# edocs®

# eaPay™ Installation and Configuration Guide

## eaPay™ is a member of the eaSuite™ product line

### Microsoft Windows 2000® Operating System and the BEA WebLogic® Server

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# 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

# 1

# 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 3.1 | X | |
| Sun's Java 2 SDK (Standard Edition) 1.3.1 | X | |
| WebLogic 6.1 SP3 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

**Caution** 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. The Setup Program copies all the necessary files to *C:\EDCSpay* (this directory can be changed at installation time, if desired).

**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.

# Installing eaPay 3.1 On the Database Server

1.  From the \*Windows* subdirectory on the installation CD-ROM, double-click the command to invoke the InstallAnywhere GUI:

    **Dirins.exe**

    A start-up screen is displayed.

2.  On the Introduction screen, read the eaDirect introductory information. Then click **Next**.

3.  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**.

4.  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**.

5.  On the Choose Install Folder screen, accept the default installation folder or click **Choose** to specify another installation folder. Then click **Next**.

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

7.  On the Choose Shortcut Folder screen, specify where you want to create product icons. You can accept the default or click the **Other** radio button then **Choose** and specify a different location for the product icons. Then click **Next**.

8.  On the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**. The installation starts and displays a dialog that updates as the installation continues:

9.  The Install Complete screen reports a successful installation and directory that contains the database server components.

10. Click **Done** to exit the installer.

### Running The Database Script

1.  In the directory *<eapay-install-dir>\db\mssql*, 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\mssql\create_payment_db.bat* to create payment databases.

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**Tip**    If you run the database creation script from a command prompt, you will see the database creation process and messages.

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3.  Restart the system.

# Installing eaPay 3.1 On the Application Server

1.  Run the InstallAnywhere script *<CD_drive>\Windows\Payinst.exe*. A start-up screen is displayed

2.  On the Introduction screen, read the eaDirect introductory information. Then click **Next**.

3.  On the License Agreement screen, carefully read the terms of the agreement (use 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**.

4.  On the License Agreement screen, carefully read the terms of the agreement (use 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**.

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 Choose Install Folder screen, accept the default installation folder
    (*C:\EDCSbd*) or click **Choose** to specify another installation folder. Then
    click **Next**.

7.  On the Choose Product Features screen, click **App Server**. Then click
    **Next**.

8.  On the Choose Shortcut Folder screen, specify where you want to create
    product icons. You can accept the default folder or click the **Other** radio
    button, and then click **Choose** to specify a different location for the product
    icons. Then click **Next**.

9.  On the Pre-Installation Summary screen, confirm that the information is
    accurate. Then click **Install**.

    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 application server component being installed. No user intervention is
    required.

10. The Install Complete screen reports a successful installation and the name of
    the directory that contains the application server components.

11. Click **Done** to exit the installer.

    You do not need to restart the system.

12. Copy %EAPAY_HOME\config\edx_payment.config.bat to
    %EDX_HOME%\config\edx_payment.config.bat.

13. 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. A batch file is provided to assist merging the two files.

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.

3. The batch file creates a new *ear-eadirect.ear* file in the *%EAPAY_HOME\J2EEApps\weblogic* directory.

**To Deploy the eaPay EAR Files:**

You must re-deploy the eaDirect EAR with the EAR that 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 the updated 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 and log in.

3. Select **Mydomain,** then **Deployments**, then **Applications**, and click on **Install New Application**.

4. Browse to the *ear-eadirect.ear* file that you updated for eaPay (in the *%EAPAY_HOME\J2EEApps\weblogic* directory), 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 it's components.

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**Tip**  You should check to make sure all the EJB and WAR Deployments under the *ear-eadirect* application in WebLogic properly deployed. 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**.

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5. Click on the **ear-eapay-xxx** application, and check to make sure that WebLogic re-deployed the EAR file. If not, check the deployed box, and click on **Apply**.

6. Install the additional EAR files that are required by payment gateway type, following steps 1 through 5.

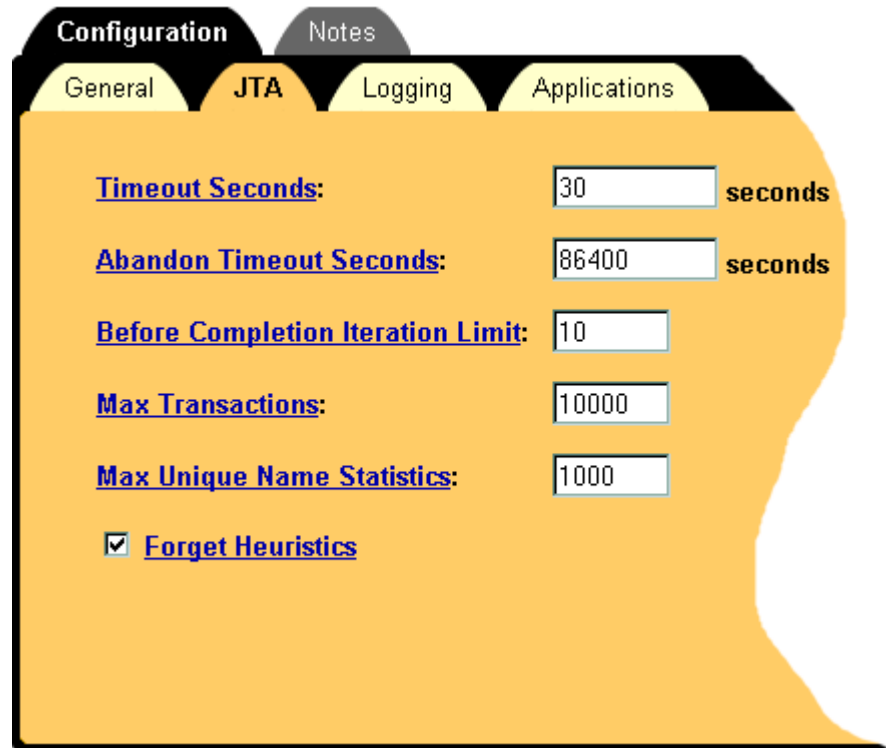7. Restart the WebLogic server by stopping it, and then restarting as described in step 1.

## 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:



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

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.JNDIMultipleDDNUserAccountAccessor*. 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. If the eaPay database server fails for some reason, the database administrator can restore the database 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 re-establish the database connection pool.

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

# 3

# Upgrading eaPay

To upgrade eaPay from version 3.0 to 3.1, perform the following tasks:

- Remove eaPay 3.0

- Remove eaDirect 3.0

- Install eaDirect 3.1

- Install eaPay 3.1

- 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. Open the Control Panel, and click on **Add/Remove Programs**, then remove eaPay 3.0.

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 3.0 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 3.1. 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.  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 for application.

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

    - Merge your custom code into the sample (eaPaySimple or eaPayComplex) application, 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 Update the eaDirect EAR Files*.

    See the release notes for information about new features in 3.1.

    See the *eaSDK: Customizing and Extending eaPay* and *eaSDK: Customizing and Deploying Applications* documents for information about the components that make up the J2EE and Web applications, and the procedures for recreating EAR and WAR files.

9.  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 3.0.

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 3.0 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 3.1. 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.

4

# 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\mssql* directory.

2. Run the file *drop_payment_db.ba*t.

# 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*.