreement Manager. See *Hardware and software requirements* on page 5.

Partner Agreement Manager uses several independent software products and components, which you must install before you install the Process Server. If you are missing any of the required software, download and install it before proceeding. See *Process Server and Adapter Server software requirements* on page 6.

- **STEP 2** Install a web server (for example, Apache or IIS). If you don't have a web server installed, see *Section I: Web servers* on page 11.
- **STEP 3** Install your database software (for example, DB2) and apply any necessary Service Packs and FixPaks. See *Section II: Databases* on page 25.
- **STEP 4** Set up a Partner Agreement Manager database. The Partner Agreement Manager database is populated when you install the Process Server. See *Section II: Databases* on page 25 for information on setting up your Partner Agreement Manager database.
- **STEP 5** Make sure that you have met the product prerequisites. See *Before you begin* on page 50 and *Installing and configuring DB2* on page 29 for first-time installations. See *Upgrading to PAM 2.2* on page 87 if you are upgrading from PAM 1.1 to PAM 2.2.
- **STEP 6** For Windows only, install the Windows NT SNMP service if you plan to use the Partner Agreement Manager SNMP Agent. See *Installing the Windows SNMP service* on page 51. (SNMP daemons exist by default on UNIX.)
- **STEP 7** Install the Process Server and Adapter Server on the operating system you want (for example, Windows, Solaris, or AIX) from the Partner Agreement Manager install image. See *Section III: Operating Systems* on page 47.

If you're installing on Windows, you can also install the Process Manager at the same time.

- **STEP 8** If you haven't done so, install the Process Manager on a Windows client computer. See *Installing the Process Manager* on page 64.
- **STEP 9** After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide*.

**NOTE:** If you plan to use the Partner Agreement Manager Adapters for MQSeries, you must install them separately. See the *Partner Agreement Manager Adapters for MQSeries User's Guide*.

#### HARDWARE AND SOFTWARE REQUIREMENTS

Before you install the Process Server, make sure that your system meets the hardware and software requirements described here. If you are missing any required software, download and install it before proceeding.

**NOTE:** The requirements described here are the minimum for installing and running Partner Agreement Manager. The optimal configuration for your Partner Agreement Manager installation depends on the number of processes you run, the frequency with which you run them, and several other factors. Your IBM representative can help you determine your optimal configuration.

PROCESS SERVER AND ADAPTER SERVER HARDWARE REQUIREMENTS

- Pentium<sup>®</sup> II 300 MHz processor (or faster)
- 1 MB or higher L2 cache
- 128 MB RAM (or more)
- 4 GB hard drive (or larger)

The hard disk requirement for the Process Server and all supporting software is approximately 390 MB. Make additional provisions for a 1 GB (or more) database device and a 250 MB (or more) log device set up for use by your database.

Plan to allocate additional disk space to archive audit information, because the amount of disk space you might need is highly variable. The size of business objects that pass between you and your Partner Agreement Manager partners also affects the amount of disk space required. If you expect to create business objects that contain complicated schematics or CAD drawings, for example, plan to allocate significantly more disk space.

See "Supported environments and prerequisites" on the last page for important information.

<ul> <li>IMPORTANT: For all operating systems, the Partner Agreement Manager installation also requires 150 MB of disk space in the C:\temp directory (/tmp on UNIX) before you start the installer. If you're using Windows 2000, the C:\temp directory doesn't exist by default. Create a C:\temp directory and allocate at least 150 MB to it.</li> <li>You can also use an existing directory as the temp or tmp directory by setting the XYTempDir property to an existing directory before you run the Partner Agreement Manager installer. To do this on Windows, open a CMD window (Choose Start&gt;Run&gt;cmd and then click OK). In the CMD window, type SET XYTempDir=c:\<existing_directory_name>. On UNIX, you edit the setup shell script and add the command: export XYTempDir=/ newtempdir.</existing_directory_name></li> </ul>		
rerequisites" on the PROCESS SERVER AND ADAPTER SERVER SOFTWARE REQUIREMENTS		
Platform	Requirements	
Windows	<ul> <li>A standard version of Windows 2000 Server, or</li> <li>A standard version of Windows NT Server 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release)</li> </ul>	
	<b>NOTE:</b> Configure the server computer that hosts Partner Agreement Manager to use the NTFS file system instead of the FAT (file allocation table) file system. Using FAT disables most of Windows NT's built-in security features.	
	A supported database for use with Partner Agreement Manager. See <i>Section II: Databases</i> on page 25.	
	Microsoft Windows Scripting 5.1 (available from www.microsoft.com/msdownload/vbscript/scripting.asp).	
	The Windows NT SNMP service, if you plan to use an SNMP- based network management application to monitor Partner Agreement Manager resources—see <i>Installing the Windows</i> <i>SNMP service</i> on page 51.	
Solaris	Solaris 2.7 or 2.8, fully patched. You can download the recommended patches from Sun at: ftp://sunsolve.sun.com	
	A supported database, such as Oracle 8.1.6 or DB2 7.1.	
	If you're using Oracle, the Oracle 8.1.6 JDBC OCI driver. This file is called classes12.zip and is installed with Oracle. It is also available from the Oracle Web site: www.oracle.com	
	IMPORTANT: J installation (/tmp on U 2000, the C directory a You can als setting the Partner Ag CMD window, ty you edit th newtempdii PROCESS SER Platform Windows	

Platform	Requirements
AIX	AIX 4.3.3 (at maintenance level 8; check maintenance level by running instfix -i   grep ML)
	Java Runtime Environment (JRE)—use the May 11, 2001 build or later). Update your PATH and CLASSPATH. For example, if \$JREROOT is where you installed the JRE, then run these commands:
	export PATH=\$JREROOT/jre/sh:\$PATH
	export CLASSPATH=\$JREROOT/jre/lib/rt.jar:\$CLASSPATH
	A supported database, such as DB2 7.1 or Oracle 8.1.6.
All platforms	A web server, such as Apache, IBM HTTP Server, or Microsoft Internet Information Server (IIS) 4.0 or higher. See <i>Section I:</i> <i>Web servers</i> on page 11.
	A certificate for the web server (available from any certificate authority, such as www.verisign.com, depending on the local security policy). For more information, see the <i>Partner Agreement Manager Administrator's Guide</i> .
	Network access to an SMTP server (for e-mail notifications), plus an e-mail account that Partner Agreement Manager can use for sending e-mail for notifications.
	An LDAP version 2-compliant directory server, if you plan to use LDAP (Lightweight Directory Access Protocol). LDAP provides a standard method for accessing information from a central directory. See the LDAP appendix in the <i>Partner</i> <i>Agreement Manager Administrator's Guide</i> for more information.

**NOTE:** You can find links to the download pages for required software on the support web site: http://ps.software.ibm/pbin-usa-ps/getobj.pl?/pdocs-usa/phonenos.html. If you haven't already received a user name and password for accessing the support web site, send a request to your IBM representative.

Process Manager and Adapter Manager (client) hardware requirements

- Pentium 166 MHz processor (or faster)
- 48 MB RAM minimum (64 MB RAM or more is recommended)
- 100 MB free hard-disk space (or more) for Partner Agreement Manager

Process Manager and Adapter Manager (client) software requirements

- Windows NT 4.0 (or later) with Service Pack 5 or 6a
- or Windows 98 or Windows 95.

### **INSTALLATION WORKSHEET**

Use this worksheet to record information about your system, and refer to it as you perform the installation. In addition to being an installation reference, your completed installation worksheet is a useful record for network and system administrators after installation. It is also useful information for your IBM representative, should you need to call for help in resolving a problem after Partner Agreement Manager is running.

#### PARTNER AGREEMENT MANAGER INFORMATION

- □ Partner Agreement Manager Product Name:
- $\Box$  Version Number:
- $\Box$  License Number:

#### HARDWARE AND OPERATING SYSTEM

- $\Box$  Single or Multi Processor?
- $\Box$  Installed Memory (RAM):
- □ Installed Hard Disk Space (GB):
- □ Available Hard Disk Space:
- □ Server Operating System:
- □ Server OS Service Pack:

#### DATABASE AND WEB INFORMATION

- □ Web Server:
- □ Web Server Version:
- □ Database Software:
- □ Database Version:
- □ Database Service Pack:
- □ Path name to Oracle OCI driver (if used):
- □ Firewall Type:
- □ Partner Agreement Manager Proxy (if used):

#### PARTNER INFORMATION

- □ Partner Name:
- □ Partner ID:

#### Host, Port, Server Names and Numbers

- □ Process Server Host Name:
- □ Process Server Port Numbers:
- □ Adapter Server Port Numbers:
- □ Database Host Name:
- □ Database Port Number:
- □ Database User Name:
- □ Database User Password:
- □ Web Server Host Name:
- □ Web Server Port Numbers:
- $\Box$  SSL Host Name:
- $\Box$  SSL Port Number:
- $\Box$  NT User Name:
- □ NT Password:
- □ Solaris or AIX User Name:
- □ Solaris or AIX Password:
- □ SMTP Server PAM User Name:

#### PAM Directory, Database, Administrator Information

- □ Path Name to Partner Agreement Manager Directory:
- □ PAM Database Name (user-created):
- □ PAM Administrator User Name:
- □ PAM Administrator Database:
- **NOTE:** If you use MQSeries adapters in your system, see the *Partner Agreement Manager Administrator's Guide* for information about transport protocol.
- **NOTE:** If you use adapters in your system, you need additional third-party software. See the documentation for your adapter for more information.

### WHAT'S NEXT

- Install a web server, if necessary. See Section I: Web servers on page 11.
- Install and configure a database. See *Section II: Databases* on page 25.
- If you already have your web server and database installed and configured, install Partner Agreement Manager. See *Section III: Operating Systems* on page 47.
- To upgrade from a previous version of Partner Agreement Manager, see Upgrading to PAM 2.2 on page 87.

# WEB SERVERS

The Process Server relies on a web server to generate HTML pages for private process approval actions. Several of the Partner Agreement Manager channel products also require a web server. Using a web server with Partner Agreement Manager requires redirecting the web server to integrate with Tomcat on Partner Agreement Manager and enabling SSL (Secure Sockets Layer).

The web server you use depends on your operating system. For Windows, choose IIS. For Solaris, use Apache. For AIX, use IBM HTTP Server.

This section includes these chapters:

- Installing Apache and configuring SSL on page 13.
- Installing the IBM HTTP Server and configuring SSL on page 21.

SECTION

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Read this chapter for information about installing the Apache web server, redirecting the web server to integrate with Partner Agreement Manager, and configuring SSL (Secure Sockets Layer). The web server enables the Partner Agreement Manager private process approval action. The SSL protocol provides for privacy and reliability of communications over the Internet.

This chapter includes these sections:

CHAPTER

- About Partner Agreement Manager and web servers on page 14.
- Installing a web server for Partner Agreement Manager on Windows on page 16.
- About Tomcat and redirecting output on page 15.
- *Configuring SSL* on page 17.
- Installing Tomcat with Apache/SSL on UNIX on page 17.
- Adding Tomcat redirection to a remote Apache installation on UNIX on page 19.

## ABOUT PARTNER AGREEMENT MANAGER AND WEB SERVERS

The Process Server server relies on a web server to generate HTML pages for private process approval actions. Several of the channel products also require a web server. To use a web server with Partner Agreement Manager, you must:

- install the web server on Windows NT, Windows 2000, Solaris, or AIX.
- redirect the web server to integrate with Tomcat on Partner Agreement Manager, unless this is done by the installer.
- enable SSL (Secure Sockets Layer).

When you install Partner Agreement Manager, you choose among these options for a web server:

- IIS (Microsoft Internet Information Server 4.0 or higher)—recommended for Windows users
- Apache (version 1.3.19, recommended for Solaris users; AIX users choose the Apache option for IBM HTTP Server version 1.3.12.2)
- Other Local web server
- Remote web server (not on current host)

If you choose IIS or Apache, the installer configures your web server to integrate with Partner Agreement Manager through Tomcat. To use a remote web server or a web server that is not listed in the installer, you must manually configure it to integrate with PAM/Tomcat. See the documentation provided with the web server you're using for details on installing and configuring.

**NOTE:** To use IBM HTTP Server, choose Apache as your web server during the Partner Agreement Manager installation process. For more information, see *Installing the IBM HTTP Server and configuring SSL* on page 21.

## ABOUT TOMCAT AND REDIRECTING OUTPUT

Partner Agreement Manager uses the Tomcat servlet engine produced by the Apache Jakarta project. Tomcat is a Java-based servlet engine that runs in the same virtual machine as Partner Agreement Manager. Although Tomcat can act as a web server, it isn't commercial-strength, so it might not be a suitable web server for some customers. You can deploy Tomcat to work as a servlet engine for another web server. For example, you can configure the Apache web server to serve HTML pages, using Tomcat strictly as a servlet engine.



This comes with the —

Partner Agreement Manager distribution.

In this configuration, a commercial-strength web server, such as Apache, receives URL requests. It then forwards the appropriate requests to Tomcat, where they can be serviced by Partner Agreement Manager. To do this, the web server must be configured to redirect its output to Tomcat. For more information on Tomcat, see the Apache Jakarta Web site: jakarta.apache.org.

The Partner Agreement Manager installer automatically adds the Tomcat redirector to the IIS, Apache, or IBM HTTP Server web servers. If you plan to use a different web server for Partner Agreement Manager, please contact IBM support for assistance on configuring the Tomcat redirector.

## Installing a web server for Partner Agreement Manager on Windows

Each web server vendor provides a different mechanism for installing and configuring its web server. The instructions in this section are only an overview of the installation and configuration process. Consult the instructions provided by your web server vendor for detailed instructions.

To install a web server for use with Partner Agreement Manager:

1 Download the web server.

For example, to download Apache 1.3.19, go to www.apache.org. For Microsoft Internet Information Server (IIS), see the Microsoft Web site.

- 2 Run the installer.
- **3** Open a browser and enter the URL http://<your\_computer\_name>, to verify that the server is running and to enable and begin configuring SSL.
- 4 Configure the Server with the user name and password you created in step 2.
- **5** Create a self-signed certificate.

Creating a self-signed certificate enables you to configure SSL quickly; after configuring SSL, request a certificate from a certificate authority. For more information on creating certificates, see the *Partner Agreement Manager Administrator's Guide*.

**IMPORTANT:** The Create New Self-Signed Certificate dialog box contains a Common Name field, for the name of the computer where you installed the Web server. You must enter the *fully qualified* name of that computer in the Common Name field.

## CONFIGURING SSL

After you enable SSL for your web server, you must configure it.

#### To configure SSL:

- 1 Use your web server's administration tool to configure SSL—for instructions, follow the documentation for your web server.
- 2 Use the URL https://<your\_computer\_name> to open the main web server page and verify that the server is running and that the SSL configuration is correct.
  - **NOTE:** The first time you use a browser to communicate with the server you might see a security alert regarding your certificate, because the browser has not yet confirmed receipt of the certificate. Resolve the alert by trusting the alert in your browser. For example, in Internet Explorer, choose View Certificate>Install Certificate, and then place the certificate in the Trusted Root Certification Authorities store

### INSTALLING TOMCAT WITH APACHE/SSL ON UNIX

This section outlines the steps required to install and configure an Apache web server on UNIX. For more information on the Apache web server, see www.apache.org. For more information on SSL, see www.modssl.org and www.openssl.org.

#### To install Apache on UNIX:

1 Download the Apache and SSL packages.

Download this	From
apache_1.3.19.tar.gz	www.apache.org
mod_ssl-2.6.4-1.3.19.tar.gz	www.modssl.org
openssl-0.9.5a.tar.gz	www.openssl.org

- **2** Copy these three components to a directory called ApacheSrc.
- **3** Go to that directory (cd ApacheSrc).
- 4 Uncompress and untar these files: gunzip openssl-0.9.5a.tar.gz

tar xvf openssl-0.9.5a.tar gunzip mod\_ssl-2.6.4-1.3.19.tar gz tar xvf mod\_ssl-2.6.4-1.3.19.tar gunzip apache\_1.3.19.tar.gz tar xvf apache\_1.3.19.tar

5 Go to the mod SSL directory.

cd mod\_ssl-2.6.4-1.3.19

Build and configure Apache with SSL, following the instructions outlined in the INSTALL file included in this directory.

6 Enable shared modules (shared modules are required because the Tomcat redirector is a shared module). In the mod\_ssl-2.6.4-1.3.19 directory, execute the following commands:

```
./configure --with-apache=../apache_1.3.19 \
    --with-ssl=.../openssl-0.9.5a \
    --prefix=/<path_to_your_Apache_installation > \
    --enable-module=so \
    --enable-rule=SHARED_CORE
cd ../apache_1.3.19
make
make install
```

In these commands, replace <path\_to\_your\_Apache\_installation > with the actual path to your Apache installation.

**IMPORTANT:** Verify that your Apache web server is functioning correctly before proceeding further. To verify that your Apache web server is working, start it. Then open a browser and request a page.

## Adding Tomcat redirection to a remote Apache Installation on UNIX

If your Apache web server is located on the same computer as the Process Server, the Partner Agreement Manager installer attempts to configure the web server for you. Follow the steps in this section if your Apache web server is located on a different server computer from the Process Server (remote web server).

After you install Partner Agreement Manager, these files are available to you:

mod\_jk.so in <full\_path\_to>/Extricity/PAM/External/<os\_dir>/ tomcat\_redirector/mod\_jk.so

where *<os\_dir>* is either aix-ppc or solaris-sparc. Copy the version appropriate for your operating system.

- tomcat-unix.conf in <full\_path\_to>/Extricity/PAM/tomcat-unix.conf
- worker.properties in <full\_path\_to>/Extricity/PAM/Properties/ worker.properties

#### To install the Tomcat servlet engine:

1 Copy the Tomcat redirector (mod\_jk.so) into the Apache libexec directory. This directory is where all the shared modules are stored.

cp <full\_path\_to>/Extricity/PAM/External/<os\_dir>/tomcat\_redirector/ mod\_jk.so /<path\_to\_your\_Apache\_installation>/libexec

Replace <path\_to\_your\_Apache\_installation> with the correct path for your Apache installation.

**IMPORTANT:** The mod\_jk.so in this command is not the mod\_jk.so that comes with the Apache installation. Tomcat has its own version of mod\_jk.so that is supplied with Partner Agreement Manager.

**2** Copy tomcat-unix.conf to the Apache configuration directory:

cp <full\_path\_to>/Extricity/PAM/tomcat-unix.conf
/<path\_to\_your\_Apache\_installation>/conf

**3** Edit tomcat-unix.conf:

Point the JKWorkersFile and ServerName to the appropriate path. Consider this sample tomcat-unix.conf:

```
LoadModule jk_module libexec/mod_jk.so
JKWorkersFile <Apache_installation>/conf/worker.properties
JKLogFile logs/mod_jk.log
JKMount /*.jsp ajp12
JKMount /*.jsp ajp12
JKMount /Extricity/PAM/Web/* ajp12
JKMount /examples/* ajp12
ServerName <server_name>
```

- 4 Append the tomcat-unix.conf to the Apache configuration file /<path\_to\_your\_Apache\_installation>/conf/httpd.conf.
- **5** Copy worker.properties to the Apache configuration directory:

cp <full\_path\_to>/Extricity/PAM/Properties/worker.properties
/<path\_to\_your\_Apache\_installation>/conf

- 6 Edit worker.properties:
  - Update the worker.ajp12.host to the Partner Agreement Manager server name.
  - If you changed the port in Alliance/conf/server.xml, update the worker.ajp12.port to match the value you set.

Consider this sample worker.properties file:

```
worker.list=ajp12
worker.ajp12.port=8007
worker.ajp12.host=<PAM_server_name>
worker.ajp12.type=ajp12
worker.ajp12.lbfactor = 1
```

**7** Bring up Apache and Partner Agreement Manager, and verify that you can see the link:

http://machine/Extricity/PAM/Web/

where *machine* is the computer where you are running Partner Agreement Manager.

Also check the link:

https://machine/Extricity/PAM/Web/

where *machine* is the computer where you are running Partner Agreement Manager.

If these pages are served to you by Tomcat, you have successfully configured Apache with Tomcat.


Read this chapter for information about installing the IBM HTTP Server and configuring SSL (Secure Sockets Layer). The IBM HTTP Server enables the Partner Agreement Manager private process approval action. The SSL protocol provides for privacy and reliability of communications over the Internet. For overview information, see *About Partner Agreement Manager and web servers* on page 14 and *About Tomcat and redirecting output* on page 15.

This chapter includes these sections:

- Installing the IBM HTTP Server on page 22.
- *Configuring SSL* on page 23.

CHAPTER

### INSTALLING THE IBM HTTP SERVER

### To install the IBM HTTP Server:

- 1 Download version 1.3.12.2 of the software from http://www-4.ibm.com/ software/webservers/httpservers/download.html.
- 2 Create a user on the Windows NT server. Name the user ibmhttp, assign it the password ibmhttp, and assign administrative privileges, including the permission to log in as a service. The installation requires this user name and password.
- **3** Run the installer, which installs and starts both the HTTP Server and the Administration Server.
- 4 Open a browser and enter the URL http://yourcomputername, to verify that the server is running and to begin configuring SSL.
- 5 Click Configure Server and enter the user name and password that you created in step 2 (ibmhttp).
- 6 Open another browser and enter the URL http://yourcomputername, to see the configuration instructions:
  - A Click View Documentation.
  - B Click How To.
  - c Click Get Started.
  - D Click With Secure Connections.
  - **E** Follow the instructions to configure the HTTP Server and enable SSL.
- 7 Use the Key Management Utility to create a new key database for storing certificates. Enter and confirm the password for the key database, and click Stash Password to a File. The password for the key database must match the password you use to run the HTTP Server (ibmhttp).
- 8 Use the Key Management utility to create a self-signed certificate. Creating a self-signed certificate enables you to configure SSL quickly; after configuring SSL, request a certificate from a certificate authority.

**IMPORTANT:** The Create New Self-Signed Certificate dialog box contains a Common Name field, where you enter the name of the computer where you installed the IBM HTTP Server. You must enter the *fully qualified* name of that computer in the Common Name field.

**NOTE:** When you install Partner Agreement Manager and want to use the IBM HTTP Server, specify Apache when you are prompted for a web server during installation. To the Partner Agreement Manager installer, Apache and IBM HTTP Server behave the same way.

### CONFIGURING SSL

You enabled SSL when you followed step 6 on page 22, and now you need to configure it.

### To configure SSL:

1 Use the HTTP administration server to configure SSL—for instructions, follow the IBM documentation you opened in step 6 on page 22.

The administration server adds information to the httpd.conf file as you configure SSL. The httpd.conf file is in the conf folder, in the directory where you installed the HTTP Server.

- **TIP:** Open the httpd.conf file and review the additions as they occur, to ensure that the configuration information is correct. When you click Submit at the end of the configuration, the changes are permanent.
- 2 Use the URL https://computer\_name to open the main IBM server page and verify that the server is running and that the SSL configuration is correct.
  - **NOTE:** The first time you use a browser to communicate with the server you might see a security alert regarding your certificate, because the browser has not yet confirmed receipt of the certificate. Resolve the alert by trusting the alert in your browser. For example, in Internet Explorer, choose View Certificate, then Install Certificate, and then place the certificate in the Trusted Root Certification Authorities store.

### ADDING TOMCAT REDIRECTION TO HTTP SERVER

If your HTTP Server is located on the same computer as the Process Server, the Partner Agreement Manager installer attempts to configure the web server for you. Follow the steps in *Adding Tomcat redirection to a remote Apache installation on UNIX* on page 19 if your HTTP Server is located on a different server computer from the Process Server (remote web server).

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# ▶ SECTION

## DATABASES

Before you can install Partner Agreement Manager, you must install and configure a supported database to work with the Partner Agreement Manager Process Server. The Process Server works with DB2 and Oracle databases.

The chapters in this section include:

- Installing and configuring DB2 on page 27.
- Installing and configuring Oracle on page 41.

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Read this chapter for information about installing and configuring a DB2 database for your PAM Process Server. The information provided here does not replace the need for your database administrator to customize and maintain your installation for your system and needs.

This chapter includes these sections:

CHAPTER

- *Before you install DB2* on page 28.
- Installing and configuring DB2 on page 29.
- *DB2 configuration tips* on page 39.

### BEFORE YOU INSTALL DB2

To use DB2 as the database with Partner Agreement Manager, your system must meet the hardware and software requirements described here. It must also meet the requirements for Partner Agreement Manager described in *Hardware and software requirements* on page 5.

**NOTE:** It is recommended that you install the DB2 server and PAM on different computers. If you plan to install PAM on a different computer from the one running the DB2 server, you must install the DB2 client on the computer running Partner Agreement Manager, and then apply FixPak 3 to both the DB2 server and DB2 client computers.

### SERVER HARDWARE REQUIREMENTS

These are the recommended minimum memory allowances for the Partner Agreement Manager and the DB2 server computers on Windows or UNIX:

	Partner Agreement Manager	DB2
NT	128 MB RAM	256 MB RAM
UNIX	256 MB RAM	512 MB RAM

The hard disk requirement for the Partner Agreement Manager Process Server and all supporting software is approximately 390 MB. Make additional provisions for a 1 GB (or more) database device and a 250 MB (or more) log device set up for use by your database.

### SERVER SOFTWARE REQUIREMENTS

- One of the following operating systems:
  - Windows NT Server 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release)
  - Windows 2000 Server
  - AIX 4.3.3
  - Solaris (version 2.7 or 2.8)
- IBM DB2 run-time client

- IBM DB2 Enterprise Edition version 7.1, with FixPak 3, or IBM DB2 Enterprise Edition version 7.2 (you can find DB2 FixPaks on the IBM Web site)
- JDBC 2 driver, which is installed with the DB2 run-time client

**NOTE:** The DB2 client is automatically installed when you install the DB2 server. If you run Partner Agreement Manager on a computer other than the one where the DB2 server is installed, you must also install the DB2 client on that computer:



The recommended installation: Install Partner Agreement Manager and DB2 server on separate computers.

See Installing and configuring the DB2 client on Windows on page 33.

### INSTALLING AND CONFIGURING DB2

Follow these instructions for installing and configuring DB2 before you install PAM for the first time.

To configure DB2 before you install Partner Agreement Manager:

- STEP 1 Install DB2. See *Installing DB2* on page 30.
- **STEP 2** Create the user that will run DB2 and log in as that user.

On Windows, the default user name is db2admin. This user must have administrative privileges. On AIX and Solaris, the default user name is db2inst1.

- **STEP 3** Download DB2 FixPak 3 from the IBM Web site, and apply the FixPak on the computer that is running the DB2 server.
- **STEP 4** Enable the JDBC2 driver.
  - On Windows:
    - On the server computer, stop all DB2 services.

- On the client computer:
  - Open a DB2 command window.
  - Run this command:
    - %SQLLIB%\java12\usejdbc2.bat
- Restart the DB2 services.
- On AIX and Solaris, run the command:
  - . /home/db2inst1/sqllib/java12/usejdbc2

**IMPORTANT:** You must run this command in each shell you use.

- **STEP 5** Create the schema. See *Creating the Partner Agreement Manager schema* on page 32.
- **STEP 6** Configure the DB2 client. See *Installing and configuring the DB2 client on Windows* on page 33.
- **STEP 7** Continue with the installation. See *Installing Partner Agreement Manager* on page 52.

After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide*.

**NOTE:** If you plan to use the Partner Agreement Manager with MQSeries as a transport, you must configure it separately. See the MQSeries appendix in the *Partner Agreement Manager Administrator's Guide* for more information.

### INSTALLING DB2

Keep these points in mind before installing DB2:

- If you install Partner Agreement Manager on a computer other than the one where the DB2 server is installed (as recommended), you must also install the DB2 client on that computer. See *Installing and configuring the DB2 client on Windows* on page 33.
- You must install the Process Server after you install and configure DB2, because it requires the DB2 JDBC driver that is installed with DB2. See *Installing Partner Agreement Manager* on page 52.

### To install DB2:

1 On Windows, follow IBM's instructions to install DB2. On UNIX, run db2setup.

The Select Products panel appears. The following example is a Windows NT panel:

Select Products	×	
IBM.	Select the product(s) you would like to install.	
DB2 Version 7	DB2 Enterprise Edition DB2 Application Development Client	—— This example panel is on Windows NT.
	DB2 Administration Client	
	DB2 Application Development Client is a collection of tools that complement your application development environment for the creation of database applications.	
	Next > Cancel Help	

- 2 Choose the DB2 Enterprise Edition, the DB2 Application Development Client, and the DB2 Administration Client. On UNIX, choose the same components.
- **3** When the DB2 installer prompts you to choose the directory where DB2 will be installed, make a note of the directory you choose. When you configure DB2 you need to change to this directory.
- 4 Create an instance.

An instance has an associated user ID. You can use a user you created before running the DB2 installer, or accept the defaults (on Windows, db2admin and on UNIX, db2inst1).

TIP: You can check the version of DB2 you're using by logging into your instance and executing the command db2level. On UNIX, to check which components are installed, run/usr/lpp/db2\_07\_01/install/db2setup. On Windows, you can rerun the DB2 installation.

### **CONFIGURING DB2**

After you install DB2, you must configure it.

### To configure DB2:

1 Copy the WebSphere Partner Agreement Manager db2\_schema folder from your Partner Agreement Manager install image to your DB2 server computer.

For example, copy the folder into /home/install on UNIX and c:\install on Windows.

2 On your DB2 server computer, change directory (cd) to db2\_schema.

The db2\_schema directory (db2\_schema/aix-ppc on AIX and db2\_schema/ solaris\_sparc on Solaris) contains these files:

- bitwfa (bitwfa.dll on Windows)
- tocharf (tocharf.dll on Windows)
- **3** Copy the configuration files to the \$SQLLIB directory.
  - On Windows, copy the bitwfa.dll and tocharf.dll files from the db2\_schema directory to the %SQLLIB%\function directory.
  - On UNIX, copy the bitwfa and tocharf files from the db2\_schema directory to the \$SQLLIB/function directory.

Copying these files registers your user-defined functions. The default for \$SQLLIB is /usr/lpp/db2\_07\_01.

# CREATING THE PARTNER AGREEMENT MANAGER SCHEMA

To create the Partner Agreement Manager schema:

- 1 Open a new DB2 command window and change directory (cd) to db2\_schema.
- 2 Log in as the user for the instance created when you installed DB2.
- 3 On Windows, run the newdb.bat file from the DB2 command window:

newdb <db\_name> <db2\_login> <db2\_password> <db2\_local\_directory> <db2\_server\_directory> <db2\_instance\_name> This creates a new database for Partner Agreement Manager, creates Partner Agreement Manager tablespaces, extends the number of log files, and imports the stored procedures. The newdb command puts the DB2 stored procedures in the %SQLLIB%\function\routine\sqlproc\<dbname> \<dbname> \\<dbname> \\<d

- **TIP:** If you don't see your stored procedures, check %SQLLIB%\function\routine\sqlproc\<*dbname*>\<*dbinstance*>\tmp\\*.log for error messages.
- If you're running newdb on the computer where the DB2 server is installed, <db2\_local\_directory> and <db2\_server\_directory> are the same—the directory where DB2 is installed on the DB2 server computer.
- If you're running newdb on a computer other than the one where the DB2 server is installed, *<db2\_local\_directory>* specifies the directory where the DB2 run-time client is installed, and *<db2\_server\_directory>* specifies the directory where the DB2 server is installed.
- 4 On UNIX, run newdb.ksh and read the usage message. For example:

cd /home/install/db2\_schema

./newdb.ksh <*databasename*> db2inst1 db2inst1 /home/db2inst1/sqllib /home/ db2inst1 db2inst1 -v

# Installing and configuring the DB2 client on Windows

It is recommended that you run Partner Agreement Manager on a computer other than the one on which the DB2 server is installed. If you follow this recommendation, you must also install the DB2 client on the computer where Partner Agreement Manager is installed, and configure it so that it can locate the DB2 server.

To install and configure the DB2 client on a computer other than the one where the DB2 server is installed:

- 1 Insert the IBM Runtime Client for DB2v7.1 CD into your CD-ROM drive.
- **2** Follow the installation procedure. This sets up a folder on the Start menu called IBM DB2. It includes a shortcut called Client Configuration Assistant.
- 3 Apply DB2 FixPak 3.
- 4 Enable the JDBC2 driver using the command %SQLLIB%\java12\usejdbc2.bat.
- 5 Use the shortcut to start the Client Configuration Assistant.

The Client Configuration Assistant appears.

Client Configural	tion Assistant			
wailable DB2 Databa	ises			
Database alias	ODBC Name	DRDA	Comment	<u>A</u> dd
DWCTRLDB	DWCTRLDB			Doloto
🗍 EC1	EC1			Delete
🗍 SATCTLDB	[Not registered]			
				Properties
				<u><u>B</u>ind</u>
				<u>I</u> est
				Bassing
				Password
Database Properties				
Target database: D\	VCTRLDB	Protocol:L	.ocal	
System: CH	HP-SQL	Drive: [	):\DB2	
instance. DE	52			
Client Settings	Import Expo	rt		<u>C</u> lose Hel

### 6 Click Add.

The Add Database Wizard appears.



7 Choose Manually Configure a Connection to a Database and click Next.

### The Protocol tab appears.



**8** Choose TCP/IP and click Next.

The TCP/IP tab appears.

Add Database Wizard	×
1. Source 2. Protocol 3. TCP/IP 4. Database 5. ODBC 6. Node Options 7. Security Options	
Step 3: Specify TCP/IP communications parameters.	
The host name identifies a system on the TEP/IP network. In the Host name field, type the server system's host name of Paddess. A post number, or a post number and service name is associated with each DB2 server instance on that system. In the Port number field, type the port number of the DB2 server instance that contains the database. In the Service name field, type the service name of the DB2 server instance that contains the database.	
Host name pam-db2	
Port number 50000	
Service name (Optional)	
	Z
	01010101010
	0101010101
	0101010101

**9** Specify the TCP/IP parameters:

Host name	The name of the computer running the DB2 server.
Port number	The DB2 server port to which the client connects. The default is 50000 if you used the default when you installed the DB2 server. If you entered a different port number during DB2 installation, enter that number here.
Service name	Not used; leave blank.

**10** Click Next.

### The Database tab appears.



- 11 Specify the name of the database to which you are connecting—this is the name you specified when you ran newdb on the computer running the DB2 server (see *Creating the Partner Agreement Manager schema* on page 32). The database alias defaults to match the database name.
- **12** Click Finish.

The ODBC, Node Options, and Security Options tabs use the default settings, which are accepted when you click Finish.



**13** Click Test Connection to test the connection to the DB2 server from the DB2 client.

Connect To DB2 Databa	ase X	3
Database alias	pam	
User ID	db2admin	Enter the user ID and password
Password	******	for your DB2 database.
Change password		
New password		
Verify new password		
Connection mode		
	C Exclusive	
	<u>O</u> K Cancel	

The Connect To DB2 Database dialog box appears.

14 Enter the user ID and password for your DB2 database and login, and then click OK.

The client tests the connection to the server and notifies you of its success:



If the connection fails, an IBM error message directs you to the source of the problem.

**15** Click Close in the Confirmation dialog box to close the Client Configuration Assistant.

### CONFIGURING THE DB2 CLIENT ON UNIX

If you're using UNIX, after you install the DB2 client, you must tell the client where to find the DB2 server.

### To tell the DB2 client where to find the DB2 server:

- 1 Log in as the DB2 user (for example, db2inst1).
- **2** Tell the DB2 client where to find the DB2 server by running the command:

db2 catalog tcpip node <*nodename*> remote <*machinename*> server <*port\_number*>

where <machinename> is the computer running the DB2 server, <nodename> usually matches <machinename> with the domain, and <port\_number> is the port that the DB2 server is listening on for client connections (the default is 50000).

For example, if you're running DB2 on a computer called heather at Comtech, you would type:

db2 catalog tcpip node heather remote heather.comtech.com server 50000

**3** Make a client connection on the computer where you are installing the Process Server, after you create your database. Run the command:

db2 catalog database <*databasename*> as <*databasename*> at node <*machinename*>

where <machinename> is the computer where you created the database.

### NOTES ON INSTALLING THE PROCESS SERVER

Install Partner Agreement Manager according to the instructions in *Installing Partner Agreement Manager* on page 52.

You must install the Process Server after you install and configure DB2. The Process Server requires the DB2 JDBC driver to communicate with DB2.

The IBM Runtime Client includes the DB2 JDBC driver (db2java.zip), and puts it in the directory where the DB2 client is installed, in a folder named %sqllib%\java. On Windows, the Runtime Client also adds this location to the system CLASSPATH. On UNIX, log in as db2inst1 or run this command:

./home/db2inst1/sqllib/db2profile

### DB2 CONFIGURATION TIPS

Consider these points as you refine your DB2 configuration:

- You can choose to create a directory for your log files on another device. To change the logfile directory that is created for Partner Agreement Manager DB2 log files, edit the batch file updatelog.bat and run it.
- To change your log file size, edit the updatelog.bat batch file. The size specified is 4K pages. The default is 250 pages, with 9 primary log files and 6 secondary log files—about 15MB. When you finish editing the batch file, run the file to apply your changes to your database.
- The WebSphere Partner Agreement Manager Install directory contains a Tools subdirectory that includes miscellaneous database manipulation tools you might find useful.
- If you plan to use multiple languages in your business objects, set your database codepage for multiple languages during database configuration—you cannot change a database's codepage after it is created. Refer to your database documentation for information about using codepages.
- By default, DB2 is configured with next key locking, which can cause deadlocks. To avoid the risk of deadlocks, execute the following command, and then stop and restart the DB2 server:

db2set DB2\_RR\_TO\_RS=YES

- To improve performance:
  - use one database for each DB2 instance.
  - you can change the values of these parameters from the default value to the recommended value (note that DBHEAP is a new parameter):

Parameter	Default Value	Recommended Value
APPLHEAPSZ	128	512
CHNGPGS_THRESH	60	30
DBHEAP	600	1200
DFT_PREFETCH_SZ	16	80
LOCKLIST	50	512
LOGBUFSZ	8	512
LOGFILSIZ	250	25000

Parameter	Default Value	<b>Recommended Value</b>
LOGSECOND	2	10
MAXAPPLS	40	100
NUM_IOCLEANERS	1	8
NUM_IOSERVERS	3	1
SOFTMAX	100	300
SORTHEAP	256	1024



### INSTALLING AND CONFIGURING ORACLE

Read this chapter for information about installing and configuring an Oracle database for your PAM Process Server. The information provided here does not replace the need for your database administrator to customize and maintain your installation for your system and needs.

This chapter includes these sections:

- *Before you install Oracle* on page 42.
- Installing and configuring Oracle on page 43.

### **BEFORE YOU INSTALL ORACLE**

To use Oracle as the database with Partner Agreement Manager, your system must meet the hardware and software requirements described here. It must also meet the requirements for Partner Agreement Manager described in *Hardware and software requirements* on page 5.

### SERVER HARDWARE REQUIREMENTS

These are the recommended minimum memory allowances for the Partner Agreement Manager and the Oracle database computers on Windows or UNIX:

	Partner Agreement Manager	Oracle
NT	256 MB RAM	512 MB RAM
UNIX	512 MB RAM	1 GB RAM

The hard disk requirement for the Partner Agreement Manager Process Server and all supporting software is approximately 390 MB. Make additional provisions for a 1 GB (or more) database device and a 250 MB (or more) log device set up for use by your database.

### SERVER SOFTWARE REQUIREMENTS

- One of the following operating systems:
  - Windows NT Server 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release)
  - Windows 2000 Server
  - AIX 4.3.3
  - Solaris (version 2.7 or 2.8)
- Oracle 8.1.6 or 8.1.7
- Oracle 8.1.6 JDBC OCI driver (this file is called classes12.zip and is installed with Oracle; it is also available from the Oracle Web site: www.oracle.com)

### INSTALLING AND CONFIGURING ORACLE

To use an Oracle database with your Partner Agreement Manager installation, It is recommended to install the Oracle database on a different server computer from the one that will be running the Process Server.



The recommended installation: Install Partner Agreement Manager and Oracle on separate computers.

See the Oracle documentation for information on installing and configuring Oracle version 8.1.6 or 8.1.7 for your system. For more information, check the Oracle Web site: www.oracle.com.

When you set up the Oracle database for Partner Agreement Manager, you:

- create or designate a tablespace for the Partner Agreement Manager database
- add a dedicated Oracle login to be used by Partner Agreement Manager
- update the schema

### CREATING OR DESIGNATING A TABLESPACE FOR PARTNER AGREEMENT MANAGER

After you install and configure Oracle, you must create a tablespace for Partner Agreement Manager. When creating this tablespace, you define certain parameters based upon your specific needs:

 Choose the size of the extents based upon the average size of the business objects that you use. For example, a typical value might be 128 K. If most of your business objects are smaller than this, then 64K or even 32K is a more appropriate size.

- Set the number of MAXEXTENTS to (Total Size of Tablespace Required)/ (Size of Extent). Alternatively, you can set the MAXEXTENTS to UNLIMITED and allow the tablespace size be the limiting factor.
- Based on the number of physical disks available on your Oracle server and the size of the tablespace, you might want to split the tablespace datafiles across several disks. A typical datafile size may be 200M. As more space is needed in the tablespace, additional datafiles can be created.

### To create a tablespace for Partner Agreement Manager:

- 1 Log in to Oracle as a user with DBA privileges.
- **2** Create the tablespace:

SQL> create tablespace mytablespacename datafile 'datafilers\_1'size 500M default storage (initial 128K next 128K minextents 2 maxextents unlimited pctincrease 0);

The placeholder *mytablespacename* represents the tablespace name you use. Typically, this name is PAM.

The size of the extent should encompass an entire business object to avoid wrapping. You might need to specify larger extents for larger objects.

**NOTE:** You can also designate an existing tablespace for use by Partner Agreement Manager.

**3** Create a temporary tablespace:

SQL> create tablespace temptablespacename temporary;

The placeholder *temptablespacename* represents the temporary tablespace name you use.

4 Add more tablespace, if necessary:

SQL> alter tablespace *mytablespacename* add datafile 'datafilers\_02.dbf' size 200M;

Oracle recommends having multiple data files for one tablespace so that you can move the data files to separate hard disks for better performance. Instead of a single 2 GB file, you can place ten 200 MB files on different disks so data can be accessed across several drives at once.

### Adding the Partner Agreement Manager

### DATABASE LOGIN

After you install your database, you must set up one Oracle user for Partner Agreement Manager to use, with a user name and password. Partner Agreement Manager uses this user name to create and populate tables during installation. Typically, this user is named PAM.

### To add the Partner Agreement Manager database login:

- 1 Log in to Oracle as a user with DBA privileges.
- 2 Create the user:

SQL> create user *username* identified by *password* default tablespace *tablespace* temporary tablespace *temp* quota unlimited on tablespace;

*username, password, tablespace* and *temp* are placeholders for the actual values appropriate for your system. *temp* is the temporary tablespace you designated for Partner Agreement Manager. Typically, username is PAM.

Make sure to note the Oracle server host name, login name, and password. You need this information when you install the Process Server.

**3** Grant the new user the appropriate privileges from this list of possible privileges:

SQL> grant alter database to username;

- SQL> grant create any index, alter any index, drop any index to username;
- SQL> grant create procedure, alter any procedure to username;
- SQL> grant drop any procedure, execute any procedure to username;
- SQL> grant create sequence, alter any sequence to username;
- SQL> grant drop any sequence, select any sequence to username;

SQL> grant create session to username;

- SQL> grant create any table, alter any table, delete any table to username;
- SQL> grant drop any table, insert any table, update any table to username;
- SQL> grant create tablespace, alter tablespace, drop tablespace to username;
- SQL> grant create view to username;
- SQL> alter user username quota 0 on system;

**NOTE:** Do not give the user "tablespace unlimit" or resource in the system tablespace.

### UPDATING THE SCHEMA

Update the Partner Agreement Manager schema (table and stored procedures).

To update the schema:

- Log in as the user you created to run Partner Agreement Manager.
   See Adding the Partner Agreement Manager database login on page 45.
- 2 Using the SQLPLUS client, run: oracle\_schema/all\_o.sql

**NOTE:** It is recommendes that you turn on spooling to check for errors.

# ▶ SECTION

# **OPERATING SYSTEMS**

Read this section for information on installing Partner Agreement Manager on your operating system. Because you can install all Partner Agreement Manager components on Windows, the full installation instructions are provided in the Windows chapter. The Partner Agreement Manager installer is cross-platform, so the way you install the Process Server and Adapter Server for Solaris and AIX is similar to the Windows method. If you are installing on Solaris or AIX, read those chapters first for important instructions before you start installing Partner Agreement Manager.

This section includes these chapters:

- Installing Partner Agreement Manager on Windows on page 49.
- Installing Partner Agreement Manager on AIX on page 71.
- Installing Partner Agreement Manager on Solaris on page 79.

48 INSTALLATION GUIDE



# Installing Partner Agreement Manager on Windows

Read this chapter for instructions on installing Partner Agreement Manager components, including the Process Server, Process Manager, Adapter Server, and Adapter Manager. Remember that, although you can install the server components on Solaris, AIX, or Windows, the client components—the Process Manager and Adapter Manager must be installed on a Windows computer.

This chapter includes these sections:

- *Before you begin* on page 50.
- Installing the Windows SNMP service on page 51.
- Installing Partner Agreement Manager on page 52.
- Installing the Process Manager on page 64.
- Installing the Adapter Manager on page 68.

### BEFORE YOU BEGIN

Before you install Partner Agreement Manager on your Windows NT or Windows 2000 system, you must:

 Make sure that your partner ID (a number that uniquely identifies your company's PAM installation) meets these requirements:

You are required to use your company's Dun & Bradstreet D-U-N-S<sup>®</sup> Number for your partner ID. If you have more than one Partner Agreement Manager license that you plan to use within your organization, use your D-U-N-S Number with the 4-digit location qualifier to distinguish the different locations within your organization. Enter the 9 or 13 digits, without any punctuation, as your Partner ID. You can look up your D-U-N-S Number or request one from Dun & Bradstreet at www.dnb.com. Contact IBM Customer Support if you have questions about your partner ID.

 Install the Java Runtime Environment (JRE—use the May 11, 2001 build or later), and then update your PATH and CLASSPATH. For example, if SJREROOT is where you installed the JRE, you must run these commands:

```
export PATH=$JREROOT/jre/sh:$PATH
export CLASSPATH=$JREROOT/jre/lib/rt.jar:$CLASSPATH
```

Edit your system PATH variable to add the location of java.exe that you installed from the zip file:

%jre\_root\_dir%\bin:%PATH%

where %jre\_root\_dir% is the directory where you unzipped the IBM JRE.

• Edit your system CLASSPATH variable to add the location of the rt.jar file:

%jre\_root\_dir%\lib\rt.jar:%CLASSPATH%

where %jre\_root\_dir% is the java.exe directory.

- Verify that the PATH and CLASSPATH variables are correct by opening a DOS window and run the command java -version. If the variables are correct, the command returns the JRE version number and build information.
- Add these Java packages to %jre\_root\_dir%\jre\lib\ext. You can download them from the JavaSoft website (www.javasoft.com/products):
  - Java Beans Activation Framework version 1.0.1—activation.jar.
  - Java Naming and Directory Interface (JNDI) version 1.2.1—jndi.jar.
     LDAP service provider version 1.2.2—ldap.jar and providerutil.jar.
  - Java Mail version 1.2—mail.jar and pop3.jar.

- Make sure that your system meets the requirements described in *Hardware and software requirements* on page 5. If you are missing any of the required software, download and install it before proceeding.
- For DB2 and Oracle users, make sure you create the PAM database first before you begin to install Partner Agreement Manager. For more information, see *Creating the Partner Agreement Manager schema* on page 32 for DB2 and *Installing and configuring Oracle* on page 43 for Oracle.
- If you use a DB2 database, enable the JDBC2 driver:
  - Stop all DB2 services on the DB2 server.
  - Open a DB2 command window.
  - Run this command on your DB2 installation:
    - %SQLLIB%\java12\usejdbc2.bat
  - Restart the DB2 services.
- Use the Installation Worksheet on page 8 to record information that you need during the installation. The worksheet is a handy reference during installation, and it provides a record of information that is useful for network and system administrators after installation.
- **IMPORTANT:** If you are upgrading to Partner Agreement Manager 2.2 from an earlier version, your system must meet the requirements listed for Partner Agreement Manager 2.2. See *Upgrading to PAM 2.2* on page 87 before you begin upgrading your installation.

### INSTALLING THE WINDOWS SNMP SERVICE

If you plan to enable support for diagnostic monitoring during Partner Agreement Manager installation, you must install the Windows SNMP Service before you start the PAM installer.

### To install the Windows SNMP Service:

- 1 Open the Control Panel and double-click the Network icon.
- **2** Click the Services tab.

If SNMP Service is listed, SNMP is already installed.

• If SNMP is already installed, verify that the service is running. See *Verifying the SNMP service*, next.

- If SNMP Service is not listed on the Services tab, click Add.
- **3** Select SNMP Service and click OK.
- **4** Insert your Windows installation CD into the CD-ROM drive, enter the path to your CD-ROM drive, and click OK.
- 5 Open the SNMP Properties dialog box.
- 6 Click the Agent tab and enter Contact and Location information.
- 7 Click the Traps tab and, in the Trap Destination area, add the computers on your system running the SNMP network management applications that will monitor this computer.
- 8 Restart your computer and verify that the service is running. See *Verifying the SNMP service*, next.
- **9** Re-install your current Windows Service Pack.

VERIFYING THE SNMP SERVICE

After installing the Windows SNMP service, verify that it is running:

- 1 Open the Control Panel and double-click the Services icon.
- **2** Verify that SNMP and SNMP Trap Service are started.
- **3** Verify that the startup is set to automatic.

### INSTALLING PARTNER AGREEMENT MANAGER

Using the Partner Agreement Manager installer, you can install the Process Server and Adapter Server, as well as the client software (Process Manager and Adapter Manager), all at the same time. Or you can install just the two servers, just the Process Manager, or just the Adapter Manager.

**NOTE:** On Solaris or AIX, you can install the server software only. You must install the client components on Windows.

**IMPORTANT:** For all operating systems, the Partner Agreement Manager installation also requires 150 MB of disk space in the C:\temp directory (/ tmp on UNIX) *before* you start the installer. If you're using Windows 2000, the C:\temp directory doesn't exist by default. Create a C:\temp directory and allocate at least 150 MB to it.

You can also use an existing directory as the temp or tmp directory by setting the XYTempDir property to an existing directory before you run the Partner Agreement Manager installer. To do this on Windows, open a CMD window (Choose Start>Run>cmd and then click OK). In the CMD window, type SET XYTempDir=c:\<existing\_directory\_name>. On UNIX, you edit the setup shell script and add the command: export XYTempDir=/ <new\_temp\_dir>.

For security reasons, it's a good idea to create a new Windows user named "PAM" with Local Administrator privileges, and then use that user account to install and run the Partner Agreement Manager servers.

**IMPORTANT:** Partner Agreement Manager will not run as a service if you change this user after creating it during installation. If you plan to run Partner Agreement Manager as a service, make sure that the NT user does not change after the installation.

Here are additional security recommendations for the Partner Agreement Manager host computer:

- Install the PAM servers on a separate computer—one that is not defined as a member of an NT domain.
- Limit the number of user accounts and disable guest accounts. The PAM servers should not be run as any other user.
- Turn off administrative shares.
- Disable RAS (Remote Access Service).
- Disconnect any modems.

The Partner Agreement Manager installer places Partner Agreement Manager shortcuts in an WebSphere folder in your Start menu. Use the shortcuts to start the components you install.

#### To install the PAM servers and clients:

- 1 Click Start, choose Programs, and open a Command Prompt window.
- 2 From your install image, type setup.bat to start the installation.

The Welcome panel appears for the Partner Agreement Manager installation. The Partner Agreement Manager installer guides you through the installation, one panel at a time.

- **NOTE:** If you're running the installer on Solaris or AIX, the screens appear slightly different than the Windows screens shown in these steps. The colors and fonts are different, but the instructions and prompts are the same.
- **IMPORTANT:** If you are installing Partner Agreement Manager on a dualprocessor computer, you must set the affinity of the java.exe to one processor before continuing with the installation. To set the affinity to one processor, open the Windows Task Manager and click the Processes tab. Find the java.exe process in the list and right-click the process name. Choose Set Affinity from the menu that appears. Deactivate all but one processor. Close the Task Manager and continue with the Partner Agreement Manager installation.
- **3** Click Next in the Welcome panel.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.

- 4 Click the box labeled I Accept the Terms of the License Agreement, and then click Next.
- 5 In the next panel, choose New Partner Agreement Manager Installation, and click Next.



### 6 The installer checks prerequisites on your system.



7 Choose the Partner Agreement Manager components you want to install.



The system selects all components by default: the Process and Adapter Servers, the Process Manager, and the Adapter Manager. You can accept the default, or you can select any combination of components. These instructions guide you through installing all Partner Agreement Manager components. If you are installing only the PAM client software, see *Installing the Process Manager* on page 64. If you are installing only the Adapter Manager, see *Installing the Adapter Manager* on page 68.

**IMPORTANT:** If you attempt multiple installations on a single computer, *only the level of the latest installation* will be valid and will overwrite any previous installation. For example, if you install the Process Server and Adapter Server and *then* install the Process Manager, the server version will be overwritten and the system will function as a Process Manager client only. If you perform multiple installations on a single computer you must create a new database for each installation, and then run the installer again to choose a separate destination folder for the second installation.

When deciding which components to install, consider these points:

 Choose the server option if you're installing on Solaris or AIX. The server installation installs the Partner Agreement Manager functionality including process and adapter creation, execution, auditing, and partner management without user access.

To install both servers only, or to perform a full installation of both servers and both clients, continue to step 8, next.

 The Process Manager installation provides user access and control of various features of the Process Server.

To install only the Process Manager, see *Installing the Process Manager* on page 64.

 The Adapter Manager installation provides the user with access to the Adapter Server to design and run adapters for other business application software with which Partner Agreement Manager must communicate.

To install only the Adapter Manager, see *Installing the Adapter Manager* on page 68.

8 Select the components you want to install and click Next.

The installer guides you step by step through the information necessary to install Partner Agreement Manager.

9 Enter your license key and click Next.

License Key:	

The license key gives you the right to install the Process Server.

**10** Enter your Partner Name and Partner ID, and then click Next.


11 Enter the Process Server host name and port numbers for the Process Server, Adapter Server, Process Manager, and Adapter Manager, and then click Next.

PAM Server Host Host Name shakespeare	<ul> <li>The name of the computer where the Process Server is to be installed.</li> </ul>
Process Server Ports	<ul> <li>These ports listen for the</li></ul>
Adapter Server Port 4003	Adapter Server and the Process
Process Manager Port 1099	Manager.
Adapter Server Ports	<ul> <li>These ports listen for the</li></ul>
Process Server Port 4004	Process Server and the Adapter
Adapter Manager Port 1100	Manager.

**NOTE:** When you install all Partner Agreement Manager components (all server and client software), all port fields are editable. Make sure that the ports specified by the default values are available, and change them if they are not.

Host Name	The name of the server computer where the Process Server is to be installed.
	The server installation recognizes the local computer name where it is being installed and displays it. This is the valid host name for the server version of Partner Agreement Manager. This field is not editable.
	<b>NOTE:</b> If you are installing the Process Manager on a client computer separate from the Process Server host, this field is editable. In this case, you must change the host name to the name of the server computer where the Process Server and the Adapter Server are installed.

Process Server Ports	The Process Server ports that listen for the Adapter Server and the Process Manager. The system displays default values.
	<b>NOTE:</b> When you install the Process Manager (without the Server) the Process Manager Port field is editable. This number must match the Process Manager port number used during the installation of the Process Server and the Adapter Server.
Adapter Server Ports	The Adapter Server ports that listen for the Process Server and the Adapter Manager. The system displays default values.
	<b>NOTE:</b> When you install the Adapter Manager (without the servers), the Process Manager Port and Adapter Manager Port fields are editable. These numbers must match the Partner Agreement Manager and Adapter Manager port numbers used during the installation of the Process Server and the Adapter Server.

**12** Choose the type of database you want Partner Agreement Manager to use, and then click Next.



The installer shows the Process Server and Adapter Server database names.

13 If necessary, enter your database name, and then click Next.



The Adapter Server database must be the same as the Process Server database. You cannot modify this information—the installer automatically checks the Same as Process Server Database Information, and disables the second Database Name field. 14 Enter the Data User Name and Password. If the Schema User Name and Password are different, uncheck the Same as Data Modification User check box, and enter the Schema User Name and Password. Click Next.

Data modification user		
Data User Name d	b2admin	— Fo
Data User Password 🔭	******	the
		DE
Schema modification use	r	wł
🗹 Same as Data modific	ation user	ex
Schema User Name	db2admin	
Schema User Password		

For Oracle, the database name on the Oracle server computer; for DB2, the user name you assigned when you created an instance (for example, db2admin).

When you set up your database, you assign the Data User Name and Password to the user who modifies the data, and the Schema User Name and Password to the user who modifies the schema. These can be the same user name and password.

**15** Enter the Administrator password, and then retype the password to confirm it. Click Next.

Administrator login	admin	
Password		Entor and confirm the password
Confirm Password		for the PAM Admin user
		TOT THE FAIN AUTHIT USET.

The Admin login is the login name you assigned to the PAM administrator. It is not editable. Enter the initial password for the PAM Admin user. You can change this password after you log in to Partner Agreement Manager.

16 Choose a web server, and then click Next.

О ІВМ	HTTP	Server
-------	------	--------

- C IBM HTTP Server with WebSphere
- C Remote Webserver (not on current host)

- Choose the local web server for Pam to use.

To use a remote web server or a web server that is not listed in the installer, you must manually configure it to integrate with PAM. A message appears.



For more information, see Installing Apache and configuring SSL on page 13.

17 If necessary, change the default HTTP Host Name and Port and the SSL Host Name and Port. Click Next.

HTTP Host Name Shakesp HTTP Port 80	eare et Layer) are	<ul> <li>Host names and ports for the HTTP and SSL connection protocols. SSL is enabled by</li> </ul>
SSL Port 443 HTTP Host Name and Port	The host names and TCP/IP por connection protocols. These app modified.	default. rt number for the HTTP pear by default but can be
SSL Host Name and The installer selects the check box "Enable SSL (Secure Socket Layer)" by default. If you have SSL security certificates installed on your web server, leave this box checked.		

but can be modified.

The host name and port number for SSL appear by default

**18** Enter your SMTP Server address and the User Name for the Partner Agreement Manager e-mail account. Click Next.

SMTP Server	
SMTP Server	SMTP Server is the host name of your e-mail server. Enter your SMTP server address.
PAM User Name	PAM User Name is the user for the Partner Agreement Manager e-mail account. This is the user to whom all undeliverable mail from Partner Agreement Manager returns. The default is "PAM."

**19** Make any necessary changes to the settings for polling and SNMP trap receivers, and then click Next.

Enable polling of PAM s	ystem resource status		
Polling Rate (minutes)	5	<ul> <li>Enable polling to collect system resource data.</li> </ul>	
Enable the PAM SNMP /	Agent		
SNMP Trap Receivers		<ul> <li>Use the PAM SNMP Agent to work with SNMP applications.</li> </ul>	
Enable polling of PAM system resource status	Enable polling if you want Partne collect system resource informati Process Manager Auditor System	er Agreement Manager to on and post it in the Messages folder.	
Polling Rate (minutes)	If you enabled polling, specify the rate at which Partner Agreement Manager will poll the system, or accept the default of 5 minutes.		
Enable the PAM SNMP Agent	Enable the SNMP Agent if you use SNMP-based network management applications that need access to Partner Agreement Manager.		
SNMP Trap Receivers	Enter the name of computers on your network that use SNMP-based network applications that will listen for Partner Agreement Manager system messages, if any. Optional.		
	<b>NOTE:</b> If you specify more than a separate the names with space	one computer, you must s.	

## **20** If you use LDAP, choose settings and enter Host, Port, User DN and Password information. Click Next.

Use LDAP for authorizing	users	<ul> <li>Click to enable LDAP.</li> </ul>	
LDAP provider information - LDAP Provider Host		<ul> <li>If you enable LDAP, specify the host and port for the LDAP provider.</li> <li>If you enable LDAP, specify the User DN and password for the user.</li> </ul>	
Use LDAP for authorizing users	Click to enable LDAP to authenticate users and retrieve user information. If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).		
Use LDAP for storing partner information	Click to enable LDAP to store and receive partner information. If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).		
LDAP provider information	<ul><li>LDAP Provider Host</li><li>LDAP Provider Port</li></ul>		
LDAP user information	<ul><li>LDAP User DN (Distinguishe</li><li>LDAP User Password</li></ul>	d Name)	

**21** If you want, click Start Process Server and Adapter Server as Services to start the servers as services when you start your server computer (for Windows only).

Start Process Server and Adapter Server as Services.			
-			
Windows User Name	FIGTREE\esakai		
Windows User Password			

 Click to start the Process Server and the Adapter Server as services when you start the server computer.

If you start the Process Server and Adapter Server as services, the user you specify in this window must have the proper permissions to log on as a service.

22 Select or enter the Destination Folder for where you want Partner Agreement Manager to be installed. After you specify the folder, click Install to begin copying files for the installation.

Destination Folder C:WVebSphere\PAM Click Install to begin the installation.	Browse	<ul> <li>Specify where you want to install Partner Agreement Manager.</li> </ul>
Destination Folder ]/export/home/brianv/Ally550 Browse	For AIX, you c <i><username< i="">&gt;/&lt;</username<></i>	an use /home/ <foldername>.</foldername>

If the folder you choose for the installation doesn't exist, you are prompted to enable the installer to create it. Click Yes.

**NOTE:** If you installed Partner Agreement Manager as a service, then both the Process Server and the Adapter Server start automatically when you complete the installation. You can confirm that they are running by opening your server computer's Services Control Panel.

After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide* for more information.

**NOTE:** If you plan to use the Partner Agreement Manager with MQSeries as a transport, you must configure it separately. See the MQSeries appendix in the *Partner Agreement Manager Administrator's Guide* for more information.

## INSTALLING THE PROCESS MANAGER

Read this section for information about installing only the Process Manager. Installation files for the Process Manager are on the Partner Agreement Manager install image. Make sure that the Process Server has been installed and that your system meets the hardware and software requirements for installing the Process Manager.

**NOTE:** The PAM installer places a Process Manager shortcut in your Start menu. You can use this shortcut to start the Process Manager.

To install the Process Manager:

- 1 Click Start, choose Programs, and open a Command Prompt window.
- 2 From the install image, type setup.bat.

The Welcome panel appears for the Partner Agreement Manager installation. The PAM installer guides you through the installation, one panel at a time.

**NOTE:** Although this section explains all required fields, it does not show all panels that appear during the installation.

3 Click Next.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.

- 4 Click the box labeled I Accept the Terms of the License Agreement, and then click Next.
- **5** Choose New PAM Installation, and then click Next.



**6** The installer checks prerequisites on your system. Click Next.



7 Choose Install Process Manager, and then click Next.



By default, the system selects all components—the Process Server and Adapter Servers, the Process Manager, and the Adapter Manager. Deselect the Install Process Server and Adapter Server and Install Adapter Manager options. (For instructions on installing the Process Server, see *Installing Partner Agreement Manager* on page 52.)

**NOTE:** To install the Adapter Manager along with the Process Manager, leave Install Adapter Manager selected. Additional editable fields appear for you to fill in. See *Installing the Adapter Manager* on page 68 for Adapter Manager instructions.

**IMPORTANT:** If you attempt multiple installations on a single computer, *only the level of the latest installation* will be valid, and will overwrite any previous installation. For example, if you install the Process Manager on a computer that already has the PAM Servers installed, the server versions will be overwritten and the system will function as a Partner Agreement Manager client only.

8 Enter your License Key and click Next.



The license key gives you the right to install the Process Manager.

9 Enter your Partner Agreement Manager Partner Name and ID, and then click Next.

PAM Partner Name   PAM Partner ID	The system administrator for PAM provides the Partner Name and ID.
Partner Name	The name by which your company is known to its Partner Agreement Manager partners. Your system administrator can confirm the unique name used by the company.
Partner ID	A number that uniquely identifies your company to all of its Partner Agreement Manager partners. Contact your system administrator for this number.

**10** Enter the Partner Agreement Manager Server Host Name and the Process Manager Port, and click Next.

PAM Server Host		
Host Name shakesp	eare	<ul> <li>Enter the name of the computer where your Process</li> </ul>
Process Server Ports		Manager is to be installed.
Adapter Server Port	4003	
Process Manager Port	1099	<ul> <li>Only the Process Manager</li> <li>port is editable. Use the same</li> </ul>
Adapter Server Ports		number used in the PAM
Process Server Port	4004	servers installation.
Adapter Manager Port	1100	

**NOTE:** When you install the Process Manager, the required Process Manager Port field is editable. Make sure that the port number is the same as the number used during the Process Server/Adapter Server installation.

Host Name	The name of the Process Server.
	<b>NOTE:</b> When you install the Process Manager on a client computer <i>separate</i> from the Process Server host, this field is editable. The system recognizes the local computer name, and it appears by default. You must modify the host name to point to the server computer where the Process and Adapter Servers are installed.
Process Server Ports	The numbers for the Process Server ports that listen for the Adapter Server and the Process Manager. The system displays default values.
	<b>NOTE:</b> When you install the Process Manager (without the Server) the Process Manager Port field is editable. (The Adapter Server Port is not.) This number must match the Process Manager Port number used during the installation of the Process and Adapter servers.

11 Select or enter the Destination Folder for where you want the Process Manager to be installed. After you specify the folder, click Install to begin copying files for the installation.



If the folder you choose for the installation doesn't exist, you are prompted to enable the installer to create it. Click Yes.

After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide* for more information.

## INSTALLING THE ADAPTER MANAGER

Read this section for information about installing the Adapter Manager to run as a stand-alone application. Installation files for the Adapter Manager are on the PAM install image. Make sure that your system meets the hardware and software requirements for installing the Adapter Manager.

**NOTE:** The Partner Agreement Manager installer places an Adapter Manager shortcut on your Start menu. You can use this shortcut to start the Adapter Manager.

#### To install the Adapter Manager:

- 1 Click Start, choose Programs, and open a Command Prompt window.
- 2 From the install image, type setup.bat.

The Welcome panel appears for the Partner Agreement Manager installation. The Partner Agreement Manager installer guides you through the installation, one panel at a time.

**NOTE:** Although this guide explains all required fields, it does not show all panels that appear during the installation.

3 Click Next.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.

- 4 Click I Accept the Terms of the License Agreement, and then click Next.
- 5 In the next panel, choose Install Adapter Manager. Click Next.



The system selects all components by default: the Process Server and the Adapter Server, the Process Manager, and the Adapter Manager. Deselect the Install Process and Adapter Servers and the Install Process Manager options. (For instructions on installing the Process Server, see *Installing Partner Agreement Manager* on page 52.)

**NOTE:** To install the Process Manager with the Adapter Manager, leave Install Process Manager selected. Additional editable fields appear for you to fill in. See *Installing the Process Manager* on page 64 for the Process Manager installation instructions. **IMPORTANT:** If you attempt multiple installations on a single computer, *only the level of the latest installation* will be valid and will overwrite any previous installation. For example, if you install the Adapter Manager on a computer that already has the PAM Servers installed, the server version will be overwritten and system will function as an Adapter Manager client only.

6 Enter your License Key and click Next.



The license key gives you the right to install the Adapter Manager.

7 Enter your Partner Agreement Manager Partner Name and ID, and then click Next.

PAM Partner Name   PAM Partner ID	The system administrator for PAM provides the Partner Name and ID.	
Partner Name	The name by which your company is known to its Partner Agreement Manager partners. Your system administrator can confirm the unique name used by your company.	
Partner ID	A number that uniquely identifies your company's PAM installation. Contact your system administrator for this number.	

8 Enter the Partner Agreement Manager Server Host, and the Process Manager and Adapter Manager Ports, and then click Next.

PAM Server Host		
Host Name shakespeare	3	Enter the name of the computer where your
Process Server Ports		Adapter Manager is to be
Adapter Server Port 40	003	installed.
Process Manager Port 10		-
		— The Process Manager and
Adapter Server Ports		the Adapter Manager Port
Process Server Port 400	04	are editable. Use the same
Adapter Manager Port 11	00	numbers used in the PAM
		servers installation

**NOTE:** When installing the Adapter Manager, the required Port fields are editable. Make sure that the Port numbers are the same as the numbers used during the Process and Adapter Servers installation.

Host Name	The name of the Process Server.
	When you install an Adapter Manager on a client computer <i>separate</i> from the Process Server host, this field is editable. (When you install a server, this field is <i>not</i> editable.) The system recognizes the local computer name and it appears by default. You must modify the host name to point to where the PAM Servers are installed.
Adapter Server Ports	The numbers for the Adapter Server ports that listen for the Process Server and the Adapter Manager. The system displays default values.
	Make sure that both the Process Manager port and the Adapter Manager port are correct and change them if they are not. If they are incorrect, the Adapter Manager fails when you try to log in.

**9** Select or enter the Destination Folder for where you want the Adapter Manager to be installed. After you specify the folder, click Install to begin copying files for the installation.

Destination Folder		
C:WebSphere\PAM	Browse	<ul> <li>Select where you</li> </ul>
		want to install the
Click Install to begin the installation.		Flocess Manager.

If the folder you choose for the installation doesn't exist, you are prompted to enable the installer to create it. Click Yes.

# INSTALLING PARTNER AGREEMENT MANAGER ON AIX

Read this chapter for information about meeting system requirements for installing WebSphere Partner Agreement Manager 2.2 for the AIX 4.3.3 operating system.

You can install the Partner Agreement Manager servers—the Process Server and the Adapter Server—on AIX. The Process Server on AIX requires an AIX-compatible version of the Partner Agreement Manager client—the Process Manager. The compatible client is included with this distribution, and it must be installed on a Windows NT, Windows 2000, or Windows 98 computer.

This chapter includes these sections:

• Before you install on page 72.

CHAPTER

• Installing components in order on page 74.

## **BEFORE YOU INSTALL**

Before you install Partner Agreement Manager:

- Read the section *Before you begin* on page 50 to familiarize yourself with the partner ID requirements.
- Make sure that your system meets the requirements described in *Hardware and software requirements* on page 5. If you are missing any of the required software, download and install it before proceeding.
- Use the Installation Worksheet on page 8 to record information that you will need during the Partner Agreement Manager installation. The worksheet is a handy reference during installation, and it provides a record of information that is useful for network and system administrators after installation.
- Install the Java Runtime Environment (JRE—use the May 11, 2001 build or later), and then update your PATH and CLASSPATH. For example, if SJREROOT is where you installed the JRE, you must run these commands:

```
export PATH=$JREROOT/jre/sh:$PATH
export CLASSPATH=$JREROOT/jre/lib/rt.jar:$CLASSPATH
```

In addition, make sure you know:

- Your Partner Agreement Manager Partner Name.
- Your Partner Agreement Manager Partner ID. This is your company's D-U-N-S number. See page 50 for more information.

**IMPORTANT:** For all operating systems, the Partner Agreement Manager installation also requires 150 MB of disk space in the C:\temp directory (/tmp on UNIX) *before* you start the installer. If you're using Windows 2000, the C:\temp directory doesn't exist by default. Create a C:\temp directory and allocate at least 150 MB to it.

You can also use an existing directory as the temp or tmp directory by setting the XYTempDir property to an existing directory before you run the Partner Agreement Manager installer. To do this on Windows, open a CMD window (Choose Start>Run>cmd and then click OK). In the CMD window, type SET XYTempDir=c:\<existing\_directory\_name>. On UNIX, you edit the setup shell script and add the command: export XYTempDir=/ <new\_temp\_dir>.

#### Notes on using a DB2 database

If you're using DB2, you must also:

- install the Process Server after you install and configure DB2 (version 7.1 with FixPak 3 or 7.2). The Process Server requires the DB2 JDBC driver to communicate with DB2. The IBM Runtime Client includes the DB2 JDBC driver (db2java.zip), and puts it in the directory where the DB2 client is installed, in a folder named \$sqllib/java. Run ./home/db2inst1/sqllib/java12/usejdbc2 to put the location in the system CLASSPATH in every shell.
- check that you have sufficient space on /tmp. DB2 uses /tmp to temporarily store LOBs before inserting them into the database.
- tell the DB2 client where to find the DB2 server:
  - Connect to the computer as the DB2 admin user and run the command:

db2 catalog tcpip node <*nodename>* remote <*machinename>* server <*port\_number>* 

where <machinename> is the computer running the DB2 server, <nodename> usually matches <machinename> with the domain, and <port\_number> is the port that the DB2 server is listening on for client connections (the default is 50000).

- make a client connection on the computer where you are installing the Process Server, after you create your database:
  - Connect to the computer as the DB2 admin user and run the command:

db2 catalog database <databasename> as <databasename> at node <machinename>

where <machinename> is the computer where you created the database

#### NOTES ON USING AN ORACLE DATABASE

If you're using an Oracle database, you also need:

- Oracle 8.1.6 or 8.1.7.
- the Process Server installed after you install and configure Oracle.
- the full path to the jar or zip file containing the Oracle JDBC OCI driver, classes12.zip. IBM does not distribute this file; it is distributed with your Oracle database software and is available on www.oracle.com.

- the user name and password for the Oracle Partner Agreement Manager login.
- the name of the Oracle host.
- the port the Oracle database listens on.
- the Oracle SID (this is most often the hostname of the database server with no extension).

#### INSTALLING COMPONENTS IN ORDER

To run Partner Agreement Manager, you must install not only the Process Server software but also a number of independent software products or components that Partner Agreement Manager uses. These products or components must be installed before you install the Process Server.

**IMPORTANT:** You must be at the console of an AIX computer to install Partner Agreement Manager.

**NOTE:** There is no support for multiple copies of the Process Server on a single computer.

These are the steps for installing Partner Agreement Manager for AIX:

**STEP 1** Make sure that your system meets the hardware and software requirements for installing the Process Server.

If you are missing any of the required software, install it before proceeding. See *Hardware and software requirements* on page 5.

- **STEP 2** Install the Java Runtime Environment (JRE—use the May 11, 2001 build or later), and then update your PATH and CLASSPATH.
- **STEP 3** Set up a Partner Agreement Manager database in DB2 or Oracle.

The Process Server installation populates the Partner Agreement Manager database. See *Creating the Partner Agreement Manager schema* on page 32 or *Installing and configuring Oracle* on page 43.

**STEP 4** Update your databases and schemas:

• If you're using Oracle, update the Oracle schema (table and stored procedures) and update the JDBC driver by putting classes12.zip into your CLASSPATH.

The schema file, all\_o.sql, is located in the oracle\_schema directory at the root of the install image.

- If you're using DB2, create the DB2 schema (see *Creating the Partner Agreement Manager schema* on page 32), set the environment variables, and specify the JDBC driver as follows (where \$SQLLIB is the directory where the DB2 server is installed):
  - Run . \$SQLLIB/sqllib/db2profile to set the DB2 environment variables.
  - Run . \$SQLLIB/sqllib/java12/usejdbc2 to use JDBC2.

Note the spaces between the text and the dots.

- STEP 5 Configure the SNMP daemon on AIX. Run the mosy command (mosy -o alliance.obj Alliance.mib) on alliance.mib (located in the /alliance/SNMP subdirectory) to generate an obj file, and then append the obj file to /etc/ mib.def.
- **STEP 6** Change to the root user, if you are not already, because the installer requires that you log in as root and be at the console.

Telnet is not supported, and using Xterms is not recommended. If you need to do a remote installation, contact IBM Customer Support.

**STEP 7** Launch the Partner Agreement Manager installer from your install image.

For example, type:

/bin/sh setup

**STEP 8** Install the Process Server and Adapter Server.

The Partner Agreement Manager installer works cross-platform. See *Installing Partner Agreement Manager* on page 52.

For this prompt	Choose or enter
Database	DB2 or Oracle
Database Name	<ul> <li>For DB2, the name you assigned when you ran the newdb script (up to 8 characters)</li> </ul>
	For Oracle, the Oracle server computer name
Data User Name	<ul> <li>For DB2, the user name you assigned; for example, db2admin for NT, or db2inst1 for AIX</li> </ul>
	<ul> <li>For Oracle, the database name on the Oracle server computer</li> </ul>
Destination Folder	The directory you created to install Partner Agreement Manager in (for example, /home/< <i>username</i> >/ < <i>foldername</i> >)

Follow the steps, and enter these values at the specified prompts:

**IMPORTANT:** The Partner Agreement Manager installation creates a Partner Agreement Manager user for you. This user is named admin and the password is chris. Change this password immediately after installation.

## Starting and stopping Partner Agreement Manager

After the installer finishes, you can start the Process Server and Adapter Server.

To start Partner Agreement Manager:

- 1 cd to the partner directory.
- 2 Run the script to create the Process Server environment variables:

. Scripts/setCREnv.

Note the spaces between the text and the dots.

The second dot specifies the current directory.

3 Type: alliance -server

If this doesn't start the Process Server, you can start the Process Server using the alternate command:

java CRStation.shell.ServerShell -noui Properties/Partner.properties Properties/ ISPartner.properties 4 Type the following to start the Adapter Server: IS -server

To stop the Process Server and Adapter Server:

► Type alliance -stop -server and IS -stop -server

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# Installing Partner Agreement Manager on Solaris

Read this chapter for information about meeting system requirements for installing WebSphere Partner Agreement Manager 2.2 for the Solaris operating system.

You can install the Partner Agreement Manager servers—the Process Server and the Adapter Server—on Solaris. The Process Server on Solaris requires a Solaris-compatible version of the Partner Agreement Manager client—the Process Manager. The compatible client is included with this distribution, and it must be installed on a Windows NT, Windows 2000, or Windows 98 computer.

This chapter includes these sections:

- Before you install on page 80.
- Installing components in order on page 82.

## **BEFORE YOU INSTALL**

Before you install or upgrade Partner Agreement Manager:

- Read the section *Before you begin* on page 50 to familiarize yourself with the partner ID requirements.
- Make sure that your system meets the requirements described in *Hardware and software requirements* on page 5. If you are missing any of the required software, download and install it before proceeding.
- Use the Installation Worksheet on page 8 to record information that you will need during the Partner Agreement Manager installation. The worksheet is a handy reference during installation, and it provides a record of information that is useful for network and system administrators after installation.

In addition, make sure you know:

- Your Partner Agreement Manager Partner Name.
- Your Partner Agreement Manager Partner ID. This is your company's D-U-N-S number. See page 50 for more information.

**IMPORTANT:** For all operating systems, the Partner Agreement Manager installation also requires 150 MB of disk space in the C:\temp directory (/ tmp on UNIX) *before* you start the installer. If you're using Windows 2000, the C:\temp directory doesn't exist by default. Create a C:\temp directory and allocate at least 150 MB to it.

You can also use an existing directory as the temp or tmp directory by setting the XYTempDir property to an existing directory before you run the Partner Agreement Manager installer. To do this on Windows, open a CMD window (Choose Start>Run>cmd and then click OK). In the CMD window, type SET XYTempDir=c:\<existing\_directory\_name>. On UNIX, you edit the setup shell script and add the command: export XYTempDir=/ <new\_temp\_dir>.

#### NOTES ON USING AN ORACLE DATABASE

If you're using an Oracle database, you also need:

• Oracle 8.1.6 or 8.1.7.

- the Process Server installed after you install and configure Oracle. The Process Server requires the DB2 JDBC driver to communicate with DB2.
- the full path to the jar or zip file containing the Oracle JDBC OCI driver, classes12.zip. IBM does not distribute this file; it is distributed with your Oracle database software and is available on www.oracle.com.
- the user name and password for the Oracle Partner Agreement Manager login.
- the name of the Oracle host.
- the port the Oracle database listens on.
- the Oracle SID (this is most often the hostname of the database server with no extension).

#### Notes on using a DB2 database

If you're using DB2, you must also:

- install the Process Server after you install and configure DB2 (version 7.1 with FixPak 3 or 7.2). The Process Server requires the DB2 JDBC driver to communicate with DB2. The IBM Runtime Client includes the DB2 JDBC driver (db2java.zip), and puts it in the directory where the DB2 client is installed, in a folder named \$sqllib/java. Run./home/db2inst1/sqllib/java12/usejdbc2 to put the location in the system CLASSPATH in every shell.
- check that you have sufficient space on /tmp. DB2 uses /tmp to temporarily store LOBs before inserting them into the database.
- tell the DB2 client where to find the DB2 server:
  - Connect to the computer as the DB2 admin user and run the command:

db2 catalog tcpip node <*nodename>* remote <*machinename>* server <*port\_number>* 

where <machinename> is the computer running the DB2 server, <nodename> usually matches <machinename> with the domain, and <port\_number> is the port that the DB2 server is listening on for client connections (the default is 50000).

- make a client connection on the computer where you are installing the Process Server, after you create your database:
  - Connect to the computer as the DB2 admin user and run the command:

db2 catalog database <*databasename>* as <*databasename>* at node <*machinename>* 

where *<machinename>* is the computer where you created the database.

## INSTALLING COMPONENTS IN ORDER

To run Partner Agreement Manager, you must install not only the Process Server software but also a number of independent software products or components that Partner Agreement Manager uses. These products or components must be installed before you install the Process Server.

**NOTE:** There is no support for multiple copies of the Process Server on a single computer.

These are the steps for installing Partner Agreement Manager for Solaris:

**STEP 1** Make sure that your system meets the hardware and software requirements for installing the Process Server.

If you are missing any of the required software, install it before proceeding. See *Hardware and software requirements* on page 5.

- **STEP 2** Create a new Solaris user named "PAM" with Local Administrator privileges, and then use that user account to install and run the Partner Agreement Manager servers.
- **STEP 3** Set up a Partner Agreement Manager database in Oracle or DB2.

The Process Server installation populates the Partner Agreement Manager database. See *Installing and configuring Oracle* on page 43 or *Creating the Partner Agreement Manager schema* on page 32.

- **STEP 4** Update your databases and schemas:
  - If you're using Oracle, update the Oracle schema (table and stored procedures) and update the JDBC driver by putting classes12.zip into your CLASSPATH.

The schema file, all\_o.sql, is located in the oracle\_schema directory at the root of the install image.

- If you're using DB2, create the DB2 schema (see *Creating the Partner Agreement Manager schema* on page 32), set the environment variables, and specify the JDBC driver as follows (where \$SQLLIB is the directory where the DB2 server is installed):
  - Run . \$SQLLIB/sqllib/db2profile to set the DB2 environment variables.
  - Run . \$SQLLIB/sqllib/java12/usejdbc2 to use JDBC2.

Note the spaces between the text and the dots.

- STEP 5 Add the necessary components for the SNMP daemon on Solaris. Copy the files alliance.mib, alliance-agent.reg, and alliance-agent.rsrc from Alliance/ SNMP to /etc/snmp/conf as root.
- **STEP 6** Using the Common Desktop Environment (CDE), log in to Solaris with the same user name as the computer you're installing Partner Agreement Manager on.

Telnet is not supported, and using Xterms is not recommended.

**IMPORTANT:** Don't use the Open Windows Desktop environment—the installation will fail.

To do a remote installation of Partner Agreement Manager on Solaris, consult your IBM Customer Support representative for details.

**STEP 7** Launch the Partner Agreement Manager installer from the install image.

For example, type:

/bin/sh setup

**STEP 8** Install the Process Server and Adapter Server.

The Partner Agreement Manager installer works cross-platform. See *Installing Partner Agreement Manager* on page 52.

For this prompt	Choose or enter
Database	Oracle or DB2
Database Name	<ul> <li>For Oracle, the Oracle server computer name or SID</li> <li>For DB2, the name you assigned when you ran the newdb script (up to 8 characters)</li> </ul>
Data User Name	<ul> <li>For Oracle, the database name on the Oracle server computer</li> <li>For DB2, the user name you assigned; for example, db2admin on NT or db2inst1 on UNIX</li> </ul>
Destination Folder	The directory you created to install Partner Agreement Manager in (for example, /export/home/< <i>username</i> >/ < <i>foldername</i> >)

Follow the steps, and enter these values at the specified prompts:

**IMPORTANT:** The Partner Agreement Manager installation creates a Partner Agreement Manager user for you. This user is named admin and the password is chris. Change this password immediately after installation.

## Starting and stopping Partner Agreement Manager

After the installer finishes, you can start the Process Server and Adapter Server.

To start Partner Agreement Manager:

- 1 cd to the partner directory.
- 2 Run the script to create the Process Server environment variables:

. Scripts/setCREnv .

Note the spaces between the text and the dots.

The second dot specifies the current directory.

3 Type: alliance -server

If this doesn't start the Process Server, you can start the Process Server using the alternate command:

java CRStation.shell.ServerShell -noui Properties/Partner.properties Properties/ ISPartner.properties 4 Type the following to start the Adapter Server: IS -server

To stop the Process Server and Adapter Server:

 $Type \ {\sf alliance}\ {\sf -stop}\ {\sf -server}\ {\sf and}\ {\sf IS}\ {\sf -stop}\ {\sf -server}$ 

**INSTALLATION GUIDE** 



# Upgrading to PAM 2.2

Read this chapter for information about using the Partner Agreement Manager installer to upgrade from Partner Agreement Manager 1.1 to Partner Agreement Manager 2.2 for Windows NT.

This chapter includes these sections:

- *About upgrading PAM* on page 88.
- Before you begin on page 89.
- Upgrading Partner Agreement Manager on page 92.

## ABOUT UPGRADING PAM

**IMPORTANT:** Before you begin the upgrade, make sure that you followed the steps in *Preparing the system to be upgraded* on page 90. You must follow these steps to prepare your PAM installation and your database for the upgrade.

When you upgrade, the installer automatically locates your current Partner Agreement Manager installation, identifies the components that are currently installed, and displays relevant information. Then, using the information you supply about your database, the installer upgrades your Partner Agreement Manager profile, your public and private processes, your business objects, and your audit logs that have not been archived.

For DB2/NT users, PAM 1.1 required a C++ compiler. If you are upgrading from PAM 1.1 to 2.2, continue to use that compiler to build stored procedures. Keep in mind that new PAM 2.2 customers will use the new stored procedure import that is provided by DB2 FixPak3.

**NOTE:** The installer replaces the entire WebSphere\PAM\Alliance directory (with the exception of the Plug Ins directory if there is one). Adapter files are typically in the Partners directory, and the installer does not delete files from the Partners directory. If you have put adapter-related files in the WebSphere\PAM\Alliance directory, however, they will be deleted make sure to copy them before you begin the upgrade.

These are the steps for upgrading from Partner Agreement Manager 1.1 to Partner Agreement Manager 2.2:

**STEP 1** Prepare the Partner Agreement Manager system to be upgraded.

This includes performing an orderly shutdown of the Process Server and the Adapter Server, moving files out of the WebSphere\PAM\Alliance directory if necessary, and creating a backup of the entire Partner Agreement Manager system. See *Preparing the system to be upgraded* on page 90.

**STEP 2** If you're using a DB2 database and you haven't already upgraded the server, upgrade the DB2 server to FixPak 3, or install a new DB2 server and upgrade it to FixPak 3.

- **STEP 3** Upgrade the Partner Agreement Manager system using the PAM install image. See *Upgrading Partner Agreement Manager* on page 92.
- **STEP 4** Recompile all your custom adapters. The adapters supplied by PAM are upgraded automatically. See the *Partner Agreement Manager Adapter Developer's Guide* for information about compiling adapters.
- **STEP 5** Distribute your Partner Agreement Manager profile to all partners. See the *Partner Agreement Manager User's Guide* for more information.

## BEFORE YOU BEGIN

Before you begin the upgrade from PAM 1.1 to PAM 2.2 for Windows NT, you must follow the steps described here to prepare your PAM installation and your DB2 database.

**IMPORTANT:** For all operating systems, the Partner Agreement Manager installation also requires 150 MB of disk space in the C:\temp directory (/tmp on UNIX) *before* you start the installer. If you're using Windows 2000, the C:\temp directory doesn't exist by default. Create a C:\temp directory and allocate at least 150 MB to it.

You can also use an existing directory as the temp or tmp directory by setting the XYTempDir property to an existing directory before you run the Partner Agreement Manager installer. To do this on Windows, open a CMD window (Choose Start>Run>cmd and then click OK). In the CMD window, type SET XYTempDir=c:\<existing\_directory\_name>. On UNIX, you edit the setup shell script and add the command: export XYTempDir=/ <new\_temp\_dir>.

#### PREPARING THE SYSTEM TO BE UPGRADED

If you are currently using Partner Agreement Manager 1.1 and you want to continue using your PAM data, you *must* follow these instructions:

- Before you upgrade your Partner Agreement Manager installation, you
  must stop the Process Server. Because this means that all running
  processes must be stopped, it is a good idea to coordinate with your
  partners and schedule all upgrades for a time when no processes are
  running.
- Back up Partner Agreement Manager with Windows NT imaging software, and back up your database.

#### To prepare the system to be upgraded:

1 Make sure that your system meets the hardware and software requirements described in *Hardware and software requirements* on page 5.

If you are missing any of the required software, you must download and install it before proceeding.

- **2** Contact your administrator for your company's PAM partner name and partner ID.
- **3** Allow all Partner Agreement Manager processes to complete, or stop them. To stop a running PAM process, open the Auditor's In Progress Processes folder, right-click the process instance to stop, and choose Abort from the menu that appears.

**TIP:** To reduce the time necessary for the upgrade to complete and to be able to access them after the upgrade, archive any audit logs that you don't expect to use.

- **4** Stop the Adapter Server, if it is running. In the Adapter Server window, choose Exit from the Server menu. If you are running PAM as a service, stop the service in the Control Panel.
- **5** Stop the Process Server—in the Process Server window, choose Exit from the Server menu. If you are running PAM as a service, stop the service in the Control Panel.
- 6 Move any files that have been added to the WebSphere\PAM\Alliance directory to another location.

These are typically files that adapter developers might have added to the file system, and are usually files that the adapters refer to, not the adapters themselves. You can restore them to the WebSphere\PAM\Alliance directory after the upgrade.

**7** Back up the entire Process Server system, so that you can restore your original Partner Agreement Manager 1.1 setup if the upgrade encounters problems.

**TIP:** You might want to create an image of the hard drive for restoring it in case of problems with the upgrade.

- 8 If you use a DB2 database, apply DB2 FixPak 3 to the installation of DB2 that you use for PAM 1.1 (or to another installation if you divide your DB2 usage between two computers).
- 9 If you use a DB2 database, enable the JDBC2 driver:
  - A Stop all DB2 services on the DB2 server.
  - **B** Open a DB2 command window.
  - c Run this command on your DB2 installation:

%SQLLIB%\java12\usejdbc2.bat

- **D** Restart the DB2 services.
- **10** Close all other applications.
- **11** Update the database.
  - For DB2 users:
    - To use the same DB2 server for PAM 2.2 as you used for PAM 1.1, first copy the db2\_schema folder on the product install image to your hard disk, and then run the upgradedb command from the db2\_schema folder:

upgradedb <new\_db\_name> <db\_login> <db\_password> <db2\_local\_directory> <db2\_server\_directory> <db2\_instance\_name> < old\_db\_name> <temp\_working\_directory>

If you are running newdb on the computer where the DB2 server is installed, *<db2\_local\_directory>* and *<db2\_server\_directory>* are the same—the directory where DB2 is installed on the DB2 server computer.

If you are running newdb on a computer other than the one where the DB2 server is installed, *<db2\_local\_directory>* specifies the directory where the DB2 run-time client is installed, and *<db2\_server\_directory>* specifies the directory where the DB2 server is installed.

The upgradedb command creates tablespaces in the %SQLLIB% directory.

- To use a *different* DB2 server for PAM 2.2 than you used for PAM 1.1:
- A Run updgrdexp on the PAM 1.1 DB2 server (DB2 FixPak1).
- **B** Run updgrdimp on the PAM 2.2 DB2 server (DB2FixPak3).
- c See the readme file in the db2\_schema folder for directions about which files to transfer from the 1.1 DB2 server to the 2.2 DB2 server.
- **12** Run the Partner Agreement Manager installer and choose Upgrade Existing PAM Installation. See *Upgrading Partner Agreement Manager*, next.

**NOTE:** During the upgrade, the PAM installer lists most of these tasks and requires you to check them off before continuing the upgrade.

## **Upgrading Partner Agreement Manager**

When you upgrade, the installer upgrades all core PAM components at the same time—the Process Server and Adapter Server, the Process Manager, and the Adapter Manager.

You can upgrade the clients installed on other computers after you upgrade the Process Server and the Adapter Server. If you upgrade the Process Server and the Adapter Server computer, the Process Manager and the Adapter Manager installed on that computer are automatically upgraded at the same time.

**IMPORTANT:** You must upgrade the Process Server and the Adapter Server before you upgrade the Process Manager or the Adapter Manager. Version 2.2 servers must be available for use by version 2.2 clients.

**IMPORTANT:** If you use another channel (for example, RosettaNet) or adapter (like SAP), you must run the upgrade of that product as well so that it is compatible with your upgraded version of Partner Agreement Manager.

To upgrade a Partner Agreement Manager installation:

- 1 Click Start, choose Programs, and open a Command Prompt window.
- 2 From your install image, type setup.bat.

The Welcome panel appears for the Partner Agreement Manager upgrade. The PAM installer guides you through the upgrade, one panel at a time.
**NOTE:** Although this guide explains all required fields, it does not show all panels that appear during the installation.

3 Click Next.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the upgrade.

4 Click I Accept the Terms of the License Agreement, and then click Next.

The next panel offers two installation options: Upgrade Existing PAM Installation or New PAM Installation.

5 Select Upgrade Existing PAM Installation and click Next.

The next panel shows your PAM root directory and partner ID. Make sure that the information is correct and click Next.

PAM Root Directory	
c:WebSphere\PAM	Enter your PAM root
Browse	directory.
PAM Partner ID 101	—— Enter your partner ID.

6 The installer checks your PAM installation and lists the current information.



**7** The installer lists the tasks you must complete before you continue with the upgrade. Make sure that each pre-upgrade task has been completed, and check each box in the list. Click Next.



8 For DB2 users only, replace the name of the PAM 1.1 database with the name of the new database you made when you created the PAM schema. Click Next.



**NOTE:** The check mark in the Same as Process Server Database Information box ensures that the new database name is used for the Adapter Server database as well as for the Process Server database.

**9** Verify the data modification and schema logins and passwords, and click Next.

Data modification user       Data User Name     db2admin       Data User Password     ********       Schema modification user     ********	This is the login user name and password assigned in your database for the PAM database.
Schema User Name db2admin	
Schema User Password	

### **10** If you use LDAP, set any necessary options, and then click Next.

Use LDAP for authorizing	Jsers	— Click to enable LDAP.	
LDAP provider information - LDAP Provider Host		<ul> <li>If you enable LDAP, specify the host and port for the LDAP provider.</li> <li>If you enable LDAP, specify the User DN and password for the user.</li> </ul>	
Use LDAP for authorizing users	Click to enable LDAP to authenticate users and retrieve user information. If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).		
Use LDAP for storing partner information	Click to enable LDAP to store and receive partner information. If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).		
LDAP provider information	<ul><li>LDAP Provider Host</li><li>LDAP Provider Port</li></ul>		
LDAP user information	<ul><li>LDAP User DN (Distinguished</li><li>LDAP User Password</li></ul>	d Name)	

If you aren't already running Partner Agreement Manager as an NT service, the Services panel appears.

🔲 Start Process Server and	d Adapter Server as Services	<ul> <li>Click to start the Process</li> </ul>
Windows User Name	FIGTREE\esakai	Server and the Adapter
Windows User Password		Server as services when
		you start your computer.

11 Click Start Process Server and Adapter Server as Services to start the Process Server and the Adapter Server as services when you start your computer. Click Next.

If you start the Process Server and the Adapter Server as services, the user you specify in this window must have the proper permissions to log on as a service.

The destination folder panel appears.

Destination Folder	
c:\WebSphere\PAM	—— The folder where PAM is installed.
Browse	

The Destination Folder is the folder where Partner Agreement Manager is installed.

**NOTE:** The Destination Folder field is not editable.

**12** Click Next to begin the upgrade.



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# GLOSSARY



GLOSSARY

- adapter implementation—the implementation declaration for an adapter type. It specifies the name and location of the Java source file that defines the application logic used to communicate with a specific end system through that end system's interface. The application logic is specified in the form of properties. See also *adapter*, *adapter instance*, *adapter type*.
- adapter instance—an instance of an adapter implementation. The adapter instance is used in a private process extension action and provides the specific values to be used for the properties declared in the adapter implementation. See also *adapter*, *adapter implementation*, *adapter type*, *extension action*.
- adapter type—a definition that is stored in XML format and specifies the adapter's properties as well as the operations and events it supports. A single adapter type can have multiple implementations, and each implementation can have multiple instances. See also *adapter*, *adapter implementation*, *adapter instance*.
- approval action—a private process action that you use to ask for a response from a user before letting the process continue to run. You can use an approval action, for example, to ask for an OK when a purchase order exceeds a predetermined amount. See also *private process*.
- business object—a message transmitted as part of a public process. Business objects take the form of purchase orders, acknowledgments, requests for clarification, and so on. See also *business object type*.
- business object type—a definition that determines the types of information a message can contain. It has three properties: the top-level element in its element definition set, its key field, and whether instances of it return audit information for non-repudiation purposes. The name of the business object type is the name of the element you select as its top-level element. See also *business object, element definition set, non-repudiation*.
- business object variable—one of the two types of variables used in Partner Agreement Manager to store information within a process. Business object variables create an instance of a business object type. They can be used to store, for example, the outputs from extension actions, the inputs for map actions, or the inputs and outputs for subprocesses. See also *business object, business object type, extension action, variant variable.*

CA—see certificate authority.

- certificate—a security document that binds a public encryption key to an entity (an individual or organization) known as the principal. The security document (a digital certificate) is signed by another entity known as the issuer. A digital certificate for which both the principal and issuer are the same entity is known as a self-signed certificate. A certificate for which the principal and issuer are different entities is issued by a certificate authority (CA) like VeriSign and is known as a CA-issued (or third-party-signed) certificate. Partner Agreement Manager supports both self-signed and CA-issued certificates. PAM also supports the binding of certificates to be used for signature authentication, message encryption, and SSL authentication for channels other than Partner Agreement Manager. See also *certificate authority, SSL*.
- certificate authority—a trusted third-party organization or company that issues digital certificates used to create digital signatures and public-private key pairs. The role of the certificate authority, or CA, is to authenticate the entities (individuals or organizations) involved in electronic transactions. CAs are a critical component in data security and electronic commerce because they guarantee that the two parties exchanging information are really who they claim to be. See also *certificate*.
- channel—a communications mechanism that encapsulates all the processing information needed to send messages to a partner's system, as well as to translate data received from a partner into Partner Agreement Manager messages. PAM provides channels for RosettaNet, EDI, cXML, and other systems and protocols. See also *message*.

digital certificate-see certificate.

- DTD—Document Type Definition. A type of file associated with SGML and XML documents that defines how the formatting tags should be interpreted by the application presenting the document. In Partner Agreement Manager, a DTD file contains the complete description of a business object type's element definition set. See also *business object, business object type, element definition set.*
- element definition set—a collection of data fields (or elements) or groups of data fields that defines the structure and meaning of a business object type. See also *business object, business object type*.

encryption certificate—see certificate.

event—a piece of information that comes into Partner Agreement Manager as a message from another source (an enterprise system or business application, for example) and triggers a public process. See also *message*.

- event push—a method that uses the HTTP POST mechanism to push events into Partner Agreement Manager as a way to trigger processes. A port on the Process Server is set to listen for events in the form of HTTP POST messages. When a message is detected, PAM uses the information in the message to generate an event. See also *event*.
- extended enterprise—a business model under which companies that work together as partners function as efficiently as a single organization through the implementation of automated communication technologies.
- extension action—a private process action that communicates via an adapter with an external application that is registered with Partner Agreement Manager. You can use an extension action, for example, to launch a spreadsheet application, perform calculations, and update the enterprise system, or to get information from an enterprise system or listen for an event in the enterprise system. See also *adapter*, *private process*.
- LDAP—Lightweight Directory Access Protocol. LDAP provides a standard method for accessing information from a central directory. After user authentication is set up in the LDAP directory, applications that use the LDAP protocol can retrieve the information from that directory. An authenticated user can log in to any application that supports the LDAP protocol with the same user name and password.

linked certificate-see certificate.

- map—a Java Script or VBScript that inserts data into fields in an output business object type generated by a private process. The map specifies which fields in the output business object type receive data, and it identifies the information source.
- map method—a reusable logical block of code that inserts data into a particular type of element or element sequence in a business object type. Within a map method, you can write the expressions that map individual input and output fields in the sequence. Or you can create a submap and drag input fields to output fields and have Partner Agreement Manager create the appropriate mapping expressions. See also *map*, *submap*.
- mapping action—a private process action that you use to call a map. The map specifies the fields in a business object type that will receive data extracted from another source. You use a mapping action when you want to extract data from one business object type and insert it in a different business object type. For example, you use a mapping action to transform a purchase order generated by your inventory system into a sales order in a format that your partner expects. See also *map*, *private process*.

- message—a structured communication used to pass information and control to another partner in a public process. The action in the process passes to the partner who receives the message. The content of a message is determined by its business object type. A message can be transmitted via synchronous or asynchronous methods, as determined by its communication service type. See *business object type*.
- non-repudiation—a business object security feature that authenticates instances of a business object type and maintains an audit record to verify that they were received by the intended recipient. For business object instances that you receive, Partner Agreement Manager authenticates each instance and maintains an audit record to verify that the instance actually originated with the stated originator. If you disable auditing for a business object type, non-repudiation support is disabled for all messages that contain instances of that business object type.
- notification action—a private process action that you use to send an e-mail, fax, or pager message to addressees that you specify. You use a notification action to inform someone inside or outside your organization that an event has occurred. For example, you can use a notification action to alert the order entry department when a purchase order arrives from a customer. See also *private process*.
- output object action—a private process action that you use to bind a business object to the expected output object and path in a public process. You use an output object action at the point in a private process when you are ready to send a business object to the associated public process. This is typically the last action in the private process. See also *private process*.
- partner group—a group of partners that perform the same role in a process at different times. Instead of duplicating a public process and substituting a different partner name, you can set up a partner group for the public process and then designate a specific partner as the participant when you start an instance of the process. For example, you might design a generic purchasing process that works equally well with any of your suppliers and then designate the appropriate partner when you start the process.
- partner profile—information that identifies an organization, specifies a contact person in that organization, lists the communication services the organization supports, and defines the organization's security profile. When partners agree to participate in a public process, they must exchange profile information as a way to ensure authenticity before they can proceed.

- PIP—Partner Interface Process. RosettaNet PIPs are specialized system-to-system XMLbased dialogs that define business processes between supply-chain partners and provide models and documents for the implementation of e-commerce standards. Each PIP includes a technical specification based on the RosettaNet Implementation Framework (RNIF), a message guideline document with a PIP-specific version of the business dictionary, and an XML message guideline document. See also *RosettaNet*.
- post method—the last block of code that is executed when a mapping action runs. Its only parameter is the output business object. You use the post method when you need to perform post-processing on the output business object. For example, you might use the post method to set the value of a summary field based on the number of line items in the output business object, or to examine a range of dates in a repeated group, extract the most recent date, and post that date in a header field. See also *mapping action, pre method*.
- pre method—the first block of code that is executed when a mapping action runs. The pre method's parameters are the map inputs. You use the pre method to access a map's inputs and set global variables based on their content. See also *mapping action, post method*.
- private process—a task or set of tasks that business partners participating in a public process perform at points where they need to take action internally. Partners participating in a public process must implement a private process for each public process step that they own. A private process begins with input from the public process and ends with output that feeds back into the public process. The input can be the receipt of a business object from a partner, or it can be a triggering event from an internal system. The output is the business object that transfers control back to the public process. See also *action, process, public process*.

private process action-see action.

- process—the flow of actions and the exchange of business information between partners in an extended enterprise. A process operates on two levels, public and private. See *extended enterprise, private process, public process.*
- public process—the step-by-step flow of messages, events, and actions between two or more business partners. Public processes are set up by agreement between partners, and each step in a public process has a private process associated with it. A public process is developed by one partner, and all the partners who participate in it must review and approve it before it can be implemented. The partner who designs a public process is its owner. See also *private process, process*.
- RosettaNet—a consortium of major information technology, electronic components, and semiconductor manufacturing companies that is working to create and implement industry-wide, open e-business process standards. See also *PIP*.

script action—a private process action that consists of a script written in VBScript or JavaScript and is designed to manipulate information or set up conditional actions based on input. You use a script to establish decision-making criteria for branches or loops, to set variables, or to calculate values that are used elsewhere in the private process. See also *private process*.

security certificate-see certificate.

self-signed certificate—see certificate.

signature certificate—see certificate.

- SSL—Secure Sockets Layer. The SSL protocol is a security protocol that provides for communications privacy and reliability over the Internet. The protocol allows client/server applications to communicate in a way that is designed to prevent eavesdropping, tampering, or message forgery.
- submap—a secondary level map that is called by a map method to insert data into an output element other than the top-level element. See *map*, *map method*.
- subprocess action—a private process action you use to call an existing public process. You can call any public process in which your organization owns the first partner action. For example, you can use a subprocess to get a quote approved by a third-party supplier before responding to a customer. See also *private process*.
- termination action—a private process action that you use to stop a process at a predetermined point for a reason that you specify. You can use a termination action to deal with errors in data that might prevent a process from completing successfully. For example, you might want to stop a process in cases where an enterprise system passes incomplete or corrupted information to it. See also *private process*.

third-party-signed certificate—another name for a CA-issued certificate. See certificate.

- timer action—a private process action that you use to insert a pause. You can use a timer action to specify the period of time you want to elapse before the next action in the process starts. See also *private process*.
- variant variable—single field variables. Variant variables store text strings—the type of information contained in a single field element. You can use variant variables to store the input for actions, to set flags (such as the time-out flag for an approval action), to move information within scripts, or to store the results of an approval action. See also *business object variable*.

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### Supported environments and prerequisites

The product documentation may contain material relating to use of IBM® WebSphere® Partner Agreement Manager Version 2.2, IBM WebSphere Partner Agreement Connect Version 2.2, and IBM WebSphere Partner Agreement View Version 2.2 in operating environments that are not supported by IBM.

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