



Installation and Configuration

**IBM AIX™ Operating System
and the IBM WebSphere® Application Server**

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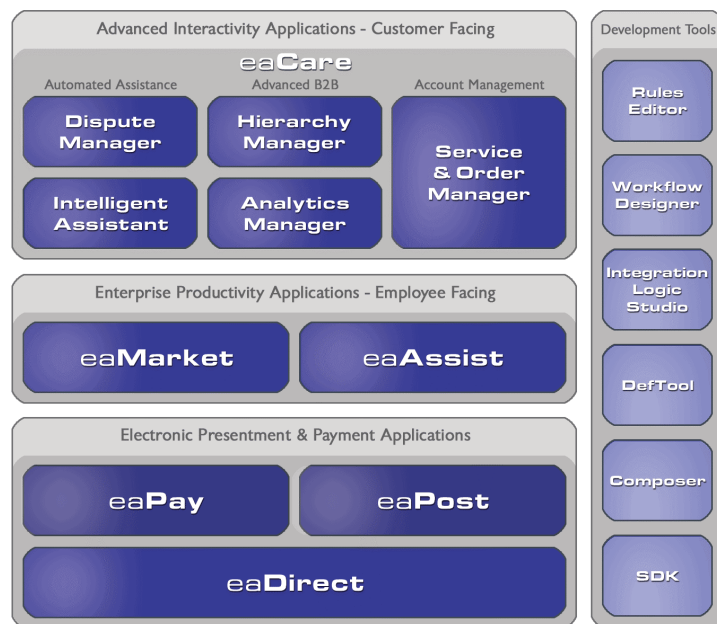
Preface

About Customer Self-Service and 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 comprised of four product families:

- Electronic Presentment and Payment (EPP) Applications
- Advanced Interactivity Applications
- Enterprise Productivity Applications
- Development Tools



Electronic Presentment and Payment (EPP) Applications are the foundation of edocs' Customer Self-Service solution. They provide the core integration infrastructure between organizations' backend transactional systems and end users, as well as rich e-billing, e-invoicing and e-statement functionality. Designed to meet the rigorous demands of the most technologically advanced organizations, these applications power Customer Self-Service by managing transactional data and by enabling payments and account distribution.

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™ 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® 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.

Advanced Interactivity Applications are a comprehensive set of advanced customer-facing self-service capabilities that enable the full range of business and consumer customer service activities. These sophisticated modules have the flexibility to completely customize the Customer Self-Service solution to meet vertical industry and specific company requirements.

eaCare™ consists of a rich set of sophisticated self-service modules – Dispute Manager, Intelligent Assistant, Hierarchy Manager, Analytics Manager, and Service and Order Manager - for automated assistance, advanced business-to-business applications and account management. These capabilities come together to create a web self-service dashboard for customers to access all service offerings from a single, easy-to-use interface. eaCare’s modularity accelerates time to market with components that can be deployed incrementally in a phased approach.

Enterprise Productivity Applications are employee-facing solutions that empower customer service representatives, sales agents, account managers, marketing managers, broker-dealers and channel partners within an organization and external partner organizations to facilitate self-service and to support assisted service. Employees leverage edocs’ Customer Self-Service solution to deliver customer service, access information, create and deploy marketing and customer service content, and perform activities for the benefit of customers.

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™ 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.

edocs’ **Development Tools** are visual development environments for designing and configuring edocs’ Customer Self-Service solutions. The Configuration Tools encompass data and rules management, workflow authoring, systems integration, and a software development kit that makes it easy to create customer and employee-facing self-service applications leveraging eaSuite.

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 describes how to install and configure eaPay. eaDirect **must** be installed and configured before installing eaPay.

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
<i>Payment Production Guide</i>	How to configure and operate the production environment. It describes configuration tasks done after installation.
<i>Customizing and Extending eaPay</i>	How to develop eaPay applications, and extend the functionality of eaPay command center jobs.
<i>Data Presentation Production Guide</i>	How to set up and run a live eaDirect application in a J2EE environment.

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

Obtaining edocs Software and Documentation

You can download edocs software and documentation directly from Customer Central at <https://support.edocs.com>. After you log in, click on the Downloads button on the left. When the next page appears, you will see a table displaying all of the available downloads. To search for specific items, select the Version and/or Category and click the Search Downloads button. If you download software, an email from edocs Technical Support will automatically be sent to you (the registered owner) with your license key information.

If you received an edocs product installation CD, load it on your system and navigate from its root directory to the folder where the software installer resides for your operating system. You can run the installer from that location, or you can copy it to your file system and run it from there. The product documentation included with your CD is in the Documentation folder located in the root directory. The license key information for the products on the CD is included with the package materials shipped with the CD.

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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.

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London, United Kingdom
Mon-Fri 9:00am – 5:00 GMT
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Asia Pac Rim Support Center

Melbourne, Australia
Mon-Fri 9:00am – 5:00pm AU
Telephone: +61 3 9909 7301

Customer Central

<https://support.edocs.com>

Email Support

<mailto: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

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

The steps required to implement the edocs account content distribution system are:

1. Install eaDirect along with the required software.

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

2. Install eaPost and configure system wide options.

Install the eaPost application, first on the database server, then on the application server. Follow the instructions for the database server installation, then the application server. Then follow the Post-Installation instructions to complete the installation.

3. Create a portal and biller.

4. Set up eaPost jobs to process files from the portal and biller.

See the *eaPost Production Guide* for information about configuring portals and billers, and other operational issues.

System Prerequisites

Before installing eaPay, eaDirect must be installed, along with its required software components. For information about eaDirect 3.4 and its requirements, see the *eaDirect Installation and Configuration Guide* and the eaDirect Release Notes.



Caution

Client browsers connecting to any eaSuite product must be enabled to run Javascript. To check whether Javascript is enabled for:

IE - Under Internet Options, on the Advanced tab, under Microsoft VM, make sure that "JIT Compiler for virtual machine enabled" is checked.

Netscape - Under Edit, then Preferences, click on **Advanced**, and make sure "Enable Javascript" is checked.

For the latest software and hardware requirements, see the release notes that came with your distribution.

2

Installation for WebSphere

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

- Install the package for eaPay on the database server
- Run the database creation script
- Install the package for eaPay on the application server
- Update the eaDirect EAR file
- Assemble and deploy the updated eaDirect EAR files

In the *Post Installation Configuration* section:

- Choose the enrollment model
- Optionally disable account number encryption

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.

Installing eaPay database components

By default, eaPay is installed into a directory hierarchy that contains a top level or "home" directory, (*/usr/EDCSpay*), below which all other eaPay directories are created. The directories in */usr/EDCSpay* are grouped by functionality and contain the files that eaPay uses.

When installing on a database server, all the files are installed to the */db* directory:

```
<EDCSpay>  
  /db
```

It is recommended that you install eaPay in the same directory on the database and application servers. By default this is */usr/EDCSpay*.

To install the eaPay database server components:

1. Log in as *root* user.
2. After you obtain and locate the eaPay software installer as described in the Preface of this guide, you can run it as follows:

Enter **./Payins.bin** from a command prompt at the directory location where the installer resides.
3. On the Introduction screen, read the eaPay introductory information. Then click **Next**.
4. On the License Agreement screen, carefully read and accept the terms of the license agreement (use the scroll bars to move up and down on the screen) by clicking the appropriate radio button. 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 recommended 'owner' is *edxadmin*). Then click **Next**.
7. On the Group of Web Application Server screen, enter the name of the group for the application server (the recommended group is *edxadmin*). Then click **Next**.
8. On the Choose Install Folder screen, accept the default installation folder or click **Choose** to specify another installation folder. Then click **Next**.
9. On the Choose Product Features screen, click **Database**. Then click **Next**.
10. On the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**.

At this point, the eaPay 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.
12. Click **Done**.

Running the database creation script

Before running the script, you should verify that the owner information (userid/groupid) of the *\$EAPAY_HOME/db* directory is set to the DB2 instance owner defined during installation (for example, *db2inst1*). If a different instance user will be used, you will need to change the ownership of that directory. To change the owner information use this command:

```
chown -fR db2inst1:db2iadml /usr/EDCSpay/db/db2
```


To run the database script.

1. Log on as the database instance owner (usually, db2inst1), and change to the `$EAPAY_HOME/db`.

```
cd /usr/EDCSpay/db/db2
```
2. Edit `create_payment_db.sh` to update the parameters for your installation. The following line is commented out:

```
#db2 connect to edx0 user edb_dba using edx
```

 Uncomment it, and change it to:

```
db2 connect to edx0 user db2inst1 using db2inst1.
```
3. Run the database creation script. For example:

```
./create_payment_db.sh
```

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

Installing eaPay on the Application Server

Follow the steps in the following sections to install and configure your application server for eaPay. Before you do, verify that the Database Server is started.

Installing the eaPay application components

To install the application server components:

1. Log in as *root* user.
2. Set the `WAS_HOME` environment variable to the Websphere home directory. For example:

```
export WAS_HOME=/usr/WebSphere/AppServer
```
3. After you obtain and locate the <product> software installer as described in the Preface of this guide, you can run it as follows:
 Enter `./Payins.bin` from a command prompt at the directory location where the installer resides.
4. On the Introduction screen, read the eaPay introductory information. Then click **Next**.
5. On the License Agreement screen, carefully read the terms of the agreement (use the scroll bars to move up and down on the screen) and accept the terms of the license agreement by clicking the appropriate radio button. Then click **Next**.

6. 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**.
7. On the Owner of Web Application Server screen, enter the name of the application server owner (the recommended 'owner' is *edxadmin*). Then click **Next**.
8. On the Group of Web Application Server screen, enter the name of the group for the application server (the recommended group is *edxadmin*). Then click **Next**.
9. On the Choose Install Folder screen, accept the default installation folder (*/usr/EDCSpay*), or click **Choose** to specify another installation folder. Then click **Next**.
10. On the Choose Product Features screen, click **App Server**. Then click **Next**.
11. On the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**.
12. At this point, the eaPay application server components are copied to the designated installation folder. A status bar on the bottom of the screen shows each component being installed. No user intervention is required.
13. The Install Complete screen reports a successful installation and the directory that contains the application server components.
14. Click **Done**.

Configuring WebSphere for eaPay

To pass the eaPay variables to WebSphere:

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

```
cd /usr/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*.
 As part of configuring eaDirect, you modified the WebSphere startup script to call *\$EDX_HOME/config/edx.config*. *edx.config* calls *edx_payment.config* (no configuration is needed).

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.

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

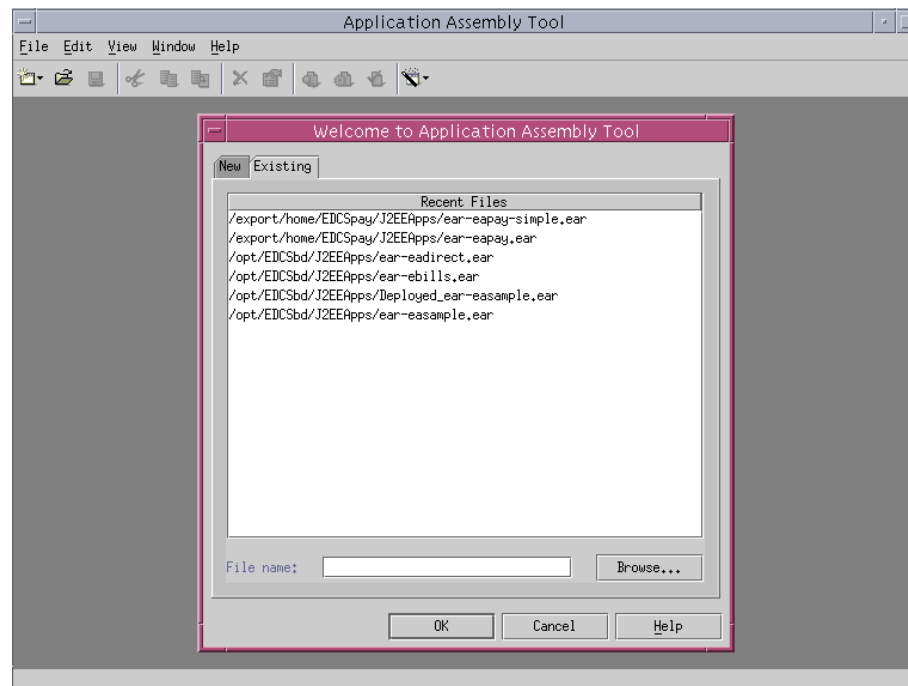
2. Edit `$EAPAY_HOME/bin/websphere/merge_eapay_ws.sh` to update the locations for the home and source directories, if needed.
3. Run the edited shell script.
4. The batch file creates a new `ear-eadirect.ear` file in the `$EAPAY_HOME/J2EEApps/websphere` directory.

To assemble the EAR files for WebSphere:

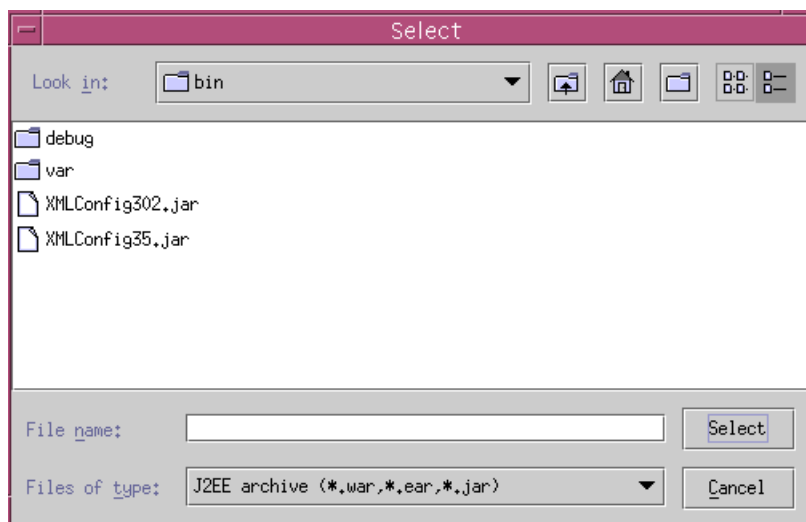
The archives must be assembled, before they can be deployed in the WebSphere server.
To run the assembler:

1. Start the Web sphere assembler script, for example:

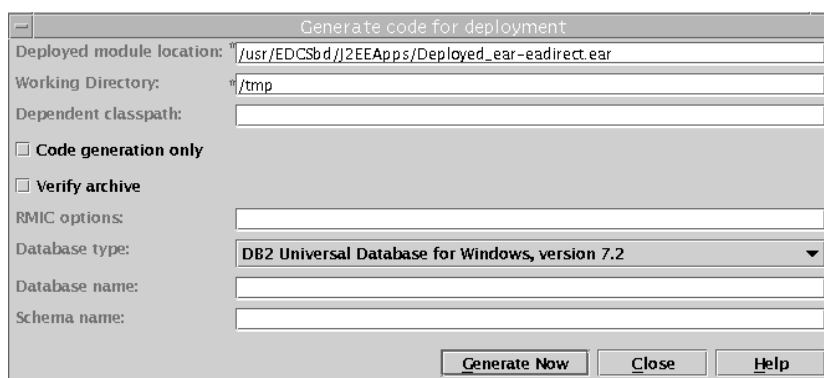
```
cd /usr/WebSphere/bin
./assembly.sh &
```



2. Select the **Existing** tab, then click on **Browse**.



3. Navigate to the `$EAPAY_HOME/J2EEApps/websphere` directory (where the update script put the new eaDirect EAR file), and Select `ear-eadirect.ear`.
4. Select **File/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 <code>\$EDX_HOME/lib/edx_system.jar</code> , <code>\$EDX_HOME/lib/edx_client.jar</code> and <code>\$EDX_HOME/lib/edx_common.jar</code> <code>\$EAPAY_HOME/lib/eapay_client.jar</code> <code>\$EAPAY_HOME/lib/eapay_common.jar</code> <code>\$EAPAY_HOME/lib/eapay_custom.jar</code>
Database type:	Click on the down arrow and select DB2 Universal Database for Windows, version 7.2

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.

Deploying eaDirect in WebSphere 4

To pass the eaPay environment to WebSphere 4

1. Switch user to the WebSphere owner, if necessary.
2. Change directory to *\$WAS_HOME/bin* (for example, */usr/WebSphere/AppServer/bin*) and stop the administration server, *startupServer.sh*.
3. Open *startupServer.sh* and declare and initialize the variable *\$EAPAY_HOME* near the beginning of the file with other variable declarations. For example:

```
WAS_HOME=/usr/WebSphere/AppServer/
export WAS_HOME
```

```
EAPAY_HOME=/usr/EDCSpay/
export EAPAY_HOME
```

4. Restart the WebSphere server.

To re-deploy eaDirect in WebSphere 4:

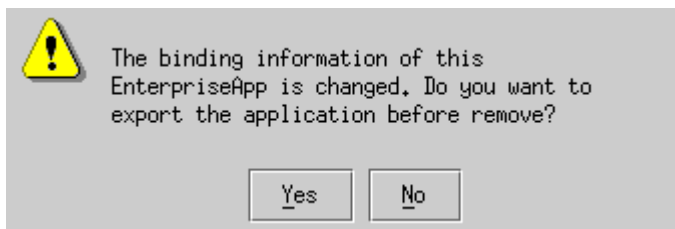
1. Make sure the WebSphere server is running.
2. Start the administrative console. For example:
/usr/WebSphere/AppServer/bin/adminclient.sh &

All the following sections start from the Administrative Console.

Removing the eaDirect Enterprise Application in WebSphere 4

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**.

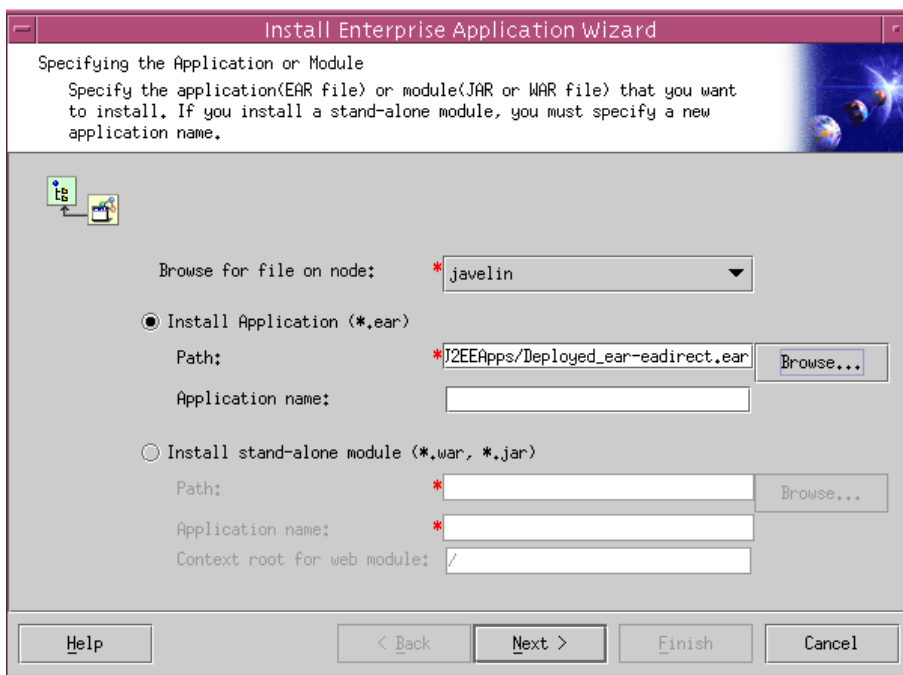


4. Click **No** to the question about exporting the existing Enterprise application.
5. A message appears asking if you really want to remove the Enterprise application. Click the **Yes** button.
6. A message displays indicating that the Enterprise Application was successfully removed.

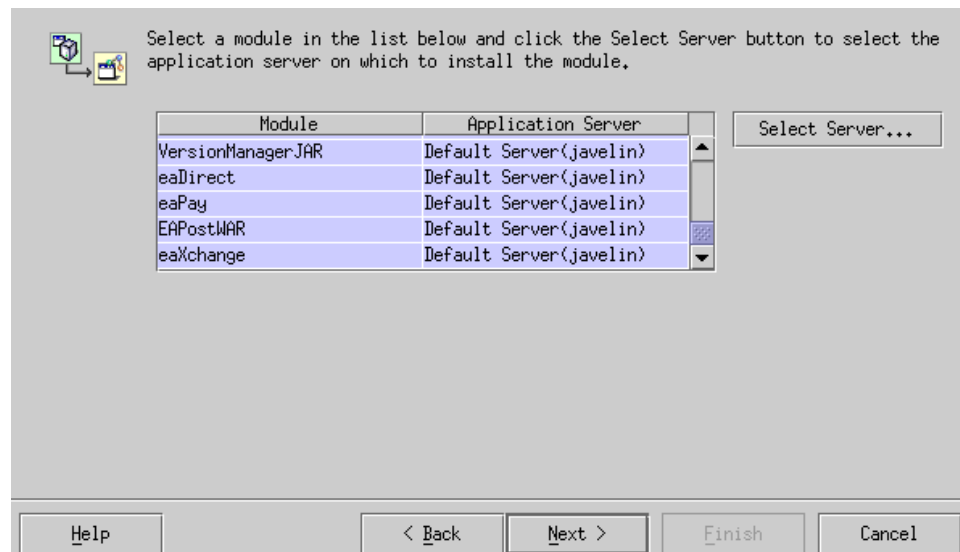
Re-Installing the eaDirect Enterprise Application in WebSphere 4

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

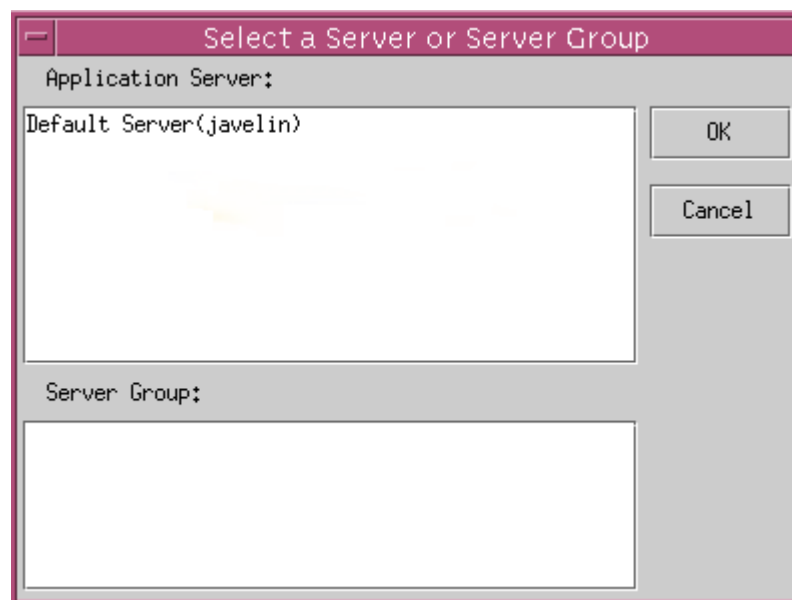
1. Right click on **Enterprise Applications** on the WebSphere tree, and select **Install Enterprise Application**. A wizard starts to create the new Application Server:



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:

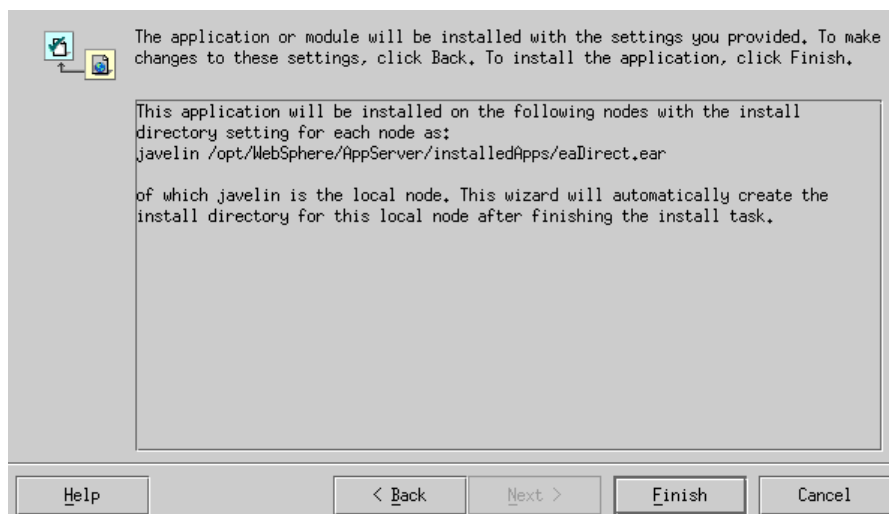


Select all in the list by selecting the first Module in the list, holding down the Shift key, and selecting the last Module in the list. Then click the **Select Server** button.



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:



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.

You may also want to deploy the assembled WebSphere EAR file for the enrollment model that you chose (simple or complex) that is located under the *\$EDX_HOME/samples* directory.

Regenerating the Webserver Plug-in in WebSphere 4

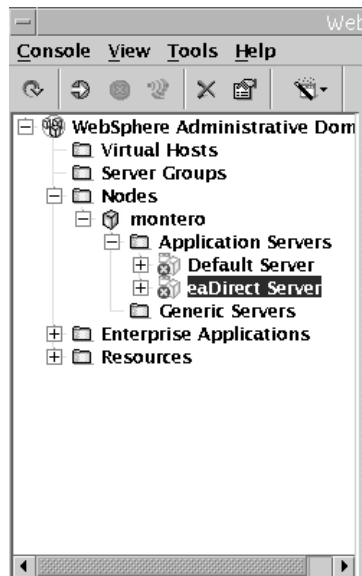
1. Delete the files in the *\$WAS_HOME/temp* directory.
2. Start the WebSphere administration client.
3. Expand the WebSphere console tree to see the **Nodes** and then **<local_host>**.
4. Right-click on the local host, and select **Regen Webserver Plugin**.

Restart the eaDirect Application Server

Stop and restart the applications and application servers, so that the previous changes will take affect.

To Stop or Start the eaDirect Server in WebSphere 4:

1. Select the eaDirect Server, on the tree under Nodes, then Application Servers.



2. Click the start or stop buttons located on the administrative toolbar.



Or right click on the Application Server, and select Stop or Start.

Deploying eaDirect in WebSphere 5

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 `$EAPAY_HOME/bin/websphere/merge_eapay_ws.sh` to update the locations for the home and source directories, if needed.
2. Run the edited shell script.
3. The batch file creates a new *ear-eaDirect.ear* file in the `$EAPAY_HOME/bin/websphere/merge_eapay_ws.sh` directory.

To pass the eaPay environment to WebSphere 5:

1. Switch user to the WebSphere owner, if necessary.
2. Change directory to *\$WAS_HOME/bin* (for example, */usr/WebSphere/AppServer/bin*) and stop the administration server, *startServer.sh*.
3. Open *startServer.sh* and declare and initialize the variable *\$EAPAY_HOME* near the beginning of the file with other variable declarations. For example:

```
EAPAY_HOME=/usr/EDCSpay/  
export EAPAY_HOME
```
4. Restart the WebSphere server.

To remove the eaDirect application in WebSphere 5:

1. From the WebSphere Administrative Console, expand the Applications branch and click on **Enterprise Applications**.
2. Check eaDirect application, and click on the **Stop** button.
3. Check the eaDirect application, and click on the **Install** button.
4. Save to the Master Configuration.

To install the eaDirect application in WebSphere 5

1. From the WebSphere Administrative Console, expand the Applications branch and click on **Install New Application**.
2. Select **Server Path** and then type in the absolute path to where your application is installed, for example:

```
/usr/EDCSpay/J2EEApps/websphere/Deployed_ear-eadirect.ear
```
3. Keep clicking **Next** until you reach the last page, and then click **Finish**. Use the default settings for each step.
4. After deployment completes, save to the Master Configuration.
5. After saving completes, start the eaDirect application.

Choosing the Enrollment Model

The *Payment 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.

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 multiple DDN model.

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.

The payment account enrollment model

The 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 IPaymentAccountUserAccount`, and the two options are:
com.edocs.payment.payenroll.payacct.JNDIPaymentAccountAccessor, for when payment account information is stored in CDA or LDAP (not recommended), and
com.edocs.payment.payenroll.payacct.SSOPaymentAccountAccessor, for when eaPay user information is stored in a table separate from the CDA tables (default eaPay enrollment).

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 from 3.4

Upgrading eaPay

To upgrade eaPay from version 3.4 to 4.1, perform the following tasks:

- Remove eaPay 3.4
- Remove eaDirect 3.4
- Install eaDirect 4.1
- Install eaPay 4.1
- 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 3.4 using the uninstallation executable that is located in `$EAPAY_HOME/Uninstall`. For example:

```
cd /usr/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 3.4 using the uninstallation executable that is located in `$EDX_HOME/Uninstall`. For example:

```
# cd /usr/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 4.1. 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 *Deploying and Customizing J2EE Applications* document.
- Re-deploy your custom application, as described in *Re-Installing the eaDirect Enterprise Application in WebSphere 4*.

See the release notes for information about new features in 4.1.

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 3.4 using the uninstallation executable that is located in `$EAPAY_HOME/Uninstall`. For example:

```
cd /usr/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 3.4 using the uninstallation executable that is located in `$EDX_HOME/Uninstall`. For example:

```
cd /usr/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 4.1. 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. You should be aware that this procedure **completely** removes the payment database elements and should be used with care.

To remove the database for eaPay:

1. Log in as root
2. Change your working directory to `$EAPAY_HOME/db`.
3. Remove payment tables and stored procedures by running:
`./drop_payment_db.sql`

Uninstalling eaPay Components

When uninstalling the eaPay application server components, it is recommended that you repeat the sequence used to install the application. That is, remove the database server components first, then the application server components.

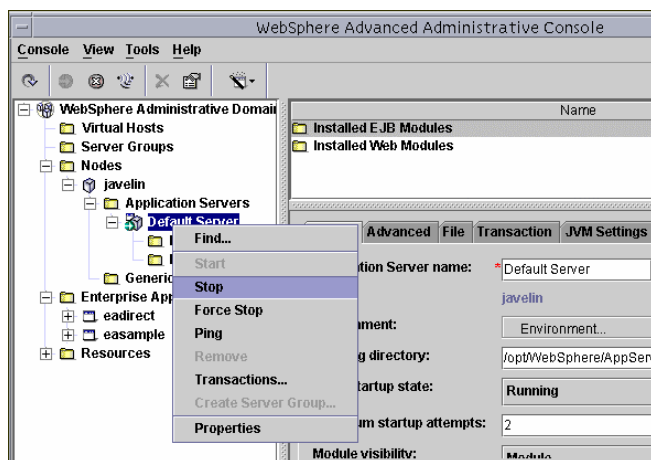
To uninstall the eaDirect database server components:

1. Switch user to *root* and navigate to `$EAPAY_HOME/Uninstall`.
2. Run the eaDirect uninstall command:
`# ./Uninstall_eaPay`
3. Manually remove any files that were not removed by the InstallAnywhere tool.

To uninstall the eaDirect application server components:

1. As WebSphere owner (*nobody*, in our examples) user, navigate to `$WAS_HOME/bin` and invoke the WebSphere Administrative Console. For example:

```
# ./adminclient.sh montero 1025 &
```
2. When the WebSphere console is displayed, expand the Domain.
3. Expand the Enterprise Applications folder, and then right-click on the application server you want to stop.
4. Select **stop** on the menu.



5. Click **OK** to close the Information dialog notifying you that the action completed successfully.
6. As *root* user, navigate to `$EAPAY_HOME/Uninstall` and run the eaDirect uninstall tool.

```
# ./Uninstall_eaPay
```
7. When the uninstall is done, manually remove any files that were not deleted.

Uninstalling eaDirect J2EE Applications on WebSphere

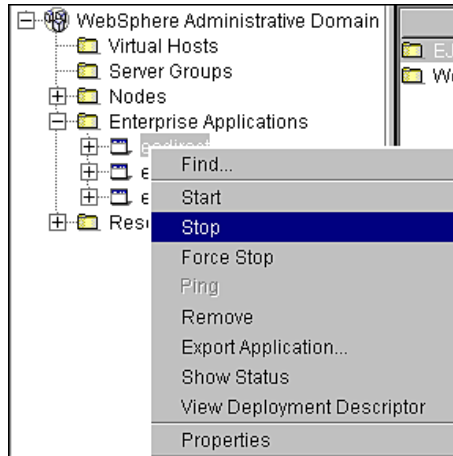
Follow the steps below to uninstall J2EE applications running on your WebSphere application server.

To uninstall eaDirect J2EE applications on WebSphere:

1. As the WebSphere owner (*nobody*, in our examples) user, start the WebSphere Administrative Console if it isn't running. This can be done by navigating to `$WAS_HOME/bin` and run the command:

```
# ./adminclient.sh montero 1025 &
```

2. When the WebSphere Administrative Console is displayed, expand your Domain to show the Enterprise Applications folder.
3. Expand the Enterprise Applications folder and click on the J2EE application that you want to uninstall
4. Right-click **stop** from the menu.



An information dialog is displayed:



5. Open a command line window and navigate to *\$WAS_HOME/installedApps*.
6. Manually remove the EAR file from the directory.
7. Navigate to *\$EAPAY_HOME/J2EEApps/websphere*.
8. Manually remove the deployed EAR file from the directory.

If you want to keep eaDirect, re-deploy the original *Deployed-ear-eadirect.ear* file.