Installation and Configuration

Microsoft Windows NT/2000® Operating Systems
and the BEA WebLogic® Server

ea**Post**

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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
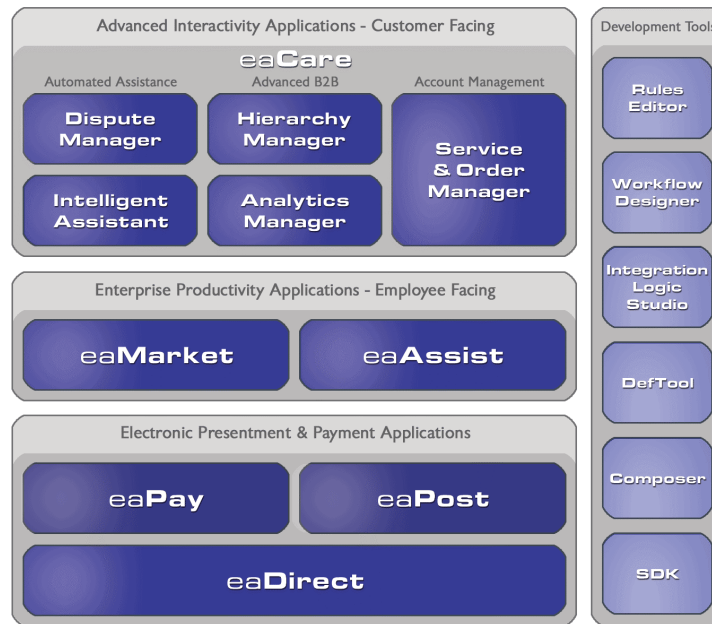
Electronic Presentment and Payment (EPP) Applications are the foundation of edocs' Customer Self-Service solution. They provide the core integration infrastructure between organizations' backend transactional systems and end users, as well as rich e-billing, e-invoicing and e-statement functionality. 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.

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 eaPost Command Center screens.
A PDF of this guide	A PDF of this guide is available on the eaPost product CD-ROM.

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

Print Document	Description
Portal Consolidation Production Guide	How to configure and operate the production environment. It describes configuration tasks done after installation.
Data Presentation Production Guide	How to set up and run a live eaDirect application in a J2EE environment.

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

If You Need Help

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

edocs provides global Technical Support services from the following Support Centers:

US Support Center
Natick, MA
Mon-Fri 8:30am – 8:00pm US EST
Telephone: 508-652-8400

Europe Support Center
London, United Kingdom
Mon-Fri 9:00am – 5:00 GMT
Telephone: +44 20 8956 2673

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.

Installation Overview

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

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

The steps required to implement eaPost 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.

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

3. Configure the eaPost Settings page steps, and create eaPost jobs in the Command Center. For more information about eaPost settings and jobs, see the *Portal Consolidation Production Guide*.

Hardware and Software Requirements

Confirm that your system meets the minimum recommended hardware and software requirements for installing eaPost, as described in the release notes.

Installing eaPost on the Database Server

Overview

To install and configure eaPost on the database server, you will need to:

- Install the eaPost database components
- Configure a new MSSQL database for eaPost
- Install the eaPost jobs on the eaDirect database

Installing eaPost Database Components

The following installation procedure shows how to install the eaPost database server components using the InstallAnywhere GUI.

To install eaPost database components:

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

    Postins.exe

    A start-up screen is displayed.

2. On the Introduction screen, read the 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:

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

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

Configuring the Database for eaPost

To configure a new eaPost database, you must:

1. Update the file that sets the environment variables for eaPost.

2. Run the database creation script.

Edit the Environment Variables

1. Edit *set_env_var.bat*, which is in *%EPX_HOME%\db\mssql*.

2. For a default instance, customize the eaPost server name using network name of computer:

```
set _server_name=MYSERVER
```

For a named instance, customize eaPost server name using both the network name of the computer and the instance name. For example:

```
set _server_name=MYSERVER\MYINSTANCE
```

3. Check that the log and database file locations provide the correct drive and path:

```
set _data_file_path = <your drive>:\<your path>\data
set _log_file_path = <your drive>:\<your path>\logs
```

Tip The _data_file_path in *set_env_var.bat* uses the C: drive, and the_log_file_path uses the E: drive. This is to encourage you to use separate drives for the data and log directories. Make sure you edit the drive letter for your installation.

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4. Check the database name, database user name and password that will be created for eaPost to make sure they don't conflict with an existing database or user name.

```
set _db_name=eapost
set _db_user=epx_dba
set _db_passwd=epx
```

Run the database installation script

1. Make sure you know the password of the *sa* user (system administrator) login.

2. Open a command prompt window and change the directory to the default location where you installed the eaPost files. For example:

```
C:
cd \EDCSpost\db\mssql
```

3. Enter the following command at the prompt:

   ```
   eapost_admin.bat <system administrator> <password>
   ```

   For example:

   eapost_admin.bat sa edocs

   This batch file creates a log file, and prints a successful installation line if there are not problems. If you do not see the success message, then check the log file to see what problems occurred. It also creates a database named eaPost, and a login using the information in *set_env_var.bat*.

Install the eaPost Jobs on eaDirect

1. Open a command prompt window and change the directory to the default location where you installed the eaPost files. For example:

   C:
   cd \EDCSpost\db\mssql

2. Enter the following command at the prompt:

   ```
   install_task.bat <database> <database user> <password>
   ```

   For example:

   install_task.bat edx0 edx_dba edx

Troubleshooting Your Database Configuration

At some point during the eaPost configuration process, you might encounter problems. Although you may be able to troubleshoot the process using the error messages displayed, you may still have to quit the session and run the configuration script again. This results in the loss of any information you had entered.

If terminating and restarting the session is your only option, you must first do a manual cleanup of the partially configured database.

Recovering from a Failed Database Configuration

If you have to abort the database creation and configuration procedure, or if it fails to create and configure the database, do the following steps before running the database tool again.

To recover from a failed database configuration:

1. From the Start menu, select **Programs** and **Microsoft SQL Server**, and click **Enterprise Manager**. The Enterprise Manager screen appears.

2. Expand the SQL Server Group and click the **Database** folder.

3. Highlight the name of the newly created database and delete it from the list of installed databases. The sample screen shows the database, *eapost*, being deleted.
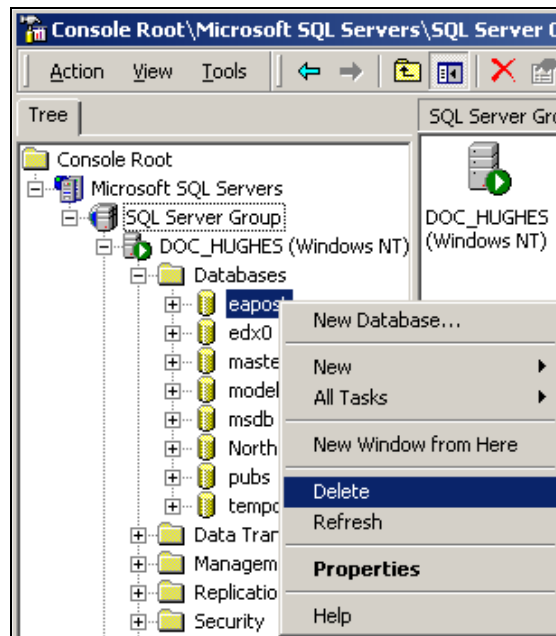
4. Scroll down to the Security folder and expand it to show Logins. Delete the user for the database that you just deleted. The sample screen shows the database user *epx_dba* being deleted.
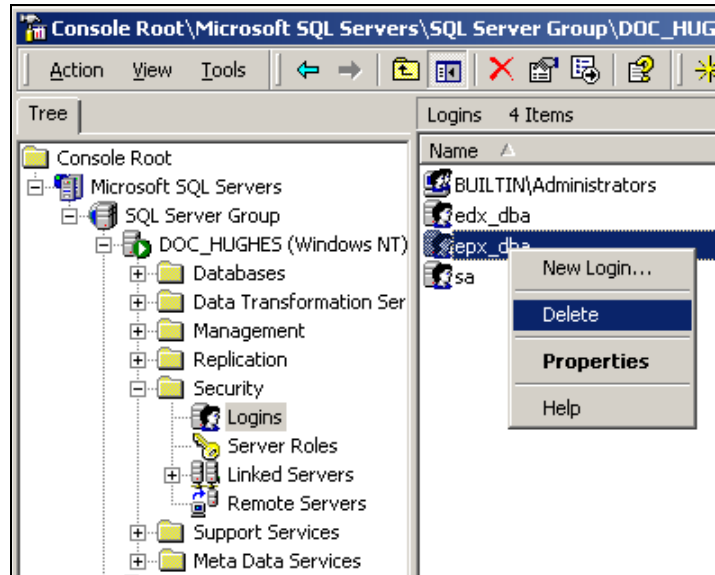
5. Open a Command Prompt window and run the database creation script again.

Installing eaPost on the Application Server

Installing eaPost Application Components

This process loads all the eaPost application files using the hierarchy of subdirectories that eaPost uses to store the application files. The default directory for the eaPost distribution is *C:\EDCSpost*.

To install eaPost application components:

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

   Postins.exe

   A start-up screen is displayed.

2. On the Introduction screen, read the 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 **Application**. 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:

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

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

Configuring eaPost on the Application Server

After you have installed the eaPost application server files have been installed, they need to be deployed, and WebLogic must be configured for eaPost:

1. Update the eaDirect EAR file with the eaPost EAR, and re-deploy the updated eaDirect EAR

2. Deploy the eaPost sample application to view redirected bills

3. Configure WebLogic for eaPost

Updating the eaDirect EAR

The *ear-eadirect.ear* file must be updated for eaPost. eaPost installs a file called *ear-eapost.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. Open a command prompt, and change your working directory to *%EPX_HOME%\lib*.

3. Run the database configuration tool, using the following command.

    ```
    java -jar ear_merge_app.jar
    ```

4. Enter the paths to the EAR files and the EAR which will be replaced with the merged EAR file, similar to the following example:
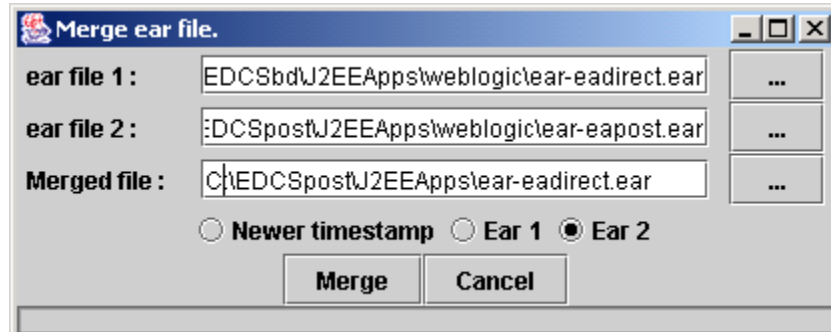
Click on the **...** button to bring up a file dialog to locate the EAR files. Be sure to select which method to use when merging the EAR files. The example shows EAR 2 as the selected method, which means the *ear-eapost.ear* file's contents will override any entries in EAR 1.

5. The utility places the updated EAR file as specified by the Merged File parameter.

Command Line Merge

The merge utility can also be run from the command line, as follows:

```
java -jar ear_merge_app.jar
<-newertimestamp|-ear1|-ear2> <file1> <file2>
<mergedfile> [-overwrite]
```

where the parameters between:

◇ are required
[] are optional

and the parameters are defined as:

-newertimestamp: if the contents of the two files are the same, use the one with the newer time stamp

-ear1: prioritize the content in file 1

-ear2: prioritize the content in file 2

-overwrite: overwrite the merged file if it exists. (the default is to not overwrite)

For example, open a command prompt and type:

```
java -jar ear_merge_app.jar -ear2
C:\EDCSbd\J2EEApps\weblogic\ear-eadirect.ear
C:\EDCSpost\J2EEApps\weblogic\ear-eapost.ear
C:\EDCSpost\J2EEApps\ear-eadirect.ear
```

The preceding example produces a new merged EAR file called *ear-eadirect.ear* in the directory */opt/EDCSpost/J2EEApps*.

To Deploy the Updated eaDirect EAR:

eaPost requires that the eaDirect EAR be re-deployed, since it was updated in the previous step. 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:

   ```
   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 eaPost. 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 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**.

---

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

To Deploy the eaPost Sample Application:

The eaPost sample application allows bills to be redirected. It can be used as a base for your site's application if you wish to customize the web application.

- To install the eaPost sample application, follow the same steps that show how to deploy the updated *ear-eadirect.ear*, but deploy the file *%EPX_HOME%\samples\J2EEApps\weblogic\eapost-sample.ear*.

Configuring a JDBC Connection Pool

A connection pool contains named groups of JDBC connections that are created when the connection pool is registered, usually when starting up WebLogic Server. WebLogic Server opens JDBC connections to the database during the startup process and adds the connections to the pool.

Your application borrows a connection from the pool, uses it, and then returns it to the pool by closing it. For more information about how WebLogic Server uses JDBC connection pools, refer to the WebLogic programming and user documentation at http://bea.com.

You will create one JDBC Connection Pools for eaPost.

To Configure a JDBC Connection Pool for eaPost:

1. Right-click on `Connection Pools` and select `Configure a new JDBCConnectionPool`. A tabbed dialog for configuring a new connection pool appears:

2. On the Configuration tab, enter the following values:

Name	Value
Name	`eaPostConnectionPool`

URL	`jdbc:inetpool:inetdae7://<servername>:<db_port>`
	
	`For example:`
	`jdbc:inetpool:inetdae7://doc_hughes:1433`

Driver Classname	`com.inet.pool.PoolDriver`

Name	Value

Properties	`user=epx_dba`
	`poolurl=jdbc:inetpool:inetdae7://doc_hughes:1433`
	`password=epx`
	
	The user and password values correspond to the *username:password* combination specified during the eaPost database configuration procedure.
	
	If you are upgrading an existing eaPost installation, be sure to use the username and password for the existing installation, usually **bpx_dba** and **bpx**.

3. Click **Create** to create the connection pool. The new instance is added to your domain under the Connection Pools node in the left pane.

4. In the right pane, click **Connections**. A tabbed dialog for configuring connection attributes appears.

5. On the Connections tab, enter values for the attributes shown in the following table:

| Name	Value
Initial Capacity	**5**
Maximum Capacity	**20**
Capacity Increment	**5**
Login Delay Seconds	**1**
Refresh Period	**1**
Supports Local Transaction	**False** (box unchecked)
Allow Shrinking	**True** (box checked)
Shrink Period	**15**
Prepared Statement Cache Size	**256**

6. Click **Apply** for the attribute values to take effect the next time you restart WebLogic Server.

7. In the right pane, click the **Testing** link. A tabbed dialog for configuring testing appears:
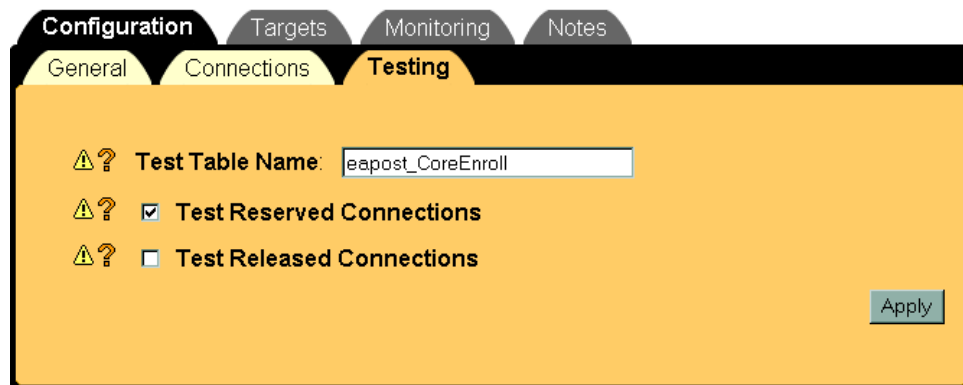
8. On the Configuration/Testing tab, enter values for the Test Table Name and Test Reserved Connections attributes as shown in the following table:

Name	Value
Test Table Name	**eapost_CoreEnroll**
Test Reserved Connections	**True** (checked)
Test Released Connections	**False** (not checked)

9. Click **Apply** for the attribute values to take effect the next time you restart WebLogic Server.

10. On the Targets/Servers tab, move the target server from Available to Chosen.
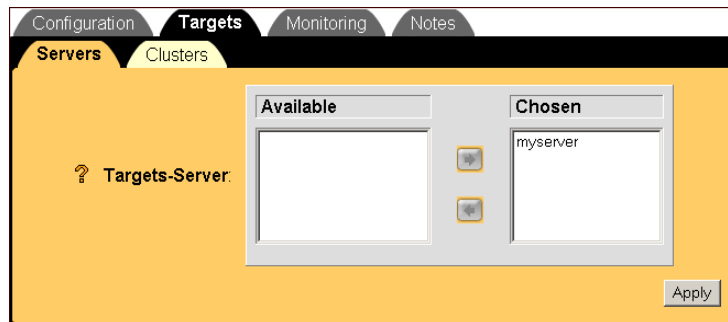
11. Click **Apply** for the new value to take effect the next time you restart WebLogic Server.

Configuring JDBC transaction (TX) data sources

A transaction data source enables JDBC clients to obtain a connection to a Database Management System (DBMS). Each data source points to the value specified for the Name attribute when a JDBC connection pool was configured. For more information about how WebLogic Server uses transaction data sources, see the WebLogic programming and user documentation at http://bea.com.

You will configure one TX Data Source for eaPost.

To configure the JDBC transaction data source:

1. From your domain in the left pane, select `Services` and `JDBC` and `Tx Data Sources`.

2. In the right pane, click **Configure a New JDBC Tx Data Source** link. A tabbed dialog for configuring a new transaction data source appears.

3. On the Configuration tab, enter values for the Name, Java Naming and Directory Interface (JNDI) Name, and Pool Name attributes as shown in the table below.

Name	Value
Name	`eapostDataSource`
JNDI Name	`eapost.databasePool`
Pool Name	`eaPostConnectionPool`

4. Click **Create** to create a JDBC transaction data source instance named eapostDataSource. The new instance is added to your domain under the Tx Data Sources node in the left pane.
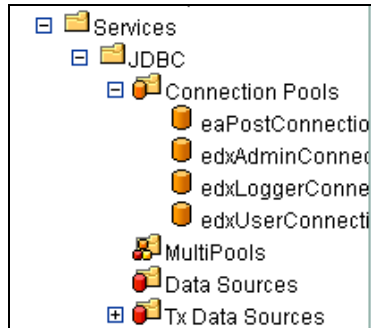
5. On the Targets/Servers tab, move the target server from Available to Chosen.
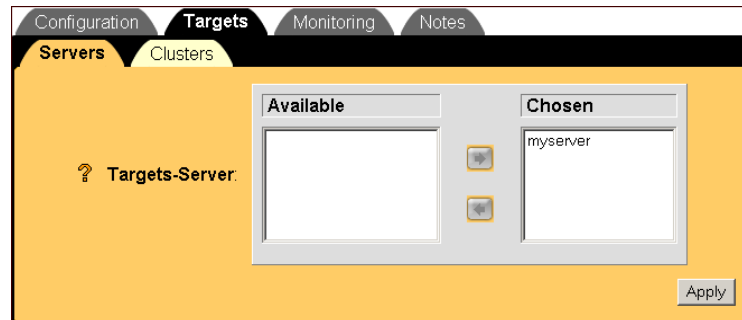
6. Click **Apply** for the new value to take effect the next time you restart WebLogic Server.

Once eaPost has been successfully installed, you can configure the portal and biller(s), plus configure the eaPost jobs in the Command Center. For information about how to do this, see the *Portal Consolidation Production Guide*.

Upgrading from a Previous Version of eaPost

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To upgrade from earlier versions of eaPost, you must:

- Migrate the existing eaPost database to the new format
- Update the eaPost jobs in the eaDirect database
- Reconfigure the portal and biller settings
- Convert the data in the eaPost database to the new format
- Add the eaPost jobs to the eaDirect database

The upgrade path depends on installation of all sequential releases and patches. edocs does not support upgrading from skipped versions. For detailed upgrade assistance, contact your edocs Professional Services representative.

Upgrading an Existing eaPost Database

You can upgrade your existing eaPost v1.2 or v1.1.1 database to eaPost v4.0.

Be sure to backup your existing database before starting the upgrade.

To upgrade an existing Oracle8i database:

1. Open a command prompt window and change directory to the default location where you installed the eaPost files. For example:

   ```
   cd EDCSpost\db\mssql\migration\12to40
   ```

   to migrate an eaPost v1.2 database, or

   ```
   cd EDCSpost\db\mssql\migration\111to40
   ```

   to migrate an eaPost v1.1 database.

2. Run the database upgrade shell script by entering the appropriate command at the prompt:

   `migrate_111_to_40.bat`

   or

   `migrate_12_to_40.bat`

3. The script then updates the database, and creates a log file in the current directory.

Updating the eaDirect Database

Update the eaPost tasks in the eaDirect database, so the command center will have the correct eaPost jobs.

1. Open a command prompt window and change the directory to the default location where you installed eaDirect. For example, to update an eaDirect v1.2 database:

   `cd C:\EDCSbd\db\mssql\migration\12to40`

   or, to migrate an eaDirect v1.1 database:

   `cd C:\EDCSbd\db\mssql\migration\111to40`

2. Run the task update shell script by entering the appropriate command at the prompt:

   `install_eadirect_task.bat`

Reconfiguring Portal and Biller Settings

Before converting the previous version's data to the new tables, you must redefine the portal and biller settings using the command center. Edit the aliases for the portal and the biller using the following rules:

- match only one entry of *biller_symbol* column in the old *biller_alias* table with one entry of *billeralias* column in the new *eapost_corebilleralias* table.

- make sure one entry of the *portalalias* column in the new *eapost_coreportalalias* table matches one entry of *portal_cd* column in the old *portal* table.

Migrating Existing Data

Now the portal and biller aliases are properly defined, you can run the data conversion script to convert the existing eaPost data to the new format.

1. Open a command prompt window and change directory to the default location where you installed the eaPost files. For example, to migrate an eaPost v1.0.2 database:

   cd C:\EDCSpost\db\mssql\migration\102to34

   or, to migrate an eaDirect v1.1 database:

   cd C:\EDCSbd\db\mssql\migration\111to40

2. Run the data conversion shell script by entering the appropriate command at the prompt:

   convert_eapost_data.bat

Adding eapost Jobs to eaDirect

You must run a shell script to add the eaPost jobs to the eaDirect command center.

1. Open a command prompt and change the working directory to the *$EPX_HOME/db/oracle* directory. For example:

   cd C:\EDCSpost\db\mssql

2. Run the eaPost job installation script, providing the eaDirect database username and password as arguments. For example:

   install_task.bat edx_dba edx

Configuring eaPost Jobs

For eaPost v4.0, you must create new eaPost jobs using the new job types. You should remove all existing eaPost v1.0.2 job types when upgrading, since these job types have been changed during the conversion to support J2EE.

To upgrade eaPost jobs:

1. Create and test new eaPost jobs for each job type, using the same configuration values as you used for the old jobs. For more information on creating jobs in eaPost, see the *Portal Consolidation Production Guide.*

2. From the edocs Command Center, delete the old eaPost jobs. For more information on deleting jobs and using the Command Center, see the *eaDirect Administrator's Guide*.