eaAssist™ Installation and Configuration Guide

edocs®

eaAssist is a member of the eaSuite™ product line

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

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# About Customer Self-Service and eaSuite™

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 designed to support how organizations approach designing and deploying Customer Self-Service applications:

Customer-Facing Solutions present customers with the sophisticated functionality to meet customers' self-service needs. eaSuite offers a full set of capabilities to enable the range of business and consumer customer service activities, along with the flexibility to completely customize the solution to meet vertical industry and specific company requirements.

Enterprise-Facing Solutions empower employees within an organization and external partners to leverage the edocs platform to facilitate self-service and to support assisted service. Customer service representatives (CSRs), sales agents, account managers, marketing managers, broker-dealers and channel partners all play a role in delivering customer service, creating content, accessing information and performing activities for the benefit of customers.

Platform and Development Tools are designed to meet the rigorous infrastructure demands of the most technologically advanced organizations. These components of the eaSuite power edocs solutions with the functionality and development tools necessary to make account data available, and to create the customer- and enterprise-facing applications that enable customer self-service.
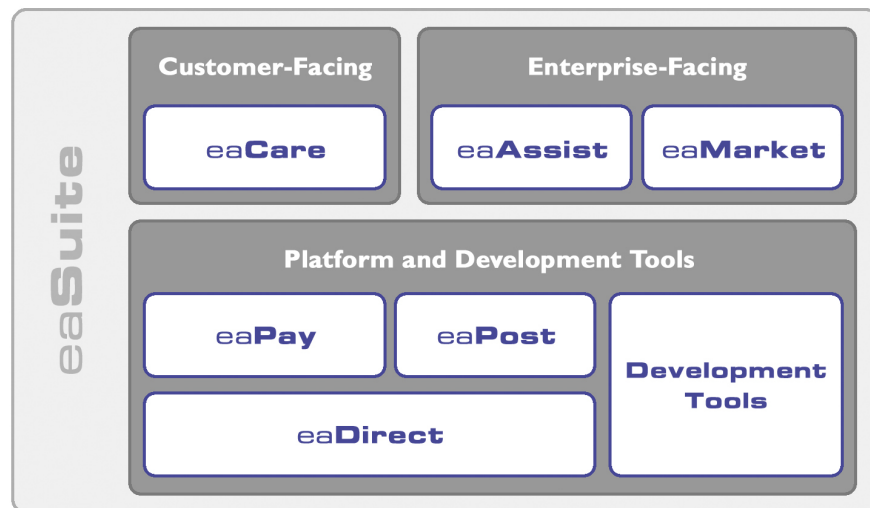
eaAssist

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

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.

eaDirect

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

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

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.

Development Tools

eaSuite Development Tools™ are visual development applications that provide intuitive graphical user interface (GUI) environments for designing and developing Customer Self-Service solutions. The Development Tools encompass data management, workflow authoring, rules management and accounts receivable integration, as well as a full Software Developers Kit for custom application development.

About This Guide

This guide describes how to install and configure eaAssist. eaDirect 3.4.x **must** be installed and configured before installing eaAssist.

eaAssist provides a GUI interface to allow CSRs to access customer information stored in an eaDirect application. It also allows developers to write custom CSR applications against edocs applications. You will need to use the information in this guide to install and configure eaAssist to work with eaDirect applications.

The edocs SDK and eaAssist are intended for senior web application developers. It assumes in-depth understanding of and practical experience with:

- eaDirect 3.x system architecture, installation, deployment, application design, and administration

- Java 2 Enterprise Edition (J2EE), including Enterprise JavaBeans (EJB), servlets and Java Server Pages (JSPs)

- Packaging and deploying J2EE applications

- Directory services including the Java Naming Directory Interface (JNDI) and the Lightweight Directory Access Protocol (LDAP)

- Internet technologies, including HTML and XML, web server administration, and web browsers

Related Documentation

There are other guides included with the eaSDK documentation set that are referenced in this guide:

Print Document	Description
eaSDK: Customizing eaAssist	How to use the APIs and sample application to customize your own CSR application.
eaSDK: Implementing a User Management Framework	Describes how to build and implement a user management framework for an eaDirect deployment.
eaSDK: Customizing and Deploying Applications	Describes the basic concepts and tools for building and deploying an eaDirect J2EE application.

Contacting edocs Technical Support

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 8:00 am to 8:00 pm 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**

Whether 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 on how to improve eaDirect? Don't hesitate to e-mail your idea to support@edocs.com.

Preparing to Install eaAssist

1

Installation Overview

eaAssist is an add-on component to the core eaDirect application that provides core features to help CSRs interact with customer statements processed by the eaDirect application.

The steps required to implement eaAssist for your eaDirect applications are:

- Install and configure eaDirect on your WebSphere Application Server

- Install eaAssist on that same server

- Assemble and Deploy the eaAssist EAR application files

- Configure the eaDirect CDA to include enrollment information for the CSR based on your eaAssist application

See the *eaDirect Installation and Configuration Guide* for more information about installing eaDirect. See the eaSDK Guide *Customizing eaAssist* for information about customizing the default sample CSR pages and CDA database to fit your application needs.

System Prerequisites

Before installing eaAssist, eaDirect 3.4.x or higher must be installed, along with its required software components. For information about eaDirect and its requirements, see the *eaDirect Installation and Configuration Guide*.

Installation for WebSphere

2

The sections in this chapter describe the installation, configuration, and deployment of the eaAssist application to a WebSphere Application Server. They include:

- Installing the eaAssist package

- Generating deployment code for the eaAssist applications

- Installing the deployed applications on WebSphere

- Configuring the eaDirect CDA Database

- Verifying the Installation

- Uninstalling eaAssist

You deploy the eaAssist J2EE application using the WebSphere Administrative Console. For more information on how to use it, you can see the *eaDirect Installation and Configuration Guide*.

Installing the eaAssist Software

Follow the instructions below to install eaAssist on your system. By default, eaAssist is installed in */opt/EDCSsrv*. You can change the default installation directory when prompted during the installation procedure.

To install the Application Components:

1. Log on as the root user on the application server.

2. Install eaAssist using the InstallAnywhere image for eaAssist. For example:

```
/cdrom/Solaris/Assistin.bin
```

3. After reviewing the information on the Introduction screen, click **Next**.

4. 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**.

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). Click **Next**.

6. On the Owner of Web Application Server screen, enter the name of the application server owner (the same one you used when installing eaDirect). Then click **Next**.

7. On the Group of Web Application Server screen, enter the name of the group for the application server (the same one you used when installing eaDirect). Then click **Next**.

8. On the Choose Install Folder screen, accept the default installation folder or click **Choose** to specify a different installation folder. This document will refer to that directory as $EAASSIST_HOME, and the examples given will use */opt/EDCSsrv* (the default location). When finished, click **Next**.

9. On the Pre-Installation Summary screen, carefully review the components that are to be installed and confirm that the target server has sufficient disk space for the installation. If all the information on the screen appears satisfactory, click **Install**.

   At this point, the eaAssist application server components are copied to the designated installation folder. A progress bar on the bottom of the screen shows each application server component being installed. No user intervention is necessary.

10. If the installation is successful, click **Done**. This completes the installation of the eaAssist application server components.

After you complete the above steps, the eaAssist directory structure should contain the following files relevant to configuring eaAssist:

```
EDCSsrv/
    config/
            edx_easervice.config
    db/
            create_schema
    J2EEApps/
            websphere/
                    ear-easervice.ear
    samples/
            eaSample/
                    J2EEApps/
                            websphere/
                                    ear-easample.ear
    Uninstall/
            Uninstall_eaAssist
```

You will need to move the *edx_easervice.config* file to the location where the other eaDirect configuration files reside (by default: */opt/EDCSbd/config*).

The two EAR files provided by eaAssist (*ear-easample.ear* and *ear-easervice.ear*) must be deployed to your WebSphere application server as described in the following sections.

Generating Deployment Code

The next step in setting up the application server is to generate the deployment code for the eaAssist J2EE applications that you will deploy on WebSphere. This is done though the Application Assembly Tool.

The following instructions describe how to invoke the Application Assembly Tool from the WebSphere Administrative Console. However, you can also start it from a command line window.

To generate deployment code for eaAssist applications:

1. From the WebSphere Administrative Console, open the Tools menu and select **Application Assembly Tool**.
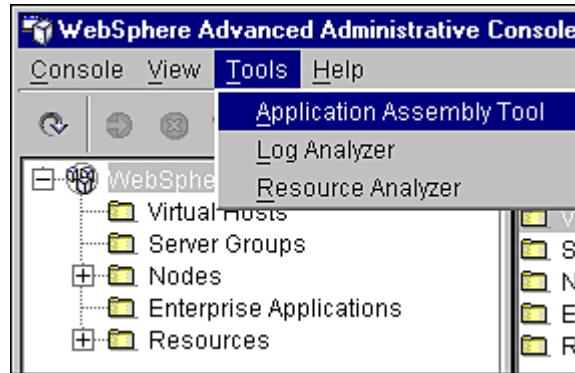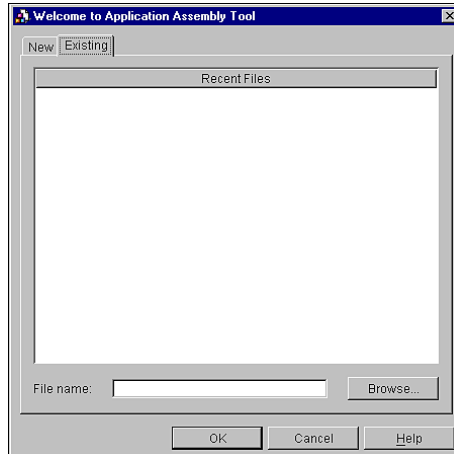

    The Application Assembly Tool appears.

Tip   You can also invoke the Application Assembly Tool from a command line by change directory to *$WAS_HOME/bin*, and running the script *assembly.sh*. For example:

```
# ./assembly.sh &
```

You can also invoke the Application Assembly Tool appears in an Xwindow, so you will have to have Xwindow software installed and you might have to set your display (in your *.profile* file) to the local machine if you are trying to invoke the Application Assembly tool remotely. For example:

```
set DISPLAY=<your_machine_name>:0.0
export DISPLAY
```

---

2. Click the **Existing** tab, and click **Browse** at the bottom of the dialog to navigate to the directory that contains the eaAssist application that you want to deploy.

3. Select the eaAssist application and then click **Select**.

4. Click **OK**. The eaDirect application opens in the Application Assembly Tool.

5. Right-click on the file name and select **Generate code for deployment on the menu.**

    The **Generate code for deployment** dialog appears.

6. In the **Dependent classpath** field, enter the java classpath for the eaDirect system, client, and common JAR files separated by colons, for example:

    ```
    /opt/EDCSbd/lib/edx_system.jar:/opt/EDCSbd/lib/edx_client.jar:
    /opt/EDCSbd/lib/edx_common.jar
    ```

> **Tip**   Be sure to include the leading slashes so that these classpaths are taken from the root.

7. From the Database type drop-down menu, select **Oracle version 8**.

8. Click **Generate Now**. During generation of the deployment code, status information is shown in the window at the bottom of the dialog.

9. Wait for the progress bar at the bottom of the Application Assembly Tool to complete. Some applications might take several minutes to deploy, depending on the speed of your machine.

10. Click **Close**.

11. Repeat Steps 2 to 9 to generate deployment code for each application you want to assemble.

12. Click Exit in the File menu to close the Application Assembly Tool.

# Deploying the eaAssist Applications

To deploy the applications:

1. Expand the WebSphere Administrative Domain view.

2. Right-click the **Enterprise Applications** folder, and then select **Install Enterprise Applications** on the menu.
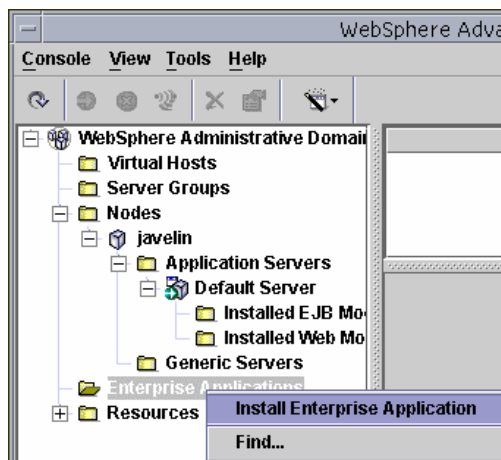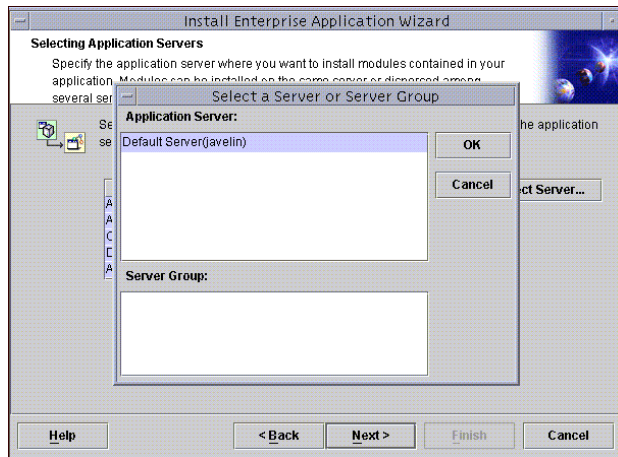

The Install Enterprise Application Wizard dialog appears.

3. Click the **Install Application** radio button, and confirm that the correct node has been chosen in the Browse for file on node field. For example:
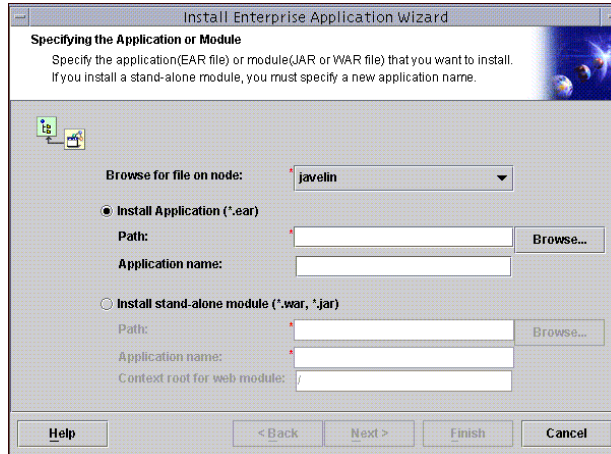
4. Click **Browse**. The Open dialog appears.

5. Navigate to *$EAASSIST_HOME/J2EEApps/websphere*, and select
    Deployed_ear-easervice.ear. The name of the file appears in the File
    name field.

6. Click **Open**. The Install Enterprise Application Wizard dialog appears with
    the name of the deployed EAR file in the InstallApplication (*.ear) Path
    field.

7. Click **Next** about nine times until you come to the Selecting Application
    Servers screen. Highlight all the modules for selection by clicking the first
    and last module in the list, while holding down the **Shift** key.

8. Click **Select Server**. The Select a Server or Server Group dialog appears.

9. Select the Default Server. In the sample screen below, the default server is
    named javelin.

10. Click **OK** to close the Select a Server of Server Group dialog. The Install Enterprise Application Wizard dialog lists the modules and the server on which they will be installed. Click **Next**.

11. Click **Finish**.

13. Repeat Steps 2 to 12 for **Deployed_ear-easample.ear** in *$EAASSIST_HOME/samples/eaSample/J2EEApps/websphere*. Remember that you must generate deployment code with the Application Assembly Tool before deploying any application.

14. Stop the server on which you installed the eaDirect J2EE application. Select (expand) **Nodes** and **<your_node>** and **Application Servers**, and then right-click the server name in the left pane. Select **Stop** on the menu.
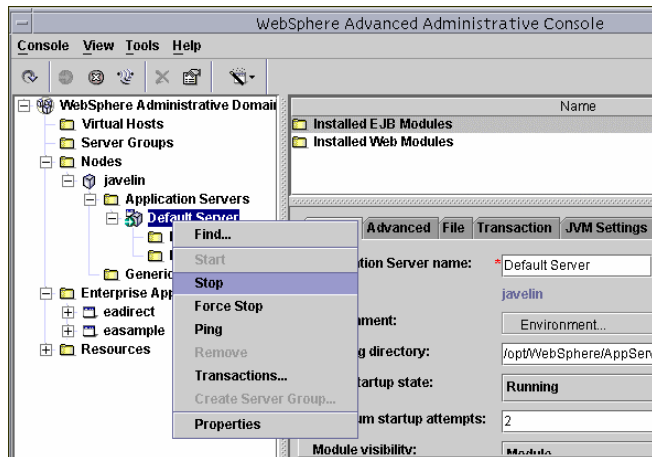
15. An Information dialog notifies you that the application server has stopped successfully.

16. Click **OK** to close the Information dialog.

17. Restart the application server by right-clicking on the its name, and selecting **Start** on the menu.
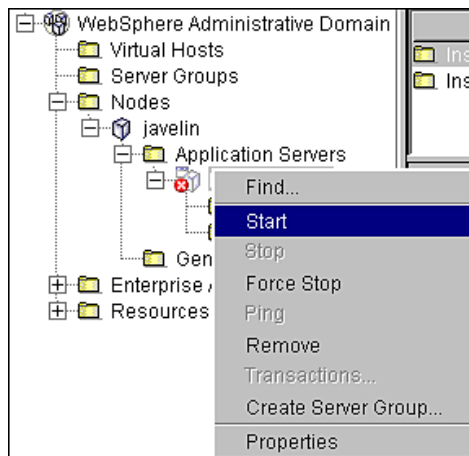
18. An Information dialog notifies you that the application server has started successfully. Click **OK** to close the Information dialog.

19. Start the eaAssist J2EE application by expanding the Enterprise Applications folder, right clicking on the application name, and then selecting **Start** from the menu.

20. An Information dialog notifies you that the application has started successfully. Click **OK** to close the Information dialog.

Configuring the eaDirect CDA Database

The *create_schema* file contains the CDA Client Tool commands to modify the default CDA database provided by eaDirect to run eaAssist. To run the *create_schema* script, follow these steps:

1. Go to the location where the *create_schema* script resides on your system.

2. Set the EDX_HOME variable to the location where eaDirect resides and the source file *edx_env*. For example:

   ```
   EDX_HOME=/opt/EDCSbd

   export EDX_HOME

   . $EDX_HOME/config/edx_env
   ```

3. Set the following CLASSPATH value:

   ```
   CLASSPATH=$EDX_HOME/lib/edx_common.jar:
   $ORACLE_HOME/jdbc/lib/classes12.zip

   export CLASSPATH
   ```

4. After setting your environment, you need to run the CDA Client Tool using the following command with *create_schema* as its input file:

   ```
   java -Djdbc.drivers=oracle.jdbc.driver.OracleDriver
   com.edocs.jndi.cda.cli.Main
   jdbc:oracle:thin:@server-name:port:database-name
   database-user-name database-user-password <
   create_schema
   ```

The *server-name* and *port* correspond to the system running the database. The *database-name*, *database-user-name*, and *database-user-password* values correspond to the database parameter values defined for the eaDirect database (by default they are `edx0`, `edx_dba`, and `edx`, but they may now be different).

Running the *create_schema* file successfully returns the following output:

```
> > > > > > > > > > > > > > > > > > > > > > > > > > > > > > >
> > > > > > > $
```

Verifying the Installation

After installing and configuring eaAssist, and confirming WebSphere is running, you should be able to access eaAssist from your browser with the following HTTP address:

//<server-name>:<port>/eaAssist

where **<server-name>** and **<port>** correspond to the system running WebSphere and your eaDirect application. For example:

//javelin:7100/eaAssist

The eaAssist login page appears.

The initial administration User ID and Password provided for eaAssist is **admin** and **edocs**. You should use it to log in initially and later change the password. For information about how to use and customize eaAssist, see the eaSDK Guide *Customizing eaAssist*.

Uninstalling eaAssist

When uninstalling the eaAssist, you should remove it from each system that you installed it on.

1. Switch to the *root* user.

2. Change directory to *$EAASSIST_HOME /Uninstall* and run the eaAssist uninstall tool. For example:

```
# cd /opt/EDCSsrv/Uninstall
```

```
# ./Uninstall_eaAssist
```

3. Change directory to *$EAASSIST_HOME* and remove any files that were not removed by the uninstall tool, if necessary.