



eaPay™ Installation and Configuration Guide

eaPay™ is a member of the eaSuite™ product line

Microsoft Windows 2000® Operating System

V3.0
Document ID: PAWN-03-3.0-01
Date Published: 05.05.2002

© 1997–2002 edocs® Inc. All rights reserved.

edocs, Inc., Two Apple Hill, 598 Worcester Road, Natick, MA 01760

The information contained in this document is the confidential and proprietary information of edocs, Inc. and is subject to change without notice.

This material is protected by U.S. and international copyright laws. edocs and eaPost are registered in the U.S. Patent and Trademark Office.

No part of this publication may be reproduced or transmitted in any form or by any means without the prior written permission of edocs, Inc.

eaSuite, eaDirect, eaPay, eaProcess, eaService, eaMarket, and eaXchange are trademarks of edocs, Inc.

All other trademark, company, and product names used herein are trademarks of their respective companies.

Printed in the USA.

Table of Contents

Preface	5
About Online Account Management and the eaSuite™	5
About eaPay	7
Overview of eaPay	7
Related Documentation.....	9
If you need help	10
1 Installation	13
Installation Overview.....	13
Software Prerequisites	14
Installing eaPay 3.0 On the Database Server.....	15
Running The Database Script	23
Installing eaPay 3.0 On the Application Server.....	24
JTA Timeout Configuration.....	33
2 Post Installation Configuration	35
Choosing the Enrollment Model	35
Changing the Enrollment Model.....	36
Preparing for a System Failure.....	37
3 Upgrading from 2.2	39
Upgrading eaPay	39
4 Uninstalling eaPay	41
Removing the eaPay Database.....	41
Uninstalling eaPay	41

Preface

About Online Account Management and the eaSuite™

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

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

Installation Overview

eaPay is an add-on component to the core eaDirect application that allows customers to pay their bills online from one of several payment options such as check or credit card. eaPay provides a selection of specialized Job Types and configuration options specific to the processing of online bill viewing and payment.

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* section of this guide for information about these procedures).

The steps required to implement online bill payment are:

1. Install eaDirect
2. Install the add-on eaPay on top of eaDirect, plus the eaPay application
3. Configure a payment gateway for online check and/or credit card processing
4. Enroll customers for online bill viewing and payment

Software Prerequisites

eaPay must have the following software installed on the machine:

Software	A	D
Microsoft SQL Server 2000		X
Microsoft SQL Server 2000 Client	X	
eaDirect 3.0	X	
Sun's Java 2 SDK (Standard Edition) 1.3.1	X	
WebLogic 6.1 SP2 for Windows 2000	X	

If you plan to install eaPay in a distributed eaDirect environment, the above table indicates what software belongs on which system where:

A = Application Server (also known as Production Server)

D = Database Server



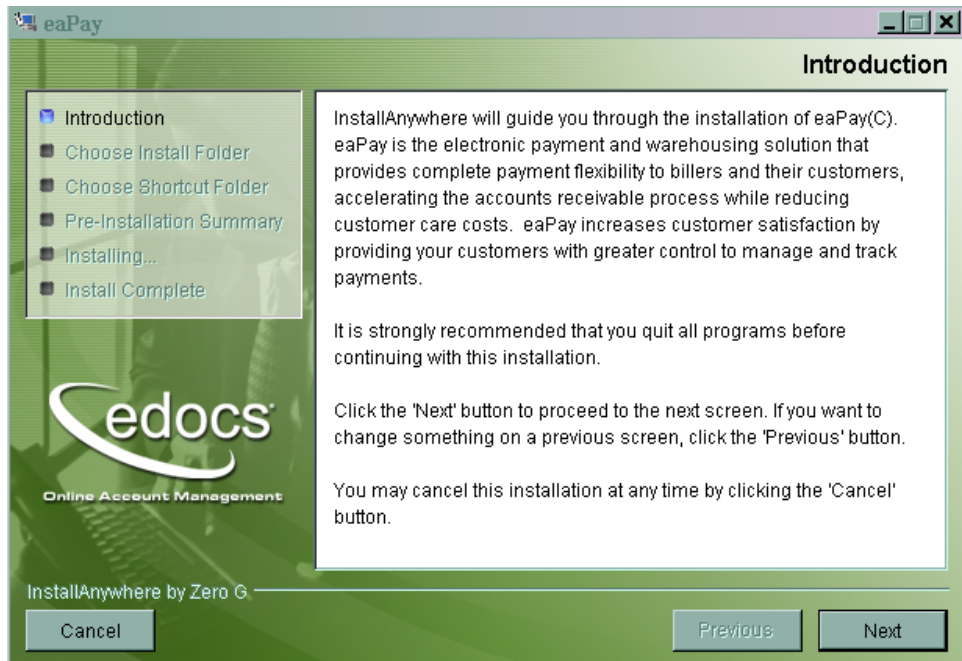
You must have Microsoft SQL Server and WebLogic installed before installing eaDirect. See the *eaDirect Installation and Configuration Guide* for more information about installing the eaDirect application and configuring the database.

After all the programs listed above have been installed, eaPay for Windows 2000 can be installed by running the Setup Program explained below. The Setup Program will copy all of the necessary files to *C:\EDCSpay* (this directory can be changed at installation if desired).

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

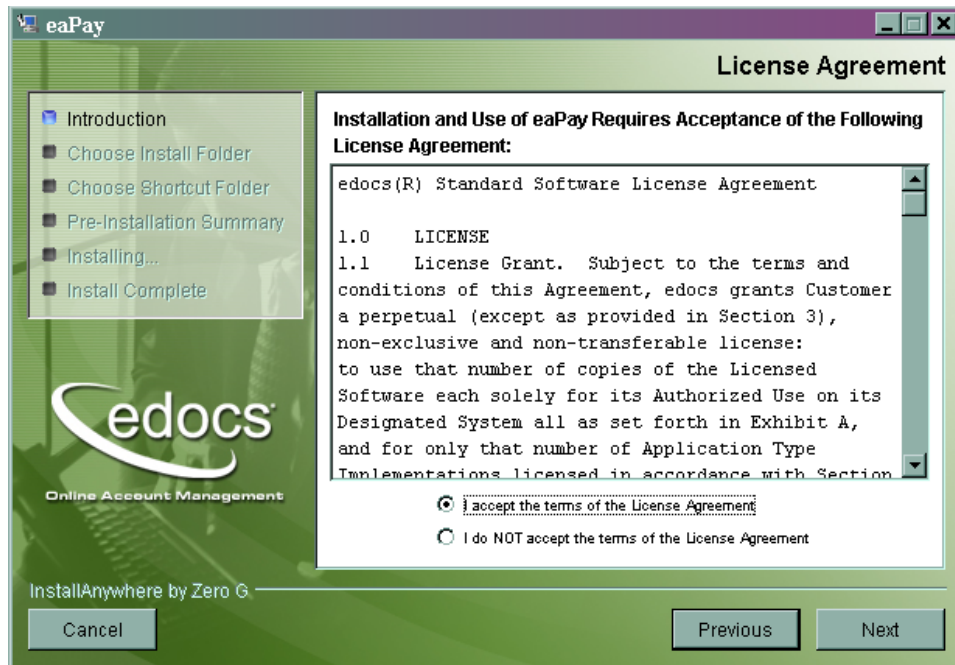
Installing eaPay 3.0 On the Database Server

1. Run the InstallAnywhere script `<CD_drive>\Windows\Payinst.exe`. The installation starts with the following screen:

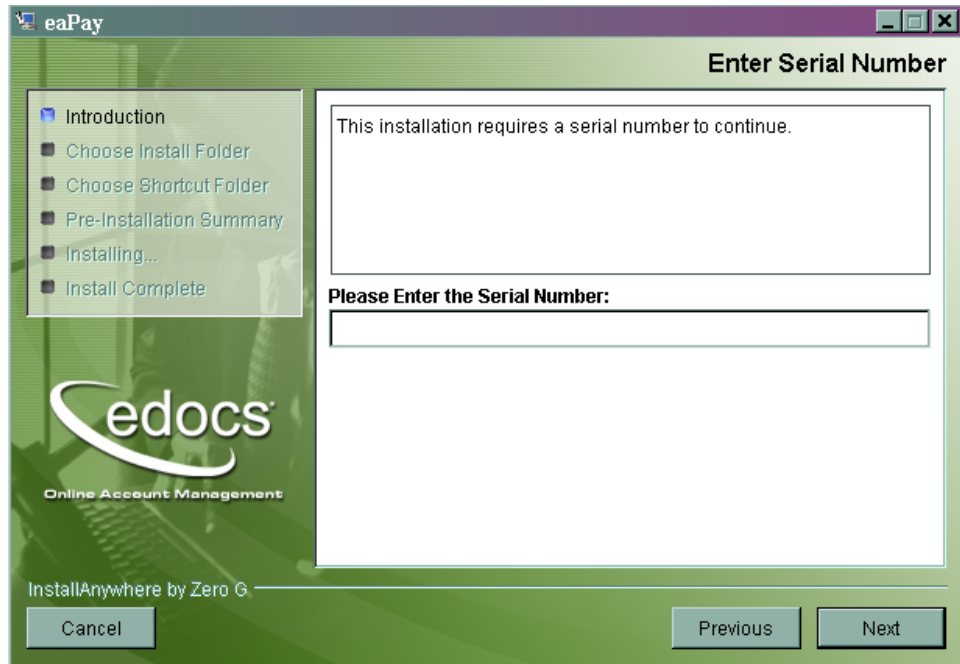


Click **Next**.

2. Read the license agreement, select the accept line, and click **Next**.

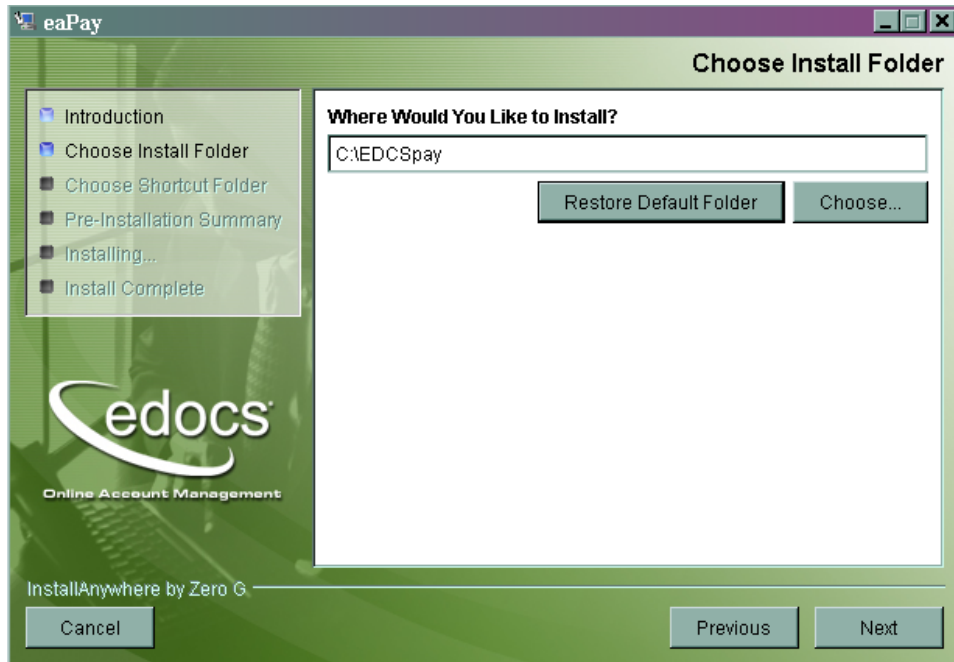


3. Read the serial number from the inside cover of the install guide that comes with your CD. Select the accept line, and click **Next**.



Installation

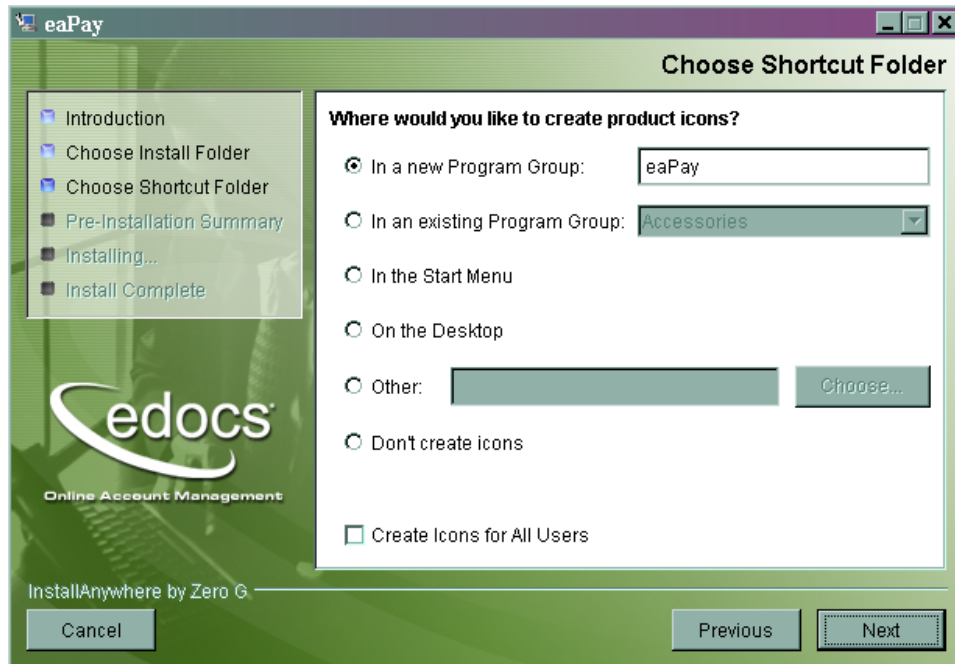
4. Enter the directory where you wish to install the eaPay files. The default is *C:\EDCSpay*. Click **Next** to continue.



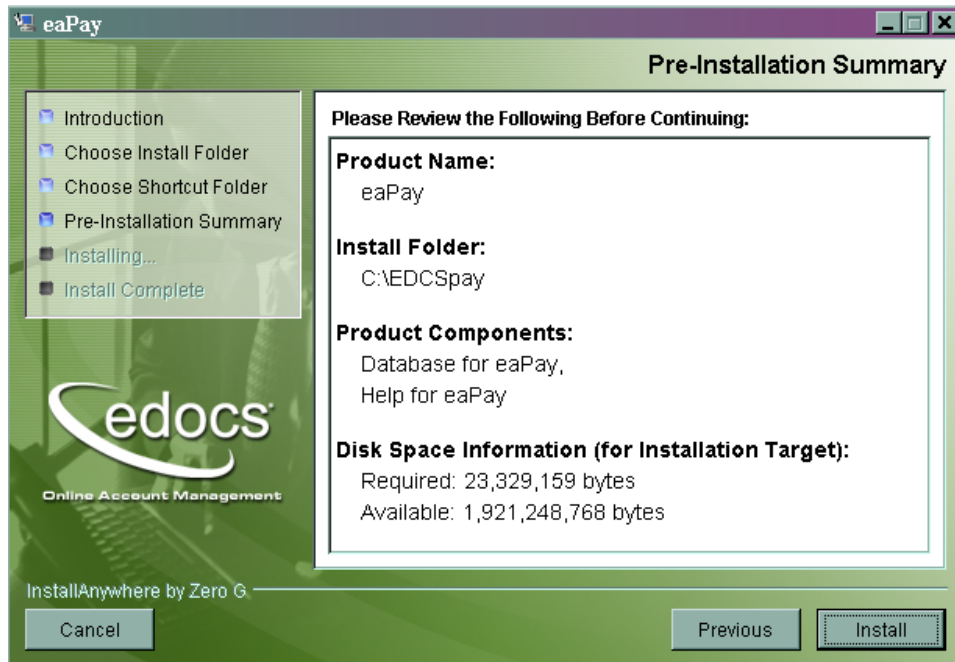
5. Choose **Database** to install the eaPay on this (database) server, and click **Next**.



6. Choose the locations where you would like eaPay product icons created, then click **Next**.



7. Review the information on this screen. Use the **Previous** button to back up and correct any entries. When ready, click **Install** to start the installation.

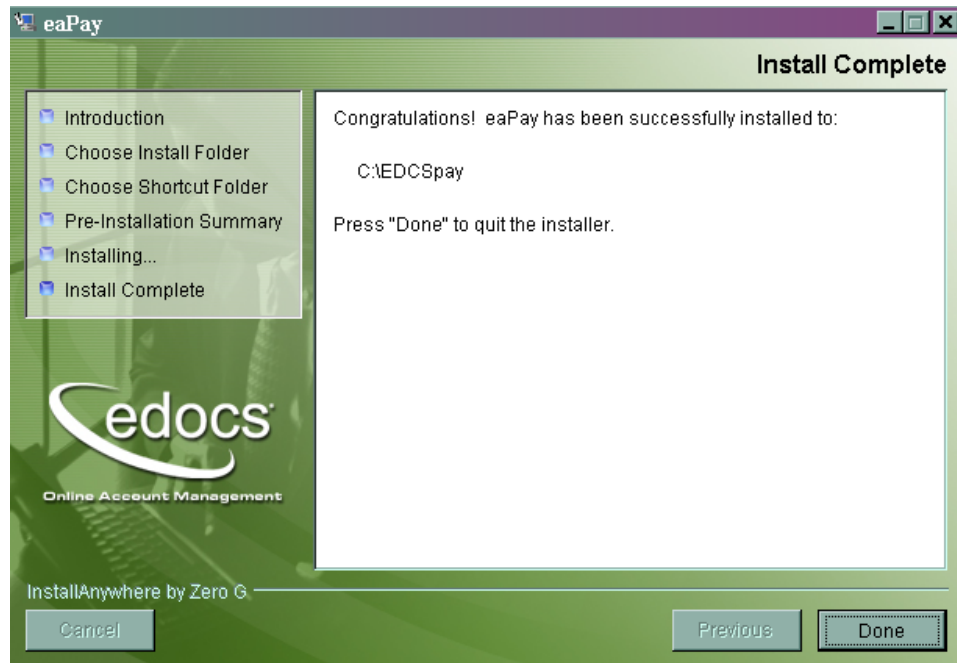


Installation

8. The installation starts and displays a dialog that updates as the installation continues:



9. When installation has completed, you will see the following screen:



Reboot the server, and continue installation.

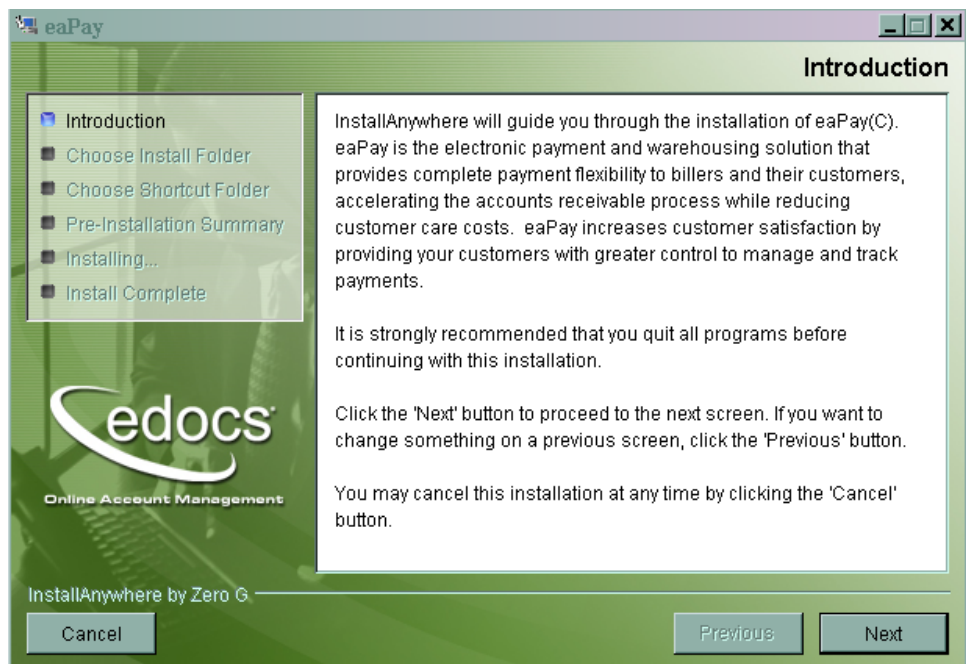
Running The Database Script

1. In the directory `<eapay-install-dir>\db\SQL`, edit `set_isql_options.bat` and enter the correct information for the database, user name and password (eaPay uses the same database as eaDirect) on the line that starts with:
`set ISQL_OPTIONS.....`
2. Run `%EAPAY_HOME%\db\create_payment_db.bat` to create payment databases.
3. One script requires that you be logged on as the system administrator, which is run using `create_payment_db2.bat`. Before running this script, you must edit the file to update the username and password for the system administrator.

4. Restart the system.

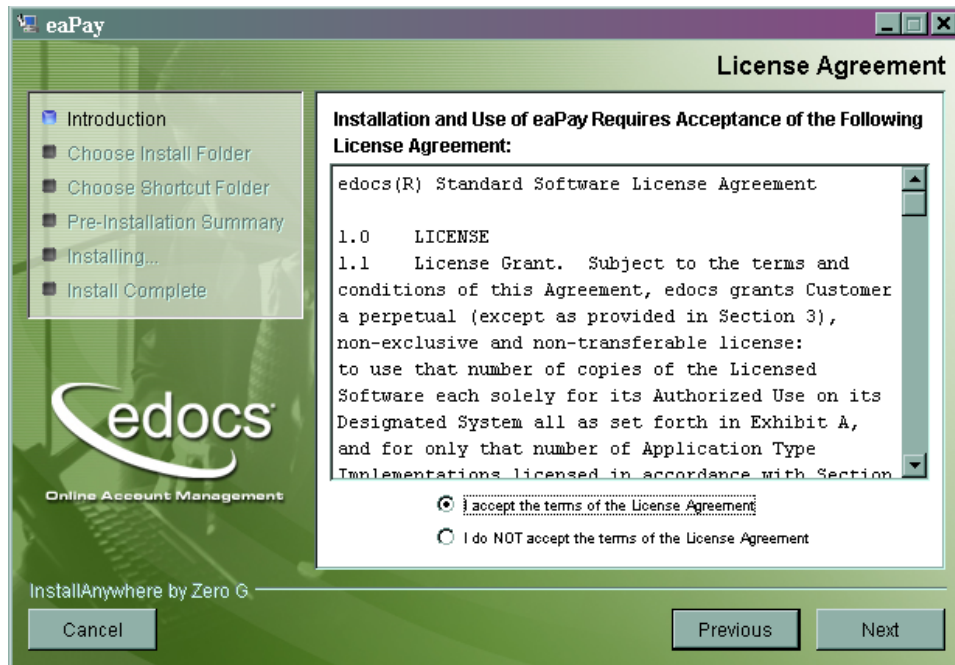
Installing eaPay 3.0 On the Application Server

1. Run the InstallAnywhere script `<CD_drive>\Windows\Payinst.exe`. The installation starts with the following screen:



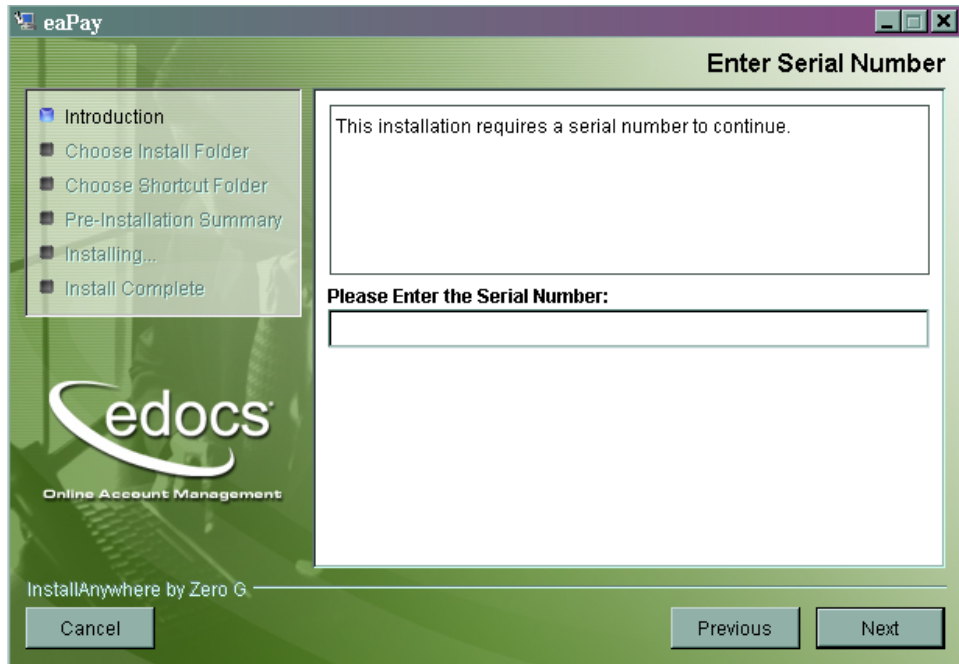
Click **Next**.

2. Read the license, accept the terms, and click **Next**.

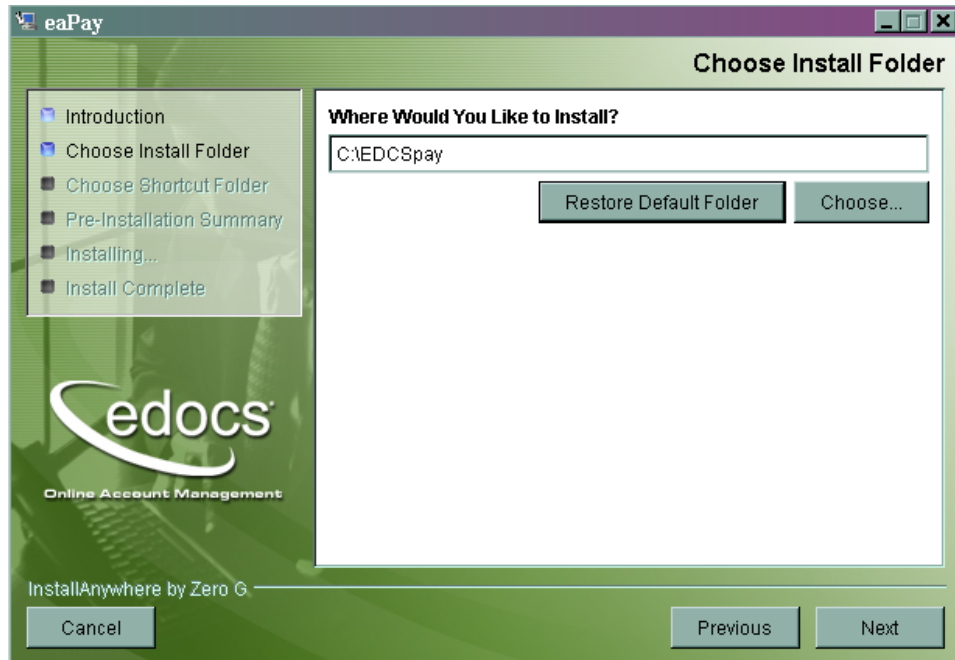


Installation

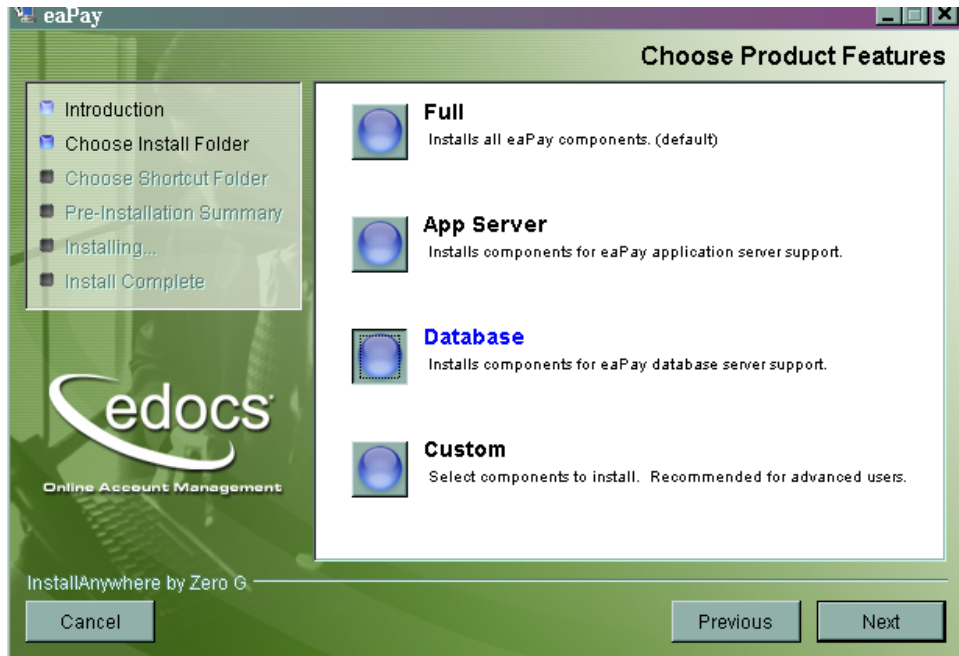
3. Read the license from the inside cover of the install guide that comes with your CD. Select the accept line, and click **Next**.



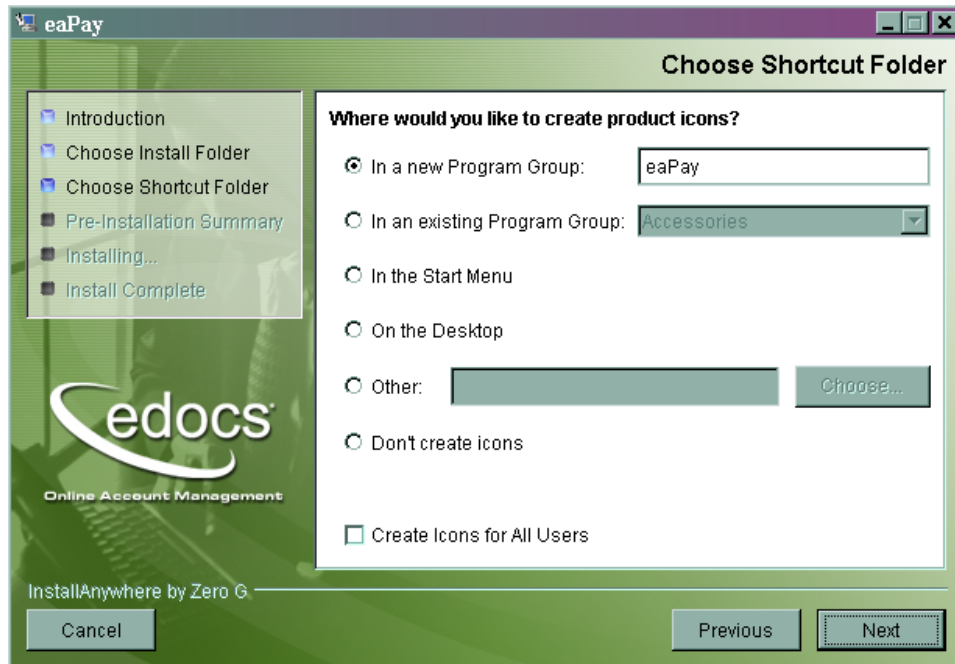
4. Enter the directory where you wish to install the eaPay files. The default is *C:\EDCSpay*. Click **Next** to continue.



5. Choose **Application** to install the eaPay on this (database) server, and click **Next**.

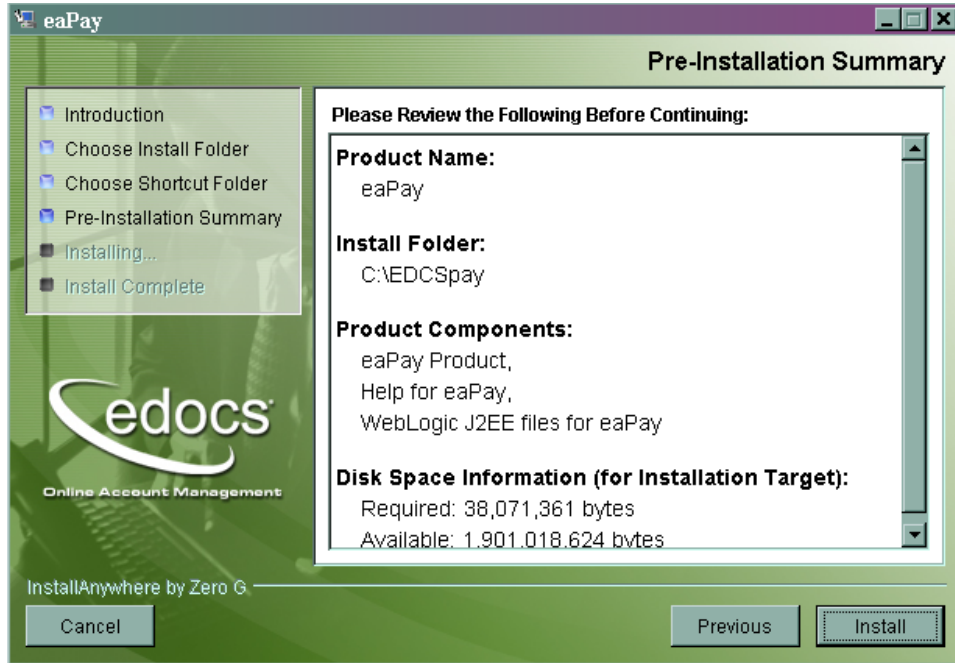


6. Choose the locations where you would like eaPay product icons created, then click **Next**.

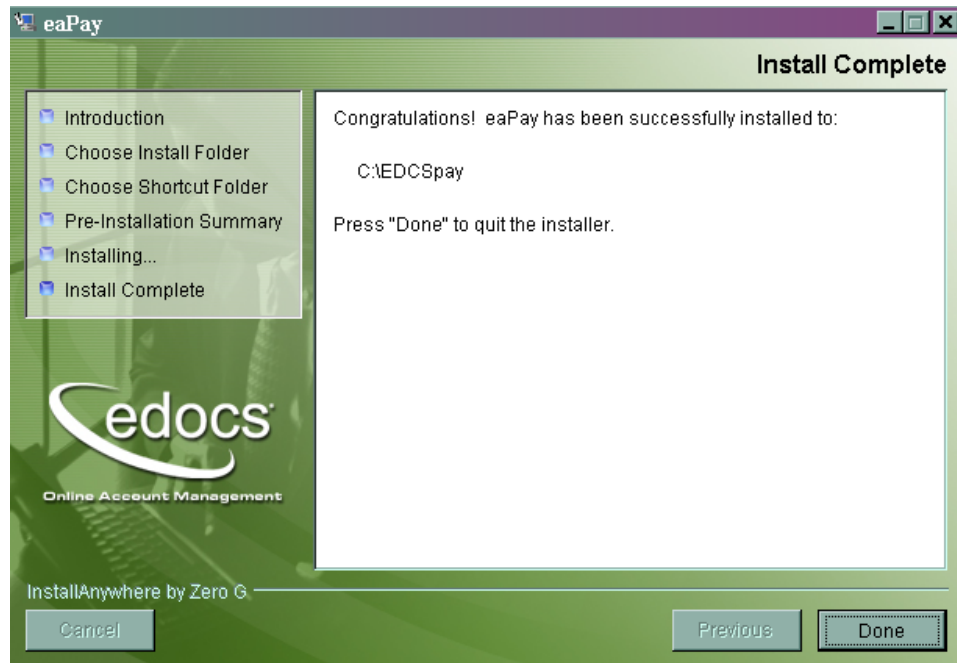


Installation

7. Review the information on this screen. Use the **Previous** button to back up and correct any entries. When ready, click **Install** to start the installation.



8. When the installation has completed, the following screen is displayed:



You do not need to restart the system.

9. Copy `%EAPAY_HOME\config\edx_payment.config.bat` to `<eaDirect-install-dir>\config\edx_payment.config.bat`.
10. Start WebLogic by:
- Opening a command prompt
 - Changing the working directory to your WebLogic domain (for example, `C:\bea\wlserver6.1\config\mydomain`)
 - Running: `startWebLogic.cmd`

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 the file `%EAPAY_HOME%\bin\merge_eapay_wl.bat` to update the locations for the home and source directories, if needed.
2. Run the edited batch file.

To Deploy the eaPay EAR Files:

eaPay requires that the eaDirect EAR be re-deployed, since it was updated in the previous step. You also must deploy a payment application. You can deploy either the Simple (single-DDN) or Complex (multiple DDN) application for testing purposes. You will also want to deploy your site's application, as created by edocs Professional Services, or by your development team.

The following steps describe how to deploy an EAR file.

1. Make sure the WebLogic server is running. If it is not running, start it. For example, open a Command Prompt and enter:

```
cd \bea\wlserver6.1\config\mydomain
startWebLogic.cmd
```
2. Open a URL to the WebLogic console.
3. Select **Mydomain**, then **Deployments**, then **Applications**, and click on **Install New Application**.

4. Browse to a copy of the *ear-eadirect.ear* file for eaPay, then click **Upload**. WebLogic will upload the *ear-eadirect.ear* file, install it over the existing *ear-eadirect.ear* file, and (usually) re-deploy the *ear* file and its components.

 **Tip**

You should check to make sure all the EJB Deployments under the *ear-eadirect* application in WebLogic properly deployed, and that . If not, check **Deployed**, and click on **Apply**. Also check that the Targets tab for each EJB deployment shows that the server is chosen. If not, move the server into the Chosen column, and click **Apply**.

5. Click on the **ear-eapay** application, and check to make sure that WebLogic re-deployed the *ear* file. If not, check the deployed box, and click on **Apply**.
6. Deploy the additional EAR files that are required by payment gateway type, following steps 1 through 5.
7. Restart the WebLogic server by stopping it, and then restarting as described in step 1.

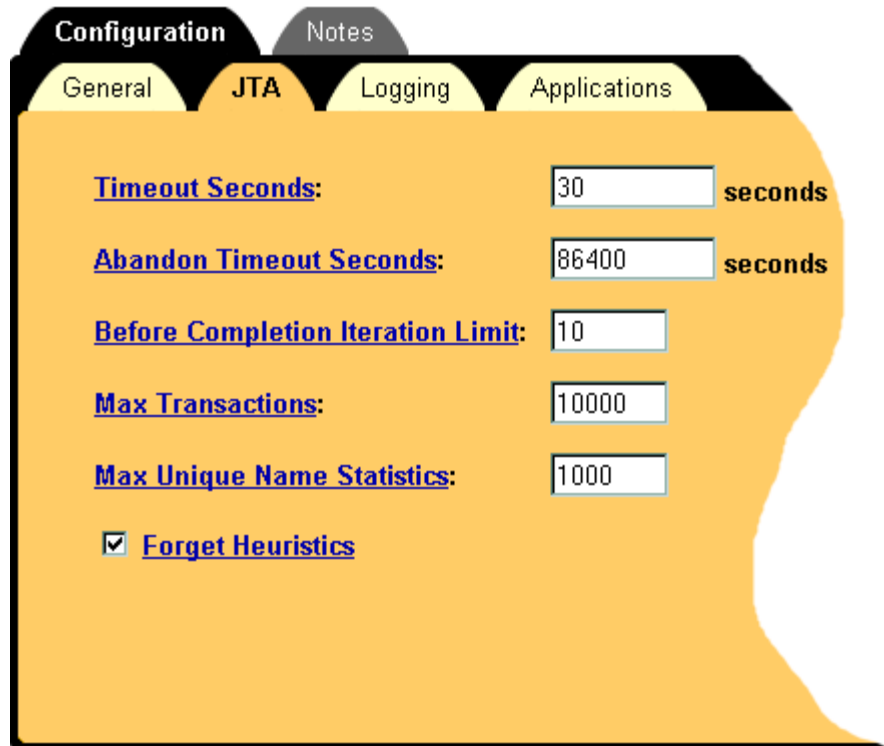
JTA Timeout Configuration

If `pmtCheckSubmit` will process a large number of checks, the JTA timeout value in WebLogic must be increased to keep the connection open long enough to process all the checks. For every 1500 checks to be processed, the timeout value should be increased by 30 seconds.

To configure the JTA Timeout setting:

1. Enter the URL to log on to the WebLogic console
2. Click on the `mydomain` in the left window

3. Click on the **JTA** tab, and a screen similar to the following will appear:



The screenshot shows a configuration window with a yellow background. At the top, there are two tabs: "Configuration" (selected) and "Notes". Below these are four sub-tabs: "General", "JTA" (selected), "Logging", and "Applications". The main content area contains the following settings:

<u>Timeout Seconds:</u>	<input type="text" value="30"/>	seconds
<u>Abandon Timeout Seconds:</u>	<input type="text" value="86400"/>	seconds
<u>Before Completion Iteration Limit:</u>	<input type="text" value="10"/>	
<u>Max Transactions:</u>	<input type="text" value="10000"/>	
<u>Max Unique Name Statistics:</u>	<input type="text" value="1000"/>	
<input checked="" type="checkbox"/> <u>Forget Heuristics</u>		

4. Change the Timeout Seconds field to the multiple of 30 seconds that you require, and click the **Apply** button.

Post Installation Configuration

2

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.

In the eaPay Settings for each DDN, the field `JNDI Name of IAccount` determines which user enrollment model is accepted. Be sure to match the value `edx/eaPayComplex/ejb/CDAAccount` for multiple accounts per biller, or `edx/eaPaySimple/ejb/CDAAccount` for single account per biller. See the eaPay Production Guide for more information about eaPay settings and the `JNDI Name of IAccount` parameter.

The Payment Account Enrollment Model

The eaPay enrollment model is controlled by settings in two places:

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. These steps assume you know how to use java to un-archive and re-archive EAR and WAR files.

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.JNDIMultipleDDNUserAccountAccess or`. For the `JNDI Name of IAccount` parameter, select `edx/eaPayComplex/ejb/CDAAccount`.
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.

Upgrading eaPay

To upgrade eaPay from version 2.2 to 3.0, perform the following tasks:

- Remove eaPay 2.2
- Remove eaDirect 2.2
- Install eaDirect 3.0
- Install eaPay 3.0
- 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. Open the Control Panel, and click on **Add/Remove Programs**, then remove eaPay 2.2.
2. Manually remove any files not removed by the Windows installer, but make sure you back up any files modified by edocs Professional Services.
3. Remove eaDirect 2.2 using the same method.
4. Remove any files not removed by the Windows installer, but make sure you back up any files modified by edocs Professional Services.
5. Install eaDirect 3.0. For information about installing eaDirect, see the *eaDirect Installation and Configuration Guide*.

6. Install eaPay using the steps described in Chapter 2, *Installation*.
7. Follow the instructions from the section *To Update the eaPay Configuration File* and *To Update the eaDirect EAR Files*.
8. You must reconfigure your payment gateways and eaPay jobs in the Command Center to accommodate new settings. See the *eaPay Production Guide* for information about 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. Open the Control Panel, and click on **Add/Remove Programs**, then remove eaPay 2.2.
2. Manually remove any files not removed by the Windows installer, but make sure you back up any files modified by edocs Professional Services.
3. Remove eaDirect 2.2 using the same method.
4. Remove any files not removed by the Windows installer, but make sure you back up any files modified by edocs Professional Services.
5. Install eaDirect 3.0. For information about installing eaDirect, see the *eaDirect Installation and Configuration Guide*.
6. Install eaPay using the steps described in Chapter 2, *Installation*.
7. When you run the database creation script, it will update your existing tables with the necessary fields.

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

Removing the eaPay Database

Follow the steps below to remove eaPay database. The process involves running two files that are located in eaPay installation directory. You should be aware that this procedure **completely** removes the eaPay database and should be used with care.

To remove the database for eaPay:

1. Change your working directory to the `%EAPAY_HOME%\db\SQL` directory.
2. Run the file `drop_payment_db.bat`.

Uninstalling eaPay

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

To uninstall eaPay:

1. Change your working directory to the `%EAPAY_HOME%\Uninstall` directory.
2. Run `Uninstall eaPay.exe`.