eaPay™ Installation and Configuration Guide

edocs®

eaPay™ is a member of the eaSuite™ product line

Sun Solaris Operating Environment™ Software and the IBM WebSphere® Application Server

Table of Contents

About Online Account Management and the eaSuite™

What is Online Account Management?

Online Account Management solutions provide organizations and their business and consumer customers with the capability to service every aspect of their account relationship over the Internet. The account encapsulates all pertinent customer information, along with the activity and charges associated with the exchange of goods or services between a customer and an organization, and as such serves as the foundation for the relationship.

Whether an organization provides physical goods or services, the account relationship is one-time or recurring; or the customer is a large business with a global presence or is an individual consumer, the needs remain the same. Today, both organizations and their customers are demanding the ability to efficiently and conveniently manage, analyze accounts and have visibility into account initiations and modifications, detailed account history, orders, disputes and payments.

eaSuite – the Proven Platform for Online Account Management

edocs has developed the most comprehensive and sophisticated software platform and services for Online Account Management. Organizations that deploy edocs Online Account Management solutions increase productivity and improve profitability by:

- Reducing support and processing costs

- Improving operational effectiveness

- Increasing customer satisfaction

- Enhancing marketing effectiveness

The eaSuite has been deployed at organizations worldwide in some of the most complex business and rigorous technical environments, and has proven to be the industry's most scalable, standards-based platform with a total cost of ownership lower than any competing packaged or custom developed solution.

eaDirect™ is the platform product of the eaSuite that creates the core infrastructure of enterprise Online Account Management solutions. Organizations use eaDirect to access customer account data and develop ways of presenting the data for viewing, analysis and modification online. By providing business and consumer customers with online account information and self-service capabilities, eaDirect enables organizations to reduce support and processing costs, improve operational effectiveness, and increase customer satisfaction.

eaPay™ is the electronic payment solution that decreases payment processing costs, accelerates receivables, and improves operational efficiency. eaPay is a complete payment scheduling and warehousing system with real-time and batch connections to payment gateways for Automatic Clearing House (ACH) and credit card payments, and payments via various payment processing service providers.

eaService™ reduces call center management costs and increases customer satisfaction by providing critical account data access to customer service representatives (CSRs). With eaService, a contact center is able to provide better service by more efficiently resolving customer account inquiries at the point of customer contact. Through its intuitive browser interface, eaService allows CSRs to take advantage of what are generally thought of as customer-facing online capabilities of an Online Account Management system, to draw out account information.

eaMarket™ is the personalization, campaign and content management solution that enables organizations to increase revenue and improve customer satisfaction by weaving personalized marketing and customer service messages throughout the Online Account Management experience. eaMarket leverages the transactional account data that is the foundation of an Online Account Management system to present personalized relevant marketing and customer service messages to customers.

eaPost® is the account content distribution system that provides an organization's customers with the convenience of All Portals Addressable™ access to account information. eaPost handles all the complexities of securely distributing summary account information to any endpoint while also bringing customers back the organization's Website to manage and control their online experience.

About eaPay

Overview of eaPay

eaPay™ is the electronic payment solution that decreases payment processing costs, accelerates receivables and improves operational efficiency. eaPay is a complete payment scheduling and warehousing system with real-time and batch connections to payment gateways for Automated Clearing House (ACH) and credit card payments, and payments via various payment processing service providers.

eaPay Benefits

- Decreases payment processing costs and improves efficiency by providing complete electronic payment flexibility and low cost payment options to automate the payment process.

- Accelerates receivables and decreases float by automating payments online.

- Increases satisfaction and reduces customer support costs by allowing customers to easily and conveniently make payments on their accounts at the organization's Website.

- Minimizes IT costs by eliminating "hard wired" links to payment providers and having to support changing/emerging standards.

- Integrates with accounts receivables systems to automate electronic payment remittance postings.

eaPay Key Features

- Connections to payment networks

  Real-time and batch interfaces to ACH, Credit Card, and proprietary networks, using a cartridge based approach that yields complete payment flexibility.

- Advanced warehousing and scheduling

  Full payment warehousing to manage all of the scheduling, transaction, and business logic. Make one-time instant payments, schedule future payments, set up recurring and "auto-pay" payments, utilize threshold functionality, and cancel/change payments.

  Supports ACH Notification of Changes (NOC), ACH addenda records, and multiple billers in one ACH file. Demand deposit account (DDA) verification before a payment is submitted via pre-notes.

  Once eaPay retrieves an invoice from eaDirect, it keeps it in the payment database. That allows customers to view invoices to make payments and view payment history.

- Integration with your existing infrastructure

  Updates Accounts Receivables systems with remittance info and supports reconciliation processes. Includes XML based API's for integration into backend systems.

- Front-end GUI's

  Includes fully functional front-end web pages, which can also be used as templates, enabling you to fully brand and customize your front-end interface.

  Account history and access to details of past payments, providing an integrated view of all transactions, regardless of payment type or who initiated them

  Payment reminders and a variety of customizable email templates available to the administrator as well as the end-user. Examples of email notification include enrollment status, recurring payment scheduling, and bill payment status.

- Easy to use administration tools:

  Web-based configuration

  Integration with the eaDirect™ Command Center

  Customer information management

  Monitor system activities and generate reports

- Database optimization for high-performance and scalability

- Rich SDK enables you to fully extend the solution, including API's for two-way access and customizable front-end screens, jobs, and processes

About This Guide

This guide is intended for System Administrators and anyone who is responsible for the daily operation and supervision of an eaDirect environment. This Guide **does not** describe general UNIX system administration and other tasks such as:

- How to navigate the Sun Solaris system

- How to manipulate text files using various UNIX commands

- How to create files and directories

- How to use standard UNIX networking commands

- How to use standard UNIX text editors such as the vi text editor

- How to create UNIX groups and users using standard UNIX system administration tools and command line methods

- How to perform general installation and system administration tasks for third-party software that works with eaPost

To obtain information about these tasks and others, consult the UNIX system administration documentation.

Related Documentation

Online Help for command center functions, and a PDF version of this guide are also available.

Online	How to Access
Help	Select Help from eaPay command center screens.
A PDF of this guide	A PDF of this guide is available on the eaPay product CD-ROM.

This guide is part of the eaPay documentation set. For more information about implementing your eaPay application, see one of the following guides:

Print Document	Description
eaPay Installation and Configuration Guide: For the Windows Operating System	How to install and configure eaPay on a Windows system.
eaPay Production Guide	How to configure and operate the production environment. It describes configuration tasks done after installation.
eaDirect Production Guide	Contains instructions for creating applications and jobs, publishing design files, and managing the production environment. It also provides sample enrollment procedures for enabling customers to view and pay bills online, as well as perform a number of other online-bill payment transactions.

The eaSuite products eaDirect, eaPost, eaMarket, and eaXchange provide their own documentation.

If you need help

Technical support is available to customers who have valid maintenance and support contracts with edocs. Technical support engineers can help you install, configure, and maintain your edocs application.

To reach the U.S. Service Center, located in Natick, MA (Monday through Friday 8:00am to 8:00pm EST):

Telephone: 508.652.8400

Toll Free: 877.336.3362

e-support: support.edocs.com. This requires a one time online registration.

E-mail: support@edocs.com

When you report a problem online, by email, or by telephone, please be prepared to provide us the following information:

- What is your name and role in your organization?

- What is your company's name?

- What is your phone number and best times to call you?

- What is your e-mail address?

- In which edocs product did a problem occur?

- What is your Operating System version?

- What were you doing when the problem occurred?

- How did the system respond to the error?

- If the system generated a screen message, please send us that screen message.

- If the system wrote information to a log file, please send us that log file.

- If the system crashed or hung, please tell us.

Do you have an idea for something we could improve? Don't hesitate to send us e-mail at support@edocs.com

Preparing to Install eaPay

1

Installation Overview

Before you can install the payment package, you must install eaDirect and configure the eaDirect database to interact with eaPay (see the *Installing and Configuring eaDirect Guide* for information about these procedures).

This document assumes that you have the application server and database server on different systems.

The steps required to implement online bill payment are:

- Install eaDirect along with the required software.

  See the *eaDirect Installation and Configuration Guide* for more information about installing eaDirect.

- Install eaPay and configure system wide options.

  Install the eaPay application, first on the database server, then on the application server. Two application servers are supported for eaPay 3.2. Follow the instructions in the chapter for the type of application server you are using. Then follow the Post-Installation instructions to complete the installation.

  If you are upgrading from a previous release, please see the section *Upgrading eaPay*.

- Configure a payment gateway for online check and/or credit card processing.

- Enroll customers for online bill viewing and payment.

- Set up eaPay jobs to process payments and optionally send reminders.

See the *eaPay Production Guide* for information about configuring a payment gateway, enrolling customers and other operational issues.

System Prerequisites

Before installing eaPay, eaDirect 3.2 must be installed, along with its required software components. For information about eaDirect 3.2 and its requirements, see the *eaDirect Installation and Configuration Guide*.

Installation for WebSphere

2

Follow the steps below to install eaPay on the WebSphere Application server. Before you do, verify that the Database Server is started.

- Install for eaPay 3.2 on the database server

- Run the database creation script

- Install eaPay 3.2 on the application server

- Update the eaDirect EAR file for eaPay

- Assemble and deploy the updated eaDirect and eaPay *EAR* files

- Configure WebSphere for eaPay

As described in the *Post Installation Configuration* section:

- Choose the enrollment model

Installing eaPay on the Database Server

Follow the steps below to install eaPay on the database server. Before you do, verify that the database server is started.

To Install the eaPay Database Components:

1. Log in as the root user on the database server.

2. Install eaPay using the InstallAnywhere image for eaPay. For example:
   ```
   /cdrom/Solaris/Payinst.bin
   ```

3. On the Introduction screen, read the eaDirect introductory information. Click **Next** to continue.

4. On the License Agreement screen, carefully read the licensing agreement, select the acceptance button, and then click **Next**.

5. On the Enter Serial Number screen, enter your product serial number. It is stapled to the inside front cover of this guide (if your serial number has been misplaced, contact edocs Technical Support). Then click **Next**.

6. On the Owner of Web Application Server screen, enter the name of the application server owner (the same one you used when installing eaDirect). Then click **Next**.

7. On the Group of Web Application Server screen, enter the name of the group for the application server (the same one you used when installing eaDirect). Then click **Next**.

8. On the Choose Install Folder screen, accept the default installation folder or click **Choose** and enter the directory where you want to install the eaPay files and directories. This document will refer to that directory as $EAPAY_HOME, and the examples given will use */opt/EDCSpay*. Click the **Next** button to continue.

9. On the Choose Product Features screen, click **Database.** Then click **Next**.

10. On the Pre-Installation Summary screen, verify that the information is correct, and click on **Install**. To correct any entries, click **Previous**, and then return here.

    At this point, the eaDirect database server components are copied to the designated installation folder. A status bar on the bottom of the screen shows each database server component being installed. No user intervention is required.

11. The Install Complete screen reports a successful installation and the directory that contains the database server components. Click **Done** to exit the installer.

    If the installation fails, determine the cause of the problem and reinstall eaPay. If you need to contact edocs Technical Support, see the section *If you need help*.

To Run the Database Creation Script:

1. You may have to set the Oracle SID before starting *sqlplus*, to make sure you are affecting the correct database. For example:
   ```
   export ORACLE_SID=edx0
   ```

2. Log on as the Oracle user. For example:
   ```
   su - oracle
   ```

3. Change your working directory to the db directory under *<$EDCSpay_HOME>*. For example:
   ```
   cd /opt/EDCSpay/db/oracle
   ```

4. Run *sqlplus* and login as the eaDirect database user. For example:
   ```
   sqlplus edx_dba/edx@edx.db
   ```

5. Run the database creation script. For example:
   ```
   @create_payment_db.sql
   ```

   This script creates the payment tables and indexes. You may see some error messages about non-existent indexes, which you can ignore.

Installing eaPay on the Application Server

Follow the steps below to install eaPay on the Application server. Before you do, verify that the Database Server is started.

- Install the package for eaPay 3.1

- Link eaPay JAR files to WebSphere

- Pass your eaPay environment to WebSphere at server startup

- Assemble the appropriate eaPay EAR file

- Update and assemble the eaDirect EAR file for eaPay

- Assemble and deploy the updated eaDirect EAR

- Configure WebSphere for eaPay

To Install the eaPay Application Components:

1. Log on as the root user on the application server.

2. Install eaPay using the InstallAnywhere image for eaPay. For example:
   ```
   /cdrom/Solaris/Payinst.bin
   ```

3. On the Introduction screen, read the eaDirect introductory information. Click **Next** to continue.

4. On the License Agreement screen, carefully read the licensing agreement, select the acceptance button, and then click **Next**.

5. On the Enter Serial Number screen, enter your product serial number. It is stapled to the inside front cover of this guide (if your serial number has been misplaced, contact edocs Technical Support). Then click **Next**.

6. On the Owner of Web Application Server screen, enter the name of the application server owner (the same one you used when installing eaDirect). Then click **Next**.

7. On the Group of Web Application Server screen, enter the name of the group for the application server (the same one you used when installing eaDirect). Then click **Next**.

8. On the Choose Install Folder screen, accept the default installation folder or click **Choose** and enter the directory where you want to install the eaPay files and directories. This document will refer to that directory as $EAPAY_HOME, and the examples given will use */opt/EDCSpay*. Click the **Next** button to continue.

9. On the Choose Product Features screen, select **App Server** and then the **Next** button to begin the installation of eaPay.

10. On the Pre-Installation Summary screen, verify that the information is correct, and click on **Install**. To correct any entries, click **Previous**, and then return here.

At this point, the eaDirect application server components are copied to the designated installation folder. A status bar on the bottom of the screen shows each database server component being installed. No user intervention is required.

11. The Install Complete screen reports a successful installation and the directory that contains the database server components. Click **Done** to exit the installer.

If the installation fails, determine the cause of the problem and reinstall eaPay. If you need to contact edocs Technical Support, see the section *If you need help*.

Linking eaPay JAR Files to WebSphere

WebSphere requires access to *eapay_client.jar* and *eapay_common.jar*, which reside in *$EAPAY_HOME/lib*. You must create links to those files in the *$WAS_HOME/lib/app* directory. For example, if eaPay is in */opt/EDCSpay*, and WebSphere is in */opt/WebSphere/AppServer*:

```
cd cd /opt/WebSphere/AppServer/lib/app
ln -s /opt/EDCSpay/lib/eapay_client.jar
ln -s /opt/EDCSpay/lib/eapay_common.jar
```

To Update the eaDirect EAR Files:

The *ear-eadirect.ear* file must be updated for eaPay. eaPay installs a file called *ear-eapay.ear*, which must be merged into the *ear-eadirect.ear* file.

Before you start, please make a backup copy of the original *ear-eadirect.ear*.

1. Edit *$EAPAY_HOME/bin/merge_eapay_ws.sh* to update the locations for the home and source directories, if needed.

2. Run the edited shell script.

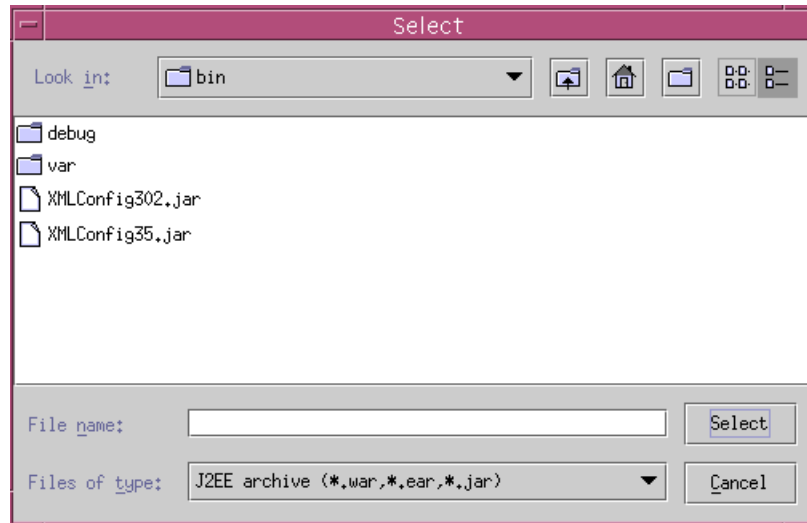## To Assemble the EAR Files for WebSphere:

The archives must be assembled, before they can be deployed in the WebSphere server. To run the assembler:

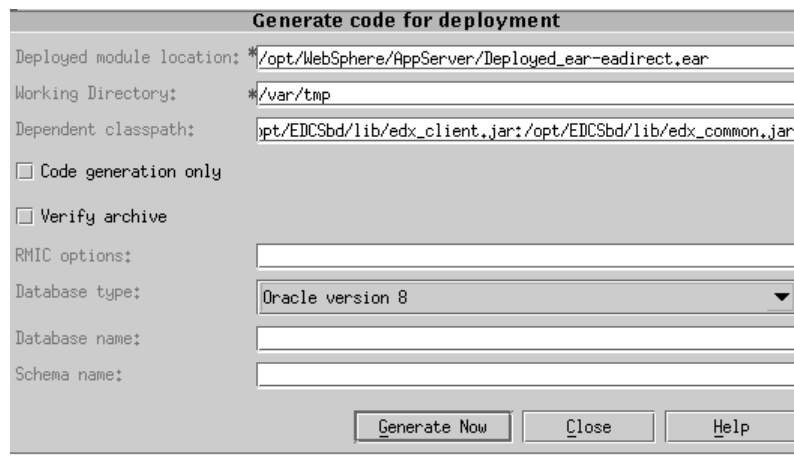1. Start the WebSphere assembler script, for example:

```
cd /opt/WebSphere/bin
./assembly.sh &
```
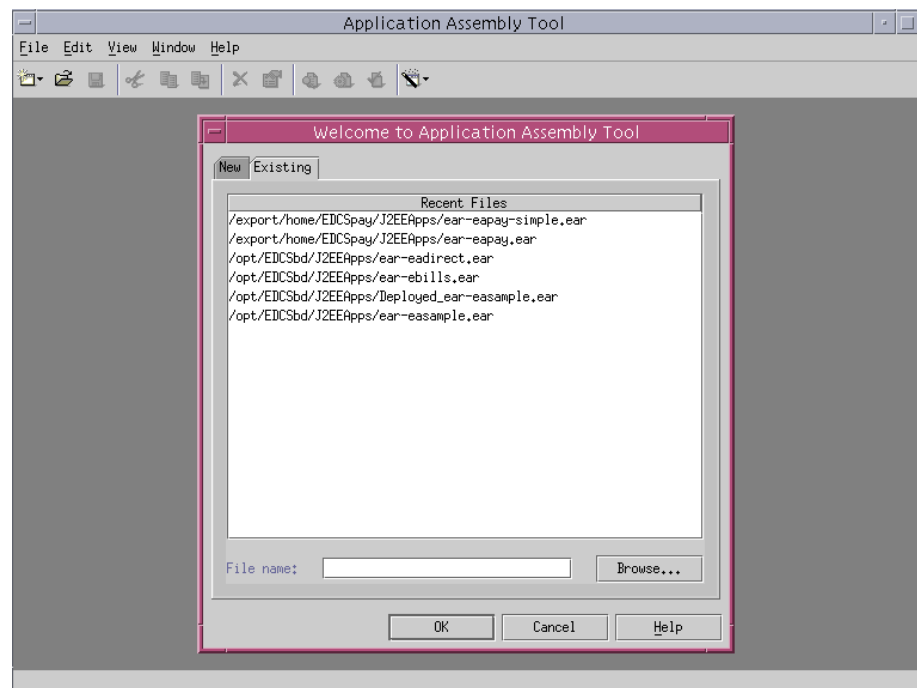
2. Select the **Existing** tab, then click on **Browse**.

3. Navigate to the *<$EDX_HOME>/J2EEApps* directory (where you put the updated eaDirect EAR file), and Select *ear-eadirect.ear*.

4. Select **File**, then **Generate code for deployment**. A screen similar to the following displays:

Enter the values for the fields described in the following table:

| Field	Description
Deployed module location:	Enter the path to the assembled *.ear* file.
Dependent classpath:	Enter the path to the *edx_system.jar*, *edx_client.jar* and *edx_common.jar* in the *$EDX_HOME/lib* directory.
Database type:	Click on the down arrow and select `Oracle version 8`.

Leave all other fields as they are, and click on `Generate Now`.

Generating code can take quite a while, depending on the speed of the system.

5. Repeat steps 1 through 4, this time choosing either *ear-eapay-simple.ear* or *ear-eapay-complex.ear*. Which file you chose to assemble depends on which enrollment model you are using. See *Choosing the Enrollment Model* for more information about enrollment models.

To Configure WebSphere:

1. Make sure the WebSphere server is running.

2. Start the administrative console. For example:

   ```
   /opt/WebSphere/AppServer/bin/adminclient.sh &
   ```
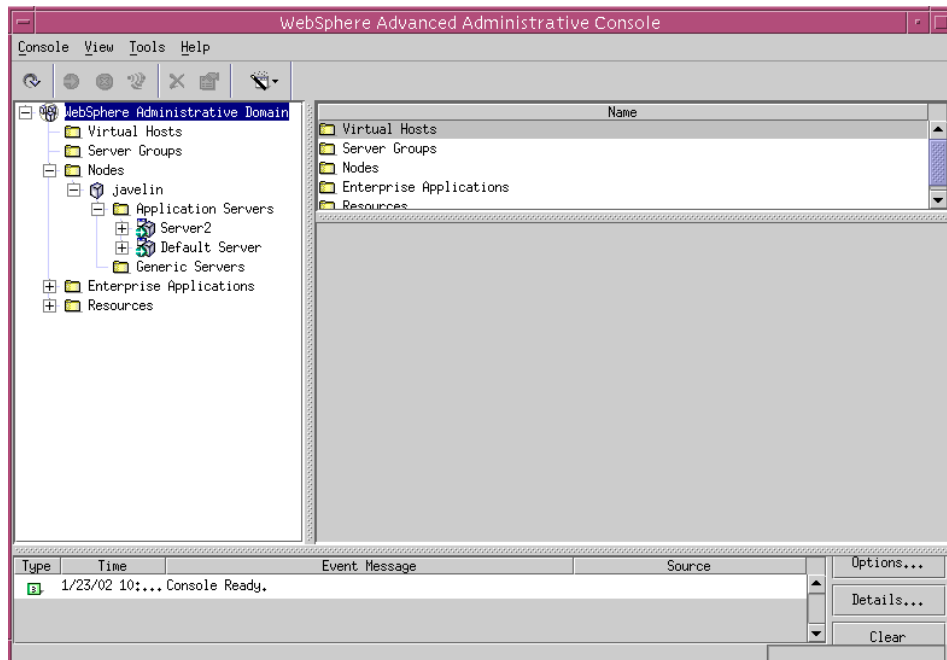

All the following sections start from the Administrative Console.

Creating the DataSource

To create a new DataSource for eaPay:

1. On the WebSphere console, expand the tree to see **Resources**, then
   EdocsOracleConnectionPool, then **DataSources**. Right click on
   DataSources, and select **New**.

Enter the fields as described by the following table:

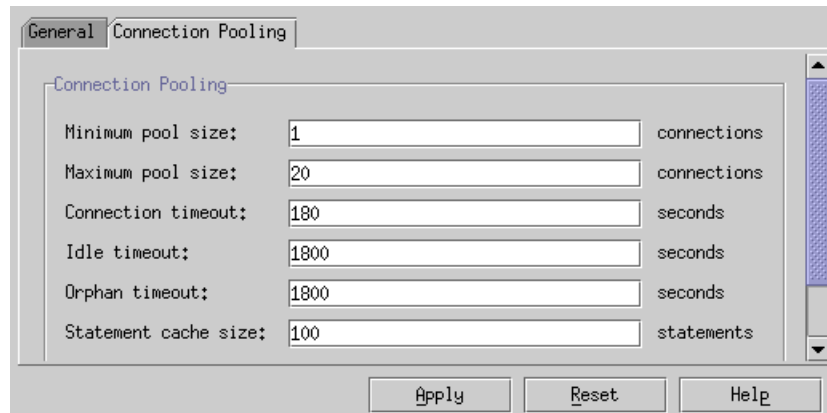| Field	Description
Name	Enter a name for the DataSource for eaPay. For example, **eaPayDataSource**.
JNDI name:	Enter **jdbc/eaPay**.
Database name	Enter the SID of the eaDirect database.
User ID	Enter the userid used by WebSphere to connect to the database.
Password	Enter the password for the database User ID, and confirm the password in the next field.

2. Click on **Add** button in the **Custom Properties** box.

Enter the fields as described by the following table:

Field	Value
Name	URL
Value	jdbc:oracle:thin:@<servername>:<port>:<Oracle_SID> For example, **jdbc:oracle:thin:@javelin:1521:edx0**

3. Select the **ConnectionPooling** tab:

```
General  Connection Pooling

 Connection Pooling
    Minimum pool size:     [1                    ]  connections
    Maximum pool size:     [20                   ]  connections
    Connection timeout:    [180                  ]  seconds
    Idle timeout:          [1800                 ]  seconds
    Orphan timeout:        [1800                 ]  seconds
    Statement cache size:  [100                  ]  statements

                          [ Apply ]  [ Reset ]  [ Help ]
```

Update the following field (if required):

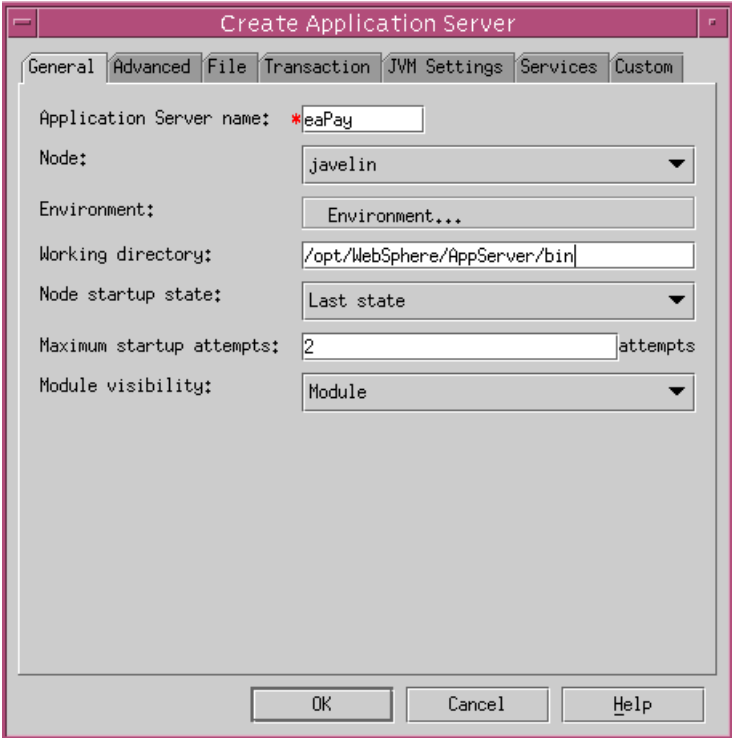| Field	Value
Maximum pool size	20

4. Click on **Apply**, then click **OK** on the success dialog box.

Adding the eaPay Application Server

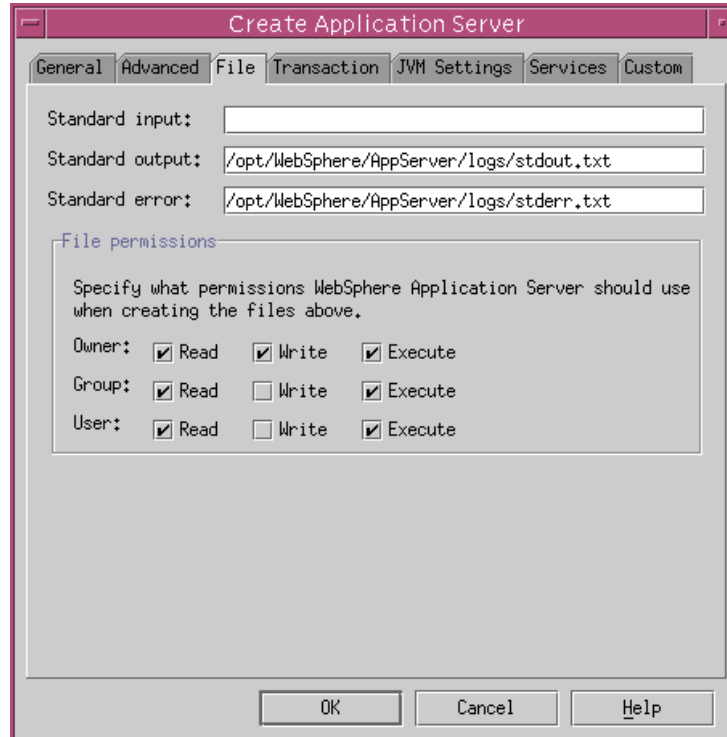The following steps describe how to add an Application Server for eaPay:

1. On the WebSphere tree, right click on **Application Servers**, and select **New**.

Enter the fields listed in the following table:

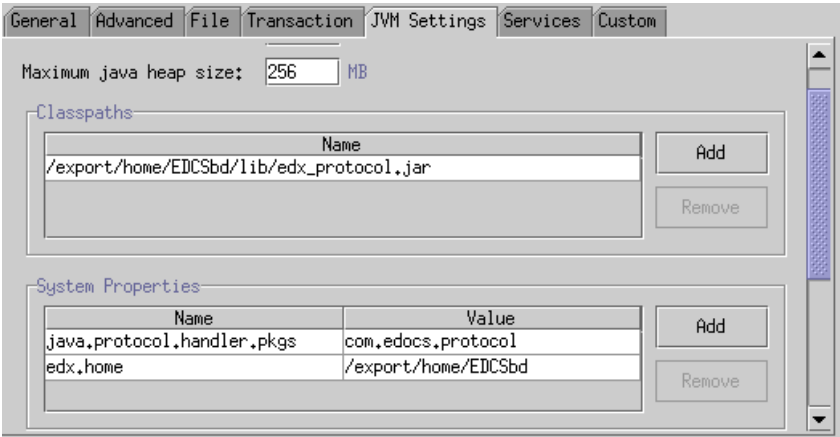| Field	Description
Application Server Name	Choose a unique name.
Working Directory	Enter the path to the *bin* directory under the WebSphere home.

2. Select the **File** tab.

Enter the fields listed in the following table:

Field	Description
Standard output	Add the path to the logs directory under the WebSphere home to the existing entry.
Standard error	Add the path to the logs directory under the WebSphere home to the existing entry.

3. Click on **OK**, then look for the message that the command **EJB.create** completed successfully.

4. Make sure the new Application Server is selected in the WebSphere Administrative console, and select the **JVM Settings** tab.

Enter the first two fields, then click the **Add** button to enter values for the next two fields as described in the following table:

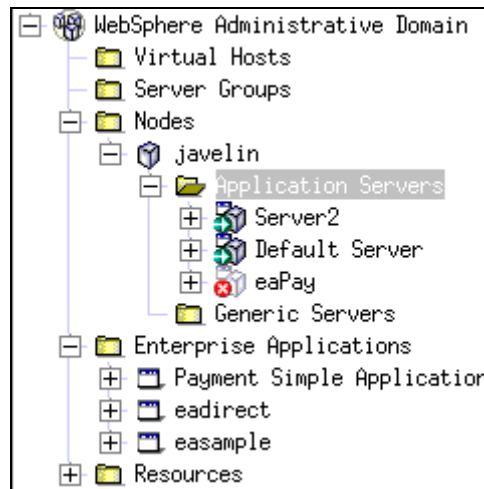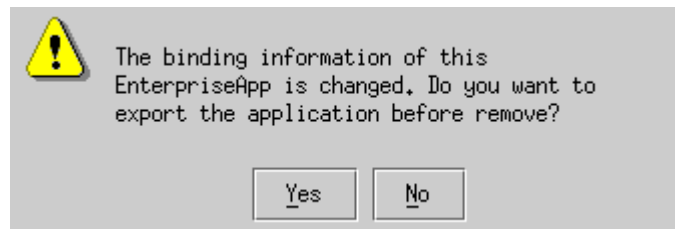| Field	Description
Initial java heap size	Enter half the value of Maximum java heap size
Maximum java heap size	Enter 1/4 of the available system memory
Classpaths	Add the path *<$EDX_HOME>/lib/edx_protocol.jar*
System Properties	Add the Name **edx.home** with the value **<$EDX_HOME>**
	Add the name **java.protocol.handler.pkgs** with the value **com.edocs.protocol**

5. Click the **Apply** button.

Removing the eaDirect Enterprise Application

You must remove the existing eaDirect Enterprise Application before deploying the updated, assembled WebSphere *.ear* file.

1. Under the WebSphere Tree, expand **Enterprise Applications**. Right click on **eaDirect** and select **Stop**.

```
☐ 🕸 WebSphere Administrative Domain
   ── 🗀 Virtual Hosts
   ── 🗀 Server Groups
   ☐ 🗀 Nodes
      ☐ 📦 javelin
         ☐ 📂 Application Servers
            ⊞ 🖥 Server2
            ⊞ 🖥 Default Server
            ⊞ ❌ eaPay
            ── 🗀 Generic Servers
   ☐ 🗀 Enterprise Applications
      ⊞ 🗔 Payment Simple Application
      ⊞ 🗔 eadirect
      ⊞ 🗔 easample
⊞ 🗀 Resources
```

2. An OK message displays.

3. Right click on **eaDirect**, and select **Remove**.

```
⚠  The binding information of this
   EnterpriseApp is changed. Do you want to
   export the application before remove?

        [ Yes ]    [ No ]
```

4. Click **No** to the question about exporting the existing Enterprise application.

5. A message appears asking if you really want to remove the Enterprise application. Click the **Yes** button.

6. A message displays indicating that the Enterprise Application was successfully removed.

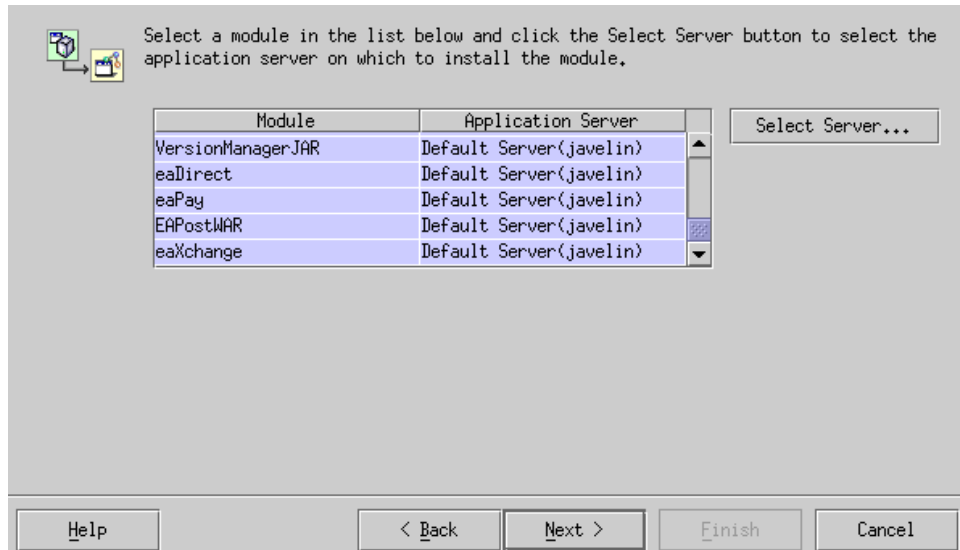### Re-Installing the eaDirect Enterprise Application

Now you can deploy the updated, assembled WebSphere EAR file.

1. Right click on **Enterprise Applications** on the WebSphere tree, and select **Install Enterprise Application**. A wizard starts to create the new Application Server:
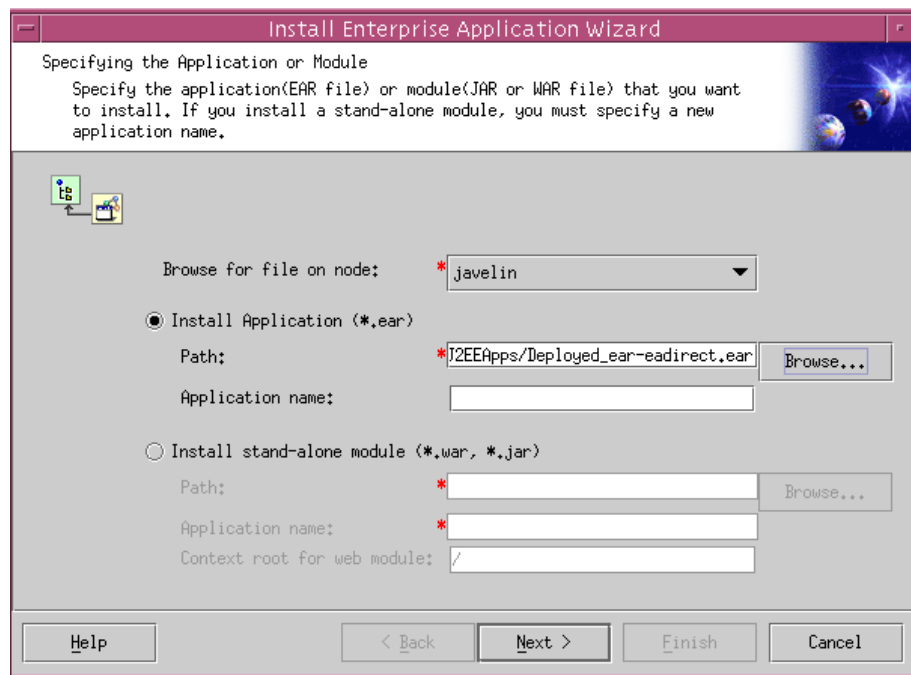

2. Browse to find the updated *Deployed-ear-eadirect.ear* file that you assembled from the updated archive.

3. Enter the **Application name** (eaDirect) and click on **Next**. Keep clicking **Next** until you get to the page that asks you to select a server:
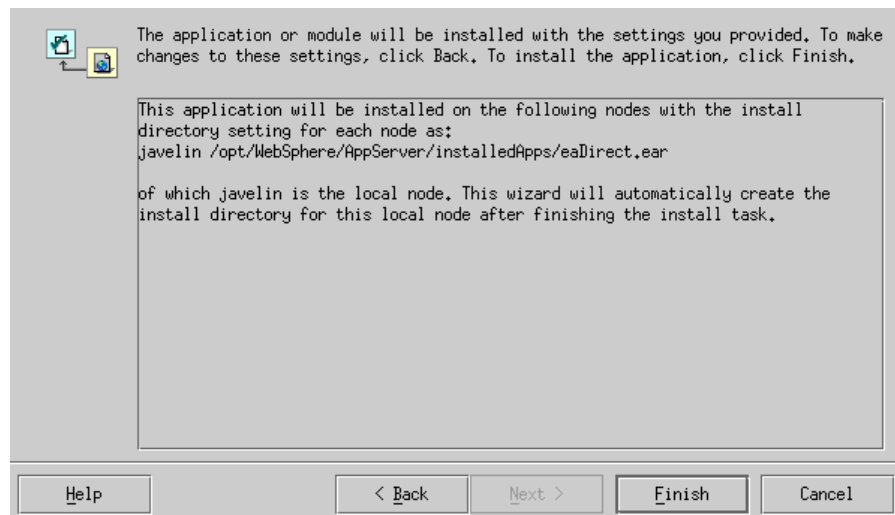

Select all in the list by selecting the first Module in the list, holding down the Shift key, and selecting the last Module in the list. Then click the **Select Server** button.
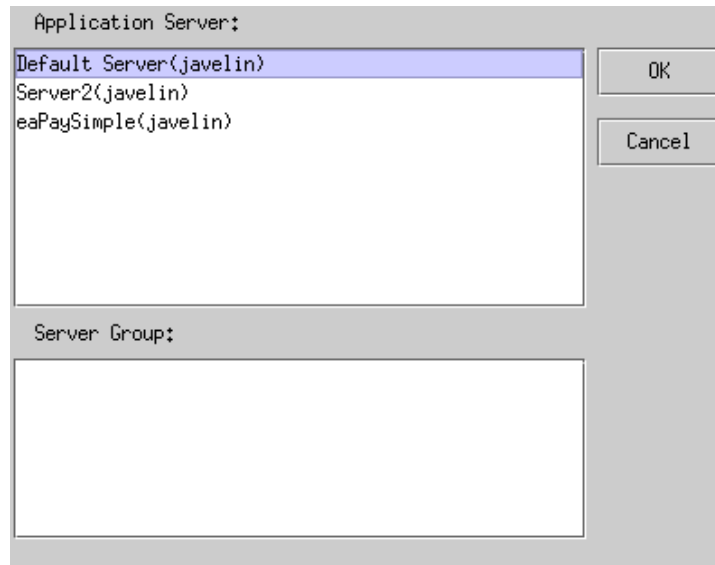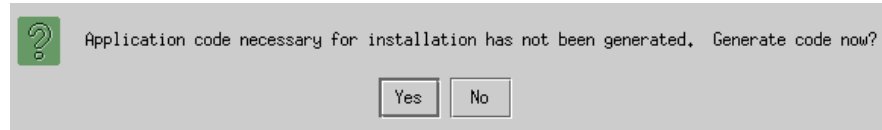
4. Select the **Default Server** (**javelin** in this example). Click on the **OK** button.

   This returns you to the previous page. Keep clicking **Next** until you see the last page:

5. Click on **Finish**. The following question may appear:

> ❓ Application code necessary for installation has not been generated. Generate code now?
>
> [Yes] [No]

Click on **No**, which returns you to the previous page.

6. Click **Finish** again. The new eaDirect assembled EAR file will be installed as an Enterprise Application.

Installing the eaPay Enterprise Application

Now you can deploy the updated, assembled WebSphere *.ear* file for the enrollment model that you chose (simple or complex).

1. Right click on **Enterprise Applications** on the WebSphere tree, and select **Install Enterprise Application**. A wizard starts to create the new Application Server:
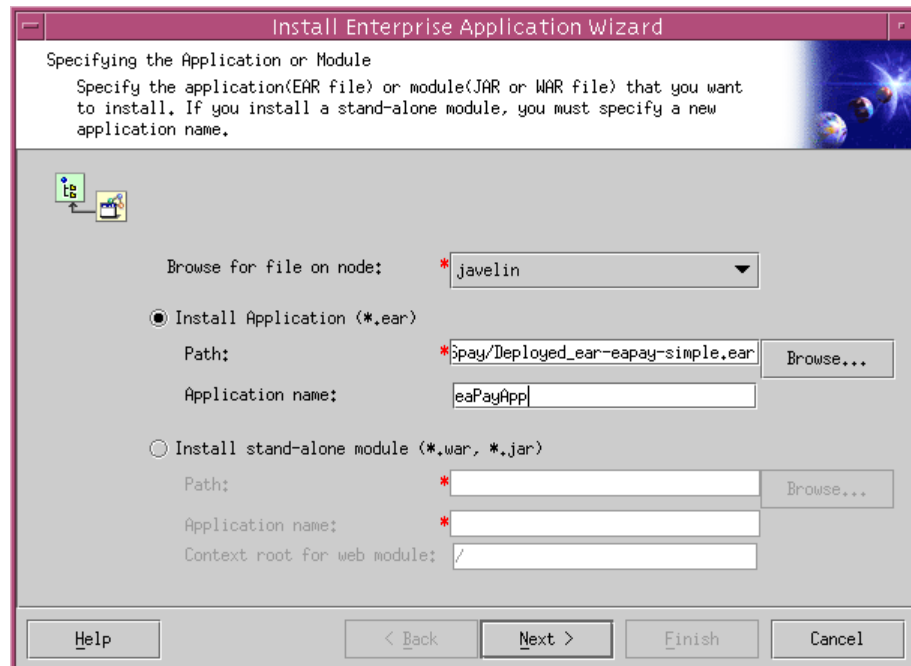
2. Browse to find the updated *Deployed_ear-eapay-simple.ear* (or *Deployed_ear-eapay-complex.ear*, if you chose that enrollment model) file that you assembled from the updated archive.
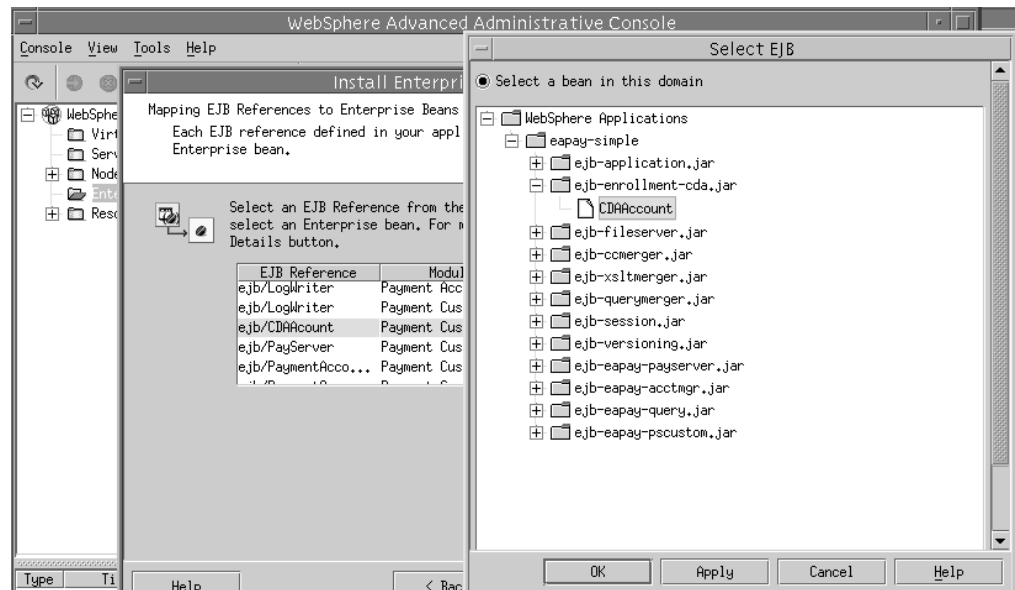
3. Enter an **Application name** (eaPayApp in this example) and click on
    Next. Keep clicking **Next** until you get to the page titled "Mapping EJB
    References to Enterprise Beans".

    Select **ejb/CDAAccount**, and click the **Select EJB** button. In the "Select
    EJB" window, expand "eapay-simple", then expand "ejb-enrollment_cda.jar",
    select **CDAAccount** and click on **OK**.

    After the "Select EJB" window closes, click **Next** on the "Mapping EJB
    References to Enterprise Beans" window.

4. Keep clicking **Next** until you get to the page that asks you to select a server:
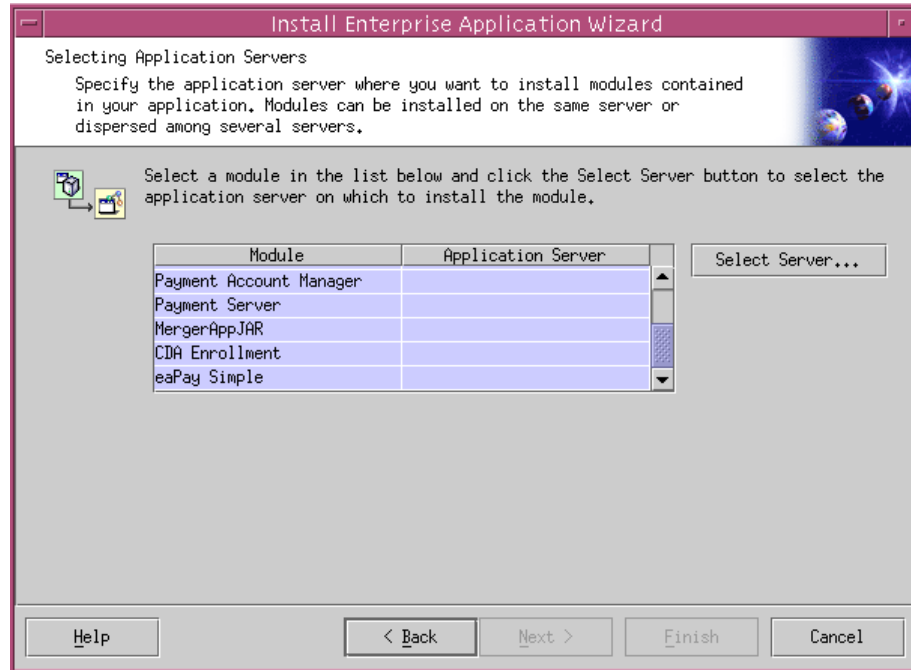
Select all in the list by selecting the first Module in the list, holding down the Shift key, and selecting the last Module in the list. Then click the **Select Server** button.

5. Select the payment server (**eaPaySimple** in this example). Click on the **OK** button.

This returns you to the previous page. Keep clicking **Next** until you see the last page (the one with the **Finish** button), and click on **Finish**. The following question may appear:

Click on **NO**. The new eaDirect assembled *.ear* file will be installed as an Enterprise Application.

Regenerating the Webserver Plug-in

1. Delete the files in the *<$WAS_HOME>/temp* directory.

2. Start the WebSphere administration client.

3. Expand the WebSphere console tree to see the `Nodes-> <local_host>`.

4. Right-click on the local host, and select `Regen Webserver Plugin`.

Restart the IBM HTTP and WebSphere Application Servers

1. Change your working directory to */opt/IBMHTTPD/bin*, and run the `apachetcl` script to stop and then start the HTTP server. For example:
   ```
   ./apachetctl stop
   ./apachectl start
   ```

2. On the WebSphere tree, restart the Application Servers. Start up the Default Server, the server you created for eaPay, and any other servers your site requires for other applications.

Setting the Host ID

1. Look in the *Event Message* area of the WebSphere Administrative Console to see which port number WebSphere assigns to the eaPay application server. The message should appear shortly after the message:
   ```
   Loading Web Module: eaPay ....
   ```

2. Select *Virtual Hosts* from the WebSphere tree, and click the `ADD` button to add the port numbers from the message, in the form `*:<port number>`. Click on the `Apply` button.

Choosing the Enrollment Model

The *eaPay Production Guide* describes the options for storing and retrieving enrollment information for eaDirect and eaPay. Please read that section before following these directions.

The User Enrollment Model

eaPay supports both single DDN and multiple DDN payments using two *.war* files. *war-eapay-simple.war* handles single DDN access, and *war-eapay-complex.war* handles multiple DDN access.

The Payment Account Enrollment Model

eaPay Settings for each gateway has a field that determines which class to use when storing and retrieving payment information. The field name is `Implementation of IPaymentAccountUserAccessor`, and the available option is *com.edocs.payment.payenroll.payacct.SSOPaymentAccountAccessor*, for when eaPay user information is stored in a table separate from the CDA tables (default eaPay enrollment)

Changing the Enrollment Model

The eaPay Default enrollment model supports single-DDN per user by default. The following sections describe how to switch from the default enrollment model to the other enrollment models. .

To Switch to Multiple-DDN

1. On the application server, use the URL prefix eaPayComplex to access eaPay, which accesses *war-eapay-complex.war*.

2. Change the eaPay Settings, by logging onto the Command Center and choosing **Settings**, then **eaPay Settings**.

3. Create or update the application you wish to switch. For the `Implementation of IUserAccountAccessor` parameter, select *com.edocs.payment.payenroll.usracct.JNDIMultipleDDNUserAccountAccessor*.

4. Click the **Update** button.

Preparing for a System Failure

The database for eaPay should be backed-up regularly, for example nightly, to maximize the recovery effort in the event of a system failure. For example, if the eaPay Database Server failed for some reason, the database administrator could restore from the latest backed-up version. A failure to the eaPay Database Server also requires that the database administrator restart the eaPay services in order to reestablish the database connection pool.

eaPay will automatically handle single transaction failures by rolling back to the transaction's original state. This happens because each eaPay operation is handled within its own transaction context.

4

Upgrading eaPay

To upgrade eaPay from version 3.1 to 3.2, perform the following tasks:

- Remove eaPay 3.1

- Remove eaDirect 3.1

- Install eaDirect 3.2

- Install eaPay 3.2

- Upgrade eaPay Settings and job parameters on the application server

To Upgrade the Application Server:

Follow the steps below to upgrade eaPay on the Application server. Before you do, verify that the Database Server is running.

1. Log in as the root user on the application server.

2. Remove eaPay 3.1 using the uninstallation executable that is located in *$EAPAY_HOME/Uinstall*. For example:
   ```
   cd /opt/EDCSpay/Uninstall
   ./Uninstall_eaPay
   ```

3. Manually remove any files not removed by InstallAnywhere, but make sure you back up any files modified by edocs Professional Services.

4. Remove eaDirect 3.1 using the uninstallation executable that is located in *$EDX_HOME/Uninstall*. For example:

```
# cd /opt/EDCSbd/Uninstall
./Uninstall_eaDirect
```

5. Remove any files not removed by InstallAnywhere, but make sure you back up any files modified by edocs Professional Services.

6. Install eaDirect 3.2. For information about installing eaDirect, see the *eaDirect Installation and Configuration Guide*.

7. Install eaPay using the steps described in Chapter 2, *Installation*.

8. Follow the instructions from the section *To Update the eaPay Configuration File* and *To Update the eaDirect EAR Files*.

9. You must reconfigure your payment gateways and eaPay jobs in the Command Center to accommodate new settings. See the *eaPay Release Notes* for information about new eaPay Settings and eaPay job parameters.

To Upgrade the Database Server:

Follow the steps below to upgrade eaPay on the database server. Before you do, verify that the database server is running.

1. Log on as the root user on the database server.

2. Remove eaPay 3.1 using the uninstallation executable that is located in *$EAPAY_HOME/Uinstall*. For example:

```
cd /opt/EDCSpay/Uninstall
./Uninstall_eaPay
```

3. Manually remove any files not removed by InstallAnywhere, but make sure you back up any files modified by edocs Professional Services, and DO NOT remove the database.

4. Remove eaDirect 3.1 using the uninstallation executable that is located in *$EDX_HOME/Uninstall*. For example:

```
cd /opt/EDCSbd/Uninstall
./Uninstall_eaDirect
```

5. Remove any files not removed by InstallAnywhere, but make sure you back up any files modified by edocs Professional Services.

6. Install eaDirect 3.2. For information about installing eaDirect, see the *eaDirect Installation and Configuration Guide*.

7. Install eaPay using the steps described in Chapter 2, *Installation*.

If the installation fails, determine the cause of the problem and reinstall eaPay.

5

Removing the eaPay Database

Follow the steps below to remove the eaPay database tables and indexes. The process involves running an SQL script as the Oracle user in SQL Plus. You should be aware that this procedure **completely** removes the payment database elements and should be used with care.

To remove the database for the eaPay:

1. Log in as the Oracle user.

2. Change your working directory to *$EAPAY_HOME/db/oracle*. For example:
   ```
   cd /opt/EDCSpay/db/oracle
   ```

3. Start an **sqlplus** session on the eaPay database server.

4. Remove payment tables and stored procedures by running:
   ```
   @drop_payment_db.sql
   ```

5. You should see the following message after running each stored procedure:
   ```
   PL/SQL procedure successfully completed.
   ```

Uninstalling the eaPay Application

When uninstalling the eaPay, you must remove eaPay from each server that you installed it on.

Caution	If you wish to remove the eaPay database tables and indexes, you must do that before removing the eaPay database package.

Run this procedure on both the database and application server. Run *$EAPAY_HOME/Uinstall/Uninstall_eaPay*. For example:

```
cd /opt/eaPay/Uninstall
./Uninstall_eaPay
```