

IBM WebSphere Commerce - Express



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 55.

First Edition, September 2003

This edition applies to Version 5.5 of IBM WebSphere Commerce - Express 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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About this book

Document description

This guide provides information on how to configure the additional software components provided with WebSphere® Commerce - Express. It also provides information on how to configure WebSphere Commerce - Express to work with WebSphere MQ. WebSphere MQ is *not* provided with WebSphere Commerce — it must be purchased separately.

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/>

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.
<i>Italic type</i>	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.

- ▶ 400 Indicates information specific to programs running on OS/400®.
- ▶ Linux Indicates information specific to programs running on Linux.
- ▶ Windows Indicates information specific to programs running on Windows®.
- ▶ DB2 Indicates information specific to DB2 Universal 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:

- ▶ 400 /QIBM/ProdData/CommerceServer55
- ▶ Linux /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:

- ▶ 400 /QIBM/ProdData/WebAS5
- ▶ Linux /opt/WebSphere/AppServer
- ▶ Windows C:\Program Files\WebSphere\AppServer

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 - Express analytic tools,” on page 3
- Part 3, “WebSphere Commerce - Express business integration adapters,” on page 11
- Part 4, “Directory services and WebSphere Commerce - Express,” on page 23
- Part 5, “Additional WebSphere Application Server components,” on page 35

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

Part 2. WebSphere Commerce - Express analytic tools

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

- Chapter 1, “IBM WebSphere Commerce Analyzer,” on page 5

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 @server® iSeries™, you will need to purchase DB2 DataPropagator™ for iSeries Version 8.1 (5722DP4). Full instructions for setting up the extraction from @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 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.

 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.  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” on page 6.

- **400** 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 44.

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 47.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 50.
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 47.

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 47.
3. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 50.
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 47.

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 41.
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:

 *WC_userdir*/instances/*instance_name*/WCA/reports

 *WC_installdir*/instances/*instance_name*/WCA/reports

 *WC_installdir*\instances*instance_name*\WCA\reports

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 **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.
 -  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.
 - d. Click **Apply** to accept the changes.
10. Exit the Configuration Manager.

Part 3. WebSphere Commerce - Express business integration adapters

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

- Chapter 2, “WebSphere MQ,” on page 13

These software packages are not provided with WebSphere Commerce - Express and must be purchased separately. The chapters in this section cover how to configure adapters provided with WebSphere Commerce - Express 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 2. 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 14. 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 15.

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 16.
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 21.

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:

 400 *WebSphere MQ for iSeries V5.3 Quick Beginnings*

 Windows *WebSphere MQ for Windows V5.3 Quick Beginnings*

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 47.
2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 50.
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 47.

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 Windows user ID used to start WebSphere Commerce to the `mqm` group.
2. 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 22.

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.

3. 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 22.

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.

4. (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.”

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 47.

2. Open the WebSphere Application Server Administrative Console. For details, refer to “Starting the WebSphere Application Server Administrative Console” on page 50.
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 18.
6. Create WebSphere MQ JMS Provider queue destinations. Detailed instructions are provided in “Creating WebSphere MQ JMS Provider queue destinations” on page 20.
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 47.

After completing the steps to configure WebSphere Application Server, continue with the instructions in “Configure WebSphere Commerce to use WebSphere MQ” on page 21.

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” on page 18.

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 15. 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 15.

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 17. For example, if you found a value of 30 in “Determining the maximum number of ManagedConnections for the JCA-JMS connector” on page 17, 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 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 15. 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 20.

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 15.

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 15.

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 44.
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 41.
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 44.

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:
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:

400 *WebSphere MQ for iSeries 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>

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>

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

Part 4. Directory services and WebSphere Commerce - Express

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

1. Chapter 3, "Configuring the directory server for use with WebSphere Commerce," on page 25.
2. Chapter 4, "Configuring WebSphere Commerce for LDAP," on page 29.

Chapter 3. 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		
	Linux	400	Windows
IBM Directory Server Version 4.1.1	X		X
IBM Directory Server Version 5.1	X		X
IBM OS/400 Directory Services		X	

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

Configuring IBM Directory Server for use with WebSphere Commerce

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 OS/400 Directory Services for use with WebSphere Commerce

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” on page 26.

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.”

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.

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.

The next step

After you have completed the instructions in this chapter, configure WebSphere Commerce for LDAP according to the instructions in Chapter 4, "Configuring WebSphere Commerce for LDAP," on page 29.

Chapter 4. Configuring WebSphere Commerce for LDAP

Configuring WebSphere Commerce for LDAP is a three-step process:

1. “Enabling LDAP in the WebSphere Commerce Configuration Manager.”
2. “Enabling user migration in WebSphere Commerce.”
3. “Enabling WebSphere Commerce Payments under LDAP” on page 30.

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 41.
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 **LDAP**.
 - b. Ensure that the LDAP Type is **IBM Directory Server**.
 - c. In the **Host** field, enter the *host_name* of your LDAP server machine.
 - d. Ensure that the port number is correct. The default port number used by IBM Directory Server is 389.
 - e. Enter your administrator’s distinguished name in the **Administrator Distinguished Name** field. This distinguished name must match the name used on your LDAP server (for example, cn=root or cn=Administrator).
 - f. Enter the administration password in the **Administrator Password** field (for example, root). You must confirm the password in the **Confirm Password** field.
 - g. Click **Apply**.
 - h. The **Successfully configured member subsystem for WebSphere Commerce** window displays. Click **OK** to continue.
6. Exit the Configuration Manager.

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 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 44 and “Starting or stopping a WebSphere Commerce Payments instance” on page 45.

2. Open the following file in a text editor:

```
> 400 WC_userdir/instances/  
      instance_name/xml/instance_name.xml
```

```
> Linux WC_installdir/instances/instance_name/xml/instance_name.xml
```

```
> Windows 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 44 and “Starting or stopping a WebSphere Commerce Payments instance” on page 45.

The next time you log into any WebSphere Commerce administration page (For example, store services, or administration console) your user’s profile is migrated to the LDAP server.

Enabling WebSphere Commerce Payments under LDAP

In order to enable payment processing in WebSphere Commerce Payments when using LDAP to authenticate users, you must do the following after enabling user migration:

1. If they are not started, 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 44 and “Starting or stopping a WebSphere Commerce Payments instance” on page 45.
2. 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.
3. 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 44 and “Starting or stopping a WebSphere Commerce Payments instance” on page 45.
4. Open the following file in a text editor:

```
> 400 WC_userdir/instances/  
      instance_name/xml/instance_name.xml
```

```
> Linux WC_installdir/instances/instance_name/xml/instance_name.xml
```

```
> Windows 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.

5. Locate the following text:

```
PMAAdminId="Site_Admin_ID"
```

where *Site_Admin_ID* is the Site Administrator ID.

6. Change the text to the following:

```
PMAAdminId="uid=Site_Admin_ID,o=root organization"
```

7. Save the file.
8. 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 44 and “Starting or stopping a WebSphere Commerce Payments instance” on page 45.

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 tests:

- Create a new user under the root organization on your LDAP server and then attempt to log into WebSphere Commerce Accelerator using this new user. A successful login indicates that WebSphere Commerce is correctly using the LDAP server to validate users.
- Create a new user in a WebSphere Commerce store. Confirm that the user you created in the WebSphere Commerce store appears as a user on your LDAP server.

Chapter 5. 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.

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 41.
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 5. Additional WebSphere Application Server components

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

- Chapter 6, “WebSphere Studio Application Server Toolkit,” on page 37

Chapter 6. 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 6. 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 7. 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 Linux

To start WebSphere Commerce Configuration Manager, do the following:

1. Log in as the non-root user ID created before installing WebSphere Commerce.
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.
 - 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/ibmjssc.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 47.

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 41.
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 8. 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 Linux

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</i> _Commerce_Payments_Server	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 50.

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
  -instance WAS_instance_name application_server_name
```

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

```
WAS_installdir/bin/stopServer
  -instance 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.
<i>WC_commerce_instance_name</i>	WebSphere Commerce application server

Application server name	Description
<i>payments_instance_name</i> _Commerce_Payments_Server	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</i> _Commerce_Payments_Server	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 47 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 7. 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

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