edocs

eaPay™ Installation and Configuration Guide

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

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About Customer Self Service and eaSuite™

eaSuite

edocs has developed the industry's most comprehensive software and services for deploying Customer Self-Service solutions. eaSuite™ combines electronic presentment and payment (EPP), order management, knowledge management, personalization and application integration technologies to create an integrated, natural starting point for all customer service issues. eaSuite's unique architecture leverages and preserves existing infrastructure and data, and offers unparalleled scalability for the most demanding applications. With deployments across the healthcare, financial services, energy, retail, and communications industries, and the public sector, eaSuite powers some of the world's largest and most demanding customer self-service applications. eaSuite is a standards-based, feature rich, and highly scalable platform, that delivers the lowest total cost of ownership of any self-service solution available.

eaSuite is designed to support how organizations approach designing and deploying Customer Self-Service applications:

Customer-Facing Solutions present customers with the sophisticated functionality to meet customers' self-service needs. eaSuite offers a full set of capabilities to enable the range of business and consumer customer service activities, along with the flexibility to completely customize the solution to meet vertical industry and specific company requirements.

Enterprise-Facing Solutions empower employees within an organization and external partners to leverage the edocs platform to facilitate self-service and to support assisted service. Customer service representatives (CSRs), sales agents, account managers, marketing managers, broker-dealers and channel partners all play a role in delivering customer service, creating content, accessing information and performing activities for the benefit of customers.

Platform and Development Tools are designed to meet the rigorous infrastructure demands of the most technologically advanced organizations. These components of the eaSuite power edocs solutions with the functionality and development tools necessary to make account data available, and to create the customer- and enterprise-facing applications that enable customer self-service.
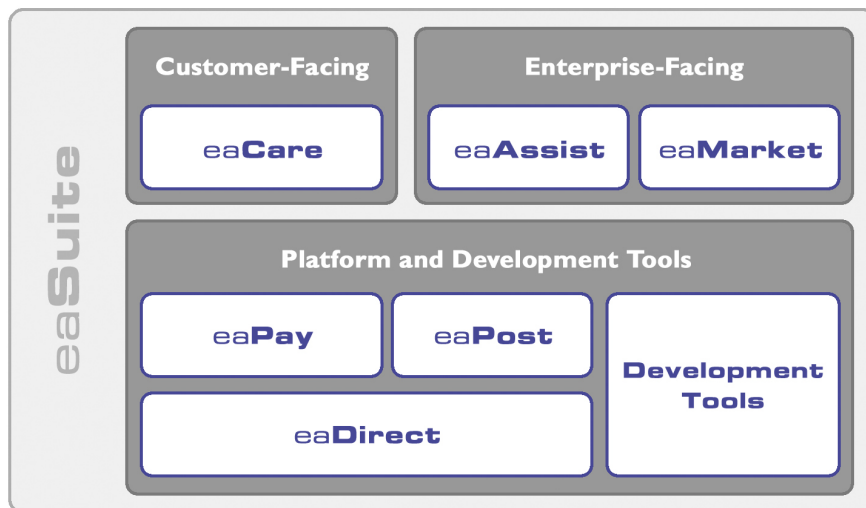
eaAssist

eaAssist™ reduces interaction costs and increases customer satisfaction by enabling enterprise agents – customer service representatives (CSRs), sales agents, broker-dealers and others – to efficiently access critical account data and service-related information to effectively service customers. Through its browser interface designed especially for the enterprise agent, eaAssist enables agents to take advantage of customer-facing online capabilities to provide better service by more efficiently resolving customer account inquiries at the point of customer contact.

eaMarket

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 Customer Self-Service experience. The transactional account data that provides the foundation for a Customer Self-Service solution – such as transaction activity, service or usage charges, current task and prior service history – bring valuable insight into customers and can help optimize personalized marketing and customer service campaigns. eaMarket leverages that data to present relevant marketing and customer service messages to customers.

eaDirect

eaDirect™ is the core infrastructure of enterprise Customer Self-Service solutions for organizations large and small with special emphasis on meeting the needs of organizations with large numbers of customers, high data volumes and extensive integration with systems and business processes across the enterprise. Organizations use eaDirect with its data access layer, composition engine, and security, enrollment and logging framework to power complex Customer Self-Service applications.

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.

eaPost

eaPost® is the account content distribution system that handles all the complexities of enrollment, authentication and secure distribution of summary account information to any endpoint, while also bringing customers back the organization's Website to manage and control their self-service experience.

Development Tools

eaSuite Development Tools™ are visual development applications that provide intuitive graphical user interface (GUI) environments for designing and developing Customer Self-Service solutions. The Development Tools encompass data management, workflow authoring, rules management and accounts receivable integration, as well as a full Software Developers Kit for custom application development.

About 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: Sun Solaris Operating Environment™ Software and the IBM WebSphere® Application Server	How to inSolarisWindows 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.
eaSDK Module: Customizing and Extending eaPay	Contains information about developing eaPay applications, and extending the functionality of eaPay command center jobs.

The eaSuite products eaDirect, eaPost, eaMarket, and eaAssist 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, 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.

Preparing to Install eaPay

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

Installation for WebSphere

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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 on the database server

- Run the database creation script

- Install eaPay 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 by running the InstallAnywhere tool again. 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

- 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*.

To Update the eaPay and eaDirect Configuration Files:

1. Log on as the WebSphere server owner, and change your working directory to *$EAPAY_HOME/config*, for example:

   ```
   cd /opt/EDCSpay/config
   ```

2. Edit the *edx_payment.config* file, and correct the entry that defines EAPAY_HOME, if necessary.

3. Copy the updated *edx_payment.config* file to *$EDX_HOME/config*.

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.

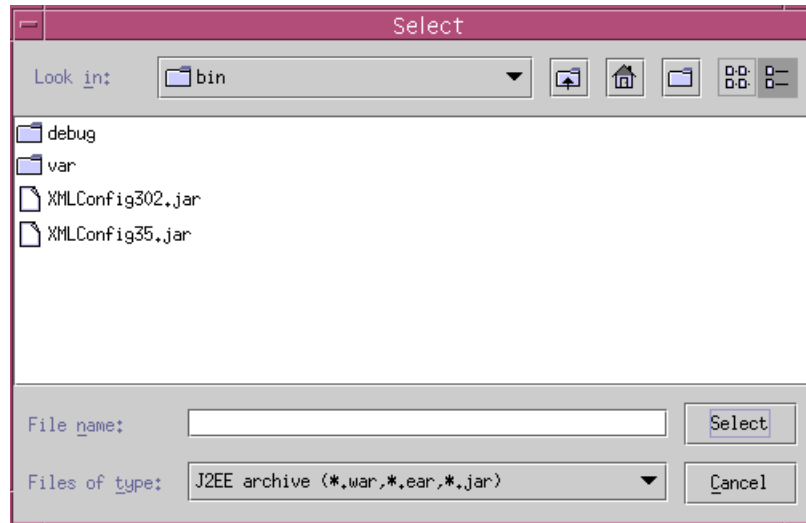## To Assemble the EAR Files for WebSphere:

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

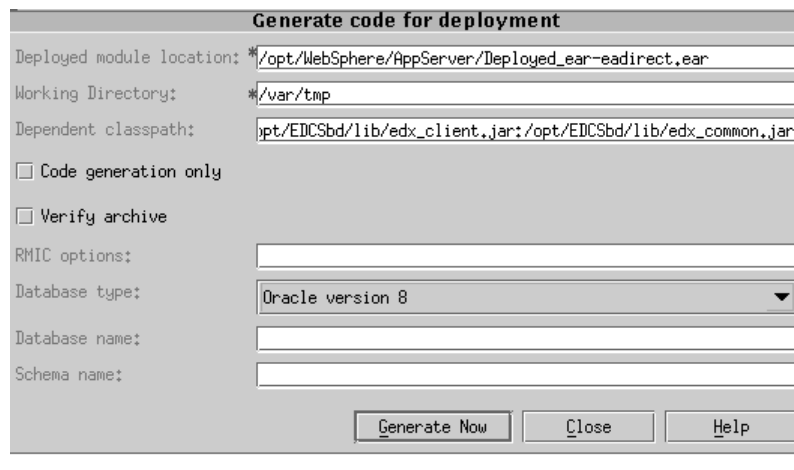1. Start the WebSphere assembler script, for example:

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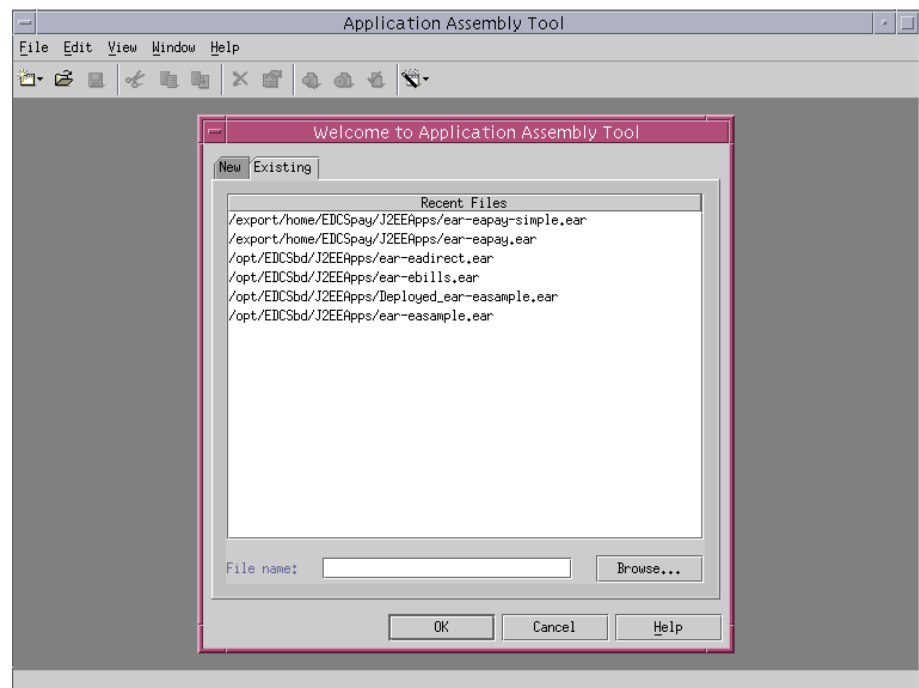
2. Select the **Existing** tab, then click on **Browse**.

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 java Classpaths *$EDX_HOME/lib/edx_system.jar*, *$EDX_HOME/lib/edx_client.jar* and *$EDX_HOME/lib/edx_common.jar* *$EAPAY_HOME/lib/eapay_client.jar* *$EAPAY_HOME/lib/eapay_common.jar* *$EAPAY_HOME/lib/eapay_custom.jar*
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.

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**.

2. An OK message displays.

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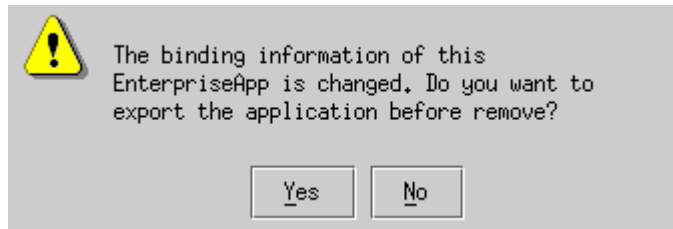

4. Click **No** to the question about exporting the existing Enterprise application.

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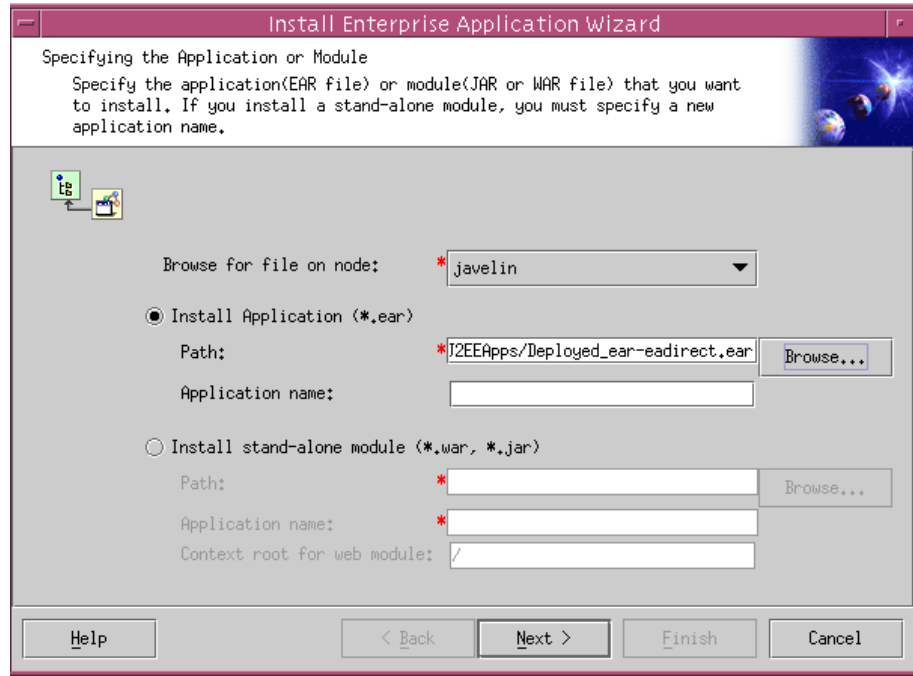
2. Browse to find the updated *Deployed-ear-eadirect.ear* file that you assembled from the updated archive.

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:
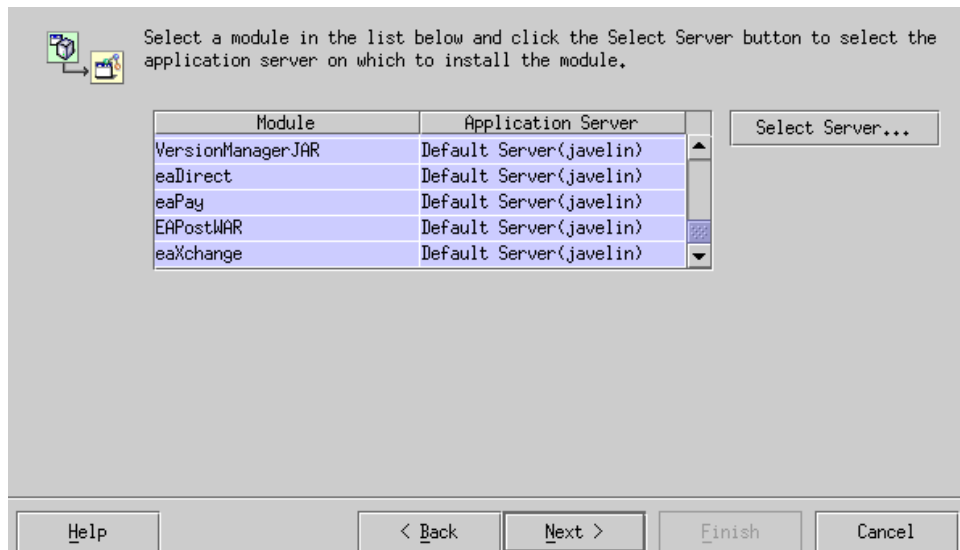
Select all in the list by selecting the first Module in the list, holding down the
Shift key, and selecting the last Module in the list. Then click the **Select
Server** button.
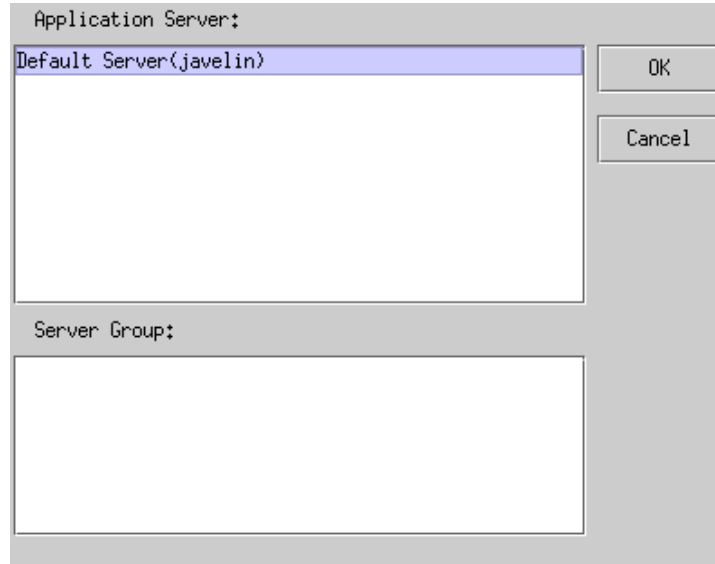
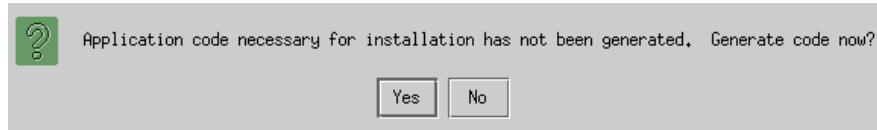4. Select the **Default Server** (**javelin** in this example). Click on the **OK** button. This must be the same server that eaDirect is installed on.

    This returns you to the previous page. Keep clicking **Next** until you see the last page:
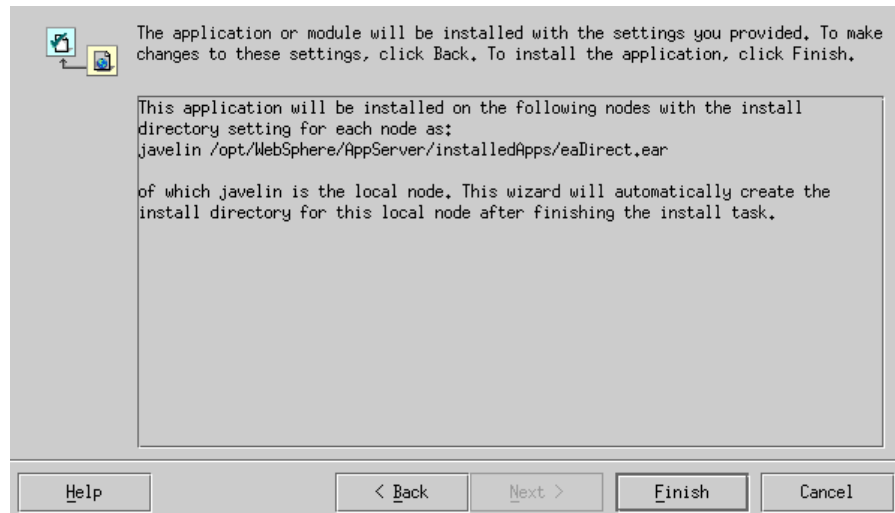
5. Click on **Finish**. The following question may appear:

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:
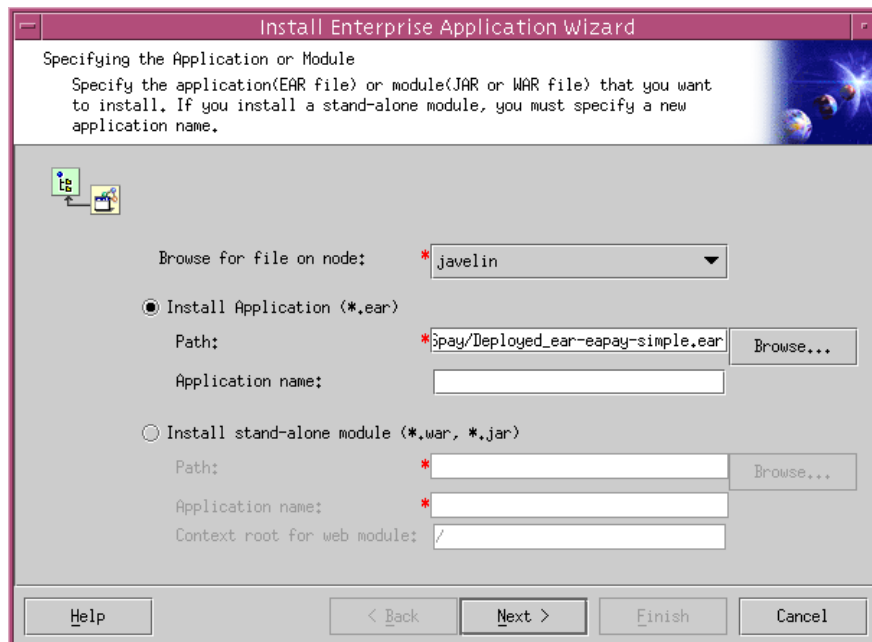
2. Browse to find the updated *Deployed_ear-eapay-simple.ear* (or *Deployed_ear-eapay-complex.ear*, if you chose that enrollment model) file that you assembled from the updated archive.

3. 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:
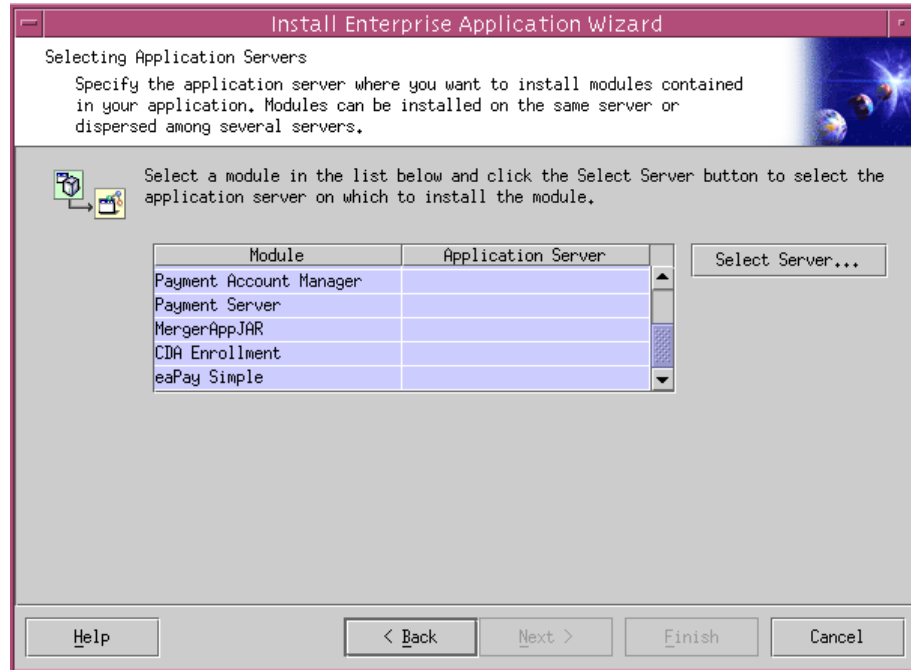
Select all in the list by selecting the first Module in the list, holding down the Shift key, and selecting the last Module in the list. Then click the **Select Server** button.

5. Select the payment server. Click on the **OK** button.

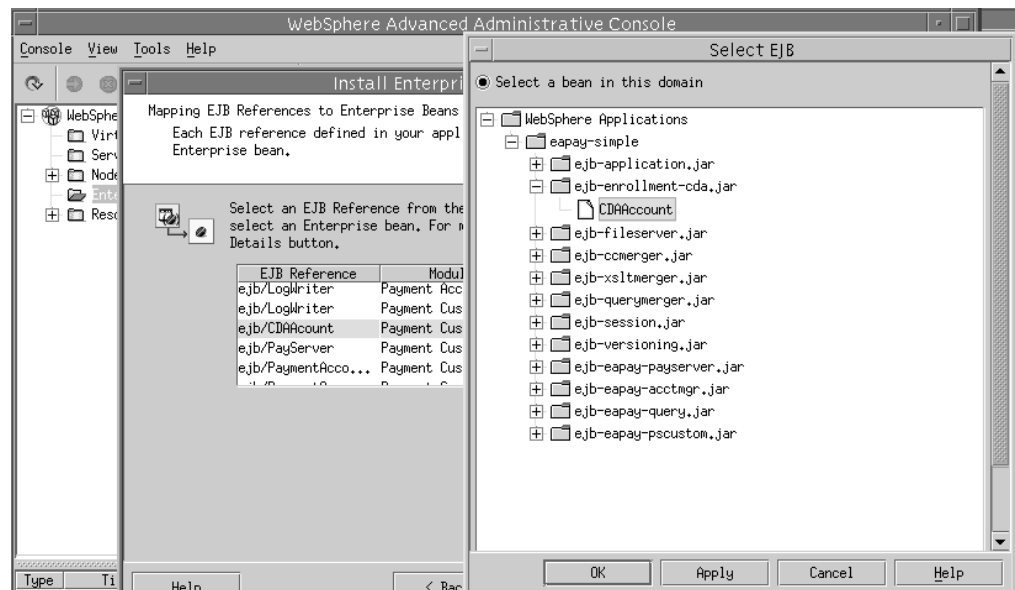This returns you to the previous page. Keep clicking **Next** until you see the last page (the one with the **Finish** button), and click on **Finish**. The following question may appear:
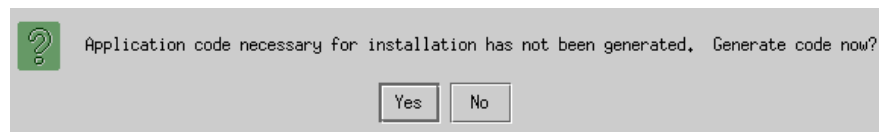
Click on **NO**. The assembled EAR file will be installed as an Enterprise Application.

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 to the single DDN enrollment model..

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 3.4, perform the following tasks:

- Remove eaPay 3.1

- Remove eaDirect 3.1

- Install eaDirect 3.4

- Install eaPay 3.4

- 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/Uninstall*. 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 3.4. 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. When upgrading to a new version of eaPay, you must migrate your J2EE and Web applications to accommodate the changes in the new version. The sample applications provided with each version of eaPay provide examples of how to use the current features of eaPay. Your site must update the components in your application, and you must re-deploy your application.

    You must also update your application to work with the new sample application. To accomplish that:

    - Merge your custom code into the sample application (eaPaySimple or eaPayComplex), and rename it. For more information about how to do this, see the *eaSDK: Customizing and Deploying Applications* document.

    - Re-deploy your custom application, as described in *To Configure WebSphere*.

    See the release notes for information about new features in 3.4.

10. 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/Uninstall*. 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 3.4. 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 by running the InstallAnywhere tool.

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/Uninstall/Uninstall_eaPay*. For example:

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