

IBM WebSphere Commerce Business Edition
IBM WebSphere Commerce Professional Edition



Additional Software Guide

Version 5.5

Note:

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 119.

Second Edition (December 2003)

This edition applies to Version 5.5 of IBM WebSphere Commerce Business Edition and Professional Edition and to all subsequent releases and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

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<http://www.ibm.com/software/webservers/commerce/rcf.html>

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About this book

Document description

This guide provides information on how to configure the additional software components provided with WebSphere® Commerce. It also provides information on how to configure WebSphere Commerce to work with WebSphere MQ and IBM® CrossWorlds® InterChange Server. WebSphere MQ and IBM CrossWorlds InterChange Server are *not* provided with WebSphere Commerce — they must be purchased separately.

This guide does not cover configuring the additional software components when WebSphere Commerce is running under WebSphere Application Server Network Deployment.

This guide is intended for system administrators or for anyone else responsible for performing installation and configuration tasks.

Updates to this book

To learn about last-minute changes to the product, refer to the README file in the root directory of WebSphere Commerce CD 1. In addition, a copy of this book, and any updated versions of this book, are available as PDF files from the WebSphere Commerce Technical Library:

<http://www.ibm.com/software/commerce/library/>

Updated versions of this book are also available from the WebSphere Commerce Zone at WebSphere Developer Domain which is at the following Web site:

<http://www.ibm.com/software/wsdd/zones/commerce/>

Updates from the last version of this document are identified by revision characters contained in the margin. This book uses the following conventions for revision characters:

- The "+" character identifies updates that have been made in the current version of this document.

These updates include support for additional LDAP servers provided with the release of fix pack 2 for WebSphere Commerce, Version 5.5.

- The "|" character identifies any updates that have been made in the previous versions of this document.

These updates include information about LDAP with WebSphere Commerce, Version 5.5 running on Linux.

Conventions and terminology used in this book

This book uses the following highlighting conventions:

Boldface type	Indicates commands or graphical user interface (GUI) controls such as names of fields, icons, or menu choices.
Monospace type	Indicates examples of text you enter exactly as shown, file names, and directory paths and names.

Italic type

Used to emphasize words. Italics also indicate names for which you must substitute the appropriate values for your system.



This icon marks a Tip - additional information that can help you complete a task.

Important

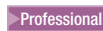
These sections highlight especially important information.

Attention

These sections highlight information intended to protect your data.



Indicates information specific to WebSphere Commerce Business Edition.



Indicates information specific to WebSphere Commerce Professional Edition.



Indicates information specific to programs running on AIX®.



Indicates information specific to programs running on OS/400®.



Indicates information specific to programs running on Linux.



Indicates information specific to programs running on Solaris Operating Environment.



Indicates information specific to programs running on Windows®.



Indicates information specific to DB2 Universal Database™.



Indicates information specific to Oracle9i Database.

Path variables

This guide uses the following variables to represent directory paths:

WC_installdir

This is the installation directory for WebSphere Commerce. The following are the default installation directories for WebSphere Commerce on various operating systems:

 /usr/WebSphere/CommerceServer55

 /QIBM/ProdData/CommerceServer55

 /opt/WebSphere/CommerceServer55

▶ Solaris /opt/WebSphere/CommerceServer55

▶ Windows C:\Program Files\WebSphere\CommerceServer55

▶ 400 WC_userdir

This is the directory for all the data that is used by WebSphere Commerce which can be modified or needs to be configured by a user. An example of such data is WebSphere Commerce instance information. This directory is unique to OS/400.

The *WC_userdir* variable represents the following directory:

/QIBM/UserData/CommerceServer55

WAS_installdir

This is the installation directory for WebSphere Application Server. The following are the default installation directories for WebSphere Application Server on various operating systems:

▶ AIX /usr/WebSphere/AppServer

▶ 400 /QIBM/ProdData/WebAS5

▶ Linux /opt/WebSphere/AppServer

▶ Solaris /opt/WebSphere/AppServer

▶ Windows C:\Program Files\WebSphere\AppServer

CrossWorlds_installdir

This is the installation directories for IBM CrossWorlds software. The following are the default installation directories for IBM CrossWorlds software on various operating systems:

▶ AIX \$HOME/CrossWorlds

▶ Solaris \$HOME/CrossWorlds

▶ Windows C:\CrossWorlds

where \$HOME is the home directory of the IBM CrossWorlds Administrator

Note: IBM CrossWorlds software is not supported on iSeries™ and Linux. However, IBM CrossWorlds software running on Windows can be used with WebSphere Commerce running on Linux.

VisiBroker_installdir

This is the installation directories for IBM CrossWorlds VisiBroker software. The following are the default installation directories for IBM CrossWorlds VisiBroker software on various operating systems:

▶ AIX /opt/inprise/vbroker

▶ Solaris /opt/inprise/vbroker

▶ Windows C:\Inprise\vbroker

Note: IBM CrossWorlds VisiBroker software is not supported on iSeries and Linux. However, IBM CrossWorlds VisiBroker software running on Windows can be used with WebSphere Commerce running on Linux.

Knowledge requirements

This guide is intended for system administrators or for anyone else responsible for performing installation and configuration tasks on WebSphere Commerce.

Store developers or system administrators who are installing and configuring WebSphere Commerce should have knowledge in the following areas:

- Your operating system
- The Internet
- IBM DB2[®]
- WebSphere Application Server Administrative Console
- Basic operating system commands
- Basic SQL commands

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Part 1. Introduction

WebSphere Commerce includes several optional software packages that can be used in conjunction with WebSphere Commerce. Instructions for installing and configuring these packages are in the following sections:

- Part 2, “WebSphere Commerce analytic tools,” on page 3
- Part 3, “WebSphere Commerce personalization tools,” on page 15
- Part 4, “WebSphere Commerce collaboration features,” on page 25
- Part 5, “WebSphere Commerce business integration adapters,” on page 47
- Part 6, “Directory services and WebSphere Commerce,” on page 69
- Part 7, “Additional WebSphere Application Server components,” on page 91
- Part 8, “IBM DB2 Text Extender Version 8,” on page 99

These products can be installed before or after you create a WebSphere Commerce instance.

Part 2. WebSphere Commerce analytic tools

WebSphere Commerce provides powerful tools that can be used to analyze various aspects of the operation of WebSphere Commerce. For information on the tools, refer to the following chapters:

- Chapter 1, “IBM WebSphere Commerce Analyzer,” on page 5
- Chapter 2, “IBM Tivoli Web Site Analyzer,” on page 13

Chapter 1. IBM WebSphere Commerce Analyzer

IBM WebSphere Commerce Analyzer is an optionally installable feature of WebSphere Commerce. WebSphere Commerce Analyzer generates predefined business reports about online stores that are created using WebSphere Commerce. The business reports provide information about the effectiveness of marketing promotions as well as information about product sales. The Marketing Manager can access the business reports from the WebSphere Commerce Accelerator. In addition to business reports, WebSphere Commerce Analyzer can perform data mining on historical data to identify trends and characteristics in online shoppers and feedback this data into the WebSphere Commerce system as Customer Profiles.

During installation and configuration, WebSphere Commerce Analyzer creates a database-based data mart and control database on the WebSphere Commerce Analyzer server. These databases are used to store information needed to generate the business reports.

The WebSphere Commerce Analyzer data mart is in a DB2 Universal Database format on Windows, but it can extract data from any WebSphere Commerce database. If data is to be extracted from a WebSphere Commerce database on Oracle9i Database, you will need to purchase DB2 Information Integrator Version 8.1 (formerly known as DataJoiner[®]). If data is to be extracted from a WebSphere Commerce database on @server[®] iSeries, you will need to purchase DB2 DataPropagator[™] for iSeries Version 8.1 (5722DP4). Full instructions for setting up the extraction from Oracle9i Database or @server iSeries can be found in *WebSphere Commerce Analyzer Installation and Configuration Guide*.

If the WebSphere Commerce database is Oracle9i, you will need to purchase DB2 Information Integrator which will allow DB2 Universal Database replication against an Oracle database.

Installing IBM WebSphere Commerce Analyzer

To use WebSphere Commerce Analyzer with WebSphere Commerce, do the following:

1. Install and configure IBM WebSphere Commerce Analyzer. For details, refer to “Installing and configuring WebSphere Commerce Analyzer” on page 6.






400 Ensure that you have installed all required fixes. In particular, if you are replicating from WebSphere Commerce on iSeries, ensure that you have read APAR II13348, and have applied all the latest fixes to your installation of 5722DP4.

2. **400** On the WebSphere Commerce Analyzer machine, issue the following command from a DB2 Universal Database command line:

```
db2jstrt port_number
```

where *port_number* is the port number used in step 17 on page 9 of “Creating a JDBC provider and data source for WebSphere Commerce Analyzer” on page 8.

3. Depending on the operating system on which WebSphere Commerce runs, do one of the following:

-     Create a new data source for WebSphere Commerce Analyzer on the WebSphere Commerce machine. For details, refer to “Creating a data source for WebSphere Commerce Analyzer.”
 -  Create a new JDBC provider and a data source for WebSphere Commerce Analyzer on the WebSphere Commerce machine. For details, refer to “Creating a JDBC provider and data source for WebSphere Commerce Analyzer” on page 8.
4. Configure WebSphere Commerce to capture data. For details, refer to “Configuring WebSphere Commerce to capture data” on page 9.
 5. Start WebSphere Commerce. For instructions, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.

Installing and configuring WebSphere Commerce Analyzer

For instructions for installing and configuring IBM WebSphere Commerce Analyzer refer to the *WebSphere Commerce Analyzer Installation and Configuration Guide*. The *WebSphere Commerce Analyzer Installation and Configuration Guide* is available as PDF file called `install.pdf` and is located in the *locale* directory on the IBM WebSphere Commerce Analyzer CD (where *locale* is the locale code for the language environment your machine uses. For example, the locale for United States English is `en_US`).

WebSphere Commerce Analyzer does not run on Linux. To use WebSphere Commerce Analyzer with WebSphere Commerce running on Linux, install WebSphere Commerce Analyzer on a machine running Windows.

Important

Due to performance issues and differing software requirements for WebSphere Commerce and WebSphere Commerce Analyzer, WebSphere Commerce and WebSphere Commerce Analyzer must be installed on different machines.

Creating a data source for WebSphere Commerce Analyzer

The instructions in this section do not apply to WebSphere Commerce running on OS/400. For WebSphere Commerce running on OS/400, follow the instructions in “Creating a JDBC provider and data source for WebSphere Commerce Analyzer” on page 8.

Before completing the steps in this section, you will need to create a remote database connection from the WebSphere Commerce machine to the WebSphere Commerce Analyzer data mart. The WebSphere Commerce machine must have the DB2 Administration Client installed in order to create a remote database connection. To use the DB2 Configuration Assistant to create a remote database connection to the WebSphere Commerce Analyzer data mart, do the following:

1. Open the Configuration Assistant.
2. Right-click on the list of database connections, and select **Add Database Using Wizard**.
3. Select **Search the Network**, then click **Next**.
4. Click **Add System**, and enter the information for the machine on which the WebSphere Commerce Analyzer data mart is located.
5. Expand the tree until you find the WebSphere Commerce Analyzer data mart database. Select it, and click **Finish**.

To create a data source for WebSphere Commerce Analyzer on the WebSphere Commerce machine, do the following:

1. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Resources** and select **JDBC Providers**. The JDBC Providers page displays.
5. Scope any changes to the WebSphere Commerce application server by doing the following:
 - a. Click **Browse Servers**. The Select a Server Scope page displays.
 - b. From the list of application servers, select *WC_instance_name*, where *instance_name* is the name of the WebSphere Commerce instance.
 - c. Click **OK**. The JDBC Providers page displays.
 - d. Click **Apply**.
6. In the table listing JDBC Providers, click *instance_name - WebSphere Commerce JDBC Provider*, where *instance_name* is the name of the WebSphere Commerce instance.

The *instance_name - WebSphere Commerce JDBC Provider* page displays.
7. In the Additional Properties table, click **Data Sources (Version 4)**. The Data Sources (Version 4) page displays.
8. Click **New**. The New page displays.
9. Complete the fields in the General Properties table as follows:

Name Enter a name for the WebSphere Commerce Analyzer data mart.

Description
Enter a description of the data source such as WebSphere Commerce Analyzer data mart.

Database Name
Enter the name of the remote database connection to the WebSphere Commerce Analyzer data mart.

Default User ID
Enter the user ID used to access the remote database connection.

Default Password
Enter the password for the Default User ID.
10. Click **OK**.
11. Click **Save** in the task bar. The Save page opens.
12. On the Save page, click **Save**.
13. Exit the WebSphere Application Server Administrative Console.
14. Stop the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.

Creating a JDBC provider and data source for WebSphere Commerce Analyzer

The instructions in this section apply only to WebSphere Commerce running on OS/400. For WebSphere Commerce running on other operating systems, follow the instructions in “Creating a data source for WebSphere Commerce Analyzer” on page 6.

To create a JDBC provider for WebSphere Commerce Analyzer on the WebSphere Commerce node, do the following:

1. Copy the `db2java.zip` file from the DB2 installation used for WebSphere Commerce Analyzer to the following directory on the @server iSeries machine:

```
WC_userdir/instances/instance_name/conf
```

where *instance_name* is the name of the WebSphere Commerce instance for which you are enabling WebSphere Commerce Analyzer.

Default values for *WC_userdir* are listed in “Path variables” on page iv.

2. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
3. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
4. Log on to the WebSphere Application Server Administrative Console.
5. In the navigation tree, expand **Resources** and select **JDBC Providers**. The JDBC Providers page displays.
6. Scope any changes to the WebSphere Commerce application server by doing the following:
 - a. Click **Browse Servers**. The Select a Server Scope page displays.
 - b. From the list of application servers, select *WC_instance_name*, where *instance_name* is the name of the WebSphere Commerce instance.
 - c. Click **OK**. The JDBC Providers page displays.
 - d. Click **Apply**.
7. On the JDBC Providers page, click **New**. The New JDBC Provider wizard starts.
8. From the **JDBC Providers** field, select **DB2 JDBC Provider** and click **OK**. The DB2 JDBC Provider page displays.
9. In the **Classpath** field, enter the full path to the `db2java.zip` file copied to the @server iSeries machine earlier. The path should be:

```
WC_userdir/instances/instance_name/conf/db2java.zip
```

where *instance_name* is the name of the WebSphere Commerce instance for which you are enabling WebSphere Commerce Analyzer.

Default values for *WC_userdir* are listed in “Path variables” on page iv.

10. Click **Apply**. The DB2 JDBC Provider page refreshes.
11. In the Additional Properties table, click **Data Sources (Version 4)**. The Data Sources (Version 4) page displays.
12. Click **New**. The New page displays.
13. Complete the fields in the General Properties table as follows:

Name Enter a name for the WebSphere Commerce Analyzer data mart.

Description

Enter a description of the data source such as WebSphere Commerce Analyzer data mart.

Database Name

Enter the name of the WebSphere Commerce Analyzer data mart database.

Default User ID

Enter the user ID used to access the WebSphere Commerce Analyzer data mart database.

Default Password

Enter the password for the Default User ID.

14. Click **Apply**. The page refreshes.
15. In the **Additional Properties** table, click **Custom Properties**. The Custom Properties page displays.
16. On the Custom Properties page, click **portNumber**. The portNumber page displays.
17. On the portNumber page, in the **Value** field, enter the port number specified when issuing the db2jstrt command in step 2 on page 5 of “Installing IBM WebSphere Commerce Analyzer” on page 5.
18. Click **OK**. The Custom Properties page displays.
19. On the Custom Properties page, click **New**. The New page displays.
20. On the New page, complete the fields as follows:
 - Name** Enter the following value:
serverName
 - Value** Enter the fully-qualified TCP/IP host name of the WebSphere Commerce Analyzer data mart database node.
21. Click **OK**.
22. Click **Save** in the task bar. The Save page opens.
23. On the Save page, click **Save**.
24. Exit the WebSphere Application Server Administrative Console.
25. Stop the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.

Configuring WebSphere Commerce to capture data






Before user traffic starts, you must enable the **UserTrafficEventListener**, **CampaignRecommendationStatisticsListener** and **CampaignRecommendationListener** components in the WebSphere Commerce Configuration Manager. If these components are not enabled, some of the business reports will contain no data.

To configure WebSphere Commerce to capture data, do the following:





1. Launch the WebSphere Commerce Configuration Manager. For instructions on launching WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
2. Enter your Configuration manager user ID, and password.
3. Expand *your host name* → **Commerce**.


4. Expand **Instance List** → *instance_name* → **Components**.
5. Select **CampaignRecommendationListener** and do the following:
 - a. Ensure that **Enable component** is selected.
 - b. Click the **Advanced** tab.
 - c. Ensure that **Start** is selected.
 - d. Click **Apply** to accept the changes.
6. Select **UserTrafficEventListener** and do the following:
 - a. Ensure that **Enable component** is selected.
 - b. Click the **Advanced** tab.
 - c. Ensure that **Start** is selected.
 - d. Click **Apply** to accept the changes.
7. Select **CampaignRecommendationStatisticsListener** and do the following:
 - a. Ensure that **Enable component** is selected.
 - b. Click the **Advanced** tab.
 - c. Ensure that **Start** is selected.
 - d. Click **Apply** to accept the changes.
8. Collapse **Components**.
9. Select **Commerce Accelerator** and do the following:
 - a. For **Is WebSphere Commerce Analyzer installed?**, select **Yes**.
 - b. In the **Reports Document Root** field, enter the path where you want the reports generated by WebSphere Commerce Analyzer to be stored. The path entered in this field is appended to the end of the WebSphere Commerce instance root path.

The default path is:

	<code>WC_installdir/instances/instance_name/WCA/reports</code>
	<code>WC_userdir/instances/instance_name/WCA/reports</code>
	<code>WC_installdir/instances/instance_name/WCA/reports</code>
	<code>WC_installdir/instances/instance_name/WCA/reports</code>
	<code>WC_installdir\instances\instance_name\WCA\reports</code>

where *instance_name* is the name of the WebSphere Commerce instance. Default values for *WC_installdir* and *WC_userdir* are listed in “Path variables” on page iv.

- c. For the **Is IBM DB2 Intelligent Data Miner for Data Installed?** field, select **Yes** if DB2 Intelligent Data Miner for Data is installed for the WebSphere Commerce Analyzer database. Installation of IBM DB2 Intelligent Data Miner is an optional part of installing and configuring WebSphere Commerce Analyzer.
- d. For the **WCA DataSource** field, do one of the following, depending on the operating system on which WebSphere Commerce runs:
 -     Enter the name for the WebSphere Commerce Analyzer data source entered in step 9 on page 7 of “Creating a data source for WebSphere Commerce Analyzer” on page 6.

-  400 Enter the name for the WebSphere Commerce Analyzer data source entered in step 13 on page 8 of “Creating a JDBC provider and data source for WebSphere Commerce Analyzer” on page 8.
 - e. Click **Apply** to accept the changes.
10. Exit the Configuration Manager.

Chapter 2. IBM Tivoli Web Site Analyzer

IBM Tivoli® Web Site Analyzer is a powerful tool that captures, analyzes, stores and reports on Web site usage, health, integrity and site content. IBM Tivoli Web Site Analyzer can shed light on visitor site interactions and the site's overall performance. You can leverage this insight to optimize the site for increased customer loyalty and business effectiveness.

For more information about IBM Tivoli Web Site Analyzer, refer to the IBM Tivoli Web Site Analyzer Web site:

<http://www.ibm.com/software/sysmgmt/products/web-site-analyzer.html>

WebSphere Commerce supports IBM Tivoli Web Site Analyzer, Version 4.2.

Installing IBM Tivoli Web Site Analyzer

Install and configure IBM Tivoli Web Site Analyzer according to the instructions available in the IBM Tivoli Web Site Analyzer information center. The information center is available through the following Web site:

<http://publib.boulder.ibm.com/tividd/td/IBMTivoliWebSiteAnalyzer4.2.html>

Important

Due to differing software requirements for WebSphere Commerce and IBM Tivoli Web Site Analyzer, WebSphere Commerce and IBM Tivoli Web Site Analyzer must be installed on different machines.

Part 3. WebSphere Commerce personalization tools

Chapter 3. IBM WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds

LikeMinds Personalization Server uses collaborative filtering technology to provide personalization solutions. It builds user profiles using both users' explicit ratings (explicit profiling) as well as implicit user behavior such as:

- Product purchases
- Items added or removed from a shopping cart
- Navigation history

LikeMinds Personalization Server collaborative filtering technology complements the existing WebSphere Commerce rule-based personalization offering. It consists of a client component, a server component, and a database.

WebSphere Commerce installs the client component of the LikeMinds Personalization Server on the WebSphere Commerce machine, by default.

Installing WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds

To install and configure the server component of the LikeMinds Personalization Server, refer to the LikeMinds README file and the LikeMinds Installation Guide. The README file is located in the root directory, and the LikeMinds Installation Guide is located in the /likeminds/docs directory of the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD.

Notes:

1. The LikeMinds Personalization Server only supports Windows NT®, AIX, or the Solaris operating environment.
2. LikeMinds Personalization Server is not supported on AIX 5.1. It can be installed on AIX 4.3.3.
3. The LikeMinds Personalization Server supports only DB2 Universal Database version 7.2, FixPak 4.

To use the server component of the LikeMinds Personalization Server, refer to the Customization Guide and the API Guide. These documents are located in the /likeminds/docs directory of the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD.

After installing and configuring the server component of the LikeMinds Personalization Server, configure WebSphere Commerce to use the LikeMinds Personalization Server by following the instructions in the following sections:

- "Configuring WebSphere Commerce to use the LikeMinds Personalization Server" on page 18
- "Testing LikeMinds Personalization Server" on page 19

The LikeMinds Administration Center and MovieSite sample application provided on the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD are not designed to work on WebSphere Application Server 5.0, the application server supported by WebSphere Commerce. To use the LikeMinds Administration

Center and MovieSite sample application on WebSphere Application Server 5.0, follow the instructions in the following sections:

- “Using the LikeMinds Administration Center on the WebSphere Commerce machine” on page 20.
- “Using the MovieSite sample application on the WebSphere Commerce machine” on page 22.

For additional information on the LikeMinds Administration Center and MovieSite sample application, refer to the LikeMinds Personalization LikeMinds Personalization Server documentation on the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD.

Configuring WebSphere Commerce to use the LikeMinds Personalization Server

After installing and configuring the LikeMinds Personalization Server, you must enable WebSphere Commerce to use the LikeMinds Personalization Server by doing the following:

1. Stop WebSphere Commerce. For instructions on stopping WebSphere Commerce, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.
2. Launch the WebSphere Commerce Configuration Manager. For instructions on launching the WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
3. Enter your Configuration Manager user ID and password.
4. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **Components** → **WCSEventMonitor**.

where *host_name* is the short name of the machine running WebSphere Commerce and *instance_name* is the name of the WebSphere Commerce instance.

5. On the General page, select the **Enable Component** check box.
6. Switch to the Advanced page by clicking the **Advanced** tab.
7. On the Advanced page, select the **Start** check box.
8. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **External Server List** → **LikeMinds**.

where *host_name* is the short name of the machine running WebSphere Commerce and *instance_name* is the name of the WebSphere Commerce instance.

9. In the **Default Server Name** field, enter the fully-qualified host name of the LikeMinds Personalization Server machine. For example, `likeminds.torolab.ibm.com`. If you have installed LikeMinds Personalization Server on the same machine as WebSphere Commerce, this field should be already filled in correctly.
10. Confirm that the correct information for the LikeMinds Personalization Server exists in the LMSERVER database table in the WebSphere Commerce database by doing the following:
 - a. Start a DB2 command session or an Oracle SQL*Plus session, depending on the database management system used for the WebSphere Commerce database.
 - b. Connect to the WebSphere Commerce database.
 - c. Issue the following SQL query:

```
select * from lmserver where LMENGINETYPE='ClickstreamEngine';
```

- d. Depending on the results of the query, do one of the following:
- If the query returned nothing, issue the following SQL command:

```
insert into lmsserver
(LMSERVER_ID, STOREENT_ID, HOSTNAME, PORT, LMENGINE_NAME, LMENGINE_TYPE,
LMSETNAME)
values
(0,0,'LikeMinds_hostname',2620,'wsclickstreamEng', 'ClickstreamEngine',
'wscTransactions');
```

where *LikeMinds_hostname* is the fully-qualified domain name of the LikeMinds Personalization Server machine.

- If the query returned one record and the host name is empty or does not match the host name of the LikeMinds Personalization Server machine, issue the following SQL command:

```
update lmsserver
set hostname='LikeMinds_hostname', port=2620
where LMENGINE_TYPE='ClickstreamEngine';
```

where *LikeMinds_hostname* is the fully-qualified domain name of the LikeMinds Personalization Server machine.

- e. Exit the DB2 command session or the Oracle SQL*Plus session.
11. Start WebSphere Commerce. For instructions on starting WebSphere Commerce, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.

Testing LikeMinds Personalization Server

After configuring WebSphere Commerce to use the LikeMinds Personalization Server, and publishing a sample store in WebSphere Commerce, you can test LikeMinds Personalization Server by doing the following:

1. Register two different users with the sample store.
2. For each user, browse the store catalog, add some items to the shopping cart, and then exit the store.
3. On the LikeMinds Personalization Server machine, do the following:
 - a. Start a DB2 command session or an Oracle SQL*Plus session, depending on the database management system used for the LikeMinds Personalization Server database.
 - b. Connect to the LikeMinds Personalization Server database.
 - c. Issue the following SQL query:

```
select * from lps_user_data where wcs_user_id is not null;
```

This query should show two new records for the two different users registered in the sample store earlier.

- d. Issue the following SQL query:

```
select * from lps_item_data where wcs_item_id is not null
```

This query should show new records inserted for the items that the users viewed in the catalog or added to their shopping carts.

If the SQL queries return the results described, your installation and configuration was successful.

Instructions for publishing a sample store are provided in WebSphere Commerce Production online help.

Using the LikeMinds Administration Center on the WebSphere Commerce machine

The LikeMinds Administration Center available from the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD is designed for WebSphere Application Server 3.5 and WebSphere Application Server 4.0. If you want to use the LikeMinds Administration Center on the WebSphere Commerce machine, you must install the LikeMinds Administration Center on the WebSphere Commerce machine. WebSphere Commerce supports WebSphere Application Server 5.0.

The instructions in this section describe how to install and configure the LikeMinds Administration Center on the WebSphere Commerce machine running WebSphere Application Server 5.0.

To use the LikeMinds Administration Center on the WebSphere Commerce machine, do the following:

1. Install `ladmin.ear`. For details, refer to “Installing `ladmin.ear`.”
2. Configure the `LMAdminCenter` property file. For details, refer to “Configuring the `LMAdminCenter` property file” on page 21.
3. Start the LikeMinds Administration Center. For details, refer to “Starting the LikeMinds Administration Center” on page 21.

Installing `ladmin.ear`

To install `ladmin.ear` on the WebSphere Commerce, do the following:

1. Start the default WebSphere Application Server application server (`server1`). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Applications** and select **Install New Application**. The Preparing for the application installation wizard starts.
5. Select **Local path** and enter the full path to `ladmin.ear`. The following is the default location of `ladmin.ear`:

`WC_installdir/installableApps`

The default values for `WC_Installdir` are listed in “Path variables” on page iv.

After entering the path, click **Next**.

6. On the next page of the Preparing for the application installation wizard, accept all the default values and click **Next**. The Install New Application wizard starts displaying the Provide options to perform the installation page.
7. On the Provide options to perform the installation page of the Install New Application wizard, accept all the defaults by clicking **Next**. The Map virtual hosts for web modules page displays.
8. On the Map virtual hosts for web modules page of the Install New Application wizard, accept all the defaults by clicking **Next**. The Map modules to application servers page displays.
9. On Map modules to application servers page of the Install New Application wizard, accept all the defaults by clicking **Next**. The summary page displays.

10. On the summary page of the Install New Application wizard, click **Finish**. The installation starts.
If the installation is unsuccessful, review the error messages in the WebSphere Application Server Administrative Console, correct any problems, and try to install `ladmin.ear` again.
The installation is complete and successful when the "Application LMAAdminCenter installed successfully." message is displayed.
11. Click **Save to Master Configuration** to display the Save to Master Configuration page.
12. On the Save to Master Configuration page, click **Save**.
13. Exit the WebSphere Application Server Administrative Console.

Configuring the LMAAdminCenter property file

After installing `ladmin.ear`, you must configure the `lmhost.properties` file.

To configure the `lmhost.properties` file, do the following:

1. Open the following file in a text editor:

```
WAS_installdir/installedApps/server_name/  
ladmin.ear/lmservlet.war/lmhost.properties
```

where *server_name* is the name of the WebSphere Commerce application server. The default WebSphere Commerce application server name is `server1`.

The default values for *WAS_installdir* are listed in "Path variables" on page iv.

2. Add the following entry to represent the host name of the machine where the LikeMinds server is running:

```
host1:LikeMinds_server_hostname,LikeMinds_server_port
```

where *LikeMinds_server_hostname* is the TCP/IP host name of the LikeMinds Personalization Server server and *LikeMinds_server_port* is the TCP/IP port on which the LikeMinds server communicates. The default port is 2620.

3. Save your changes and exit the text editor.

Starting the LikeMinds Administration Center

To start the LikeMinds Administration Center, do the following:

1. Start the default WebSphere Application Server application server (`server1`). For instructions, refer to "Starting or stopping an application server" on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to "Starting the WebSphere Application Server Administrative Console" on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Applications** and select **Enterprise Applications**. The Enterprise Applications page displays.
5. Select the box next to **LMAAdminCenter** and click **Start**. Once started, the status icon changes to a green arrow.

Using the MovieSite sample application on the WebSphere Commerce machine

The MovieSite sample application available from the WebSphere Commerce 5.5 Recommendation Engine powered by LikeMinds CD is designed for WebSphere Application Server 3.5 and WebSphere Application Server 4.0. If you want to use the LikeMinds Administration Center on the WebSphere Commerce machine, you must install the MovieSite sample application on the WebSphere Commerce machine. WebSphere Commerce supports WebSphere Application Server 5.0.

The instructions in this section describe how to install and configure the MovieSite sample application on the WebSphere Commerce machine running WebSphere Application Server 5.0.

To use the MovieSite sample application on the WebSphere Commerce machine, do the following:

1. Install the MovieSite sample application. For details, refer to “Installing moviesite.ear.”
2. Configure the MovieSite property file. For details, refer to “Configuring the MovieSite property file” on page 23.
3. Start the MovieSite sample application. For details, refer to “Starting the MovieSite sample application” on page 23.

Installing moviesite.ear

To install moviesite.ear on the WebSphere Commerce, do the following:

1. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Applications** and select **Install New Application**. The Preparing for the application installation wizard starts.
5. Select **Local path** and enter the full path to moviesite.ear. The following is the default location of moviesite.ear:

`WC_installdir/installableApps`

The default values for `WC_Installdir` are listed in “Path variables” on page iv.

After entering the path, click **Next**.

6. On the next page of the Preparing for the application installation wizard, accept all the default values and click **Next**. The Install New Application wizard starts displaying the Provide options to perform the installation page.
7. On the Provide options to perform the installation page of the Install New Application wizard, accept all the defaults by clicking **Next**. The Map virtual hosts for web modules page displays.
8. On the Map virtual hosts for web modules page of the Install New Application wizard, accept all the defaults by clicking **Next**. The Map modules to application servers page displays.
9. On Map modules to application servers page of the Install New Application wizard, accept all the defaults by clicking **Next**. The summary page displays.

10. On the summary page of the Install New Application wizard, click **Finish**. The installation starts.
If the installation is unsuccessful, review the error messages in the WebSphere Application Server Administrative Console, correct any problems, and try to install `ladmin.ear` again.
The installation is complete and successful when the "Application MovieCenter installed successfully." message is displayed.
11. Click **Save to Master Configuration** to display the Save to Master Configuration page.
12. On the Save to Master Configuration page, click **Save**.
13. Exit the WebSphere Application Server Administrative Console.

Configuring the MovieSite property file

After installing `moviesite.ear`, you must configure the `MovieSite.properties` file.

To configure the `MovieSite.properties` file, do the following:

1. Open the following file in a text editor:
`WAS_installdir/installedApps/server_name/moviesite.ear/msite.war/MovieSite.properties`

where `server_name` is the name of the WebSphere Commerce application server. The default WebSphere Commerce application server name is `server1`.

The default values for `WAS_installdir` are listed in "Path variables" on page iv.

2. Search for the following text:
`lmHost`
3. Change the `lmHost` entry to the following:
`lmHost=LikeMinds_server_hostname`

where `LikeMinds_server_hostname` is the TCP/IP host name of the LikeMinds Personalization Server machine.

4. Save your changes and exit the text editor.

Starting the MovieSite sample application

To start the MovieSite sample application, do the following:


1. Start the default WebSphere Application Server application server (`server1`). For instructions, refer to "Starting or stopping an application server" on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to "Starting the WebSphere Application Server Administrative Console" on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Applications** and select **Enterprise Applications**. The Enterprise Applications page displays.
5. Select the box next to **MovieSite** and click **Start**. Once started, the Status icon changes to a green arrow.

To verify that the Movie Site is running, launch a browser, and enter the following URL:

`http://hostname/MovieSite`

Part 4. WebSphere Commerce collaboration features


Whether it is a Buyer and Seller discussing details of a purchasing agreement, or a Customer Service Representative assisting a customer in placing an order, e-commerce collaboration is necessary to maintain the communication flow between parties. Traditionally, exchange of information has been achieved through phone or fax. WebSphere Commerce supports e-commerce collaboration functionality by offering two Web-based features within WebSphere Commerce Accelerator:

- Chapter 4, “WebSphere Commerce customer care,” on page 27
-  Chapter 5, “WebSphere Commerce collaborative workspaces,” on page 37

Chapter 4. WebSphere Commerce customer care

The WebSphere Commerce customer care feature provides real-time customer service support by way of a synchronous text interface using the IBM Lotus® Sametime® Server. A customer may enter the site, and click a link on the store page to connect to a Customer Service Representative (CSR) so that the two parties can communicate or chat over the Internet. A CSR accesses the customer care interface through the WebSphere Commerce Accelerator. In addition, the CSR can view the store page where the customer needs assistance, and retrieve shopping cart and profile information. This interface also allows the CSR to chat with other CSRs. To use the customer care feature, IBM Lotus Sametime must first be installed and configured to work with WebSphere Commerce.

IBM Lotus Sametime enables customer care collaboration. It provides customer service real-time support via synchronous text interface (instant messaging - IM) using IBM Lotus Sametime between a customer service representative and store customers or buyers.

 IBM Lotus Sametime is not supported on Linux. However, IBM Lotus Sametime running on Windows can be used with WebSphere Commerce running on Linux.




Installing and configuring customer care


To install and configure customer care, do the following:

1. (Optional) Ensure that you have LDAP installed and configured as described in Part 6, “Directory services and WebSphere Commerce,” on page 69.
2. Install Lotus Sametime. Refer to “Installing Lotus Sametime.”
3. Install the customer care component. Refer to “Installing customer care on the Lotus Sametime server” on page 28.
4. If required, configure the Lotus Sametime self-registration feature. For details, refer to “Configuring the Lotus Sametime self-registration feature” on page 33.

Note: Lotus QuickPlace®, Lotus Sametime, WebSphere Commerce, and LDAP should be installed on separate machines.

Installing Lotus Sametime

   Lotus Sametime should be installed as a standalone server. Lotus QuickPlace, Lotus Sametime, WebSphere Commerce, and LDAP should be installed on separate machines to reduce the performance impact.

 Lotus QuickPlace, Lotus Sametime, WebSphere Commerce, and LDAP can be installed on the same machine. This has been tested and delivered acceptable performance. However, you may have to modify the HTTP port used by Domino™, if you experience conflicts.

Lotus Sametime 3.0 requires that you have Lotus Domino 5.0.10 installed on the machine before you install Lotus Sametime.

Install and configure Lotus Sametime according to the instructions found in *Lotus Sametime Installation Guide*.

Lotus Sametime Installation Guide is available on the product CD as a Lotus Notes® database file (.NSF file). The Lotus Notes database file can be found in the following location on the product CD:

Languagepack/*language*/data/doc/stinstall.nsf

where *language* is the language in which you want to read the installation guide. For example, to read the *Lotus Sametime Installation Guide* in English you would open the following file on the Lotus Sametime product CD in Lotus Notes:

Languagepack/English/data/doc/stinstall.nsf

400 *Lotus Sametime Installation Guide* is available on one of the product CDs as a PDF file. The PDF file can be found in the following location on the second product CD:

docs/stinstall.pdf

If you do not have Lotus Notes to view the installation guide, the *Lotus Sametime Installation Guide* is also available as PDF file on the Web at the Lotus Developer Domain Documentation Library which is at the following Web site:

<http://www.lotus.com/1dd/doc>

If you plan to configure Lotus Sametime to use the same LDAP, ensure that you configure WebSphere Commerce to use the same LDAP server as Lotus Sametime.

Installing customer care on the Lotus Sametime server

Instructions for installing customer care on the Lotus Sametime server differ according to the operating system. Choose the instructions for your operating system:

- “Installing customer care on the Lotus Sametime server on AIX, Solaris, and Windows”
- “Installing customer care on the Lotus Sametime server on OS/400” on page 30

Installing customer care on the Lotus Sametime server on AIX, Solaris, and Windows

After installing Lotus Sametime, you must install and configure the customer care component. To install and configure customer care, do the following:

1. Insert WebSphere Commerce CD 2 into the CD-ROM drive.
2. **AIX** **Solaris** If necessary, mount the CD-ROM drive.
3. Run the following command to install customer care:

AIX **Solaris** Before running the command, ensure the following:

- You are logged in as root.
- The terminal on which you are working supports graphics.

AIX `mount_point/CustomerCare/setup_aix`

Solaris `mount_point/CustomerCare/setup_solaris`

Windows `CD-ROM_drive:\CustomerCare\setup.exe`

where *mount_point* is the path to the mounted CD-ROM drive (for example, `/mnt/cd0`) and *CD-ROM_drive* is the CD-ROM drive letter (for example, `E`).

AIX Solaris Ensure you run the command as root.

4. The **Choose Setup Language** window opens. Select a language from the list and click **OK**.
5. A **Welcome** window opens. Click **Next** to continue.
6. The **License Agreement** screen opens. Note that a DOS window may briefly appear on your screen prior to the license agreement being displayed. Review the terms of the license agreement and either accept or decline the agreement. If you accept the terms of the license agreement, the installation program will continue. If you decline the license agreement, the installation program will exit.
7. The **Choose Destination** window opens. This window allows you to override the default installation path. Accept the default path and click **Next**. Click **Next** again, on the confirmation dialog. An installation progress bar opens.

Attention

We strongly suggest that you do not override the default path. The customer care installation program is designed to copy the applet code to specific locations within the Sametime Server installation directory. Choosing another directory will cause errors.

8. The **Setup Complete** window opens. Click **Finish** to continue.
9. You must now enable Lotus Sametime in the WebSphere Commerce Configuration Manager. On your WebSphere Commerce machine, do the following:
 - a. Stop WebSphere Commerce. For instructions, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.
 - b. Launch the WebSphere Commerce Configuration Manager. For instructions on launching the WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
 - c. Enter your Configuration Manager user ID, and password.
 - d. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **Instance Properties** → **Collaboration** → **Sametime**, and do the following:
 - 1) Select the **Enable** check box.
 - 2) Enter the fully qualified host name of your Lotus Sametime server in the **Host Name** field.
 - 3) Enter the host name of your Lotus Sametime server in the **Registration URL** field.

Note: You should only change the *host_name* of the Web address. For example:

```
http://host_name/streg.nsf/  
557a6148a8f846d3852563e10000ca95?CreateDocument
```

- 4) Enter the applet code base URL in the **Applet CodeBase URL** field. The applet code base URL is the location of the applet code created by the WebSphere Commerce customer care installation program. Ensure that the applet code is installed on the Lotus Sametime server machine.

Note: You should only change the *host_name* of the Web address. For example:

`http://host_name/wc`

- 5) If required, change the selections for **Monitor Type**, **Initiation Type** and **Number of Session Limit**. These should be set to choices that are feasible for your testing or production environment.
- 6) If Lotus Sametime uses the LDAP server as WebSphere Commerce, select **Use WC Member subsystem's LDAP server**.
- 7) Click **Apply**. A message appears indicating that Lotus Sametime has been successfully configured for WebSphere Commerce. Click **OK** to continue.
- 8) Close the WebSphere Commerce Configuration Manager.
- 9) Start WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.

Uninstalling customer care on the Lotus Sametime server on AIX, Solaris, and Windows

Windows To uninstall customer care from a Lotus Sametime server on Windows, use the "Add or Remove Programs" utility in the Windows Control Panel, and follow the instructions of the uninstall program to complete the uninstallation.

AIX **Solaris** To uninstall customer care from a Lotus Sametime server on either an AIX or a Solaris platform, follow these steps:

1. Logon as root user from a terminal that supports graphics.
2. Change to the directory specified in step 6 of the installation. By default it will be `/domino/html/wc`.
3. Change to the uninstall directory, by issuing the following command:
`cd _uninst`
4. Launch the uninstall program by issuing the following command:
AIX `./uninstall_aix`
Solaris `./uninstall_solaris`
5. Follow the instructions of the uninstall program to complete the uninstallation.

Note: This procedure does not remove Sametime. Refer to the Sametime documentation for information on removing Sametime.

Installing customer care on the Lotus Sametime server on OS/400

After installing Lotus Sametime, you must install and configure the customer care component. To install and configure customer care on a local iSeries machine, do the following:

1. Enter the PASE shell using the following command:
`CALL QP2TERM`
2. Change to the `/qopt/WC55/CustomerCare` directory.
3. Launch the `setup.qsh` command.
4. Select a language from the list, and press Enter.
5. Type 0 and press Enter to continue.
6. Type 1 and press Enter on the Welcome page.
7. Press Enter to review the license agreement.

8. Type 1 and press Enter to continue.
9. Select the Domino server on which you want to install Customer care, and press enter.
10. Type 0 and press Enter to continue.
11. Type 1 and press Enter to continue.
12. On the Destination page, select an appropriate install location and press to continue. The default location is recommended.
13. Type 1 and press Enter to continue.
14. On the Install Summary page, type 3 and press Enter to finish.
15. You must now enable Lotus Sametime in the WebSphere Commerce Configuration Manager. On your WebSphere Commerce machine, do the following:
 - a. Stop WebSphere Commerce. For instructions, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.
 - b. Launch the WebSphere Commerce Configuration Manager. For instructions on launching the WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
 - c. Enter your Configuration Manager user ID, and password.
 - d. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **Instance Properties** → **Collaboration** → **Sametime**, and do the following:
 - 1) Select the **Enable** check box.
 - 2) Enter the fully qualified host name of your Lotus Sametime server in the **Host Name** field.
 - 3) Enter the host name of your Lotus Sametime server in the **Registration URL** field.

Note: You should only change the *host_name* of the Web address. For example:

```
http://host_name:port_number/streg.nsf/557a6148a8f846d3852563e10000ca95?CreateDocument
```

where the *port_number* corresponds to the HTTP port of the customer care instance as defined in for the Domino server, on systems where customer care and WebSphere Commerce are installed on the same machine.

- 4) Enter the applet code base URL in the **Applet CodeBase URL** field. The applet code base URL is the location of the applet code created by the WebSphere Commerce customer care installation program. Ensure that the applet code is installed on the Lotus Sametime server machine.

Note: You should only change the *host_name* of the Web address. For example:

```
http://host_name:port_number/wc
```

where the *port_number* corresponds to the HTTP port of the customer care instance as defined in for the Domino server, on systems where customer care and WebSphere Commerce are installed on the same machine.

- 5) If required, change the selections for **Monitor Type**, **Initiation Type** and **Number of Session Limit**. These should be set to choices that are feasible for your testing or production environment.

- 6) Click **Apply**. A message appears indicating that Lotus Sametime has been successfully configured for WebSphere Commerce. Click **OK** to continue.
- 7) If Lotus Sametime uses the LDAP server as WebSphere Commerce, select **Use WC Member subsystem's LDAP server**.
- 8) Close the WebSphere Commerce Configuration Manager.
- 9) Start WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.

To install and configure customer care from a Windows machine to a remote iSeries machine, do the following:

1. On the Windows machine, open a DOS prompt window.
2. Launch the **setup.exe -os400** command.
3. Specify the target machine and the user ID and password in the iSeries logon window. Click **Next** to continue.
4. The Choose Setup Language window opens. Select a language from the list and click **OK**.
5. The Welcome window opens. Click **Next** to continue.
6. The License Agreement screen displays. Note that a DOS window may open briefly on your screen prior to the license agreement being displayed. Review the terms of the license agreement and either accept or decline the agreement. If you accept the terms of the license agreement, the installation program will continue. If you decline the license agreement, the installation program will exit.
7. Select the Domino server on which you want to install customer care, and click **Next** to continue.
8. You must now enable Lotus Sametime in the WebSphere Commerce Configuration Manager. On your WebSphere Commerce machine, do the following:
 - a. Stop WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.
 - b. Launch the WebSphere Commerce Configuration Manager. For instructions on launching the WebSphere Commerce Configuration Manager, refer to "Launching WebSphere Commerce Configuration Manager" on page 105.
 - c. Enter your Configuration Manager user ID, and password.
 - d. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **Instance Properties** → **Collaboration** → **Sametime**, and do the following:
 - 1) Select the **Enable** check box.
 - 2) Enter the fully qualified host name of your Lotus Sametime server in the **Host Name** field.
 - 3) Enter the host name of your Lotus Sametime server in the **Registration URL** field.

Note: You should only change the *host_name* of the Web address. For example:

```
http://host_name:port_number/streg.nsf/
557a6148a8f846d3852563e10000ca95?CreateDocument
```

where the *port_number* corresponds to the HTTP port of the customer care instance as defined in for the Domino server, on systems where customer care and WebSphere Commerce are installed on the same machine.

- 4) Enter the applet code base URL in the **Applet CodeBase URL** field. The applet code base URL is the location of the applet code created by the WebSphere Commerce customer care installation program. Ensure that the applet code is installed on the Lotus Sametime server machine.

Note: You should only change the *host_name* of the Web address. For example:

```
http://host_name:port_number/wc
```

where the *port_number* corresponds to the HTTP port of the customer care instance as defined in for the Domino server, on systems where customer care and WebSphere Commerce are installed on the same machine.

- 5) If required, change the selections for **Monitor Type**, **Initiation Type** and **Number of Session Limit**. These should be set to choices that are feasible for your testing or production environment.
- 6) Click **Apply**. A message appears indicating that Lotus Sametime has been successfully configured for WebSphere Commerce. Click **OK** to continue.
- 7) If Lotus Sametime uses the LDAP server as WebSphere Commerce, select **Use WC Member subsystem's LDAP server**.
- 8) Close the WebSphere Commerce Configuration Manager.
- 9) Start WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.

Uninstalling customer care on the Lotus Sametime server on OS/400

To uninstall customer care from a Lotus Sametime server on OS/400, follow these steps:

1. Start an OS/400 command session.
2. Issue the following command: STRQSH
3. Change to the uninstall directory for customer care. The default location is:
`/lotus/DOMINO/DominoServerName/domino/html/wc/_uninst`
4. Launch the uninstall program by issuing the following command:
`uninstall.qsh`
5. Follow the instructions of the uninstall program to complete the uninstallation.

Note: This procedure does not remove Sametime. Refer to the Sametime documentation for information on removing Sametime.

Configuring the Lotus Sametime self-registration feature

If you configure Lotus Sametime to not use an LDAP server, you must configure the Lotus Sametime self-registration feature.

To enable self-registration, do the following:

1. You must set STCENTER.NSF as your default home page. To set STCENTER.NSF as your default home page, you must do the following:
 - a. Start the Domino server.
 - b. Launch the Lotus Administration client. You must log on using the server administrator user ID and password.

- c. Select **File → Open Server**, and select the Domino server where Lotus Sametime exists.
 - d. Click the **Configuration** tab.
 - e. Edit the server document for the Domino server where Lotus Sametime exists.
 - f. Select the **Internet Protocols** tab.
 - g. Select the **HTTP** tab.
 - h. In the mapping section, enter STCENTER.NSF **Home URL** field.
 - i. Save and close the server document.
2. Set user access rights for the Domino directory. To set user access rights for the Domino directory, do the following:
 - a. Start the Domino server.
 - b. Launch the Lotus Administration client. You must log on using the server administrator user ID and password.
 - c. Select **File → Open Server**, and select the Domino server where Lotus Sametime exists.
 - d. Select the **Files** tab. In the **Show Me** field, select **Database Only**.
 - e. Select the directory document (for example: names.nsf) for the Domino server where Lotus Sametime exists.
 - f. Right-click the directory document, and select **Access Control → Manage** to launch **Access Control List** window.
 - g. Select the **Sametime Development/Lotus Notes Companion Products** user ID from the **People, Server, Group** list. If this ID does not exist, click **Add**, to add it.
 - h. In the **Access** field, select **Editor**. Click **OK**.
 - i. Save and close the server document.
 3. Enable the self-registration feature. To enable the self-registration feature, do the following:
 - a. Launch the Lotus Administration client.
You must log on using the server administrator user ID and password.
 - b. Select **File → Open Server**. Select the Domino server where Lotus Sametime exists.
 - c. Select the **Files** tab.
 - d. In the **Show Me** field, select **Database Only**.
 - e. Select the stconfig.nsf document from the Domino server where Lotus Sametime exists and double-click to open the document.
 - f. Click **By Form** in the open document.
 - g. Select **AnonymousAccess** form and double-click to open the form.
 - h. Double click to edit the form.
 - i. Change **Anonymous Users can register themselves** setting to **true**.
 - j. Select **File → Save**.
 4. Restart your Domino server.
 5. You should now test the self-registration feature. To test the self-registration feature, do the following:
 - a. Enter the following URL in a Web browser:
`http://Lotus_Sametime_server/stcenter.nsf`
 - b. Click the **Register** link.
 - c. Select the **Register to use Lotus Sametime** link.

- d. Enter your user information on the **Register to use Lotus Sametime** page, and click **Submit Request**. A confirmation page should appear. Your user is registered.

The next step

After installing and configure customer care in WebSphere Commerce, you will need to configure your store to use collaboration features. For more information on configuring stores to use collaboration features, refer to Chapter 6, “Enabling collaboration components in your store,” on page 45.

Chapter 5. WebSphere Commerce collaborative workspaces

Business WebSphere Commerce collaborative workspaces is only provided with WebSphere Commerce Business Edition.

Collaborative workspaces provides a collaborative interface using Lotus QuickPlace to support business discussions, such as negotiating contract terms and conditions between a Buyer and a Seller (or Account Representative for the Seller) and amongst the business users within the Seller's organization. Collaborative workspaces support asynchronous communication. Collaborative workspaces can be created by any role other than the Buyer, by using the WebSphere Commerce Accelerator and the WebSphere Commerce default Lotus QuickPlace template. Only an Account Representative or Account Manager with Lotus QuickPlace Manager access can add Buyers to the workspace. To use collaborative workspaces, member data must be on an LDAP server with WebSphere Commerce, not a relational database. For installation instructions on configuring an LDAP server, refer to Part 6, "Directory services and WebSphere Commerce," on page 69. The details about the collaborative workspaces and workspace member information are managed through the WebSphere Commerce system. Any discussion threads, postings, or file attachments used for collaboration are stored on the Lotus QuickPlace server.

Lotus QuickPlace is the self-service Web tool for team collaboration. Lotus QuickPlace enables the creation of a secure and central workspace on the Web instantly. Structured for immediate participation, teams use Lotus QuickPlace to do the following:

- Coordinate people, tasks, plans, and resources.
- Collaborate, share ideas and discussion, resolve issues, coauthor documents, exchange files, manage due diligence.
- Communicate actions and decisions, key findings and lessons, publish knowledge captured to a broader base of readership.

Teams use Lotus QuickPlace for project management, rapid response to ad-hoc initiatives, team Web sites, and to facilitate discrete business processes that span the extended enterprise and value chain.

Linux IBM Lotus QuickPlace is not supported on Linux. However, IBM Lotus QuickPlace running on Windows can be used with WebSphere Commerce running on Linux.

Installing and configuring collaborative workspaces

To install and configure collaborative workspaces, do the following:

1. Ensure that you have LDAP installed and configured as described in Part 6, "Directory services and WebSphere Commerce," on page 69.
2. Install Lotus QuickPlace. Refer to "Installing Lotus QuickPlace" on page 38.
3. Install the WebSphere Commerce collaborative workspaces component. Refer to "Installing the WebSphere Commerce collaborative workspaces component" on page 38.

4. Configure WebSphere Commerce to work with Lotus QuickPlace. Refer to “Configuring WebSphere Commerce to work with Lotus QuickPlace” on page 42.



Note: Lotus QuickPlace, Lotus Sametime, WebSphere Commerce, and LDAP should be installed on separate machines.

Installing Lotus QuickPlace

Lotus QuickPlace should be installed as a standalone server. Lotus QuickPlace, Lotus Sametime, WebSphere Commerce, and LDAP should be installed on separate machines.

Lotus QuickPlace 3.0 requires that you have Lotus Domino 5.0.10 installed on the machine before you install Lotus QuickPlace.

Install and configure Lotus QuickPlace according to the instructions found in the following books:

-  **AIX** *Lotus QuickPlace 3.0 Installation and Upgrade Guide for IBM AIX and Sun Solaris*
-  **400** *Lotus QuickPlace 3.0 for iSeries Installation and Managing Guide*
-  **Solaris** *Lotus QuickPlace 3.0 Installation and Upgrade Guide for IBM AIX and Sun Solaris*
-  **Windows** *Lotus QuickPlace 3.0 Installation and Upgrade Guide*

Documentation for Lotus QuickPlace is available on the Web at Lotus Developer Domain Documentation Library which is at the following Web site:

<http://www.lotus.com/1dd/doc>

To use the collaborative workspaces feature of WebSphere Commerce both WebSphere Commerce and Lotus QuickPlace must be configured to use the same LDAP server.



We recommend using the Lotus Domino administrator ID and password as the Lotus QuickPlace administrator ID and password.

Installing the WebSphere Commerce collaborative workspaces component

To install the WebSphere Commerce collaborative workspaces component, do the following:

1. Configure Lotus QuickPlace to use the same LDAP server as WebSphere Commerce. Refer to “Configuring Lotus QuickPlace to use the same LDAP server as WebSphere Commerce” on page 39.
2. Install the WebSphere Commerce collaborative workspaces component on the Lotus QuickPlace server. Refer to “Installing the WebSphere Commerce collaborative workspaces component” on page 39.
3. Enable Java™ servlet support on Lotus Domino.

Configuring Lotus QuickPlace to use the same LDAP server as WebSphere Commerce

To configure Lotus QuickPlace to use the same LDAP server as WebSphere Commerce, do the following:

1. Open a Web browser and enter the following Web site:

`http://QuickPlace_hostname/QuickPlace`

where *QuickPlace_hostname* is the TCP/IP hostname of the machine where Lotus QuickPlace is installed.

The Lotus QuickPlace Welcome page displays.

2. On the Lotus QuickPlace Welcome page, click **Sign In** and enter the Lotus QuickPlace administrator ID and password in the dialog that displays.
3. Click **Server Settings**. The Server Administration Instructions page displays.
4. Click **Security**. The Security page displays.
5. Under **Who can create new places on this server?**, select **Only specific users (or groups) who provide a name and password**.
6. Click **User Directory**. The User Directory page displays.
7. Click **Change Directory**. The Change User Directory page displays.
8. From the **Type** pull-down, select **LDAP Server**.
9. In the **Name** field, enter the TCP/IP hostname of the LDAP server.
10. In the **Search base** under **Advanced Settings**, type the Suffix DN you added in Part 6, "Directory services and WebSphere Commerce," on page 69.
11. Under **Advanced Settings**, select **Check to use credentials specified below when searching the directory**.
12. In the **Username** field under **Advanced Settings**, enter the administrator name for LDAP. For example, `cn=root`, or `cn=Administrator` on iSeries.
13. In the **Password** field under **Advanced Settings**, enter the password for the administrator name for LDAP.
14. Under **New Users**, select **Allow managers to create new users in each place**.
15. Click **Next**.
16. Close the Web browser.

Installing the WebSphere Commerce collaborative workspaces component



Instructions for the WebSphere Commerce collaborative workspaces component differ depending on the operating system. Choose the instructions for your operating systems:



- "Installing the WebSphere Commerce collaborative workspaces component on AIX, Solaris, and Windows"
- "Installing the WebSphere Commerce collaborative workspaces component on OS/400" on page 41

Installing the WebSphere Commerce collaborative workspaces component on AIX, Solaris, and Windows

To install the WebSphere Commerce collaborative workspaces component on the Lotus QuickPlace server on AIX, Solaris, and Windows, do the following:

1. Stop Lotus QuickPlace by stopping Lotus Domino. Refer to the Lotus Domino documentation for instructions on stopping Lotus Domino.


2. Insert WebSphere Commerce CD 2.
3.   If necessary, mount the CD-ROM drive.
4. Run the following command to install collaborative workspaces:

  Before running the command, ensure the following:


- You are logged in as root.
- The terminal on which you are working supports a graphics.

 `mount_point/CollaborativeWS/setup_aix`

 `mount_point/CollaborativeWS/setup_solaris`

 `CD-ROM_drive:\CollaborativeWS\setup.exe`


where *mount_point* is the path to the mounted CD-ROM drive (for example, /mnt/cd0) and *CD-ROM_drive* is the CD-ROM drive letter (for example, E).

  Ensure you run the command as root.

5. The **Choose Setup Language** window appears. Select your desired language.
6. A **Welcome** window opens. Click **Next** to continue.
7. The **License Agreement** screen opens. Review the terms of the license agreement and either accept or decline the agreement. If you accept the terms of the license agreement, the installation program will continue. If you decline the license agreement, the installation program will exit.
8. The **Choose Destination Location** window opens. This window allows you to override the default installation path where the WebSphere Commerce collaborative workspaces component is installed. When you have chosen your installation path, click **Next** to continue. Click **Next** again on the confirmation dialog. An installation progress bar opens.
9. A **Setup Complete** window appears. Click **Finish**.
10. Start Lotus QuickPlace by starting Lotus Domino. Refer to the Lotus Domino documentation for instructions on starting Lotus Domino.

Note: You must restart the Lotus QuickPlace server each time the LDAP server is restarted.

Uninstalling the WebSphere Commerce collaborative workspaces component on AIX, Solaris, and Windows:

 To uninstall collaborative workspaces from a Lotus Sametime server on Windows, use the "Add or Remove Programs" utility in the Windows Control Panel, and follow the instructions of the uninstall program to complete the uninstallation.

  To uninstall collaborative workspaces from a Lotus Sametime server on either an AIX or a Solaris platform, follow these steps:

1. Logon as root user from a terminal that supports graphics.
2. Change to the directory specified in step 7 of the installation. By default it will be /CollabWS.
3. Change to the uninstall directory, by issuing the following command:
`cd _uninst`

4. Launch the uninstall program by issuing the following command:

```
➤ AIX ./uninstall_aix
```

```
➤ Solaris ./uninstall_solaris
```

5. Follow the instructions of the uninstall program to complete the uninstallation.

Installing the WebSphere Commerce collaborative workspaces component on OS/400

To install the WebSphere Commerce collaborative workspaces component on a local Lotus QuickPlace server on OS/400, do the following:

1. Enter the PASE shell using the following command:
CALL QP2TERM
2. Change to the WC55/CollaborativeWS directory.
3. Launch the **setup.qsh** command.
4. Select a language from the list, and press Enter.
5. Type 0 and press Enter to continue.
6. Type 1 and press Enter on the Welcome page.
7. Press Enter to review the license agreement.
8. Type 1 and press Enter to continue.
9. Select the QuickPlace server on which you want to install the collaborative workspace, and press Enter.
10. Type 0 and press Enter to continue.
11. Type 1 and press Enter to continue.
12. On the Destination page, select an appropriate install location and press to continue. The default location is recommended.
13. Type 1 and press Enter to continue.
14. On the Install Summary page, type 3 and press Enter to finish.

To install the WebSphere Commerce collaborative workspaces component from a Windows machine to a remote OS/400 Lotus QuickPlace server, do the following:

1. On the Windows machine, open a DOS prompt window.
2. Launch the **setup.exe -os400** command.
3. Specify the target machine and the user ID and password in the iSeries logon window. Click **Next** to continue.
4. The Choose Setup Language window opens. Select a language from the list and click **OK**.
5. The Welcome window opens. Click **Next** to continue.
6. The License Agreement screen displays. Note that a DOS window may open briefly on your screen prior to the license agreement being displayed. Review the terms of the license agreement and either accept or decline the agreement. If you accept the terms of the license agreement, the installation program will continue. If you decline the license agreement, the installation program will exit.
7. Select the Domino server on which you want to install customer care, and click **Next** to continue.

Uninstalling the WebSphere Commerce collaborative workspaces component on OS/400: To uninstall collaborative workspaces from a Lotus Sametime server on OS/400, follow these steps:

1. Start an OS/400 command session.
2. Issue the following command: STRQSH

3. Change to the uninstall directory for customer care. The default location is:
`/lotus/DOMINO/DominoServerName/domino/CollabWS/_uninst`
4. Launch the uninstall program by issuing the following command:
`uninstall.qsh`
5. Follow the instructions of the uninstall program to complete the uninstallation.

Enabling Java servlet support on Lotus Domino

To enable Java servlet support on Lotus Domino, do the following:

1. Ensure Lotus Domino is running. Refer to the Lotus Domino documentation for instructions on starting Lotus Domino.
2. Open a Web browser and enter the following Web site:
`http://QuickPlace_hostname/names.nsf`

where *QuickPlace_hostname* is the TCP/IP hostname of the machine.

3. Enter the Lotus Domino administrator ID and password in the dialog that displays.
4. Click **Servers-Servers**. The Servers-Servers page displays.
5. Double-click the server on which you want to enable Java servlet support. The Server information page displays.
6. Click **Edit Server**.
7. On the **Internet Protocols** tab, click **Domino Web Engine**, and select Domino Servlet Manager from the **Java servlet support** list (under **Java Servlets**).
8. Click **Security**.
9. Copy the value from the **Administer the server from a browser** field (under **Server Access**) to the **Run unrestricted Java/Javascript/COM** field (under **Java/COM Restrictions**).
10. Click **Save and Close**.
11. Restart Lotus Domino. Refer to the Lotus Domino documentation for instructions on restarting Lotus Domino.

Configuring WebSphere Commerce to work with Lotus QuickPlace

To configure WebSphere Commerce to work with Lotus QuickPlace, do the following:

1. Stop WebSphere Commerce. For instructions, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.
2. Launch the WebSphere Commerce Configuration Manager. For instructions on launching WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
3. Open *host_name* → **Commerce** → **Instance List** → *instance_name* → **Instance Properties** → **Collaboration** → **QuickPlace**.
4. Enter the fully qualified Lotus QuickPlace/Lotus Domino server host name in **Host Name** field.
5. Enter the HTTP port number in the **HTTP port number** field. The default HTTP port is 80.
6. Enter the HTTPS port numbers in the **HTTPS port number** field. The default HTTPS port is 443.
7. If SSL is used on the QuickPlace server, select **Use SSL**.
8. Enter the Lotus Domino administrator login in **Administrator Login** field.

9. Enter the Lotus Domino administrator password in **Administrator Password** field.
10. Enter the QuickPlace Administrator's user name in the **Collaboration Administrator** field.
11. Enter the QuickPlace Administrator password in the **Collaboration Admin Password** field.
12. Select the correct locale for your installed Lotus QuickPlace server. For example, en_US.
13. If servlet support is enabled, enter the servlet path in **Servlet URL Path**. The default servlet path is /servlet.
14. Click **Apply**. The **Successfully configured Lotus QuickPlace for WebSphere Commerce** message appears. Click **OK**.
The passwords will automatically be encrypted when the update is done successfully.
15. Close the WebSphere Commerce Configuration Manager.
16. Start WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.

Optional configurations

After installing and configuring collaborative workspaces in WebSphere Commerce, you may want to add the following optional configurations:

- Create a template for Lotus QuickPlace.
- Set up e-mail notification.
- Enable Lotus QuickPlace to use UTF-8.

Creating a template for Lotus QuickPlace

For information on creating custom templates for Lotus QuickPlace, please refer to the *Lotus Customizing QuickPlace* guide. This document is available from the IBM Redbook Web site at the following Web address:

<http://www.redbooks.ibm.com/>

Note: When creating a template for Lotus QuickPlace, the template name cannot contain spaces.

Setting up e-mail notification

One feature of Collaboration is e-mail notification. To set up e-mail notification, do the following:

Note: When configuring e-mail notification, both the sender and receiver must have an e-mail address. That is, if you are logged on as wcsadmin and you want to add a user with e-mail notification, you must first add an e-mail address for wcsadmin through the WebSphere Commerce Administration Console. If either sender or receiver does not have an e-mail, the e-mail notification will not be sent.

1. Log on to the WebSphere Commerce Administration Console as a site administrator.
2. Click **Site**, and then **OK**.
3. From the Configuration menu, select **Transports**.
4. Select the check box beside **E-mail** and click **Configure**.
5. Type the name of your e-mail server in the **Host** field.

6. Ensure that the **Protocol** is set to SMTP. The **Retry Duration** parameter can also be filled in at this time. Click **OK**.
7. From the Configuration menu, select **Message Types**.
8. Click **New**.
9. Select **Notification Message for Collaborative Workspace** in the Message Type drop-down list .
10. Set the Message Severity to: 0 to 0.
11. Set the Transport to **E-mail**.
12. Set the Device Format to **Standard Device Format**.
13. Click **Next**, then **Finish**.

Note: When configuring e-mail notification, both the sender and receiver must have an e-mail address. That is, if you are logged on as wcsadmin and you want to add a user with e-mail notification, you must first add an e-mail address for wcsadmin through the WebSphere Commerce Organization Administration Console. If either sender or receiver does not have an e-mail, the e-mail notification will not be sent.

Configuring Lotus QuickPlace to use UTF-8

To configure Lotus QuickPlace to use the UTF-8 format, you must do the following:

1. Open a Web browser and enter the following Web site:
`http://Lotus QuickPlace_server_hostname/names.nsf`
2. Click **Servers – Servers**.
3. Double-click on the server document.
4. Click **Edit Server**.
5. Click **Internet Protocols**.
6. Click **Domino Web Engine**.
7. In the **Use UTF-8 for output** field select **Yes**.
8. Click **Save and Close**. Restart the Lotus QuickPlace server.

The next step

After installing and configuring collaborative workspaces in WebSphere Commerce and adding any optional configurations, you will need to configure your store to use collaboration features. For more information on configuring stores to use collaboration features, refer to Chapter 6, “Enabling collaboration components in your store,” on page 45.

Chapter 6. Enabling collaboration components in your store

Once you have installed and configured any collaboration components you must enable them for your store. If you are using the sample stores included with WebSphere Commerce, refer to the following for more information:

- *WebSphere Commerce Store Development Guide*.
- WebSphere Commerce online help topic "Creating a store using a sample."

If you are developing a store not based on a sample, there are specific steps you need to follow to enable collaboration. For information on how to enable collaboration for your store refer to the following:

- *WebSphere Commerce Store Development Guide*.

For specific information regarding Lotus Sametime and Lotus QuickPlace, please refer to the documentation provided by Lotus.

The *WebSphere Commerce Store Development Guide* is available from the WebSphere Commerce technical library:

<http://www.ibm.com/software/commerce/library/>

Part 5. WebSphere Commerce business integration adapters

WebSphere Commerce can be integrated with other business processes using the following software:

- Chapter 7, “WebSphere MQ,” on page 49
- Chapter 8, “IBM CrossWorlds InterChange Server,” on page 61

These software packages are not provided with WebSphere Commerce and must be purchased separately. The chapters in this section cover how to configure adapters provided with WebSphere Commerce to work with these products.

Important

The embedded messaging component of WebSphere Application Server cannot be used to integrate other business process with WebSphere Commerce. The embedded messaging component is not supported by any of the adapters provided with WebSphere Commerce.

Chapter 7. WebSphere MQ

WebSphere Commerce provides a listener for WebSphere MQ (formerly MQSeries®) for inbound requests and an adapter for WebSphere MQ for outbound requests to allow you to integrate back-end and external systems with WebSphere Commerce using WebSphere MQ.

Linux WebSphere MQ on Linux is not supported by WebSphere Commerce. However, WebSphere MQ running on Windows can be used with WebSphere Commerce running on Linux.

The listener supports WebSphere MQ Version 5.3 or higher. WebSphere MQ Version 5.3 includes MQSeries classes for Java and MQSeries classes for Java Message Service (JMS).

You must create the JMS queue connection factory and JMS queues that map to the corresponding physical WebSphere MQ objects. This allows the WebSphere Commerce listener for WebSphere MQ to access WebSphere MQ entities through JMS.

You can set up the connection between WebSphere Commerce and WebSphere MQ in one of two connection modes:

Bindings mode

WebSphere Commerce is installed on the same machine as WebSphere MQ and it connects to WebSphere MQ through MQSeries classes for Java using the Java Messaging Server (JMS) API. Since communication is through inter-process bindings connection rather than through TCP/IP connection, bindings mode may provide better performance than client mode.

Client mode

WebSphere Commerce and WebSphere MQ connect using TCP/IP. This mode must be used when WebSphere Commerce is installed on one machine and WebSphere MQ is installed on a separate machine. This mode requires the WebSphere MQ client to be installed on the WebSphere Commerce machine.

Important

The embedded messaging component of WebSphere Application Server is not supported by the WebSphere Commerce adapter for WebSphere MQ.

To use WebSphere MQ with WebSphere Commerce, do the following:


1. If required, install WebSphere MQ according to the instructions found in the WebSphere MQ documentation. More details on which WebSphere MQ documentation to use is provided in “Installing WebSphere MQ” on page 50. When installing WebSphere MQ, ensure that the Java Messaging component is installed.
2. Identify existing WebSphere MQ objects or create new WebSphere MQ object required to use WebSphere MQ with WebSphere Commerce. Instructions for creating the WebSphere MQ objects are provided in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51.

3. Create the JMS queue connection factory and JMS queues. Instructions for creating the JMS queue connection factory and JMS queues are provided in “Configuring WebSphere Application Server for use with WebSphere MQ” on page 53.
4. Enable the WebSphere Commerce listener for WebSphere MQ. Instructions for enabling the listener for WebSphere MQ are provided in “Configure WebSphere Commerce to use WebSphere MQ” on page 57.

For more information on the WebSphere Commerce listener for WebSphere MQ and the WebSphere Commerce messaging system, refer to the WebSphere Commerce online help.

Installing WebSphere MQ

Install WebSphere MQ according to the instructions found in the following books, ensuring that you install the Java Messaging component of WebSphere MQ:

	<i>WebSphere MQ for AIX V5.3 Quick Beginnings</i>
	<i>WebSphere MQ for iSeries V5.3 Quick Beginnings</i>
	<i>WebSphere MQ for Solaris V5.3 Quick Beginnings</i>
	<i>WebSphere MQ for Windows V5.3 Quick Beginnings</i>

These books can be found at the following Web site:

<http://www.ibm.com/software/ts/mqseries/library/manualsa/manuals/platspecific.html>

The URL appears on two lines for presentation purposes only. Enter the URL as a single line.

Important

WebSphere MQ does not support machine names that contain spaces. If you install WebSphere MQ on a computer with a machine name that contains spaces, you cannot create any queue managers.

Confirming MQ_INSTALL_ROOT environment variable

If you install the WebSphere MQ client or server on the same node as WebSphere Commerce, ensure that the MQ_INSTALL_ROOT environment variable points to the correct location.

To check the value of the MQ_INSTALL_ROOT environment variable, do the following:


1. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.

4. In the navigation tree, expand **Environment** and select **Manage WebSphere Variables**. The WebSphere variables page displays.
5. Ensure that the value for `MQ_INSTALL_ROOT` is correct.
The `MQ_INSTALL_ROOT` variable should point the WebSphere MQ installation directory on the WebSphere Commerce machine.
If the value is incorrect, change it by doing the following:
 - a. Click **MQ_INSTALL_ROOT**.
 - b. In the **Value** field, enter the correct path.
 - c. Click **OK**.
 - d. Click **Save** in the Administrative Console task bar.
 - e. On the Save page, select **Synchronize changes with node**.
 - f. On the Save page, click **Save**.
6. Exit the WebSphere Application Server Administrative Console.
7. Stop the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.

Configure WebSphere MQ for use with WebSphere Commerce

WebSphere Commerce requires a set of information to be defined in WebSphere MQ for WebSphere Commerce to work with WebSphere MQ. These include a queue manager and a set of queues.

To configure WebSphere MQ to work with WebSphere Commerce, do the following:

1. Add the non-root WebSphere Commerce user ID to the `mqm` user group.
The non-root WebSphere Commerce user ID was created before installing WebSphere Commerce.
2.  Add the Windows user ID used to start WebSphere Commerce to the `mqm` group.
3. Identify the queue manager that WebSphere Commerce will use. This can be an existing queue manager or a newly created queue manager. The choice of the queue manager depends on you integration configuration.

For instructions on creating a queue manager, refer to the WebSphere MQ documentation. Information on the WebSphere MQ documentation is provided in “Additional WebSphere MQ documentation” on page 58.

The instructions in this chapter assume that the queue manager name is `hostname.qm`, where `hostname` is the host name (without a domain) for the machine running WebSphere MQ.

Take note of both the queue manager name and the port number used by the queue manager listener. This information is used in later steps.

Important

Ensure that the operating system user ID used to start WebSphere Commerce is also authorized for the queue manager. For instructions on authorizing a user ID for a WebSphere MQ queue manager, refer to the WebSphere MQ documentation.

Also, The queue manager name is case-sensitive. Ensure that you use the correct case for the queue-manager name in later steps.

4. Identify the local message queues for the queue manager. These can be existing message queues or newly created queues.

For instructions on creating queues, refer to the WebSphere MQ documentation. Information on the WebSphere MQ documentation is provided in “Additional WebSphere MQ documentation” on page 58.

The instructions in this chapter assume that the following local message queues are created:

Queue	Description
<i>hostname.error</i>	Default error queue. Collects erratic inbound messages.
<i>hostname.inbound</i>	Used by SendReceiveImmediate mode of the adapter for WebSphere MQ. It is where the reply and response messages from the backend system should go. WebSphere Commerce can optionally pick reply and response messages based on an outgoing request to a backend system.
<i>hostname.inboundp</i>	Any message arrive at this queue will be processed in parallel manner.
<i>hostname.inbounds</i>	Any message arrive at this queue will be processed in serial manner based on first-in-first-out.
<i>hostname.outbound</i>	Used for WebSphere Commerce initiated outbound messages and reply messages from WebSphere Commerce.

where *hostname* is the TCP/IP name of the machine running WebSphere MQ. Take note of the names of the message queues you identified or created. This information is used in later steps.

Important

Ensure that the operating system user ID used to start WebSphere Commerce is also authorized for the message queues. For instructions on authorizing a user ID for a WebSphere MQ message queue, refer to the WebSphere MQ documentation.

Also, queue names are case-sensitive. Ensure that you use the correct case for the queue names in later steps.

Note: The number of queues to define depends on the application with which WebSphere Commerce is integrated. These five queues are the minimum of queues required for integration.

5. (Client mode only) Create a listener port for the queue manager you created.

After completing the steps to configure WebSphere MQ, continue with the instructions in “Configuring WebSphere Application Server for use with WebSphere MQ” on page 53.

Configuring WebSphere Application Server for use with WebSphere MQ

To configure WebSphere Application Server for use with WebSphere MQ, do the following:

1. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. Determine the maximum number of ManagedConnections for the JCA-JMS connector. Detailed instructions are provided in “Determining the maximum number of ManagedConnections for the JCA-JMS connector.”
5. Create a WebSphere MQ JMS Provider queue connection factory. Detailed instructions are provided in “Creating a WebSphere MQ JMS Provider queue connection factory” on page 54.
6. Create WebSphere MQ JMS Provider queue destinations. Detailed instructions are provided in “Creating WebSphere MQ JMS Provider queue destinations” on page 56.
7. Exit the WebSphere Application Server Administrative Console.
8. Stop the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.

After completing the steps to configure WebSphere Application Server, continue with the instructions in “Configure WebSphere Commerce to use WebSphere MQ” on page 57.

Determining the maximum number of ManagedConnections for the JCA-JMS connector

To determine the maximum number of ManagedConnections for the JCA-JMS connector, do the following on the WebSphere Commerce machine:

1. In the WebSphere Application Server Administrative Console navigation tree, expand **Applications** and select **Enterprise Applications**. The Enterprise Applications page displays.
2. In the list of enterprise applications, click **WC_instance_name** where *instance_name* is the name of your WebSphere Commerce instance.
3. In the Related Items table, click **Connector Modules**. You may need to scroll down the page to refer to the Related Items table. The Connector Modules page displays.
4. In the list of connector modules, click **Enablement-JCAJMSConnector.rar**. The Enablement-JCAJMSConnector.rar page displays.
5. In the Additional Properties table on the Enablement-JCAJMSConnector.rar page, click **Resource Adapter**. The **WC_instance_name.Adapter for WebSphere MQ** page displays, where *instance_name* is the name of your WebSphere Commerce instance.
6. In the Additional Properties table of the **WC_instance_name.Adapter for WebSphere MQ** page, click **J2C Connection Factories**. The J2C Connection Factories page displays.

7. In the list of J2C Connection Factories, click **Enablement-JCAJMSConnector.rar**. The Enablement-JCAJMSConnector.rar page displays.
8. In the Additional Properties table on the Enablement-JCAJMSConnector.rar page, click **Connection Pool**. You may need to scroll down the page to refer to the Additional Properties table. The Connection Pools page displays.
9. Take note of the value in the **Max connections** field. This value will be required in “Creating a WebSphere MQ JMS Provider queue connection factory.”

Important: If you change the value of the maximum number of ManagedConnections for the JCA-JMS connector later, you must also change the value of the maximum number ManagedConnections for the WebSphere MQ JMS Provider.

Creating a WebSphere MQ JMS Provider queue connection factory

To create a WebSphere MQ JMS Provider queue connection factory, do the following on the WebSphere Commerce machine:

1. In the WebSphere Application Server Administrative Console navigation tree, expand **Resources** and select **WebSphere MQ JMS Provider**. The WebSphere MQ JMS Provider page displays.
2. Scope any changes to the WebSphere Commerce application server by doing the following:
 - a. Click **Browse Servers**. The Select a Server Scope page displays.
 - b. From the list of application servers, select `WC_instance_name`, where `instance_name` is the name of the WebSphere Commerce instance.
 - c. Click **OK**. The WebSphere MQ JMS Provider page displays.
 - d. Click **Apply**.
3. In the Additional Properties table on the WebSphere MQ JMS Provider page, click **WebSphere MQ Queue Connection Factories**. You may need to scroll down the page to refer to the Additional Properties table.
The WebSphere MQ Queue Connection Factories page displays.
4. On the WebSphere MQ Queue Connection Factories page, click **New**.
5. Fill in the fields as follows:

Name Enter the name for the new WebSphere MQ JMS Provider queue connection factory. The instructions in this chapter assume the name of the WebSphere MQ JMS Provider queue connection factory is `JMSQueueConnectionFactory`.

JNDI Name

Enter the Java Naming and Directory Interface (JNDI) name for the new WebSphere MQ JMS Provider queue connection factory. The instructions in this chapter assume the JNDI name of the WebSphere MQ JMS Provider queue connection factory is `JMSQueueConnectionFactory`.

Queue Manager

Enter the name of the queue manager identified or created in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51. Enter the name of the queue manager created in For example, `hostname.qm`, where `hostname` is the host name (without the domain) for the machine running WebSphere MQ.

Host Complete this field according to the connection mode you are using:

- Bindings mode** Ensure that this field is cleared.
- Client mode** Enter the fully qualified TCP/IP hostname of the machine running WebSphere MQ.

Port Complete this field according to the connection mode you are using:

- Bindings mode** Ensure that this field is cleared. If this field contains any value, bindings mode will fail to function correctly.
- Client mode** Enter the listener port number for the queue manager you created in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51.

Transport Type

Select the transport type based on your system configuration:

- If WebSphere Commerce and WebSphere MQ are installed on the same machine and you want to use bindings mode, choose **BINDINGS**.
- If you have a WebSphere MQ installed on the WebSphere Commerce machine, and you want to use client mode, choose **CLIENT**.

Channel

Complete this field according to the connection mode you are using:

- Bindings mode** Ensure that this field is cleared. If this field contains any value, bindings mode will fail to function correctly.
- Client mode** Ignore this field.

CCSID

Complete this field according to the connection mode you are using:

- Bindings mode** Ensure that this field is cleared. If this field contains any value, bindings mode will fail to function correctly.
- Client mode** This is the coded character set identifier (CCSID) to use with the WebSphere MQ queue manager. Enter 1208 in this field. CCSID 1208 is UTF-8 which is the character set used by WebSphere MQ.

Message Retention

Clear the **Enable message retention** check box.

XA Enabled

Clear the **Enable XA** check box.

All other fields can be ignored.

Click **Apply** when you are done.

6. In the Additional Properties table, click **Connection Pool**. You may need to scroll down the page to refer to the Additional Properties table. The Connection Pools page displays.
7. Set the value in the **Max Connections** to value higher than the value you determined in “Determining the maximum number of ManagedConnections for the JCA-JMS connector” on page 53. For example, if you found a value of

30 in “Determining the maximum number of ManagedConnections for the JCA-JMS connector” on page 53, enter a value of 31 here.

Important: This value must always be higher than the value of the maximum number of ManagedConnections for the JCA-JMS connector. If you change the value of the maximum number of ManagedConnections for the JCA-JMS connector later, you must also change the value of the maximum number of ManagedConnections for the WebSphere MQ JMS Provider.

8. Click **OK**.
9. Click **Save** in the Administrative Console task bar.
10. On the Save page, click **Save**.

Creating WebSphere MQ JMS Provider queue destinations

The WebSphere Commerce listener for WebSphere MQ requires various JMS queues. The JMS queues map to the WebSphere MQ message queues you identified or created in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51. The JMS queues map to the WebSphere MQ message queues as follows:

Table 1. JMS queue to WebSphere MQ queue mappings

JMS queue	WebSphere MQ queue
JMSErrorQueue	<i>hostname.error</i>
JMSInboundQueue	<i>hostname.inbound</i>
JMSOutboundQueue	<i>hostname.outbound</i>
JMSParallelInboundQueue	<i>hostname.inboundp</i>
JMSSerialInboundQueue	<i>hostname.inbounds</i>

where *hostname* is the TCP/IP name of the machine running WebSphere MQ.

A JMS queue is created by creating a WebSphere MQ JMS Provider queue destination in WebSphere Application Server.

The JMS queue names provided in the table are the default names used by WebSphere Commerce. If you have modified the JMS queue names using the WebSphere Commerce Configuration manager, the JMS queue names must be changed to match the new queue names.

Note: The number of queues to define depends on the application with which WebSphere Commerce is integrated. These five queues are the minimum of queues required for integration.

Important: The queue name are case-sensitive. Ensure that you use the correct case for the queue names.

To create the WebSphere MQ JMS Provider queue destinations, do the following:

1. In the WebSphere Application Server Administrative Console navigation tree, expand **Resources** and select **WebSphere MQ JMS Provider**. The WebSphere MQ JMS Provider page displays.
2. Scope any changes to the WebSphere Commerce application server by doing the following:
 - a. Click **Browse Servers**. The Select a Server Scope page displays.

- b. From the list of application servers, select *WC_instance_name*, where *instance_name* is the name of the WebSphere Commerce instance.
 - c. Click **OK**. The WebSphere MQ JMS Provider page displays.
 - d. Click **Apply**.
3. In the Additional Properties table on the WebSphere MQ JMS Provider page, click **WebSphere MQ Queue Destinations**. You may need to scroll down the page to refer to the Additional Properties table.
The WebSphere MQ Queue Destinations page displays.
 4. On the WebSphere MQ Queue Destinations page, click **New**.
 5. Fill in the fields as follows:

Name Enter a name for the new WebSphere MQ JMS Provider queue destination as shown in the JMS Queue column of Table 1 on page 56.

JNDI Name
Enter the JNDI name for the new WebSphere MQ JMS Provider queue destination. Use the same name as entered in the **Name** field.

Base Queue Name
Enter the name of the message queue as defined in WebSphere MQ. These message queues were defined in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51.

Base Queue Manager Name
Enter the name of the queue manager name you created in “Configure WebSphere MQ for use with WebSphere Commerce” on page 51.

CCSID
This is the coded character set identifier (CCSID) to use with the WebSphere MQ queue manager. Enter 1208 in this field. CCSID 1208 is UTF-8 which is the character set used by WebSphere MQ.

Target Client
For *JMSErrorQueue* and *JMSOutboundQueue*, select **MQ**. For the other JMS queues, select **JMS**.

All other fields can be ignored.

Click **OK** when you are done.

Repeat these instruction for each JMS queue.

When you have created all of the JMS queues, do the following:

1. Click **Save** in the Administrative Console task bar.
2. On the Save page, click **Save**.

Configure WebSphere Commerce to use WebSphere MQ

To configure WebSphere Commerce to use WebSphere MQ you must enable the transport adapter by doing the following:

1. Stop WebSphere Commerce. For instructions on stopping WebSphere Commerce, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.
2. Launch the WebSphere Commerce Configuration Manager. For instructions on launching the WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
3. Enter your Configuration Manager user ID and password.

4. Expand *host_name* → **Commerce** → **Instance List** → *instance_name* → **Components** → **TransportAdapter**.
where *host_name* is the short name of the machine running WebSphere Commerce and *instance_name* is the name of the WebSphere Commerce instance.
5. Select the **Enable** check box.
6. Click **Apply**.
7. Exit the WebSphere Commerce Configuration Manager.
8. Start WebSphere Commerce. For instructions on starting WebSphere Commerce, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.

Testing your WebSphere MQ configuration

To test your WebSphere MQ configuration, insert the following message in the *hostname.inbounds* message queue

```
<?xml test message>
```

Windows To insert the message with WebSphere MQ on Windows, do the following:

1. Open the WebSphere MQ Explorer according the instructions in the WebSphere MQ documentation.
2. Right-click *hostname.inbounds* and select **Put Test Message** from the pop-up menu.
3. In the test message window, enter the following text:

```
<?xml test message>
```
4. Click **OK**.

For instructions on inserting a message into a message queue on other platforms, refer to the WebSphere MQ documentation.

WebSphere MQ is configured properly if the following occurs:

- The test message is consumed from the serial inbound queue (*hostname.inbounds*).
- An error message appears in the *hostname.outbound* queue.
- The original message appears in the *hostname.error* queue.

Additional WebSphere MQ documentation

Information on WebSphere MQ tasks can be found in the following books:

- AIX** *WebSphere MQ System Administration Guide*
- 400** *WebSphere MQ for iSeries System Administration Guide*
- Solaris** *WebSphere MQ System Administration Guide*
- Windows** *WebSphere MQ System Administration Guide*

The *WebSphere MQ System Administration Guide* is available at the following Web site:

[http://www.ibm.com/software/ts/mqseries/library/manualsa
/manuals/crosslatest.html](http://www.ibm.com/software/ts/mqseries/library/manualsa/manuals/crosslatest.html)

The *WebSphere MQ for iSeries System Administration Guide* is available at the following Web site:

[http://www.ibm.com/software/ts/mqseries/library/manualsa
/manuals/platspecific.html](http://www.ibm.com/software/ts/mqseries/library/manualsa/manuals/platspecific.html)

Note: The Web addresses appear on multiple lines for presentation purposes only. Enter each URL as a single line.

Chapter 8. IBM CrossWorlds InterChange Server

WebSphere Commerce provides an adapter for CrossWorlds InterChange Server. This adapter offers a new mechanism to extend WebSphere Commerce business integration with IBM CrossWorlds InterChange Server using the CrossWorlds Server Access Interface (SAI). The CrossWorlds SAI is an application programming interface that allows an external process to execute a collaboration inside the CrossWorlds InterChange Server. With the adapter for CrossWorlds, WebSphere Commerce can integrate with external systems by sending synchronous messages to these systems through IBM CrossWorlds InterChange Server. This adapter allows WebSphere Commerce to send a message to the CrossWorlds server and wait for a reply. After getting back the response, the invocation command can continue to proceed with other business logic.

The IBM CrossWorlds system is a suite of software integration products that includes pre-built business logic templates, called collaborations, for common business integration requirements, and various development and management tools. Collaborations define and automate common industry-specific business process steps, such as order management and manufacturing bill of materials management. Collaborations are also used to coordinate and extend the business processes of disparate enterprise software products and to facilitate meaningful data exchange between them.

Oracle IBM CrossWorlds InterChange Server V4.1.1 supports Oracle8i (8.1.7.0). It does not support Oracle 9i.

Note: The WebSphere Commerce adapter for IBM CrossWorlds InterChange Server is not supported on OS/400 or Linux running on the following hardware platforms:

- @server iSeries systems
- @server pSeries™ systems
- @server zSeries® and S/390® systems

The adapter for IBM CrossWorlds InterChange Server is supported for Linux running on Intel® processor-based systems.

Configuring the adapter for CrossWorlds InterChange Server

To configure the adapter for CrossWorlds InterChange Server, do the following:

1. Ensure that the prerequisites listed in “Prerequisites for the adapter for CrossWorlds InterChange Server” on page 62 are met.
2. Configure IBM CrossWorlds InterChange Server to generate a persistent .IOR file. For detailed instructions, refer to “Configuring IBM CrossWorlds InterChange Server to generate a persistent inter-ORB reference file” on page 63.
3. If WebSphere Commerce and IBM CrossWorlds are installed on different machines, you must copy certain IBM CrossWorlds files to the WebSphere Commerce. For detailed instructions, refer to “Copying IBM CrossWorlds files to the WebSphere Commerce machine” on page 64.

4. Add IBM CrossWorlds JAR files to the WebSphere Application Server classpath for WebSphere Commerce. For detailed instructions, refer to “Adding IBM CrossWorlds JAR files to the WebSphere Application Server classpath” on page 64.
5. Enable WebSphere Commerce to connect to IBM CrossWorlds. For detailed instructions, refer to “Enabling IBM CrossWorlds connectivity” on page 65.

Prerequisites for the adapter for CrossWorlds InterChange Server

Before you begin to configure the adapter for CrossWorlds InterChange Server, ensure that you have decided how many machines you will be using and have installed the following:

- WebSphere Commerce, Version 5.5. Business or Professional Edition.
For installation details, refer to *WebSphere Commerce Installation Guide*.
- VisiBroker Object Request Broker provided with IBM CrossWorlds InterChange Server, Version 4.1.1
For installation details, refer to *IBM CrossWorlds System Integration Installation Guide*
If WebSphere Commerce and CrossWorlds InterChange Server are installed on separate machines, install VisiBroker Object Request Broker on the WebSphere Commerce machine.
- IBM CrossWorlds InterChange Server, Version 4.1.1
For installation details, refer to *IBM CrossWorlds System Integration Installation Guide*

Additional information about CrossWorlds InterChange Server and the VisiBroker Object Request Broker is available from the CrossWorlds InfoCenter at the following URL:

<http://www.ibm.com/software/integration/cw/library/infocenter>

Important notice for Solaris Operating Environment users

Please review the *Installing IBM CrossWorlds Interchange Server on Sun Microsystem Solaris with multiple JDK versions installed* technote before installing IBM CrossWorlds InterChange Server, Version 4.1.1 or VisiBroker Object Request Broker on Solaris Operating Environment. The technote can be accessed by doing the following:

1. Open a Web browser and go to the following URL:
<http://www.ibm.com/support/search/index.html>
2. In the **Enter search terms** field, enter the following number:
1066319
3. Click **Submit**.

The only item returned by the search should be the *Installing IBM CrossWorlds Interchange Server on Sun Microsystem Solaris with multiple JDK versions installed* technote.

Alternatively, could enter the following text into the **Enter search terms** field:
Installing IBM CrossWorlds Interchange Server on Sun Microsystem Solaris
with multiple JDK versions installed

Note: The adapter for CrossWorlds InterChange Server only supports the sendReceiveImmediate sending service of the WebSphere Commerce messaging system. There is no timeout support for this adapter. It is recommended that you bind the port where the collaboration expects a response to its request, to an adapter that has timeout support such as the IBM CrossWorlds Connector for MQSeries. For more information on the IBM CrossWorlds Connector for MQSeries, refer to the *Guide to the IBM CrossWorlds Connector for MQSeries*.

This book is available from the following Web address:

<http://www.ibm.com/software/websphere/crossworlds/library/doc/v411/connectors/mqseries/mqseries.pdf>

The Web address appears on multiple lines for display purposes only. Enter the Web address as a single line.

Configuring IBM CrossWorlds InterChange Server to generate a persistent inter-ORB reference file

When the IBM CrossWorlds InterChange Server is booted up, the server generates a new inter-ORB reference (.IOR) file. To keep the contents of the .IOR file the same for every boot of the ICS, a persistent .IOR file must be generated.

To configure IBM CrossWorlds InterChange Server to generate a persistent .IOR file do the following:

1. Open the following file in text editor:

CrossWorlds_install_directory/InterchangeSystem.cfg

The default values for *CrossWorlds_install_directory* are listed in “Path variables” on page iv.

2. Search for the CORBA subsection of the file by searching for the following text:

[CORBA]

3. Ensure that the CORBA subsection resembles the following:

[CORBA]

OAPort=*ORB_Smart_Agent_listening_port*

where *ORB_Smart_Agent_listening_port* is the port number on which the IBM CrossWorlds VisiBroker Smart Agent Object Request Broker (ORB) service listens. The number for this port is the number entered in the **OSAGENT_PORT** field when installing IBM CrossWorlds VisiBroker.

If the CORBA subsection is missing from the InterchangeSystem.cfg file, add the CORBA subsection to the end of the file.

4. Save any changes and exit the text editor.

If the access client is in the network demilitarized zone (DMZ) and the IBM CrossWorlds InterChange Server machine is on a different TCP/IP subnet, ensure that the port number for the VisiBroker Smart Agent ORB service is open.

For more information on the IBM CrossWorlds VisiBroker, refer to *CrossWorlds System Installation Guide for Windows*.

Copying IBM CrossWorlds files to the WebSphere Commerce machine

In order to complete the later steps, the following IBM CrossWorlds files must be available on the WebSphere Commerce machine:

- *CrossWorlds_installdir*/CrossWorldsInterChangeServer.ior
- *CrossWorlds_installdir*/lib/CrossWorlds.jar
- *VisiBroker_installdir*/lib/vbjorb.jar

The default values for *CrossWorlds_installdir* and *VisiBroker_installdir* are listed in “Path variables” on page iv.

If IBM CrossWorlds and WebSphere Commerce are not installed on the same machine, you must copy them to the WebSphere Commerce machine.

After copying the files to the WebSphere Commerce machine, take note of the full path of the files on the WebSphere Commerce machine. These paths will be required in later steps. The instructions in this chapter assume that the IBM CrossWorlds files are copied to the following directory:

WC_installdir/CrossWorlds

The default values for *WC_installdir* are listed in “Path variables” on page iv.

Adding IBM CrossWorlds JAR files to the WebSphere Application Server classpath

To add the *vbjorb.jar* and *CrossWorlds.jar* files to the WebSphere Application Server classpath, do the following on the WebSphere Commerce machine:

1. Start the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 114.
3. Log on to the WebSphere Application Server Administrative Console.
4. In the navigation tree, expand **Servers** and select **Application Servers**. The Application Servers page displays.
5. Scope any changes to the WebSphere Commerce application server by doing the following:
 - a. Click **Browse Servers**. The Select a Server Scope page displays.
 - b. From the list of application servers, select *WC_instance_name*, where *instance_name* is the name of the WebSphere Commerce instance.
 - c. Click **OK**. The Application Servers page displays.
 - d. Click **Apply**.
6. In the Additional Properties table on the General Properties page, click **Process Definition**. The Process Definition page displays.
7. In the Additional Properties table on the Process Definition page, click **Java Virtual Machine**. The Java Virtual Machine page displays.
8. In the **General Properties** table, add one of the following paths to the **Classpath** field:
 - If WebSphere Commerce and IBM CrossWorlds are installed on the same machine use the following path:

CrossWorlds_installdir/lib/CrossWorlds.jar
VisiBroker_installdir/lib/vbjorb.jar

- If WebSphere Commerce and IBM CrossWorlds are installed on different machines use the following path:

WC_installdir/CrossWorlds/CrossWorlds.jar
WC_installdir/CrossWorlds/vbjorb.jar

The default values for *CrossWorlds_installdir*, *VisiBroker_installdir*, and *WC_installdir* are listed in “Path variables” on page iv.

9. Click **OK**.
10. Click **Save** in the Administrative Console task bar.
11. On the Save page, select **Synchronize changes with node**.
12. On the Save page, click **Save**.
13. Exit the WebSphere Application Server Administrative Console.
14. Stop the default WebSphere Application Server application server (server1). For instructions, refer to “Starting or stopping an application server” on page 111.

Enabling IBM CrossWorlds connectivity

To complete the steps in this section, you should have the following information available:


CrossWorlds_login

This is the IBM CrossWorlds InterChange Server login name used when connecting to IBM CrossWorlds InterChange Server.

wcs_encrypt_CrossWorlds_password

This is an ASCII-encrypted string for the IBM CrossWorlds InterChange Server login password used when connecting to IBM CrossWorlds InterChange Server. The password is encrypted with the WebSphere Commerce *wcs_encrypt* utility. The default, unencrypted CrossWorlds login password is null.

To encrypt the IBM CrossWorlds InterChange Server login password with the WebSphere Commerce *wcs_encrypt* utility, issue the following command from a command prompt:

 *WC_installdir/bin/wcs_encrypt.sh CrossWorlds_password*

 *WC_installdir/bin/wcs_encrypt.sh CrossWorlds_password*

 *WC_installdir/bin/wcs_encrypt.sh CrossWorlds_password*

 *WC_installdir/bin/wcs_encrypt.sh CrossWorlds_password*

 *WC_installdir\bin\wcs_encrypt CrossWorlds_password*

where *CrossWorlds_password* is the unencrypted CrossWorlds login password. The default values for *WC_installdir* are listed in “Path variables” on page iv.

Use the **ASCII encrypted string** output from the *wcs_encrypt* utility as the value for *wcs_encrypt_CrossWorlds_password*.

To enable WebSphere Commerce to connect to IBM CrossWorlds, to the following:

1. Stop WebSphere Commerce. For instructions, refer to “Starting or stopping a WebSphere Commerce instance” on page 109.

2. Create a backup copy of the following file:

```
WC_installdir/instance/instance_name/xml/instance_name.xml
```

where *instance_name* is the name of the WebSphere Commerce instance. The default values for *WC_installdir* are listed in “Path variables” on page iv.

3. Open the following file in a text editor:

```
WC_installdir/instance/instance_name/xml/instance_name.xml
```

where *instance_name* is the name of the WebSphere Commerce instance. The default values for *WC_installdir* are listed in “Path variables” on page iv.

4. Find the specification for the CrossWorlds Server Access Interface (SAI) by searching the file for the following text:

```
CWSAI
```

You will be editing the content of the CrossWorlds SAI OutboundConnector element that starts with the following tag:

```
<OutboundConnector default="true"
    id="5"
    name="CWSAI"
    retries="3">
```

Important

The WebSphere Commerce instance file, *instance_name.xml*, contains multiple OutboundConnector elements. Ensure that changes are made only to the CrossWorlds SAI OutboundConnector element. Making the following changes to any other OutboundConnector element may cause unexpected behavior in WebSphere Commerce.

5. Find the following sub-element:

```
<EditableProperty Admin="userName"
    display="false"
    editable="Yes"
    name="setUserName"
    value=""/>
```

Change the value attribute to `value="CrossWorlds_login"` where *CrossWorlds_login* is the CrossWorlds login name used to connect to IBM CrossWorlds InterChange Server.

6. Find the following sub-element:

```
<UnEditableProperty display="false"
    editable="No"
    encrypt="Yes"
    name="setUserPassword"
    value=""/>
```

Change the value attribute to `value="wcs_encrypt_CrossWorlds_passworld"` where *wcs_encrypt_CrossWorlds_passworld* is the ASCII encrypted version of the CrossWorlds login password as encrypted by the WebSphere Commerce *wcs_encrypt* utility.

7. Find the following sub-element:

```
<EditableProperty Admin="iorFile"
    display="false"
    editable="Yes"
    name="setIorFile"
    value="" />
```

Change the value attribute as follows:

- If WebSphere Commerce and IBM CrossWorlds are installed on the same machine use the following:
value="CrossWorlds_installdir/CrossWorldsInterChangeServer.ior"
- If WebSphere Commerce and IBM CrossWorlds are installed on different machines use the following path:
value="WC_installdir/CrossWorldsInterChangeServer.ior"

Default values for *CrossWorlds_installdir* and *WC_installdir* are listed in "Path variables" on page iv.

8. Save your changes and exit the text editor.
9. Start WebSphere Commerce. For instructions, refer to "Starting or stopping a WebSphere Commerce instance" on page 109.

The next step

Once you have configured the adapter for CrossWorlds InterChange Server, you can do the following:

- Configure the CheckInventoryAvailabilityBE message and command. Instructions for this are available in the WebSphere Commerce online help.
- Enable and disable the adapter for CrossWorlds InterChange Server. Instructions for this are available in *WebSphere Commerce Administration Guide*.
- Troubleshoot the adapter for CrossWorlds InterChange Server. Instructions for this are available in *WebSphere Commerce Administration Guide*.

Part 6. Directory services and WebSphere Commerce

| To use a directory server with WebSphere Commerce, complete the instructions in
| the following sections:

- | 1. Chapter 9, "Configuring the directory server for use with WebSphere
| Commerce," on page 71.
- | 2. Chapter 10, "Configuring WebSphere Commerce for LDAP," on page 77.

+ The instructions in this section assume that you will be using the default root
+ organization/default organization structure to configure your LDAP server. You
+ may customize specific configurations for the organizational structure, however
+ instructions for work with customized organizational structures are not provided.

Chapter 9. Configuring the directory server for use with WebSphere Commerce

The following table shows which directory servers are supported by WebSphere Commerce on various operating systems:

Directory Server	Operating system on which WebSphere Commerce runs				
	AIX	Linux	400	Solaris	Windows
IBM Directory Server Version 4.1	X			X	
IBM Directory Server Version 4.1.1					X
IBM Directory Server Version 5.1/5.1P	X	X		X	X
IBM Lotus Domino Version 5 LDAP service	X				X
IBM Lotus Domino Version 6 LDAP service	X				X
IBM OS/400 Directory Services			X		
Microsoft® Windows 2000 Active Directory					X
Sun ONE Directory Server 5.0				X	

Notes:

- IBM Directory Server Versions 4.1 and 4.1.1 require DB2 Universal Database, Version 7.1.
- IBM Directory Server Version 5.1 is supported for Linux on @server xSeries® and Linux on @server zSeries and S/390. IBM Directory Server Version 5.1P is supported for Linux on @server iSeries and Linux on @server pSeries
- The following LDAP servers require WebSphere Commerce, Version 5.5 fix pack 3 or higher:
 - IBM Directory Server Version 5.1 for AIX and Windows
 - IBM Lotus Domino Version 5 LDAP service
 - IBM Lotus Domino Version 6 LDAP service
 - Microsoft Windows 2000 Active Directory
 - Sun ONE Directory Server 5.0

Complete the instructions in one of the following sections, according to the directory server you are using with WebSphere Commerce:

- “Configuring IBM Directory Server for use with WebSphere Commerce” on page 72
- “Configuring IBM Lotus Domino LDAP service for use with WebSphere Commerce” on page 72
- “Configuring IBM OS/400 Directory Services for use with WebSphere Commerce” on page 73
- “Configuring Microsoft Windows 2000 Active Directory for use with WebSphere Commerce” on page 75

- “Configuring Sun ONE Directory Server 5.0 for use with WebSphere Commerce” on page 75

Configuring IBM Directory Server for use with WebSphere Commerce

Prerequisites: Ensure that you have completed the following before performing the tasks in this section:

- Install and configure WebSphere Commerce.
- Install and configure IBM Directory Server according to the IBM Directory Server documentation for the version of IBM Directory Server you are using.

To configure IBM Directory Server to work with WebSphere Commerce, do the following:

1. Add the following suffix Distinguished Name (DN) to your directory:
o=root organization
2. Restart the directory server.
3. Add the following organization Relative Distinguished Name (RDN) to your directory:
o=root organization

This organization should have no parent DNs.

4. Add the following organization RDN as a child of the o=root organization RDN to your directory:
o=default organization

Refer to the documentation for your version of IBM Directory Server for instructions on how to complete these tasks.

Configuring IBM Lotus Domino LDAP service for use with WebSphere Commerce

Prerequisites: Ensure that you have completed the following before performing the tasks in this section:

- Install and configure WebSphere Commerce.
- Apply WebSphere Commerce fix pack 3.
- Install and configure IBM Lotus Domino LDAP service according to the IBM Lotus Domino documentation for the version of IBM Lotus Domino you are using.

To configure IBM Lotus Domino LDAP service to work with WebSphere Commerce, do the following:

1. Ensure that **Allow LDAP users write access** is set to **Yes** when configuring the Domino server.
2. Do one of the following, depending on the version of Lotus Domino you are using:

Lotus Domino Version 5

Add the following organizations to the Domino directory:

- o=root organization
- ou=default organization/o=root organization

Lotus Domino Version 6

Add the following organizations to the Domino directory:

- o=root organization
- o=default organization/o=root organization

Refer to the documentation for IBM Lotus Domino for instructions on how to complete these tasks.

Configuring IBM OS/400 Directory Services for use with WebSphere Commerce

Before configuring IBM OS/400 Directory Services for use with WebSphere Commerce, you should ensure that you have any required patches installed.

To configure IBM OS/400 Directory Services to work with WebSphere Commerce, do the following:

1. Add a suffix to IBM OS/400 Directory Services on the iSeries machine running IBM OS/400 Directory Services. Refer to “Adding a suffix to IBM OS/400 Directory Services.”
2. Create bootstrap entries for the directory server on the iSeries machine running IBM OS/400 Directory Services. Refer to “Creating bootstrap entries for the directory server” on page 74.

Adding a suffix to IBM OS/400 Directory Services

To add a suffix to IBM OS/400 Directory Services, do the following:

1. Ensure that the IBM OS/400 Directory Services is running by issuing the following command from an iSeries command line:

```
WRKSBSJOB QSYSWRK
```

IBM OS/400 Directory Services is running if job QDIRSRV, under user profile QDIRSRV, is running.

If IBM OS/400 Directory Services is not running, start the job according to your OS/400 documentation.

2. Start the iSeries Navigator on a Windows machine by selecting **Start → Programs → IBM iSeries Access for Windows → iSeries Navigator**.
3. Create a connection for the target iSeries machine if no connection for the machine exists
4. Expand the target machine in the left panel.
5. Expand **Network → Servers** in the left panel.
6. Click **TCP/IP** in the left panel.
7. Right-click **Directory** in the right panel and select **Properties** from the pop-up menu.
8. In the Directory Properties window, click the **Database/Suffixes** tab.
9. In the **New suffix** field, specify o=root organization.
10. Click **Add**.
11. Click **OK** button. You will be asked if you want to restart IBM OS/400 Directory Services now or later. You may choose to restart IBM OS/400 Directory Services later, but you must restart IBM OS/400 Directory Services before you can continue.

If you choose to restart IBM OS/400 Directory Services later, you can restart IBM OS/400 Directory Services by doing the following:

1. Start the iSeries Navigator on a Windows machine by selecting **Start → Programs → IBM iSeries Access for Windows → iSeries Navigator**.
2. Create a connection for the target iSeries machine if no connection for the machine exists
3. Expand the target machine in the left panel.
4. Expand **Network → Servers** in the left panel.
5. Click **TCP/IP** in the left panel.
6. Right-click **Directory** in the right panel and select **Stop** from the pop-up menu.
7. Right-click **Directory** in the right panel and select **Start** from the pop-up menu.

Creating bootstrap entries for the directory server

To create the bootstrap entries for the directory server, do the following on server running IBM OS/400 Directory Services:

1. Start the Directory Management Tool as follows:
 - a. On the OS/400 system, start IBM OS/400 Directory Services by entering the following command from an iSeries command line:


```
STRTCPSVR *DIRSRV
```
 - b. On a Windows machine, do the following:
 - 1) Start the IBM Directory Server Directory Management Tool by selecting **Start → Programs → IBM Directory 4.1 → Directory Management Tool**.
 - 2) Click **Add Server** and then specify the hostname of the iSeries machine where IBM OS/400 Directory Services is running.
 - 3) Select **Simple** as the Authentication type.
 - 4) Enter the user DN (for example, cn=Administrator) and password.
 - 5) Click **OK**.
2. Click **Add Server**.
3. Enter the user DN, and password in the appropriate fields. Click **OK**.

Note: You may encounter a "There is no data for o=root organization." error. This can be safely ignored. Click **OK** to proceed.

4. Select `ldap://hostname:389`, and click the **Add** button.

where *hostname* is the fully-qualified domain name of the iSeries machine running IBM OS/400 Directory Services.

 - Select **Organization** in the **Entry Type** field.
 - Enter `o=root organization` in the **Entry RDN** field.
 - Click **OK** then **Add** to add the changes.
5. Select `o=root organization`, and click the **Add** button.
 - Select **Organization** in the **Entry Type** field.
 - Enter `o=root organization` in the **ParentDN** field.
 - Enter `o=default organization` in the **Entry RDN** field.
 - Click **OK** then **Add** to add the changes.

The directory tree should refresh to show you your changes. If the directory tree does not refresh, select **Directory Tree → Refresh Tree** to view updated changes.

+ **Configuring Microsoft Windows 2000 Active Directory for use with WebSphere Commerce**

+ **Prerequisites:** Ensure that you have completed the following before performing the tasks in this section:

- + — Install and configure WebSphere Commerce.
- + — Apply WebSphere Commerce fix pack 3.
- + — Ensure that the following Windows 2000 components are installed on your directory server machine:
 - + – Active Directory
 - + – Internet Information Services (IIS)
 - + – Certificate Services for Enterprise Root Certificate Authority (CA)

+ Refer to the Windows 2000 documentation for instructions on installing these components.

- + — Ensure that the Active Directory administrator has Domain Administrator rights.
- + — Ensure that Certificate Services has been properly configured to download a base-64 encoded CA certificate.

+ To configure Microsoft Windows 2000 Active Directory to work with WebSphere Commerce, do the following:

- + 1. Add the following organization Relative Distinguished Name (RDN) to your directory:
 - + `ou=root organization`

+ This organization should be under the domain controller. For example, `ou=root organization, dc=ibm, dc=com`.

- + 2. Add the following organization RDN as a child of the `ou=root organization` RDN to your directory:
 - + `ou=default organization`

+ Refer to the documentation for Microsoft Windows 2000 Active Directory for instructions on how to complete these tasks.

+ **Configuring Sun ONE Directory Server 5.0 for use with WebSphere Commerce**

+ **Prerequisites:** Ensure that you have completed the following before performing the tasks in this section:

- + — Install and configure WebSphere Commerce.
- + — Apply WebSphere Commerce fix pack 3.
- + — Install and configure Sun ONE Directory Server 5.0 according to the Sun ONE Directory Server 5.0 documentation.

+ To configure IBM Directory Server to work with WebSphere Commerce, do the following:

- + 1. Add the following suffix Distinguished Name (DN) to your directory:
 - + `o=root organization`
- + 2. Restart the directory server.

- + 3. Add the following organization Relative Distinguished Name (RDN) to your
- + directory:
- + o=root organization

+ This organization should have no parent DNs.

- + 4. Add the following organization RDN as a child of the o=root organization
- + RDN to your directory:
- + o=default organization

+ Refer to the documentation for Sun ONE Directory Server for instructions on how

+ to complete these tasks.

| **The next step**

| After you have completed the instructions in this chapter, configure WebSphere

| Commerce for LDAP according to the instructions in Chapter 10, "Configuring

| WebSphere Commerce for LDAP," on page 77.

Chapter 10. Configuring WebSphere Commerce for LDAP

To configure WebSphere Commerce for LDAP, do the following:

Step 1. "Preparing WebSphere Commerce."

Step 2. "Enabling LDAP in the WebSphere Commerce Configuration Manager" on page 80.

Step 3. Depending on the LDAP server you are using, do one of the following:

- "Additional steps required to enable WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service" on page 82.
- "Additional steps required to enable WebSphere Commerce for Microsoft Windows 2000 Active Directory" on page 83.

If your LDAP server is not listed here, continue to the next step.

Step 4. "Updating sample store archives for use with LDAP" on page 84.

Step 5. "Enabling user migration in WebSphere Commerce" on page 85.

Step 6. "Enabling WebSphere Commerce Payments under LDAP" on page 87.

Step 7. "Testing LDAP with WebSphere Commerce" on page 87.

Preparing WebSphere Commerce

If you are using IBM Directory Server, IBM Lotus Domino Version 6 LDAP service, IBM OS/400 Directory Services, or Sun ONE Directory Server 5.0 skip this section and proceed to "Enabling LDAP in the WebSphere Commerce Configuration Manager" on page 80.

Depending on the directory service you want to use with WebSphere Commerce, complete the instructions in one of the following sections:

- "Preparing WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service"
- "Preparing WebSphere Commerce for Microsoft Windows 2000 Active Directory" on page 78

Preparing WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service

To prepare WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service, do the following:

1. Open the following file in a text editor:

```
WC_installdir/xml/ldap/ldapentry.xml
```

Default values for *WC_installdir* are listed in "Path variables" on page iv.

2. Check that the following entries exist in the file and correct the tags to match the **bold** text, if necessary:

```
<entry entryName="User">
  <ldapsetting>
    <ldaprpn rdnName="uid" keyAttrName="logonId"
      keyObjName="UserRegistry">
    <ldapocs objClass="top;person;organizationalPerson;inetOrgPerson">
    <ldapbase defaultBase="ou=Default Organization,o=Root Organization"
      searchBase="o=Root Organization">
  </ldapsetting>
```


+ When prompted for a label, ensure that you give the certificate a
+ meaningful label, such as the name of the Active Directory machine.

+ e. Exit the IBM Key Management console by selecting **Key Database File >**
+ **Exit.**

+ 4. Open the following file in a text editor:

+ `WC_installdir/xml/ldap/ldapentry.xml`

+ 5. Replace all occurrences of the following tag:

+ `<ldapbase`
+ `defaultBase="o=Default Organization,o=Root Organization"`
+ `searchBase="o=Root Organization"/>`

+ with the following tag:

+ `<ldapbase`
+ `defaultBase="ou=Default Organization,ou=Root Organization,`
+ `domain_controller_reference"`
+ `searchBase="ou=root organization,domain_controller_reference`

+ where *domain_controller_reference* is the expanded reference to your domain
+ controller.

+ For example, if your domain controller is `domain.ibm.com`, you would replace
+ *domain_controller_reference* with the following text:

+ `DC=domain,DC=ibm,DC=com`

+ so that the resulting tag would be the following:

+ `<ldapbase`
+ `defaultBase="ou=Default Organization,ou=Root Organization,`
+ `DC=domain,DC=ibm,DC=com"`
+ `searchBase="DC=domain,DC=ibm,DC=com"/>`

+ 6. Locate all occurrences of the following tag:

+ `<ldapbase defaultBase="o=Root Organization"`
+ `searchBase="o=Root Organization"/>`

+ Replace all of the occurrences with following tag:

+ `<ldapbase defaultBase="ou=Root Organization,domain_controller_reference"`
+ `searchBase="ou=Root Organization,domain_controller_reference`

+ where *domain_controller_reference* is the expanded reference to your domain
+ controller.

+ For example, if your domain controller is `domain.ibm.com`, you would replace
+ *domain_controller_reference* with the following text:

+ `DC=domain,DC=ibm,DC=com`

+ so that the resulting tag would be the following:

+ `<ldapbase defaultBase="ou=Root Organization,DC=domain,DC=ibm,DC=com"`
+ `searchBase="ou=Root Organization,DC=domain,DC=ibm,DC=com"/>`

+ 7. Locate the following tags:

+ `<ldaprdrn rdnName="uid" keyAttrName="logonId" keyObjName="UserRegistry"/>`
+ `<ldapoccs objClass="top;person;organizationalPerson;inetOrgPerson"/>`

+ Replace the tags with the following:

+ `<ldaprdrn rdnName="cn" keyAttrName="logonId" keyObjName="UserRegistry"/>`
+ `<ldapoccs objClass="top;person;organizationalPerson;user"/>`

+ 8. Locate the following tags:

```
+ <map>
+   <objectAttribute attrName="loginPassword"/>
+   <ldapAttribute name="userPassword" operation="replace" flow="wcsToLdap"/>
```

+ Do the following:

+ a. Above the <map> tag, insert the following tags:

```
+ <map>
+   <objectAttribute attrName="sAMAccountName"/>
+   <ldapAttribute name="sAMAccountName" operation="replace"
+     flow="wcsToLdap"/>
+ </map>
+ <map>
+   <objectAttribute attrName="userAccountControl"/>
+   <ldapAttribute name="userAccountControl" operation="replace"
+     flow="wcsToLdap"/>
+ </map>
```

+ b. Replace the following tag:

```
+ <ldapAttribute name="userPassword" operation="replace" flow="wcsToLdap"/>
```

+ with the following tag:

```
+ <ldapAttribute name="unicodePwd" operation="replace" flow="wcsToLdap"/>
```

+ 9. Delete the following tags:

```
+ <map>
+   <objectAttribute attrName="lastName"/>
+   <objectAttribute attrName="firstName"/>
+   <objectSeparator attrSeparator="/" />
+   <ldapAttribute name="cn" operation="replace" flow="wcsToLdap"/>
+ </map>
```

+ 10. Locate the following tags:

```
+ <ldaprpn rdnName="o" keyAttrName="orgEntityName" keyObjName="Organization"/>
+ <ldapocs objClass="top;organization"/>
```

+ Replace the tags with the following:

```
+ <ldaprpn rdnName="ou" keyAttrName="orgEntityName" keyObjName="Organization"/>
+ <ldapocs objClass="top;organizationalUnit"/>
```

+ 11. Save your changes and exit the text editor.

Enabling LDAP in the WebSphere Commerce Configuration Manager

To enable LDAP in the WebSphere Commerce Configuration Manager, do the following on the server running WebSphere Commerce:

1. Launch the WebSphere Commerce Configuration Manager. For instructions on launching WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
2. Enter your Configuration manager user ID and password.
3. Expand *your host name* → **Commerce**.
4. Expand **Instance List** → *instance_name* → **Instance Properties**.
instance_name is the name of the WebSphere Commerce instance you are updating.
5. Select **Member Subsystem** and do the following:
 - a. In the **Authentication Mode** field, select **LDAP**.
 - b. The LDAP Type will say **IBM Directory Server** and it cannot be changed at this point.

When you have completed the update, the MemberSubSystem part of the file should look like the following:

```
<MemberSubSystem AuthenticationMode="LDAP"
  ProfileDataStorage="LDAP"
  name="Member SubSystem">
  <Directory EntryFileName=" ../xml/ldap/ldapentry.xml"
    LdapAdminDN=""LdapAdminPW=""
    LdapAuthenticationMode="SIMPLE"
    LdapHost="localhost"
    LdapPort="389"
    LdapTimeOut="0"
    LdapType="SECUREWAY"
    LdapVersion="3"
    MigrateUsersFromWCSdb="ON"
    SingleSignOn="0"
    display="false"
    DbLogonIdMaxLength="212" />
</MemberSubSystem>
```

11. Save the file.
12. If you are not using IBM Directory Server or IBM OS/400 Directory Services, continue by performing the steps in one of the following sections, depending on the LDAP server you are using:
 - “Additional steps required to enable WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service”
 - “Additional steps required to enable WebSphere Commerce for IBM Lotus Domino Version 6 LDAP service” on page 83
 - “Additional steps required to enable WebSphere Commerce for Microsoft Windows 2000 Active Directory” on page 83
 - “Additional steps required to enable WebSphere Commerce for Sun ONE Directory Server 5.0” on page 83
13. If you are not using IBM Directory Server or IBM OS/400 Directory Services, restart WebSphere Commerce and WebSphere Commerce Payments for these changes to take effect. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

Additional steps required to enable WebSphere Commerce for IBM Lotus Domino Version 5 LDAP service

1. Open the following file in a text editor:
WC_installdir/instances/instance_name/xml/instance_name.xml

The default values for *WC_installdir* and *WC_userdir* are available in “Path variables” on page iv.

2. Change the *LdapType* entry to match the following:
LdapType="DOMINO"
3. Save your changes and exit the text editor.

You must restart WebSphere Commerce and WebSphere Commerce Payments for these changes to take effect. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

+ Additional steps required to enable WebSphere Commerce for IBM Lotus Domino Version 6 LDAP service

- + 1. Open the following file in a text editor:
+ `WC_installdir/instances/instance_name/xml/instance_name.xml`

+ The default values for `WC_installdir` and `WC_userdir` are available in “Path variables” on page iv.

- + 2. Change the `LdapType` entry to match the following:
+ `LdapType="DOMINO"`

+ You must restart WebSphere Commerce and WebSphere Commerce Payments for these changes to take effect. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

+ Additional steps required to enable WebSphere Commerce for Microsoft Windows 2000 Active Directory

- + 1. Open the following file in a text editor:
+ `WC_installdir\instances\instance_name\xml\instance_name.xml`

+ The default values for `WC_installdir` and `WC_userdir` are available in “Path variables” on page iv.

- + 2. Add the following entries after the `EntryFileName` attribute of the `Directory` element:

+ `JNDIEnvPropName1="java.naming.security.protocol"`
+ `JNDIEnvPropName2="java.naming.referral"`
+ `JNDIEnvPropValue1="ssl"`
+ `JNDIEnvPropValue2="throw"`

- + 3. Change the `LdapType` attribute of the `Directory` element to match the following:
+ `LdapType="ACTIVEDIR"`

+ You must restart WebSphere Commerce and WebSphere Commerce Payments for these changes to take effect. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

+ Additional steps required to enable WebSphere Commerce for Sun ONE Directory Server 5.0

- + 1. Open the following file in a text editor:
+ `WC_installdir/instances/instance_name/xml/instance_name.xml`

+ The default values for `WC_installdir` and `WC_userdir` are available in “Path variables” on page iv.

- + 2. Change the `LdapType` entry to match the following:
+ `LdapType="IPLANET"`

+ You must restart WebSphere Commerce and WebSphere Commerce Payments for these changes to take effect. For instructions on stopping WebSphere Commerce

and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

Updating sample store archives for use with LDAP

You may skip the instructions in this section if you are using one of the following LDAP servers:

- IBM Directory Server
- IBM Lotus Domino Version 6 LDAP service
- IBM OS/400 Directory Services
- Sun ONE Directory Server 5.0

If you plan to publish a WebSphere Commerce sample store after enabling LDAP, you must update the files for the sample store you want to publish. Directories containing the store archive (SAR) files for the various sample stores can be found in the following directory:

`WC_installdir/samplestores`

Go to the directory containing the sample store you want to publish and do the following:

1. Open the SAR file for the sample store using a ZIP file utility.
2. Update any XML or DTD files in the SAR file as follows:
 - a. Open the file in a text editor.
 - b. Change all capital letters in an organization name to lower case letters. For example, change `o=Default Organization` to `o=default organization`.
 - c. Depending on the LDAP server you are using, you may have to do the following:

Microsoft Active Directory

- 1) Change all occurrences of `o=` to `ou=`.
- 2) Change instances of `ou=root organization, domain_controller_reference`, where `domain_controller_reference` is the expanded reference to your domain controller.

For example, if your domain controller is `domain.ibm.com`, you would replace `domain_controller_reference` with the following text:
`dc=domain,dc=ibm,dc=com`

so that the resulting text would be the following:

`ou=root organization,dc=domain,dc=ibm,dc=com`

- 3) Change all occurrences of `uid=` to `cn=`.

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Change any instances of `o=` to `ou=`, *except* for instances containing the text `o=root organization`.

- d. Save your changes to the file.
3. Ensure that all XML and DTD files in the SAR file are updated.
 4. If you are using Microsoft Active Directory, update the following WebSphere Commerce contract template files:
 - `WC_installdir\xml\trading\xml\TemplateHostingContractSPS.xml`
 - `WC_installdir\xml\trading\xml\TemplateHostingContractRPS.xml`

- *WC_installdir*\xml\trading\xml\TemplateHostingContractMPS.xml
- *WC_installdir*\xml\trading\xml\DeploymentHostingContractMHS.xml
- *WC_installdir*\xml\trading\xml\DeploymentHostingContractRHS.xml

To update these files, do the following:

- Open the file in a text editor.
- Change all instances of *o=Root Organization* to *ou=root organization, domain_controller_reference*, where *domain_controller_reference* is the expanded reference to your domain controller.

For example, if your domain controller is *domain.ibm.com*, you would replace *domain_controller_reference* with the following text:

```
dc=domain,dc=ibm,dc=com
```

so that the resulting text would be the following:

```
ou=root organization,dc=domain,dc=ibm,dc=com
```

- Save your changes.

Enabling user migration in WebSphere Commerce

Enabling user migration allows users with profiles currently in the WebSphere Commerce database to be migrated to LDAP server.

To enable user migration in WebSphere Commerce, do the following:

- Update the WebSphere Commerce database following the instructions in “Modifying database entries in WebSphere Commerce for migration.”
- Activate user migration by following the instructions in “Activating user migration in WebSphere Commerce” on page 86.

Modifying database entries in WebSphere Commerce for migration

You may skip the instructions in this section if you are using one of the following LDAP servers:

- IBM Directory Server
- IBM Lotus Domino Version 6 LDAP service
- IBM OS/400 Directory Services
- Sun ONE Directory Server 5.0

Depending on the LDAP server you are using, do the following:

Microsoft Active Directory

Update the WebSphere Commerce database with the following SQL commands:

```
update orgentity
  set orgentitytype='OU',
      dn='ou=root organization,domain_controller'
  where orgentity_id=-2001
update orgentity
  set orgentitytype='OU',
      dn='ou=default organization,ou=root organization,domain_controller'
  where orgentity_id=-2000
update users
  set dn='cn=wcsadmin,ou=root organization,domain_controller'
  where users_id=-1000
```

+ where *domain_controller* is the expanded reference to your domain
+ controller. For example, if your domain controller is domain.ibm.com, you
+ would replace *domain_controller* with dc=domain,dc=ibm,dc=com.

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+ Update the WebSphere Commerce database with the following SQL
+ command:


+ update orgentity
+ set dn='ou=default organization,o=root organization'
+ where orgentity_id=-2000

Activating user migration in WebSphere Commerce

To enable user migration in WebSphere Commerce, do the following on the server running WebSphere Commerce:


1. Stop WebSphere Commerce and WebSphere Commerce Payments. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.
2. Open the following file in a text editor:

 *WC_installdir/instances/instance_name/xml/instance_name.xml*

 *WC_userdir/instances/
instance_name/xml/instance_name.xml*

 *WC_installdir/instances/instance_name/xml/instance_name.xml*

 *WC_installdir/instances/instance_name/xml/instance_name.xml*

 *WC_installdir\instances\instance_name\xml\instance_name.xml*

The default values for *WC_installdir* and *WC_userdir* are available in “Path variables” on page iv.

3. Ensure that the MigrateUsersFromWCSdb entry is set to “ON”. This line should appear as follows:
MigrateUsersFromWCSdb="ON"
4. Save the file.
5. Start WebSphere Commerce and WebSphere Commerce Payments. For instructions on starting WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.
6. Log on to the WebSphere Commerce Administration Console using the Site Administrator ID.
The Site Administrator ID was created during WebSphere Commerce instance creation.
This step migrates the Site Administrator ID to LDAP.
7. Stop WebSphere Commerce and WebSphere Commerce Payments. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

The next time a user logs into any WebSphere Commerce administration page or a WebSphere Commerce store, their user profile is migrated to the LDAP server.

Enabling WebSphere Commerce Payments under LDAP

If you are using Active Directory or your organizational structure uses `cn` instead of `uid`, do the following to enable WebSphere Commerce Payments under LDAP:

1. Stop WebSphere Commerce and WebSphere Commerce Payments. For instructions on stopping WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.
2. Start the WebSphere Application Server Administrative Console. For instructions, refer “Starting the WebSphere Application Server Administrative Console” on page 114.
3. In the WebSphere Application Server Administrative Console, expand **Servers > Application Servers > *wpm_instance*_Commerce_Payments_Server > Process Definition > Java Virtual Machine > Custom Properties**.

wpm_instance is the name of the WebSphere Commerce Payments instance. For example, `wpm`.

4. Click **New**.
5. Add the following property:
`wpm_instance.LDAPUserIndicator`

where *wpm_instance* is the name of the WebSphere Commerce Payments instance. For example, `wpm`.

6. Give the property the following value:
`cn`
7. Click **Apply** and save your changes.
8. Exit the WebSphere Application Server Administrative Console.
9. Start WebSphere Commerce and WebSphere Commerce Payments. For instructions on starting WebSphere Commerce and WebSphere Commerce Payments, refer to “Starting or stopping a WebSphere Commerce instance” on page 109 and “Starting or stopping a WebSphere Commerce Payments instance” on page 109.

After enabling WebSphere Commerce Payments under LDAP, you must specify the full distinguished name of the Site Administrator when logging on to the WebSphere Commerce Payments console. The WebSphere Commerce Payments console does not allow you to logon using the Site Administrator short name.

Testing LDAP with WebSphere Commerce

To ensure that LDAP is working correctly with WebSphere Commerce, perform the following test:

1. Log on to the WebSphere Commerce Organization Administration Console using your WebSphere Commerce Administrator ID.
2. Check your LDAP server to ensure that the WebSphere Commerce Administrator ID now appears under the root organization.

If the WebSphere Commerce Administrator ID appears under the root organization on your LDAP server, LDAP is configured correctly to work with WebSphere Commerce.

- + 3. Log out from the WebSphere Commerce Organization Administration Console.
- + 4. Create a new user under the root organization organization on your LDAP server.
- + 5. Attempt to logon to the WebSphere Commerce Organization Administration Console using the new user ID.
- + You should receive the following error:
- + User does not have the proper authority to logon

- + This error indicates that the user ID was resolved, but does not have rights to access the WebSphere Commerce Organization Administration Console.

- + If you receive any other error message, then the authentication has failed and either the user creation was done incorrectly or the LDAP server is not configured correctly to work with WebSphere Commerce.
- + 6. Log on to the WebSphere Commerce Organization Administration Console using your WebSphere Commerce Administrator ID.
- + 7. Assign the new user ID the Site Administrator role.
- + 8. Logout from the WebSphere Commerce Organization Administration Console.
- + 9. Log on to the WebSphere Commerce Accelerator using the new user ID.
- + A successful login indicates that LDAP is configured correctly to work with WebSphere Commerce.
- + 10. (Recommended) In the WebSphere Commerce Organization Administration Console, remove the site administration role from the new user ID.
- + This step is security precaution to prevent anyone from using the new ID to make unauthorized changes to WebSphere Commerce.
- +

Chapter 11. Disabling LDAP in WebSphere Commerce

Caution

Disabling LDAP will cause the following:

- Users created after enabling LDAP in WebSphere Commerce will not be able to authenticate to WebSphere Commerce because their passwords do not exist in the WebSphere Commerce database.
- Users who changed their passwords after enabling LDAP in WebSphere Commerce can only access WebSphere Commerce using the password they had *before* LDAP was enabled. Their current (LDAP) password will no longer work with WebSphere Commerce.
- Users must log in to WebSphere Commerce using the a full LDAP-style ID. From example, a person with a user ID of wcsadmin must log in as uid=wcsadmin, o=root organization.

To disable the use of Lightweight Directory Access Protocol in WebSphere Commerce, do the following:

1. Launch the WebSphere Commerce Configuration Manager. For instructions on launching WebSphere Commerce Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
2. Enter your Configuration manager user ID, and password.
3. Expand *your host name* → **Commerce**.
4. Expand **Instance List** → *instance_name* → **Instance Properties**.
5. Select **Member Subsystem** and do the following:
 - a. In the **Authentication Mode** field, select **Database**.
 - b. Click **Apply**.
 - c. The **Successfully configured member subsystem for WebSphere Commerce** window displays. Click **OK** to continue.
6. Exit the Configuration Manager.

Part 7. Additional WebSphere Application Server components

WebSphere Commerce installs the WebSphere Application Server base product when it installs WebSphere Commerce and WebSphere Commerce Payments. Additional WebSphere Application Server products are provided with WebSphere Commerce:

- Chapter 12, “WebSphere Application Server Network Deployment,” on page 93
- Chapter 13, “WebSphere Application Server Network Deployment Edge Component,” on page 95
- Chapter 14, “WebSphere Studio Application Server Toolkit,” on page 97

Chapter 12. WebSphere Application Server Network Deployment

While WebSphere Commerce includes WebSphere Application Server Network Deployment, only the WebSphere Application Server base product is installed when you install the WebSphere Commerce Server or WebSphere Commerce Payments. To take advantage of advanced deployment services that include clustering, edge services and high availability for distributed configurations, you must install WebSphere Application Server Network Deployment.

For a description of all of the features available in the WebSphere Application Server Network Deployment, go to the following URL:

<http://www.ibm.com/software/webservers/appserv/was/network>

Installing WebSphere Application Server Network Deployment

For instructions on installing WebSphere Application Server Network Deployment, refer to *WebSphere Application Server Network Deployment Getting started*. This book is available as a PDF file in the docs directory of the WebSphere Application Server Network Deployment CD.

Note: For performance reasons, IBM recommends WebSphere Application Server Network Deployment on a different node from WebSphere Commerce.

Important: Ensure that any fixes applied to WebSphere Application Server are also applied to WebSphere Application Server Network Deployment.

Refer to the WebSphere Commerce README file on WebSphere Commerce CD 1 for more information.

Federation and clustering in WebSphere Commerce

For instructions on using WebSphere Application Server Network Deployment for federation and clustering in WebSphere Commerce, refer to *WebSphere Commerce Installation Guide*.

Chapter 13. WebSphere Application Server Network Deployment Edge Component

The Edge Component of WebSphere Application Server Network Deployment includes functions that were previously available in IBM SecureWay[®] Network Dispatcher (formerly known as eNetwork Network Dispatcher) and IBM Web Traffic Express.

For a description of all of the features available in the WebSphere Application Server Network Deployment Edge Component, go to the following URL:

<http://www.ibm.com/software/webservers/appserv/was/network/edge.html>

More information about WebSphere Application Server Network Deployment Edge Component is available at the WebSphere Application Server InfoCenter:

<http://www.ibm.com/software/webservers/appserv/infocenter.html>

Chapter 14. WebSphere Studio Application Server Toolkit

The WebSphere Studio Application Server Toolkit is made up of four components: the Debug component, Trace component, WebSphere Log Analyzer, and the Eclipse workbench.

For more information about the Application Server Toolkit, refer to the WebSphere Application Server InfoCenter:

<http://www.ibm.com/software/webservers/appserv/infocenter.html>

WebSphere Commerce symptom database

To use the WebSphere Log Analyzer tools available in the Application Server Toolkit effectively with WebSphere Commerce log files, you must make the WebSphere Commerce symptom database available to the logging tools by importing the symptom database into the Application Server Toolkit.

The WebSphere Commerce symptom database is available at the following URL:

```
ftp://ftp.software.ibm.com/software/websphere/info/tools/  
loganalyzer/symptoms/wc/symptomdb.xml
```

This URL is shown on multiple lines for display purposes only. Enter the URL as one line.

For instructions on importing the WebSphere Commerce symptom database into the WebSphere Log Analyzer tools in the Application Server Toolkit, refer to the WebSphere Application Server documentation.





Part 8. IBM DB2 Text Extender Version 8

Install DB2 Text Extender if you want to increase the text search capability of your WebSphere Commerce system.

400 While IBM DB2 Text Extender Version 8 is available on OS/400 for iSeries V5R2, as a separate licensed product (5722-DE1), it does not support fields defined in a Unicode code page. WebSphere Commerce uses Unicode code pages to support multilingual features, and therefore, DB2 Text Extender for iSeries cannot be used with the WebSphere Commerce database tables. DB2 Text Extender for iSeries is not bundled with WebSphere Commerce.

Chapter 15. Installing IBM DB2 Text Extender Version 8

To install the DB2 Text Extender, follow the install instructions in the following publications:

-  *DB2 Universal Database Text Extender Administration and Programming, Version 8*
-  *DB2 Universal Database Text Extender Administration and Programming, Version 8*
-  *DB2 Universal Database Text Extender Administration and Programming, Version 8*
-  *DB2 Universal Database Text Extender Administration and Programming, Version 8*

Note for iSeries users: DB2 Text Extender for iSeries is not bundled with WebSphere Commerce.

These books are available at the following URL:

<http://www.ibm.com/software/data/db2/extenders/library.html>

Part 9. Additional software tasks

The instructions in this section describe common or operating system specific tasks performed while installing and configuring the additional software components in this book.

Chapter 16. WebSphere Commerce tasks

This section provides instructions for each operating system for WebSphere Commerce tasks you may need to complete while installing and configuring the additional software provided with WebSphere Commerce.

Launching WebSphere Commerce Configuration Manager

Launching WebSphere Commerce Configuration Manager on AIX, Linux, and Solaris Operating Environment

To start WebSphere Commerce Configuration Manager, do the following:

1. Log in as the non-root user ID created before installing WebSphere Commerce.

Important information for Solaris Operating Environment users

Ensure that you do not run WebSphere Commerce commands under the Bourne shell. Running WebSphere Commerce commands under the Bourne shell will cause the commands to fail.

If you are in the Bourne shell at this point, switch shells now. IBM recommends using the Korn shell when running WebSphere Commerce commands.

2. Depending on the instance you are creating or modifying, start the server by doing the following on the WebSphere Commerce node or WebSphere Commerce Payments node:

- a. Open a terminal window.
- b. Issue the following commands:

```
cd WC_installdir/bin
./config_server.sh
```

Default values for *WC_installdir* are listed in “Path variables” on page iv.

Notes:

- 1) Do not close the terminal window you entered the `config_server.sh` command in or the Configuration Manager server will stop.
- 2) Do not run the Configuration Manager server as a background process – this is a potential security risk.
- 3) The Configuration Manager server is now listening on port 1099 for a connection. To have the Configuration Manager server listen on a different port, issue the following command instead of the `./config_server.sh` command:

```
./config_server.sh -port port_number
```

where *port_number* is the port on which the Configuration Manager server will listen for a connection.

3. Start the client by doing one the following:
 - To run the WebSphere Commerce Configuration Manager on the local machine, do the following:

- a. Open another terminal window.
- b. As the non-root user ID created before installing WebSphere Commerce, issue the following commands:

```
export DISPLAY=host_name:0.0
cd WC_installdir/bin
./config_client.sh [-port cm_port]
```

where the variables are defined as follows:

hostname

The fully qualified host name of the machine from which you want to access the Configuration Manager.

cm_port

The port specified when starting the Configuration Manager server.

The `-port` parameter is optional. If you do not specify the `-port` parameter, the Configuration Manager client attempts to connect to the Configuration Manager server using port 1099.

Note: The X client may need to be authorized to access the X server using the `xhost` command. To authorize an X client, issue the following command from the system console as root:

```
xhost +host_name
```

where *host_name* is the fully qualified host name of the machine from which you want to run the installation wizard.

- c. Log in to Configuration Manager. The initial ID is **webadmin** and the initial password is **webibm**. If this is the first time you are logging in to Configuration Manager, you will be asked to change the password.
- To run the WebSphere Commerce Configuration Manager client on a remote machine, do the following:
 - a. Log on to the remote machine as the non-root user ID created before installing WebSphere Commerce.

Important information for Solaris Operating Environment users

Ensure that you do not run WebSphere Commerce commands under the Bourne shell. Running WebSphere Commerce commands under the Bourne shell will cause the commands to fail.

If you are in the Bourne shell at this point, switch shells now. IBM recommends using the Korn shell when running WebSphere Commerce commands.

- b. Open a terminal window.
- c. Issue the following commands:

```
export DISPLAY=host_name:0.0
cd WC_installdir/bin
./config_client.sh -hostname cm_hostname [-port cm_port]
```

where the variables are defined as follows:

hostname

The fully qualified host name of the machine from which you want to access the Configuration Manager.

cm_hostname

The fully qualified host name of the Configuration Manager server machine.

cm_port

The port specified when starting the Configuration Manager server.

The `-port` parameter is optional. If you do not specify the `-port` parameter, the Configuration Manager client attempts to connect to the Configuration Manager server using port 1099.

Default values for *WC_installdir* are listed in “Path variables” on page iv.

Note: The X client may need to be authorized to access the X server using the `xhost` command. To authorize an X client, issue the following command from the system console as root:

```
xhost +host_name
```

where *host_name* is the fully qualified host name of the machine from which you want to run the installation wizard.

- d. Log in to Configuration Manager. The initial ID is **webadmin** and the initial password is **webibm**. If this is the first time you are logging in to Configuration Manager, you will be asked to change the password.

Launching WebSphere Commerce Configuration Manager on OS/400

To start the WebSphere Commerce Configuration Manager on OS/400, do the following:

1. Start the Configuration Manager server by doing the following:
 - a. Log on to the iSeries system ensuring that the profile has a *SECOFR user class, and is set up with the language specific settings of either English, or the language that you will choose as the default language for your instance.
 - b. Start a QShell session by entering the following command:

```
STRQSH
```

and do the following in the QShell session:

- 1) Switch to the WebSphere Commerce server bin directory by issuing the following command:

```
cd WC_installdir/bin
```

Default values for *WC_installdir* are listed in “Path variables” on page iv.

- 2) Start the configuration manager server program by issuing the following command:

```
config_server.sh [-port server_port_number]
```

The `-port` parameter is optional. If you do not specify this parameter, the default port of 1099 is used. The Configuration Manager server will listen using this port number. If you specify the *server_port_number*, the value must be between 1024 and 65535 and not currently in use on the iSeries system.

Note: If you are using a system where your primary language is not the same as the language in which you are creating your instance, then

you must add the *QSYSlanguage_feature_number* library into your user profile's library list. Otherwise the profile will try to locate it under QSYS. To add the language feature library, use the EDTLIBL command.

If this is the first time that Configuration Manager is run on the system, you will see the following messages:

```
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/ConfigManager.JAR.  
Attaching Java program to /QIBM/ProdData/CommercePayments/V55/wc.mpf.ear/lib/ibmjssse.JAR1  
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/Utilities.JAR.  
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/Enablement-BaseComponentsLogic.JAR.  
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/jtopen.JAR.  
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/xerces.JAR.  
Attaching Java program to /QIBM/ProdData/CommerceServer55/lib/sslite.ZIP.
```

¹ This line only displays when WebSphere Commerce Payments is installed on the same node as WebSphere Commerce.

When the following messages are posted, proceed to the next step:

```
Registry created.  
CMServer bound in registry.
```

2. Start the Configuration Manager client on the Windows machine where the Configuration Manager client was installed:
 - a. Using a command prompt on the Configuration Manager client machine, change to the *cfgmgr_installdir/bin* directory.
 - b. Start the Configuration Manager client by running the following command:
`configClient.bat -hostname iSeries_Host_name [-port server_port_number]`

where

iSeries_Host_name

Is the fully qualified host name of the iSeries server on which the Configuration Manager server is running.

server_port_number

Is the port number on the iSeries server on which the Configuration Manager is listening. This parameter is required only if you are connecting to a Configuration Manager server on a port other than 1099.

- c. Log in to Configuration Manager. The initial ID is **webadmin** and the initial password is **webibm**. If this is the first time you are logging in to Configuration Manager, you will be asked to change the password.

Launching WebSphere Commerce Configuration Manager on Windows

To launch WebSphere Commerce Configuration Manager on Windows, do the following:

1. Ensure that the IBM WC Configuration Manager server process is running by selecting **Start** → **Settings** → **Control Panel** → **Administrative Tools** → **Services** and check that the IBM WC Configuration Manager service has a status of **Started**.

Important

Leaving the IBM WC Configuration Manager server service running could potentially pose a security problem. Stop the WC Configuration Manager server service when you are not using the Configuration Manager.

To prevent potential security problems, you should also ensure that the IBM WC Configuration Manager server is set for manual startup, not automatic.

2. Select **Start** → **IBM WebSphere Commerce** → **Configuration**.

Starting or stopping a WebSphere Commerce instance

To start or stop a WebSphere Commerce instance, do the following:

1. Ensure that the database management system is started.
2. Ensure that the Web server is started.
3. Start, stop, or restart the application server for the WebSphere Commerce instance you want to start. Instructions for starting and stopping an application server are provided in “Starting or stopping an application server” on page 111.

Starting or stopping a WebSphere Commerce Payments instance

To start or stop a WebSphere Commerce Payments instance, do the following:

1. Ensure that the database management system is started.
2. Ensure that the Web server is started.
3. Start Configuration Manager. For instructions on starting Configuration Manager, refer to “Launching WebSphere Commerce Configuration Manager” on page 105.
4. In Configuration Manager, under **WebSphere Commerce**, expand *hostname* → **Payments** → **Instance List**.
5. Right-click the name of the WebSphere Commerce Payments instance you want to start or stop and do one of the following:
 - To start the WebSphere Commerce Payments instance, select **Start Payments Instance** from the pop-up menu. After receiving the Instance started successfully dialog, click **OK** to dismiss the dialog.
 - To stop the WebSphere Commerce Payments instance, select **Stop Payments Instance** from the pop-up menu.

Chapter 17. WebSphere Application Server tasks

This section provides instructions for WebSphere Application Server tasks you may need to complete while installing and administering WebSphere Commerce.

Starting or stopping an application server

Instructions for starting or stopping an application server differ depending on your operating system.

Starting or stopping an application server on AIX, Linux, and Solaris Operating EnvironmentLinux

To start or stop an application server, do the following:

1. Ensure that your database management system is started.
2. Type the following commands in a terminal window:

```
su - non_root_user  
cd WAS_installdir/bin
```

non_root_user

is the non-root user ID created before installing WebSphere Commerce.

WAS_installdir

is the installation directory for WebSphere Application Server or WebSphere Application Server Network Deployment. Default values for *WAS_installdir* are listed in “Path variables” on page iv.

3. Do one of the following:
 - To start an application server, enter the following command:
`./startServer.sh application_server_name`
 - To stop an application server, enter the following command:
`./stopServer.sh application_server_name`

where:

application_server_name

is the name of the application server you want to start. Some common application servers

Application server name	Description
server1	The default WebSphere Application Server application server. This server must be running to use the WebSphere Application Server Administrative Console.
<i>WC_commerce_instance_name</i>	WebSphere Commerce application server
<i>payments_instance_name_Commerce_Payments_Server</i>	WebSphere Commerce Payments application server

where *commerce_instance_name* is the name of the WebSphere Commerce instance and *payments_instance_name* is the name of the WebSphere Commerce Payments instance.

Starting or stopping an application server on OS/400

To start or stop an application server on OS/400, do the following:

1. Ensure the WebSphere Application Server subsystem is started by doing the following:

- a. Start an OS/400 command session.

- b. Issue the following command:

```
WRKSBS
```

- c. Ensure that the following subsystem appears in the list of running subsystems displayed:

```
QEJBAS5
```

If the QEJBAS5 subsystem does not appear in the list of running subsystems, you must start the subsystem before starting an application server. For instructions on starting the subsystem, refer to “Starting the OS/400 WebSphere Application Server subsystem” on page 114.

2. Start a QShell session by entering the following from an OS/400 command line:

```
QSH
```

3. Do one of the following:

- To start an application server, issue the following command:

```
WAS_installdir/bin/startServer
  -iinstance WAS_instance_name application_server_name
```

- To stop an application server, issue the following command:

```
WAS_installdir/bin/stopServer
  -iinstance WAS_instance_name application_server_name
```

WAS_instance_name

is the name of the WebSphere Application Server instance in which you want to start the application server. The default WebSphere Application Server instance is *default*

If you want to start the application server in the default WebSphere Application Server instance, the *-instance server_name* parameter is optional for the command. For example, enter the following command:

```
/QIBM/ProdData/WebAS5/Base/bin/startServer application_server_name
```

application_server_name

is the name of the application server you want to start. Some common application servers

Application server name	Description
server1	The default WebSphere Application Server application server. This server must be running to use the WebSphere Application Server Administrative Console.

Application server name	Description
<i>WC_commerce_instance_name</i>	WebSphere Commerce application server
<i>payments_instance_name_Commerce_Payments_Server</i>	WebSphere Commerce Payments application server

where *commerce_instance_name* is the name of the WebSphere Commerce instance and *payments_instance_name* is the name of the WebSphere Commerce Payments instance.

Starting or stopping an application server on Windows

To start or stop an application server on Windows, do the following:

1. Log on using Windows user ID with Administrator authority.
2. Start a command prompt session.
3. Issue the following command:

```
cd WAS_installdir\bin
```

where *WAS_installdir* is the installation directory for WebSphere Application Server or WebSphere Application Server Network Deployment. Default values for *WAS_installdir* are listed in "Path variables" on page iv.

4. Do one of the following:
 - To start an application server, enter the following command:
`startServer application_server_name`
 - To stop an application server, enter the following command:
`stopServer application_server_name`

where:

application_server_name

is the name of the application server you want to start. Some common application servers

Application server name	Description
server1	The default WebSphere Application Server application server. This server must be running to use the WebSphere Application Server Administrative Console.
<i>WC_commerce_instance_name</i>	WebSphere Commerce application server
<i>payments_instance_name_Commerce_Payments_Server</i>	WebSphere Commerce Payments application server

where *commerce_instance_name* is the name of the WebSphere Commerce instance and *payments_instance_name* is the name of the WebSphere Commerce Payments instance.

Starting the WebSphere Application Server Administrative Console

You can start the WebSphere Application Server Administrative Console, after starting the default WebSphere Application Server application server (*server1*). Refer to “Starting or stopping an application server” on page 111 for instructions.

Open the WebSphere Application Server Administrative Console by opening a web browser and entering the following URL:

```
http://hostname:port/admin
```

or

```
https://hostname:port/admin
```

where *hostname* is the fully qualified TCP/IP name of the machine running WebSphere Application Server and *port* is the TCP/IP port for the WebSphere Application Server Administrative Console.

The default port for the WebSphere Application Server Administrative Console depends on the protocol specified in the URL. For HTTP, the default port is 9090. For HTTPS, the default port is 9043.

Starting the OS/400 WebSphere Application Server subsystem

Your user profile must have *JOBCTL authority to start the WebSphere Application Server subsystem.

To start the WebSphere Application Server subsystem on iSeries, do the following:

1. Start Transmission Control Protocol/Internet Protocol (TCP/IP). On the OS/400 command line, issue the following command:

```
STRTCP
```

2. Start the QEJBAS5 subsystem by running the following command on the OS/400 command line:

```
STRSBS SBS(D(QEJBAS5/QEJBAS5))
```

The default WebSphere Application Server instance will start automatically. The job for the default application server instance is *server1*.

Part 10. Appendixes

Appendix. Where to find more information

More information about the WebSphere Commerce system and its components is available from a variety of sources in different formats. The following sections indicate what information is available and how to access it.

WebSphere Commerce information

The following are the sources of WebSphere Commerce information:

- WebSphere Commerce online help
- WebSphere Commerce technical library

WebSphere Commerce online help

The WebSphere Commerce online information is your primary source of information for customizing, administering, and reconfiguring WebSphere Commerce. After you have installed WebSphere Commerce, you can access topics in the online information by visiting the following URL:

`https://host_name:8000/wchelp/`

where *host_name* is the fully qualified host name of the machine on which WebSphere Commerce is installed.

WebSphere Commerce technical library

The WebSphere Commerce technical library is available at the following URL:

`http://www.ibm.com/software/commerce/library/`

A copy of this book, and any updated versions of this book, are available as PDF files from the Library section of the WebSphere Commerce Web site. In addition, new and updated documentation may also be available from the Web site.

WebSphere Application Server

WebSphere Application Server information is available at the WebSphere Application Server InfoCenter:

`http://www.ibm.com/software/webservers/appserv/infocenter.html`

WebSphere Application Server Network Deployment

WebSphere Application Server Network Deployment information is available at the WebSphere Application Server InfoCenter:

`http://www.ibm.com/software/webservers/appserv/infocenter.html`

WebSphere Application Server Edge Component

WebSphere Application Server Edge Component information is available at the WebSphere Application Server InfoCenter:

`http://www.ibm.com/software/webservers/appserv/infocenter.html`

Other IBM publications

You can purchase copies of most IBM publications from your IBM authorized dealer or marketing representative.

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