



Installation and Configuration

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

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Table of Contents

Preface	5
About Customer Self-Service and eaSuite™	5
About eaMarket	7
About this Guide	8
Related Documentation	8
Obtaining edocs Software and Documentation	9
1 Preparing For Installation	13
System Requirements	13
Tasks to Do Before You Install eaMarket	13
Installing eaMarket	14
Installing the eaMarket Components	14
Installing eaMarket in Console Mode	15
2 Installing eaMarket on the Database Server	17
Running the Installation Script	17
To Install the Database Components	17
Configuring the eaMarket Database	18
To Configure the eaMarket Database for eaMarket	18
Aborting the Configuration Script and Running it Again	22
Enabling Database Connectivity to eaMarket	23
3 Installing and Configuring the eaMarket Application Server	25
Running the Installation Script	25
Configuring the eaMarket Application Server	26
Setting Environment Variables for eaMarket	26
Configuring WebSphere for eaMarket	27
Creating JDBC Resources	27
Deploying eaMarket J2EE Applications	28
Deployment Using WebSphere	28
Configuring eaDirect for eaMarket	29
4 Installing eaMarket Integration Components for eaDirect	31
Running the Installation Script	31
To Install the Integration Components	31
Configuring WebSphere	32
To Configure JVM Settings For eaDirect	33
5 Post-Installation Tasks	35
Setting the Directory for Promotion Storage	35
Configuring a Data Store for eaMarket	35
To Create the Database User	35

To Configure WebSphere for the Data Store	36
To Create a Data Store in eaMarket	36
Setting the Tracking Server	37
Starting the Agents	38
Stopping the Agents	38
Setting up Xvfb	39
To Set Display Permission	39
To Set the Display Device	39
Uninstalling eaMarket	40
To Uninstall the eaMarket Database Server Components	40
To Uninstall eaMarket Applications on WebSphere	41
To Uninstall eaMarket	42

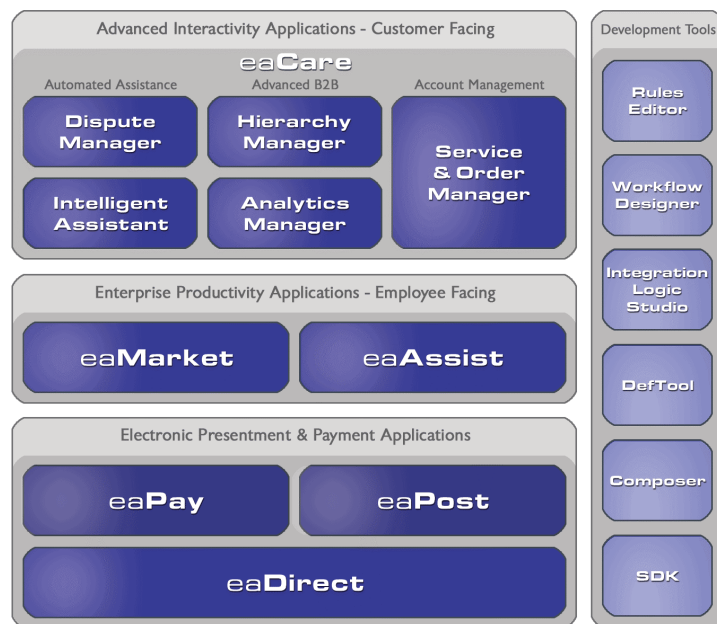
Preface

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 eaMarket

eaMarket is the personalization management solution that enables companies to increase revenue and improve customer satisfaction by weaving personalized marketing and customer service messages throughout the online account management experience.

The online statement is the best platform to create recurring one-to-one relationships with your customers, as it provides personal, time-sensitive and financially relevant information. Transactional account data – such as purchase history, investment activity and service and usage charges – allows you to gain the most insight into your customers and optimally personalize your marketing campaigns. With eaMarket, you can deploy targeted marketing and customer service messages based on the customer's dynamic account and transaction data.

Online marketing demands real actions in real time. eaMarket allows your marketing team to design, schedule, evaluate, and manage the entire process from anywhere on your network – all from a browser-based user interface that operates without heavy involvement from your IT department.

Move beyond your competition. Use eaMarket to send your customers personalized e-serts™ instead of envelopes full of one-size-fits-all inserts. Increase cross-sell and up-sell offer acceptance rates with personalized messages that are based on your customer's actual account activity.

With eaMarket, you can deliver the right message to the right customer at the right time.

About this Guide

This guide describes how to install and configure the eaMarket Version components. Its intended audience is the System Administrator who will install and configure eaMarket for the Solaris™ Operating Environment.

Related Documentation

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

Online	How to Access
Help	Select Help from the eaMarket configuration screens.
A PDF of this guide	A PDF of this guide is available on the eaDirect product CD-ROM.

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

Print Document	Description
<i>eaMarket™ User's Guide</i>	Explains what you need to know to use the eaMarket application to manage marketing promotions, content, business conditions, and workflow.

Print Document	Description
<i>eaMarket™ Installation and Configuration Guide: for the Solaris™ Operating Environment™ Software</i>	Explains how to install and configure eaMarket for a Solaris environment.
<i>eaMarket™ Installation and Configuration Guide: for the Windows/NT™ Operating Environment™ Software</i>	Explains how to install and configure eaMarket for a Windows environment.
<i>eaDirect Installation and Configuration Guides</i>	How to install eaDirect and configure it in a distributed environment.
<i>Data Presentation Production Guide</i>	How to set up and run a live eaDirect application in a J2EE environment.
<i>Deploying and Customizing J2EE Applications</i>	How to customize J2EE web applications for deployment with the eaSuite.

The eaSuite products eaDirect, eaPost, eaPay, 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.

If You Need Help

Technical Support is available to customers who have an active maintenance and support contract with edocs. Technical Support engineers can help you install, configure, and maintain your edocs application.

This guide contains general troubleshooting guidelines intended to empower you to resolve problems on your own. If you are still unable to identify and correct an issue, contact Technical Support for assistance.

Information to provide

Before contacting edocs Technical Support, try resolving the problem yourself using the information provided in this guide. If you cannot resolve the issue on your own, be sure to gather the following information and have it handy when you contact technical support. This will enable your edocs support engineer to more quickly assess your problem and get you back up and running more quickly.

Please be prepared to provide Technical Support the following information:

Contact information:

- Your name and role in your organization.
- Your company's name
- Your phone number and best times to call you
- Your e-mail address

Product and platform:

- In which edocs product did the problem occur?
- What version of the product do you have?
- What is your operating system version? RDBMS? Other platform information?

Specific details about your problem:

- Did your system crash or hang?
- What system activity was taking place when the problem occurred?
- Did the system generate a screen error message? If so, please send us that message. (Type the error text or press the Print Screen button and paste the screen into your email.)
- Did the system write information to a log? If so, please send us that file. For more information, see the *TBM Troubleshooting Guide*.
- How did the system respond to the error?
- What steps have you taken to attempt to resolve the problem?
- What other information would we need to have (supporting data files, steps we'd need to take) to replicate the problem or error?

Problem severity:

- Clearly communicate the impact of the case (Severity I, II, III, IV) as well as the Priority (Urgent, High, Medium, Low, No Rush).
- Specify whether the problem occurred in a production or test environment.

Contacting edocs Technical Support

You can contact Technical Support online, by email, or by telephone.

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>

Escalation process

edocs managerial escalation ensures that critical problems are properly managed through resolution including aligning proper resources and providing notification and frequent status reports to the client.

edocs escalation process has two tiers:

1. **Technical Escalation** - edocs technical escalation chain ensures access to the right technical resources to determine the best course of action.
2. **Managerial Escalation** - All severity 1 cases are immediately brought to the attention of the Technical Support Manager, who can align the necessary resources for resolution. Our escalation process ensures that critical problems are properly managed to resolution, and that clients as well as edocs executive management receive notification and frequent status reports.

By separating their tasks, the technical resources remain 100% focused on resolving the problem while the Support Manager handles communication and status.

To escalate your case, ask the Technical Support Engineer to:

1. Raise the severity level classification
2. Put you in contact with the Technical Support Escalation Manager
3. Request that the Director of Technical Support arrange a conference call with the Vice President of Services
4. Contact VP of Services directly if you are still in need of more immediate assistance.



Preparing For Installation

This chapter describes installation tasks that must be performed before you install eaMarket.

System Requirements

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

Tasks to Do Before You Install eaMarket

Before you install the eaMarket components, there are several prerequisites that need to be addressed to ensure that the operating system and software programs that eaMarket uses are installed and configured correctly.

1. First, you must install and configure the Application Server and Database Server components of eaDirect as described in the *eaDirect Installation and Configuration Guide*. Then, you can continue with the following steps to configure the server running eaMarket, which assumes that eaMarket will be installed on a separate server from the eaDirect servers:



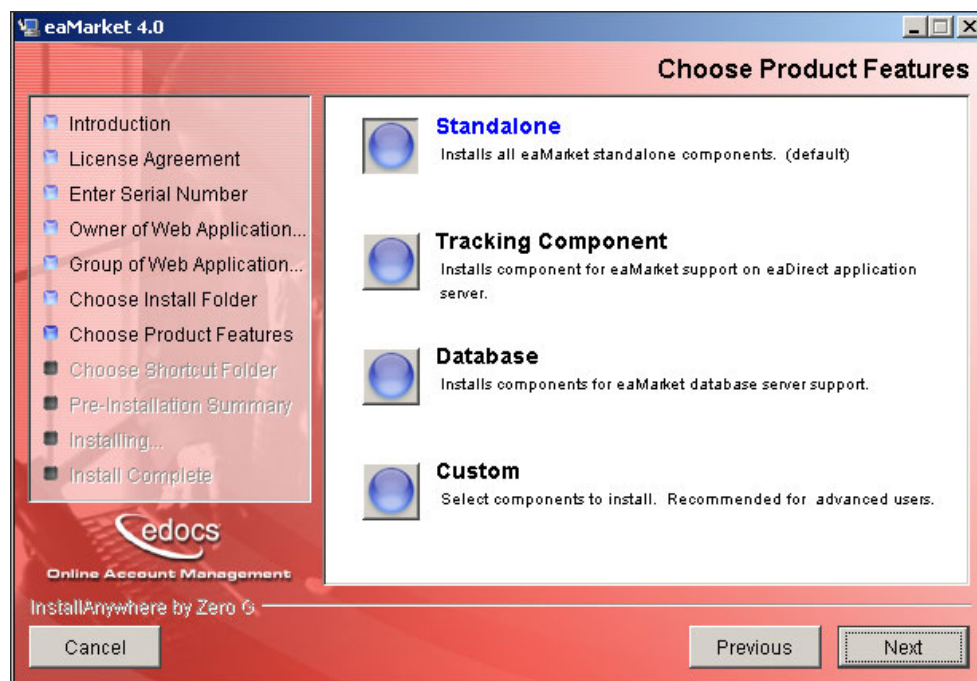
Caution A caution is for critical information that will have negative consequences if overlooked.

2. Install Sun Solaris operating system.
3. Install Xvfb, the virtual frame buffer X server. See Setting Up Xvfb for setup instructions.
4. Install Oracle9i Database if the eaMarket database is on the eaMarket server. Install the Oracle9i Client if the database is on a different server.
5. Install WebSphere 5.1.

Installing eaMarket

Installing the eaMarket Components

The installation of eaMarket components is done through the InstallAnywhere installer. The tool is provided with eaMarket on its distribution CD-ROM. Below is the InstallAnywhere screen where you select the eaMarket components to install.



Through InstallAnywhere's easy-to-follow graphical user interface, you can choose to do a stand-alone or custom install of eaMarket components on a single server or on multiple servers in a distributed environment. The following tables describes the various eaMarket installation options:

Option	Components Installed
Standalone	Installs eaMarket application server components, eaMarket database server components, WebSphere J2EE files for eaMarket, and online product Help.
Tracking Component	Installs components for eaMarket support on eaDirect application server.
Database	Installs eaMarket database server components.
Custom	Gives users the option to install eaMarket application server components, eaMarket database server components, and eaMarket J2EE applications.

InstallAnywhere copies eaMarket files from the distribution CD-ROM to the appropriate directories, and sets up the directory hierarchy for database server and application server components.

For specific information about installing eaMarket components using InstallAnywhere, see the topics: *Installing the eaMarket Application Server*, *Installing the eaMarket Integration Components* and *Installing the eaMarket Database Server Components*.

Installing eaMarket in Console Mode

The installation procedures in this guide show eaMarket being installed using the InstallAnywhere GUI. However, you can choose one of two InstallAnywhere installation modes to install eaMarket:

- GUI Mode (default installation mode)
- Console Mode

Console Mode is an interactive character-based installation where you are prompted to respond to several installation questions.

Recommended User and Group Permissions

During the installation of your application server, you are prompted to specify user and group permissions for files and directories. edocs recommends that you use the default application server permissions nobody:nobody with the eaSuite. However, if your UNIX system administrator uses custom user and group permissions at installation, you can set these permissions with the **chown** command.



Caution Make sure that you install eaMarket as the same user as WebSphere.

To change user and group permissions:

1. Switch to root user, for example:

```
$ su root
```
2. Change directory to your application server home directory (\$WAS_HOME). For example:

```
$ cd /usr/WebSphere/AppServer
```
3. Recursively change the user id and group id permissions of the application server installation directory and any subdirectories to the default, which is nobody:nobody. For example:

```
$ chown -R nobody:nobody /usr/WebSphere/AppServer
```

To Install eaMarket in Console Mode:

1. From the */Solaris* subdirectory on the eaMarket installation CD-ROM, run the command to install eaMarket in Console Mode:

```
# ./Markins.bin -i console
```

InstallAnywhere displays the banner:

```
Preparing CONSOLE Mode Installation...
```

2. Respond to each prompt to proceed to the next step in the installation. If you want to change something on a previous step, type **back**.

3. A successful installation displays the message:

```
Congratulations! eaMarket 4.0 has been successfully installed  
to:  
/opt/EDCSmkt
```


2

Installing eaMarket on the Database Server

This section describes how to install the eaMarket components on the eaDirect database server, the *edocs - eaMarket Promotion Management System - Database*.

Running the Installation Script

To Install the Database Components

1. From the */solaris* subdirectory on the installation CD-ROM, run the command to invoke the InstallAnywhere GUI:

```
# ./Markins.bin
```

This process loads all the eaMarket application files and sets up the hierarchy of subdirectories that eaMarket uses to store the application files. The default directory for the eaMarket distribution is */opt/EDCSmkt*. The installation script displays the message:

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer
archive...
Configuring the installer for this system's environment...
Launching installer...
```

2. In the Introduction screen, click **Next** to continue.
3. In 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. In 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. In the Owner of Web Application Server screen, enter the name of the application server owner (the recommended 'owner' is *nobody*). Then click **Next**.

6. In the Group of Web Application Server screen, enter the name of the group for the application server (the recommended group is *nobody*). Then click **Next**.
7. In the Choose Install Folder screen, accept the default installation folder (*/opt/EDCSmkt*), or click **Choose** to specify another installation folder. Then click **Next**.
8. In the Choose Product Features screen, click **Database**. Then click **Next**.
9. In the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**.

At this point, the eaMarket 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.
10. The Install Complete screen reports a successful installation and the directory that contains the database server components.
11. Click **Done** to exit the installer.

Configuring the eaMarket Database

Configure the eaMarket Oracle9i database by running the *eamarket_admin.sh* script. The configuration process consists of a series of prompts, some of which require user input.



This section does not address the installation of the Oracle9i Server itself. If you have not installed the Oracle9i Server, consult the product installation documentation and follow the on-screen prompts to complete the process.

To Configure the eaMarket Database for eaMarket

1. Go to */opt/EDCSmkt/config* and run the *eam_config* script. Make sure you are logged in as root.

The installation script displays the following message:

```
Enter the installation path of the eaMarket Application
Server, default :
/opt/EDCSmkt  [?,q]
```

2. Type the name of the directory where eaMarket has been installed. For example, */opt/EDCSmkt*.
3. Enter the JNDI name of the eaMarket DataSource.

The installation script displays the following message:

```
JNDI Name of the eaMarket DataSource, default : jdbc/eaMarket
[?,q]
```

4. On the database server, log in as the oracle user and change the working directory to the `/eaMarket_install/db/oracle` subdirectory. For example:

```
cd /opt/EDCSmkt/db/oracle
```

5. Set the ORACLE_SID environment variable to the SID name, which will be used with eaMarket. For example:

```
export ORACLE_SID=edx9
```

6. Enter the following command at the prompt:

```
./eamarket_admin.sh
```

7. The edocs eaMarket Server Administration Main Menu displays with an initial set of options.

```
edocs eaMarket Server Administration Main Menu Version 4.4
-----
      [1] Sign in Menu
      [2] Capture Database File Locations
      [3] Install edocs eaMarket
      [4] Initial Data Population
      [5] Database Version Migration
      [Q] Quit
-----
Enter Your Selection:
```

8. Select Option 1, **Sign in Menu**.
9. A second sign-in screen is displayed. Enter the username, password, SID and SYS password for the eaMarket Oracle9i database. For example:

```
Enter Database USERNAME: edx_dba
Enter Database PASSWORD: edx
Enter ORACLE_SID: edx9
Enter PASSWORD for User SYS: *****
```

After you have entered all the required information, the main menu is displayed again.

10. Select option 2, **Capture Database File Locations**.

This option specifies the absolute path for the various files that will comprise the eaMarket database. The location of these files depends on the type of file structure you are using. This installation process assumes the Oracle Optimal Flexible Architecture (OFA) for the database files. Therefore, you should have created at least four mount points (one for the software and three for the database files) when you installed the Oracle9i Server software. See the Oracle9i Server installation documentation for more information about OFA and creating mount points.

11. During this session, you will be prompted to provide absolute paths for the following files:

```
[1] Redo Log File
[2] System tablespace file location
[3] Temporary tablespace file location
[4] UNDO tablespace file location
[5] Data tablespace file location
[6] Control files location
```

Using separate mount points is suggested. For example:

```
[1] Redo Log File -> /u01/oradata
[2] System tablespace file location -> /u02/oradata
.....
```

12. Select Option 3, **Install edocs eaMarket**.

This option begins the installation of the physical database. A new menu is displayed from which you select Option 1, **Create Oracle Instance**.

```

Install edocs eaMarket
-----
[1] Create Oracle Instance
[2] Shutdown Database
[3] Startup Database
[4] Initialize Oracle Database
[5] Install Application Database
[6] View Status Log Directory
-----
[R] & Return to previous menu

SELECT YOUR OPTION:

```

This menu begins the initialization of the eaMarket database. Database initialization consists of:

- Creating a new database initialization file from the installation template *init.ora* file. The name of the newly created initialization file combines the *init* prefix followed by the *oracle* SID you entered when you logged in to the oracle account.
- Creating the shell script, *create_oracle_db.sh*, which contains the Oracle9i command used to create a database.
- Executing the two files.

No user input is required for this option. At the end of this process, you are returned to the **Install edocs eaMarket** menu.

13. Select Option 2, **Shutdown Database**, and then Option 3, **Restart Database**.

These options let you perform a quick test on the database you just defined. The Shutdown Database and Startup Database options must be executed successively.

When these options complete, you are returned to the **Install edocs eaMarket** menu.

14. Select Option 4, **Initialize Oracle Database**.

This option executes utility scripts that define the data dictionary for the new database, and create a stored procedure. The stored procedure is modified to contain the absolute paths that were defined in Option 2, **Define Database File Locations**. The newly created stored procedure creates the various database tablespaces and rollback segment data files that the eaMarket database requires.

Completion of **this option might take several minutes**. During this process, informational messages are displayed indicating that the utility scripts and the stored procedure are executing. A final message will indicate whether the processing was successful.

No user input is required for this option.

15. Select Option 5, **Install Application Database**.

This option creates the eaMarket database tables and indexes using an SQL script named *create_tables.sql*.

No user input is required for this option.

Tip

The error messages that are displayed during this step are an expected part of the process and can be ignored.

16. Select **Return to Previous Menu**. The eaMarket Server Administration Main Menu is displayed.

```
edocs eaMarket Server Administration Main Menu Version 4.4
-----
      [1] Sign in Menu
      [2] Capture Database File Locations
      [3] Install edocs eaMarket
      [4] Initial Data Population
      [5] Database Version Migration
      [Q] Quit
-----

Enter Your Selection:
```

17. Select Option 4, **Initial Data Population**. The **Initial Data Population Menu** is displayed.

18. Select Option 1, **Import initial data set**.

```
Initial Data Population
-----

      [1] Import initial data set
      [2] eaMarket configuration
      [R] Return to previous menu

SELECT YOUR OPTION:
```

This option populates the newly defined database with information from the SQL scripts. As data is imported into tables, informational messages are displayed indicating whether the data is being imported correctly.

No user input is required for this option.

19. Select Option 2, **eaMarket Configuration**.

This option prompts you for the directory path for the eaMarket installation. This path should point to the installation directory on the eaMarket server.

A message is displayed if the configuration path was defined successfully.

20. Select **Return to Previous Menu**. The eaMarket Server Administration Main Menu is displayed.

21. Select **Quit** to end the eaMarket Oracle9i database configuration session.

22. Check to make sure that several eaMarket database instances are running. For example, assuming the eaMarket SID is `edx9`:

```
ps -ef | grep edx9
```

Tell the database administrator to make sure that the eaMarket database instance restarts if the Unix system is restarted.

Aborting the Configuration Script and Running it Again

At some point during the eaMarket database configuration process, you may encounter problems that require you to prematurely terminate the session. Although the database configuration procedure displays a number of helpful informational messages, you still may have to quit the session and run the configuration script again. Quitting the configuration results in the loss of any information that you entered.

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

1. Shut down any database using the Shutdown Database option.
2. Change directory to the `$ORACLE_HOME/admin` directory. For example:

```
cd /export/home/oracle/admin
```
3. Remove any directories whose name matches the *oracle* SID defined in the Setting User and Database Identification Menu option. For example, **edx9**.
4. Change directory to the `$ORACLE_HOME/product/<version>/dbs` directory. For example:

```
cd /export/home/oracle/product/9.2/dbs
```
5. Remove any references to the initialization file created during the installation process. The references you are looking for will take the form: *initedx9.ora*, assuming `edx9` is the eaMarket Oracle SID.

6. Change directory to the individual directories that you specified in the **Capture Database File Locations** option. Next, remove any directories whose name matches the Oracle SID (for example, **edx9**) defined in the **Setting User and Database Identification Menu** option.

Enabling Database Connectivity to eaMarket

After installing eaMarket 4.2, you must create or edit *tnsnames.ora* and *listener.ora* to enable connectivity between the database and the eaMarket server.

To edit the *tnsnames.ora* file:

1. Log on as the oracle user.
2. Change the working directory to *\$ORACLE_HOME/network/admin*.
3. Open *tnsnames.ora* and add lines similar to the following for the eaMarket service name. In this example, */export/home/oracle* is the Oracle installation directory, and the eaMarket Oracle SID is *edx9*:

```
EAM =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST =
<database_host_ipaddr>) (PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = edx9))
    )
  )
```

4. Save and close the file.

To edit the *listener.ora* file:

1. Log on as the oracle user.
2. Change the working directory to *\$ORACLE_HOME/network/admin*.

3. Open *listener.ora* and add lines similar to the following for the eaMarket service name. In this example, */export/home/oracle* is the Oracle installation directory, and the eaMarket Oracle SID is *edx9*:

```
SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (SID_NAME = PLSExtProc)
      (ORACLE_HOME = /export/home/oracle/product/9.2)
      (PROGRAM = extproc)
    )
    (SID_DESC =
      (SID_NAME = edx9)
      (ORACLE_HOME = /export/home/oracle/product/9.2)
    )
  )
```

4. Save and close the file.

Testing Database Connectivity

You can validate database connectivity to the application server by running the following commands (you must set *ORACLE_SID* equal to the eaMarket Oracle SID).

```
sqlplus Database_username/database_password@sid
```

For example:

```
$ sqlplus edxmkt/edxmkt@edxmkt
```

This will display results similar to the following:

```
Connected to:
SQL*Plus: Release 9.2.0.1.0 - Production on Mon Apr 7 04:05:55
2003
Copyright (c) 1982, 2002, Oracle Corporation. All rights
reserved.
Oracle9i Enterprise Edition Release 9.2.0.1.0 - 64bit
Production
With the Partitioning, OLAP and Oracle Data Mining options
JServer Release 9.2.0.1.0 - Production
```


3

Installing and Configuring the eaMarket Application Server

This chapter provides instructions for installing eaMarket on an application server.

The installation and configuration examples shown in this chapter use default eaMarket pathnames. If you choose not to accept the default pathnames, make sure your pathnames are consistent throughout the installation of eaMarket on the database and application servers.

Running the Installation Script

To Install eaMarket:

1. From the */solaris* subdirectory on the installation CD-ROM, run the command to invoke the InstallAnywhere GUI:

```
# ./Markins.bin
```

This process loads all the eaMarket application files and sets up the hierarchy of subdirectories that eaMarket uses to store the application files. The default directory for the eaMarket distribution is */opt/EDCSmkt*. The installation script displays the message:

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer
archive...
Configuring the installer for this system's environment...
Launching installer...
```

2. In the Introduction screen, click **Next** to continue.
3. In 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. In 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. In the Owner of Web Application Server screen, enter the name of the application server owner (the recommended 'owner' is *edxadmin*). Then click **Next**.
6. In 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**.
7. In the Choose Install Folder screen, accept the default installation folder (*opt/EDCSmkt*), or click **Choose** to specify another installation folder. Then click **Next**.
8. In the Choose Product Features screen, click **Standalone**. Then click **Next**.
9. In the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**.

At this point, the eaMarket system components are copied to the designated installation folder.

10. The Install Complete screen reports a successful installation and the directory that contains the database server components.
11. Click **Done** to exit the installer.

Configuring the eaMarket Application Server

Setting Environment Variables for eaMarket

1. Go to the */opt/EDCSmkt/config* folder and run the **set_eam_env** script.
2. The script displays the following:
Enter eaMarket Home
[/opt/EDCSmkt] : [?,q]
3. Press Enter to accept the default as the eaMarket home directory or enter a different directory and press Enter to continue.
4. The script displays the following:
JNDI Name of the eaMarket DataSource
jdbc/eaMarket [?,q]
5. Press Enter to accept the default as the JNDI name of the eaMarket data source or enter a different JNDI name and press Enter to continue.
6. The script displays the following:
Enter Oracle Home Directory
[/u01/app/oracle/product/9.2] : [?,q]
7. Press Enter to accept the default Oracle home directory or enter a different directory and press Enter to continue.

8. The application servers (WebLogic and WebSphere) will be displayed. Select **WebSphere** as the application server.
9. The script displays the following:
 Enter WebSphere Application Server root directory:
 [/opt/WebSphere/AppServer] [?,q]
10. Press Enter to accept the default WebSphere application server root directory or enter a different directory and press Enter to continue.
11. Once you finish the following message will appear:
 Environment settings are successfully written to
 /opt/EDCSmkt/eam_env

Configuring WebSphere for eaMarket

You can use the same server for eaMarket, or create a new one. On the server you will use for eaMarket, add the resources described in this section.

To Configure JVM settings for eaMarket

In the WebSphere Administrative console, click on **Servers**, then **Application Servers**, then the server for eaDirect, then **Process Definition**, then **Java Virtual Machine**.

Under Additional Properties, click on **Custom Properties** and create:

Name	Value
<code>com.ibm.websphere.naming.jndicache.cacheobject</code>	none

After applying the new settings, **make sure you:**

1. Save the master configuration.
2. Restart the server.

Creating JDBC Resources

Use the JDBC Provider that you created for eaDirect, and add a new Data Source, with the following parameters:

Create the following **Data Source (Version 4)** for the existing JDBC Provider:

Name - eamDatabasePool

JNDI Name - jdbc/eaMarket

Then enter the following fields:

Database Name	The name of the eaMarket database. For example, eam
Default User ID	The eaMarket database user. For example, eam
Default Password	The password for the eaDirect database user. For example, eam

Under Additional Properties, for **Connect Pool**:

Maximum Pool Size	20
-------------------	-----------

Under Additional Properties, for **Custom Properties**:

URL	<code>jdbc:oracle:thin:@DB_host:DB_port:eaMarket_DB</code> . For example, <code>jdbc:oracle:thin:@localhost:1521:eam</code>
-----	--

Deploying eaMarket J2EE Applications

Once your application server is configured successfully, you may proceed to deploying the eaMarket J2EE applications that power the eaSuite. This requires customizing each web application's deployment code for your environment and platform. For details, see your application server documentation and *Deploying and Customizing J2EE Applications*.



Tip

for each web application to be deployed, WebSphere users will need to enter the system classpath for edocs JAR files `edx_common.jar;edx_client.jar;edx_system.jar`. For details, see *Deploying and Customizing J2EE Applications*.

After you have deployed the eaMarket application, continue to the next section in this document to start the scheduler and logger.

Deployment Using WebSphere

This section describes how to deploy eaMarket using the WebSphere application server. eaMarket supplies a pre-assembled EAR for deployment with WebSphere 5. WebSphere 5.1 does not require an assembled EAR, so either *Deployed_ear-eaMarket.ear* or *ear-eaMarket.ear* can be deployed.



Caution

The specific steps for your application server may differ from the ones described below. You should consult your System Administrator and application server documentation for complete details of how to deploy a J2EE application based on your system's configuration.

To deploy a web application with WebSphere:

1. From the WebSphere Administrative Console, expand the Applications branch and click on **Install New Application**.

3. Select “Server Path” and then type in the absolute path to where your application is installed, for example:
`/opt/EDCSbd/J2EEApps/websphere5/Deployed_ear-eaMarket.ear`
4. Keep clicking **Next** until you reach the last page, and then click **Finish**. Use the default settings for each step.
5. Save to the Master Configuration.

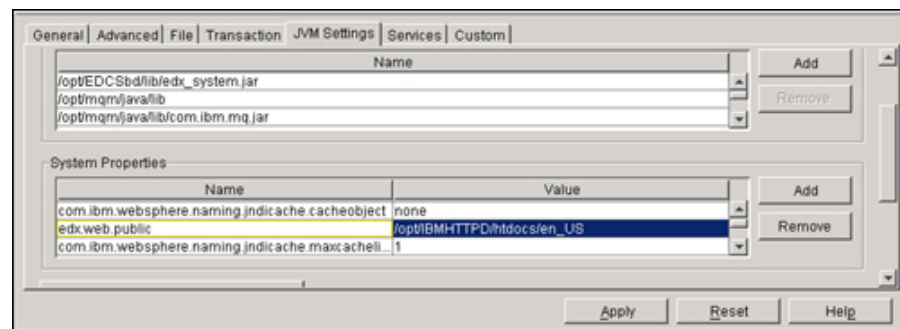
See the Deployment Guide for information about deploying additional edocs applications.

Configuring eaDirect for eaMarket

To Configure JVM Settings for eaDirect:

1. Expand **Nodes**, (that is, the name of the machine that your application server is on. For example, Neon) and select **eaDirect**.
2. Select the **JVM Settings** tab and click **System Properties**,
3. Enter the following:

Name	Value
com.edocs.xml.sax.parser	<code>org.apache.xerces.parsers.SAXParser</code>
PROPDIR	<code>/export/home/EDCStrack</code>
edx.web.public	Enter the name of the folder where eaMarket images will be stored on the eaDirect sever. For example: <code>/opt/images</code>



4. Enter `<eaMarket_Install>/lib/xerces.jar` or `<eaDirect_Install>/lib/xerces.jar` as the classpath. For example:
`/opt/EDCSmkt/lib/xerces.jar`
or
`/opt/EDCSbd/lib/xerces.jar`

5. Click **Apply**.

4

Installing eaMarket Integration Components for eaDirect

This section describes how to install the eaMarket components on the eaDirect application server, the *edocs - eaMarket Promotion Management System - Tracking Component*, and how to configure support for a non-clustered environment. This package should be installed on the eaDirect Application server for separate eaDirect and eaMarket servers. If eaMarket is installed on the same server as eaDirect, then this component does not need to be installed on that server.

Running the Installation Script

To Install the Integration Components

1. From the */solaris* subdirectory on the installation CD-ROM, run the command to invoke the InstallAnywhere GUI:

```
# ./Markins.bin
```

This process loads all the eaMarket application files and sets up the hierarchy of subdirectories that eaMarket uses to store the application files. The default directory for the eaMarket distribution is */opt/EDCSmkt*. The installation script displays the message:

```
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer
archive...
Configuring the installer for this system's environment...
Launching installer...
```

2. In the Introduction screen, click **Next** to continue.
3. In 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. In 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. In the Owner of Web Application Server screen, enter the name of the application server owner (the recommended 'owner' is *edxadmin*). Then click **Next**.
6. In 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**.
7. In the Choose Install Folder screen, accept the default installation folder (*opt/EDCSmkt*), or click **Choose** to specify another installation folder. Then click **Next**.
8. In the Choose Product Features screen, click **Tracking Component**. Then click **Next**.
9. In the Pre-Installation Summary screen, confirm that the information is accurate. Then click **Install**.

At this point, the eaMarket 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.
10. The Install Complete screen reports a successful installation and the directory that contains the Integration components.
11. Click **Done** to exit the installer.

Configuring WebSphere

Configuring WebSphere on the eaDirect server that will deploy eaMarket promotions consists of updating the WebSphere startup script, deploying the eaMarket Web Archive file, and defining a directory where eaMarket can store content.

To deploy a web archive with WebSphere:

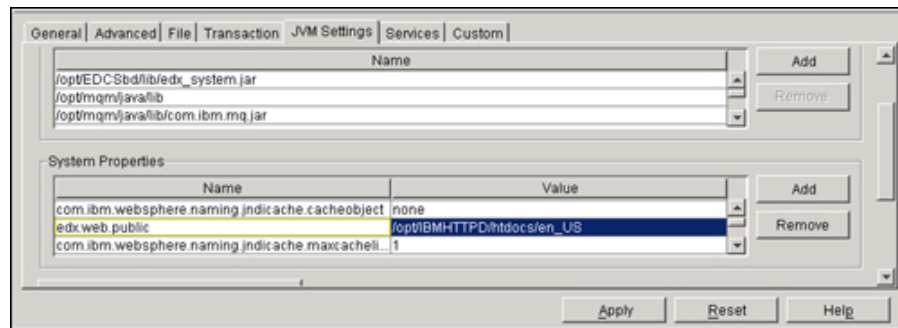
1. From the WebSphere Administrative Console, expand the Applications branch and click on **Install New Application**.
2. Select "Server Path" and then type in the absolute path to where your application is installed, for example:
`/opt/EDCSbd/J2EEApps/websphere5/ear-eaMarket.war`
3. Keep clicking **Next** until you reach the last page, and then click **Finish**. Use the default settings for each step.
4. Save to the Master Configuration.

See the Deployment Guide for information about deploying additional edocs applications.

5. Click the **Install Stand-alone module** radio button, and confirm that the correct node has been chosen in the Browse for file on node field. For example:
Context root for web module as /eaMarket
6. Enter **eaMarket Tracking Component** as the application name.
7. Click **Select Server**. The Select a Server or Server Group dialog box appears.
8. Select the eaMarket server.
9. Click **OK** to close the Select a Server of Server Group dialog box. Click **Next**.

To Configure JVM Settings For eaDirect:

1. Expand **Nodes**, (that is, the name of the machine that your application server is on (for example, Neon) and select **eaDirect**.
2. Select the **JVM Settings** tab.



3. In the System Properties section, enter the following:

Name	Value
PROPDIR	/export/home/EDCStrack

4. Enter **<eaDirect_Install>/lib/xerces.jar** as the classpath. For example:
/opt/EDCSbd/lib/xerces.jar
5. Click **Apply**.

5

Post-Installation Tasks

Setting the Directory for Promotion Storage

After eaMarket is installed, check the setting for the directory that stores images for promotions to be displayed on the eaDirect server. The path to this directory is specified in `$EDX_HOME/config/eam_mwi.config`.

For example:

/opt/images

You can edit this file to point to any directory that exists or you create.

Configuring a Data Store for eaMarket

A database must be created for storing content used by eaMarket. Creating an eaMarket Data Store consists of:

- On the database server, you must create a new database login, and either share an existing tablespace or create a new one.
- On the eaMarket server, you must configure a WebSphere JDBC Connection Pool, Data Source and User to connect to that database user and tablespace, and then create a Data Store in eaMarket.

To Create the Database User

Ask your DBA to create a user and (optionally) a tablespace for eaMarket. The command should be similar to the following, where the database user and password is eamdata:

```
create user eamdata
identified by eamdata
default tablespace eamdata
temporary tablespace temp
on temp account unlock;
```

You can share an existing tablespace with another database user. For example, EDX_DATA used by eaMarket. However, using the same tablespace may create problems with content taking up too much space. Consult your DBA for guidance.

To Configure WebSphere for the Data Store

Log on to the WebSphere console, and follow these steps:

Configure a new **JDBC Provider**, choose **Oracle JDBC Driver** from the JDBC Providers drop-down list.

Also configure the following properties:

Name	Value
Classpath	<code>\$ORACLE_HOME/jdbc/lib/classes12.zip</code> Enter the explicit path; do not use the variable.

Create the following **Data Sources (Version 4)** for the new JDBC Provider:

Name	eaMarket
JNDI Name	<code>jdbc/eamdata</code>

6. Enter the following database properties:

Database Name	The name of the eaDirect database. For example, eamDS
Default User ID	The eaDirect database user. For example, eam_data
Default Password	The password for the eaDirect database user. For example, eam_data

For **Connect Pool**:

Maximum Pool Size	20
-------------------	-----------

Custom Properties:

URL	<code>jdbc:oracle:thin:@<servername>:1521:<ORACLE_SID></code> For example: <code>jdbc:oracle:thin:@jaguar:1521:eamDS</code>
-----	---

7. Click **Save**.

To Create a Data Store in eaMarket

This step assumes that eaMarket has been setup on the database and (optionally) eaDirect servers.

1. Login to eaMarket as the Administrator. For example:

`http://<eaMarket Server>:<WebSphere port>/eaMarket`

The default username/password pair is administrator/admin.

2. Select **Administration**, then **Data Stores**.
3. Click on the **Add Data Store** button.

The screenshot shows the 'Add Data Store' wizard with the following details:

- STEP 1 Data Store Information:**
 - Name: eamDS
 - Description: eaMarketDataStore
- STEP 2 Select the type of database:**
 - ☐ MS SQL Database
 - ☒ Oracle Database
- STEP 3 Specify the Data Source:**
 - JNDI Data Source name: jdbc/eamdata

4. Enter the following information:

Area/Parameter	Description
Step 1	Enter a unique name, for example eamDS .
Step 2	Select Oracle Database .
Step 3	Specify the JNDI datasource : Example jdbc/eamdata Ensure that the JNDI Data Source Name matches the JNDI Name given for the Data Store in the Data Sources defined in WebSphere in the previous section.

Setting the Tracking Server

The location of the Tracking server for eaMarket must be configured in the eaMarket configuration page

1. Connect to the eaMarket server giving the URL in the following format:
http://<servername>:<port number>/eaMarket
For example:
http://nurse:9081/eaMarket
2. Login using **Administrator** as the user and **admin** as the password
3. Click on the **Administration** tab in the left navigation pane.
4. Click on the **eaMarket Preference** button and change the following parameters:

- In the Server Information section, for the Server Information field, verify that the name of the server is correct.
 - In the Tracker section, for the Tracker option you may need to change the Transfer track summary to the eaMarket server who's URL is to the URL to the eaMarket server.
5. Click on the **Save** button.
 6. Once the changes are made, restart the WebSphere server.

Starting the Agents

Start the agent that performs promotion deployment, scheduled imports, workflow, notification and logging.

1. Login as the WebSphere owner. For example, **root**.
2. Change the working directory to `<eaMarket_install>` and run the agent script. For example:

```
cd /opt/EDCSmkt
./ws_eam_init -start -url iiop://<host name>:900
```

3. Make sure that the log files are created in `<eaMarket_install>/log`. An example log file name is:

```
CUniqueIdRemote.log
```

Stopping the Agents

Stop the agent as part of shutting down eaMarket.

1. Login as the WebSphere owner. For example, **root**.
2. Change the working directory to `<eaMarket_install>` and run the agent script. For example:

```
cd /opt/EDCSmkt
./ws_eam_init -stop
```



All directories and files accessed by eaMarket (which is a WebSphere application) must be accessible to the WebSphere user (usually, the user **root**). Sometimes processes can create files or directories with different owners and accesses. It is good practice to check all eaMarket and WebSphere files and directories to make sure they are still owned by the WebSphere owner. The only exception is files that are needed for the database, which need to be accessible by the database user.

Setting up Xvfb

Java's graphic packages that are part of eaMarket are based on *java.awt*, which requires X libraries and an X display. To support this, the web server rendering charts must have the X libraries installed and must have access to an X server. Even for sites where the server has an attached display device there may be difficulty loading X libraries if they are not already present. To simplify X configuration, charting can use the virtual frame buffers provided by Xvfb.

If you do not already have Xvfb installed on your machine, you can get it from any internet site for X11. Un-tar the archive and install it under */usr/X11R6*.

To Set Display Permission

The command in UNIX environments that allows X displays on a particular machine from other machines is: **xhost +**. Without arguments, commands following the + implies all machines (as opposed to named machines only).

If xhost is already on your path, type the following command. (xhost may exist in the */usr/openwin/bin* folder, which you can add to your PATH in your *.profile*).

At the command prompt, type: **xhost +**

To Set the Display Device

The Xvfb command starts the virtual frame buffer, and is located in */usr/X11R6/bin*. To use Xvfb:

1. Open an Xterm window on the main console of the server.
2. Set the *DISPLAY* environment variable for Xvfb to use as follows:

```
export DISPLAY=:2.0
```
3. Assuming that Display 2 will be used for Xvfb, then start the Xvfb server as follows:

```
/usr/X11R6/bin/Xvfb :2 -screen scrn 800x600x24 &
```



Tip

The "&" allows you to close the command window and still leave the task running in the background.

You can edit the */etc/profile* file to set the *DISPLAY* environment variable for all sessions and all users, and create a startup script in the */etc/rc3.d* directory to automatically startup the Xvfb server when the system is rebooted.

4. Restart the eaMarket application server, after setting up Xvfb.

Uninstalling eaMarket

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

To Uninstall the eaMarket Database Server Components

1. Shut down the Database Server and Oracle listener. Log in as the **oracle** user, make sure that **ORACLE_SID** is set to the eaMarket Oracle SID, and run the following command:

```
$ sqlplus /nolog
```

```
SQL*Plus: Release 9.2.0.1.0 - Production on Tue Apr 29  
15:50:24 2003
```

```
Copyright (c) 1982, 2002, Oracle Corporation. All rights  
reserved.
```

```
SQL> connect sys/<sys password> as sysdba
```

```
Connected.
```

```
SQL> shutdown immediate
```

```
SQL> exit
```

2. Locate all files associated with the eaMarket SID. For example:

```
find . -name '*eamarket*' -print
```

The result should look similar to the following:

```
./product/9.2.0.1.0/dbs/initeamarket0.ora  
./admin/eamarket0  
./admin/eamarket0/bdump/alert_eamarket0.log  
./admin/eamarket0/bdump/eamarket0_lgwr_4807.trc  
./admin/eamarket0/pfile/initeamarket0.ora  
./admin/eamarket0/udump/eamarket0_ora_4814.trc  
./admin/eamarket0/udump/eamarket0_ora_4831.trc  
./admin/eamarket0/udump/eamarket0_ora_4915.trc  
./admin/eamarket0/udump/eamarket0_ora_4916.trc  
./admin/eamarket0/udump/eamarket0_ora_7797.trc  
./u02/oradata/eamarket0  
./u02/oradata/eamarket0/data/syseamarket0.dbf  
./u02/oradata/eamarket0/data/undoeamarket0.dbf  
./u02/oradata/eamarket0/data/tmpeamarket0.dbf
```



There may be additional log files. Their paths depend on variations in the local eaMarket installation.

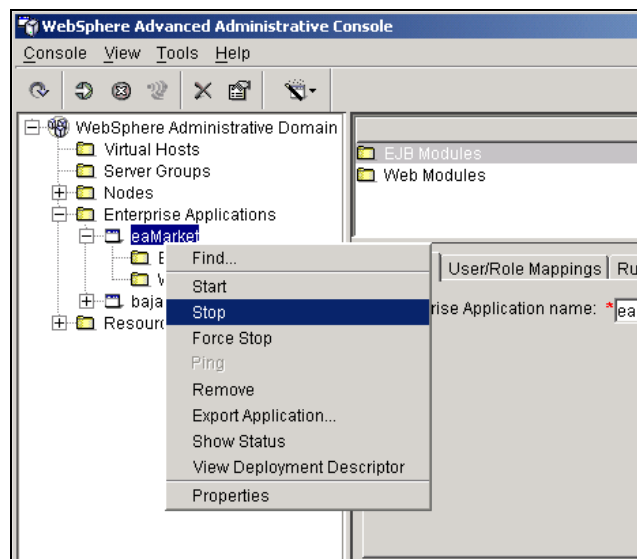
3. Remove the files and directories with a suitable UNIX command.

To Uninstall eaMarket Applications on WebSphere

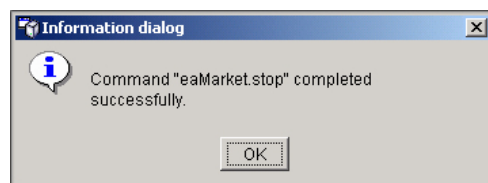
Follow the steps below to uninstall J2EE applications running on your WebSphere application server.

1. As *root* 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:

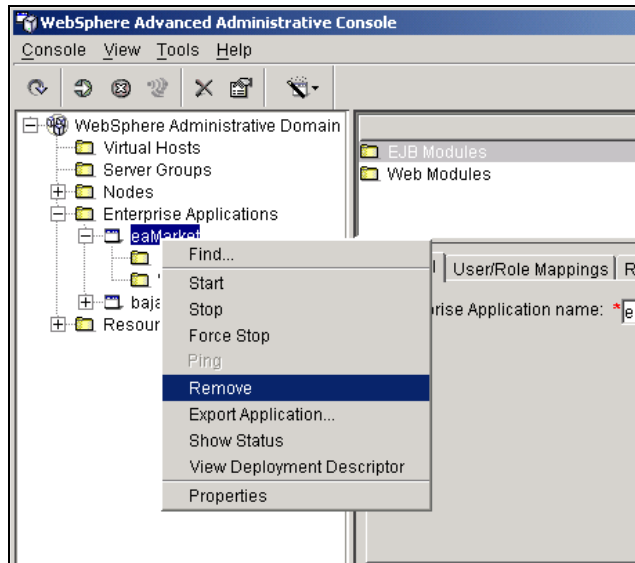
```
# ./adminclient.sh &
```
2. When the WebSphere Administrative Console appears, expand your Domain to show the Enterprise Applications folder.
3. Expand the Enterprise Applications folder and click on the J2EE application that you want to uninstall.
4. Right-click and select **stop** from the drop down menu.



5. The following message will be displayed.



6. Click **OK**.
7. Right-click and select **Remove** from the drop down menu.



8. Open a command line window and navigate to *\$WAS_HOME/installedApps*.
9. Manually remove the EAR file from the directory.
10. Navigate to */<eaMarket Installation folder>/J2EEApps/websphere*.
11. Manually remove the deployed EAR file from the directory.

To Uninstall eaMarket

1. Stop all eaMarket Services using the *ws_eam_init* shell script.
2. To uninstall eaMarket, switch to *root* and navigate to the */<eaMarket Installation folder> /Uninstall* folder and run the following script:
Uninstall_eaMarket
3. Delete the folder where the eaMarket application was installed.



If you plan to install the latest version of eaMarket, the Setup program will handle the existing database, and therefore, the database will not need to be deleted.

4. Remove any eaMarket entries from the **CLASSPATH** environment variable of the Solaris environment.
5. Manually remove any files that were not removed by the InstallAnywhere tool.