IBM WebSphere Commerce
for IBM @server iSeries 400

IBM

Installation Guide

Version 54

IBM WebSphere Commerce
for IBM @server iSeries 400

Installation Guide

Version 5.4

> **Note:**
> Before using this information and the product it supports, be sure to read the general information under "Notices" on page 91.

First Edition, Third Revision (January 2003)

This edition applies to version 5.4 of IBM WebSphere Commerce for IBM @server iSeries 400 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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Contents

Summary of changes

The most recent version of this document is available as a PDF file from the Technical Library page of the WebSphere® Commerce Web site:

- Business Edition:

    http://www.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html

- Professional Edition:

    http://www.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html

Updates from the last version of this book are identified by revision characters contained in the margin. This book uses the "|" (split vertical bar) character to identify updates that have been made in the current revision of this document.

To learn about last-minute changes to the product, see the current product README file, also available from the WebSphere Commerce Web site.

The following table shows the main changes that have been made to this book.

Table 1.

Change	Chapters or Pages affected
Updated an incorrect path	Page 52.

Welcome to WebSphere Commerce

This book describes how to install and configure WebSphere Commerce 5.4 for IBM® @server iSeries 400®. It is intended for system administrators or for anyone else responsible for performing installation and configuration tasks.

If you have WebSphere Commerce Suite Version 5.1 installed, follow the migration steps described in the *WebSphere Commerce Migration Guide*. This book will be available in the Technical Libraries section of the WebSphere Commerce Web page.

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

- Business Edition:

  `http://www.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html`

- Professional Edition:

  `http://www.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html`

Conventions 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* is used to emphasize words. Italics also indicate names for which you must substitute the appropriate values for your system. When you see the following names, substitute your system value as described:

host_name
> The fully qualified host name of your WebSphere Commerce Web server (for example, `server1.torolab.ibm.com` is fully qualified).

instance_name
> The name of the WebSphere Commerce instance with which you are working.

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

> **Important**
>
> These sections highlight especially important information.

> **Warning**
>
> These sections highlight information intended to protect your data.

Default installation paths

When this book refers to installation paths, it uses the following default path names:

/QIBM/ProdData/WebCommerce
> The WebSphere Commerce installation path.
>
> > **Important:** Do not change this path. WebSphere Commerce will not work if you attempt to use a different path.

/QIBM/ProdData/WebAsAdv4
> The WebSphere Application Server 4.0 installation path.

/QIBM/ProdData/Java400/jdk13
> The IBM Developer's Kit for iSeries 400, Java Technology Edition 1.3 installation path.

/QIBM/ProdData/PymSvr
> The IBM WebSphere Payment Manager 3.1.2 installation path.

Note: WebSphere Commerce is only supported in the default directory.

Products included with WebSphere Commerce

The following products are packaged with WebSphere Commerce:
- WebSphere Commerce Components
  - WebSphere Commerce Server
  - WebSphere Commerce Accelerator
  - WebSphere Catalog Manager
  - WebSphere Commerce Administration Console
  - Product Advisor
  - Blaze Rules Server and Blaze Innovator Runtime
  - Macromedia LikeMinds client
- WebSphere Application Server 4.0
- IBM WebSphere Payment Manager 3.1.2, which includes:
  - Payment Manager SET Cassette 3.1.2
  - Payment Manager Cassette for CyberCash 3.1.2
  - Payment Manager Cassette for VisaNet 3.1.2
  - Payment Manager Cassette for BankServACH 3.1.2
- IBM WebSphere Commerce Analyzer 5.4
- Brio Broadcast Server 6.2
- IBM SecureWay Directory Server 3.2.1
- Segue SilkPreview 1.0™
- WebSphere Commerce 5.4 Recommendation Engine powered by LikeMinds™
- QuickPlace 2.9.8
- Sametime 2.5

Supported Web browsers

You can only access the WebSphere Commerce tools and online help using
Microsoft® Internet Explorer 5.5 from a machine running a Windows® operating
system on the same network as your WebSphere Commerce machine. You must
use Internet Explorer full version 5.50.4522.1800 (also known as Internet Explorer
5.5 Service Pack 1 and Internet Tools) with the latest critical security updates from
Microsoft— prior versions do not support full functionality of WebSphere
Commerce tools.

Shoppers can access Web sites by using any of the following Web browsers, all of
which have been tested with WebSphere Commerce:

- Any version of Netscape Navigator supported with Netscape Communicator 4.6
  or above, including Netscape Navigator 4.04, and 4.5
- Netscape Navigator 3.0 and 4.0 or above for Macintosh
- Microsoft Internet Explorer 4 and 5 or above
- AOL 5 and 6 or above

Port numbers used by WebSphere Commerce

The following is a list of the default port numbers used by WebSphere Commerce
or its component products. Please ensure that you do not use these ports for
non-WebSphere Commerce applications. If you have a firewall configured in your
system, ensure that you can access these ports.

Port Number	Used By
80	IBM HTTP Server non-secure Web servers
389	Lightweight Directory Access Protocol (LDAP) Directory Server
443	IBM HTTP Server secure Web server
900	WebSphere Application Server bootstrap. If you're using a WAS instance other than "default" this will be the number you specified for the bootstrap parameter on the CRTNEWINST command.
1099	WebSphere Commerce Configuration Manager
2222	The default port through which you access WebSphere Application Server Administration Console as a non-root user.
8000	WebSphere Commerce Tools. This secure port requires SSL.
8080	WebSphere Test Environment for VisualAge® for Java™
8999	IBM HTTP Server non-secure Web server for Payment Manager instance, if the Payment Manager instance has the same hostname as the WebSphere Commerce instance and the Payment Manager secure web server port is not default 443.
9000	WebSphere Application Server Location Server. If you're using a WebSphere Application Server instance other than "default", this will be the number you specified for the first parameter on the CRTNEWINST command.
16900	A dummy, non-SSL port number, reserved for IBM HTTP Server.
16999	WebSphere Commerce Cache Daemon (default)
22802	WebSphere Application Server transport-port (default). This is the port on which the WebSphere Application Server servlet engine

communicates with the Web server. To avoid port conflicts, you must specify a unique port number for each application server instance on a given machine. To change this port number, do the following and then re-generate the plugin configuration in the WebSphere Application Server administrative console:

1. Open WebSphere Application Server administrative console.
2. Expand **Administrative Domain**.
3. Expand **Nodes**.
4. Expand *host_name*.
5. Expand **Application Servers**.
6. Select your Application Server *instance name* - WebSphere Commerce Server.
7. Click on the **Services** tab.
8. Select **Web Container Service**.
9. Click **Edit Properties**.
10. Click the **Transport** tab.
11. Select the **HTTP Transport** and click **Edit**.
12. In the **Transport Port** field, enter a unique port number.
13. Click **OK**.
14. Click **OK**.
15. Click **Apply**.

Locales used by WebSphere Commerce

WebSphere Commerce uses valid Java locales only. Ensure that your systems have the appropriate locale installed for your language. Ensure that any locale-related environment variables are set to include the WebSphere Commerce–supported locale. Locale codes supported by WebSphere Commerce are shown in the table below.

Language	Locale Code
German	de_DE
English	en_US
Spanish	es_ES
French	fr_FR
Italian	it_IT
Japanese	ja_JP
Korean	ko_KR
Brazilian Portugese	pt_BR
Simplified Chinese	zh_CN
Traditional Chinese	zh_TW

Quick reference to user IDs, passwords and Web addresses

Administration in the WebSphere Commerce environment requires a variety of user IDs. These user IDs along with their requisite authorities are described in the list below. For the WebSphere Commerce user IDs, the default passwords are identified.

iSeries user profiles

Two iSeries user profiles are used and referred to frequently when you install and configure WebSphere Commerce:

- A user profile which you create and use to install WebSphere Commerce and access the Configuration Manager. To install and configure WebSphere Commerce, you must use an iSeries user profile of USRCLS(*SECOFR) or use the QSECOFR user profile. If you need to create a user profile, refer to "Creating an iSeries user profile" on page 4.

- A user profile which is created by the Configuration Manager when you create a WebSphere Commerce instance. This user profile is also referred to as the "instance user profile." A user profile of USRCLS(*USER) is created by the Configuration Manager each time you create a WebSphere Commerce instance. If you need to create a user profile, refer to "Creating an iSeries user profile" on page 4.

Configuration Manager user ID

The Configuration Manager tool's graphical interface allows you to modify the way WebSphere Commerce is configured. The default Configuration Manager user ID and password are `webadmin` and `webibm`. You can access Configuration Manager from any machine, which supports Microsoft Internet Explorer 5.5, and which is on the same network as your WebSphere Commerce machine.

WebSphere Commerce Instance Administrator

The Instance Administrator user ID and password apply to the following WebSphere Commerce tools:

- WebSphere Commerce Accelerator. To access the WebSphere Commerce Accelerator from a remote machine running a Windows operating system, open your Internet Explorer Web browser, and type the following Web address:

  `https://host_name:8000/accelerator`

- WebSphere Commerce Administration Console. To access the WebSphere Commerce Administration Console from a remote machine running a Windows operating system, open your Internet Explorer Web browser, and type the following Web address:

  `https://host_name:8000/adminconsole`

- Store Services. You can access your Store Services page by opening your Web browser and typing the following Web address:

  `https://host_name:8000/storeservices`

- Organization Administration Console. You can access the Organization Administration Console by opening your Web browser and typing the following Web address:

  `https://host_name/orgadminconsole`

The default Instance Administrator user ID is `wcsadmin` and the default password is `wcsadmin`.

Note: The `wcsadmin` user ID should never be removed, and should always have instance administrator authority.

WebSphere Commerce requires that the user ID and password adhere to the following rules:

- The password must be at least 8 characters in length.
- The password must include at least 1 numeric digit.
- The password does not contain more than 4 occurrences of a character.

- The password does not repeat the same character more than 3 times.

Payment Manager Administrator

When you install Payment Manager, the WebSphere Commerce Administrator ID, wcsadmin, is automatically assigned the Payment Manager Administrator role. Follow the instructions in "Installing Payment Manager" on page 13 to switch the Payment Manager Realm Class to WCSRealm if it has not already been done.

The Payment Manager Administrator role enables a user ID to control and administer Payment Manager.

Notes:

1. Do not delete or rename the logon user ID wcsadmin, and do not change the preassigned Payment Manager role of wcsadmin as WebSphere Commerce functions related to Payment Manager integration will not work.

2. If you assign a Payment Manager role to a WebSphere Commerce administrator and then later want to delete or rename the logon user ID of this administrator, you must remove the administrator's Payment Manager role before deleting or renaming the user ID.

Important

Payment Manager has preassigned the Payment Manager Administrator role to two other administration IDs:

- ncadmin
- admin

To prevent a user from inadvertently obtaining this Payment Manager Administrator role, you can:

1. Create the above administration IDs in WebSphere Commerce using the WebSphere Commerce Administration Console.
2. On the Payment Manager user interface, select **Users**.
3. Remove the Payment Manager Administrator role from these two administration IDs.

You should also be aware of the Payment Manager Instance Password, which is needed to start, stop, or delete a Payment Manager instance. It is also required to add cassettes to a Payment Manager instance. If a Payment Manager instance is created by the WebSphere Commerce Configuration Manager, the Payment Manager instance password is the same as the WebSphere Commerce instance logon password, which is also referred to as instance user profile password. If a Payment Manager instance is created from an iSeries session using the **CRTPYMMGR** command, or from the iSeries Task Page, you will be prompted to provide the password.

Part 1. Installing WebSphere Commerce 5.4

Topics covered in this section include:

You must complete these topics in order to successfully install WebSphere Commerce.

> **Important**
>
> This book describes how to install WebSphere Commerce on a machine that does not already have a previous version of WebSphere Commerce installed. If you have WebSphere Commerce Suite Version 5.1 installed and you want to upgrade to WebSphere Commerce 5.4, please follow the instructions in the *WebSphere Commerce Migration Guide*. This document will be available from the IBM Web site at the following Web address:
>
> ▶ Business
>
> ```
> http://www.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html
> ```
>
> ▶ Professional
>
> ```
> http://www.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html
> ```

Chapter 1. Preinstallation requirements

This chapter describes the steps you need to perform before you install WebSphere Commerce.

Knowledge requirements

To install and configure WebSphere Commerce, you require knowledge of the following:

- Your operating system
- The Internet
- Web server operation and maintenance
- IBM DB2® for iSeries
- Basic operating system commands

To create and customize your store or mall, you require knowledge of the following:

- WebSphere Application Server
- IBM DB2 for iSeries
- HTML and XML
- Structured Query Language (SQL)
- Java programming

Please refer to *WebSphere Commerce Programmer's Guide* for more information on customizing your store or mall. A copy of this book is included with both WebSphere Commerce and WebSphere Commerce Studio.

Prerequisite hardware

You must ensure that you meet the following minimum hardware requirements before installing WebSphere Commerce 5.4:

- Any of the following servers (recommended minimums):
    - AS/400e Server Model 170 with processor feature 2385
    - AS/400e Server Model 720 with processor feature 2062
    - iSeries Server Model 270 with processor feature 2252
    - iSeries Server Model 820 with processor feature 2396
- 1 gigabyte of memory (recommended minimum)

Note: Systems below these recommended minimums may be used in environments that support a limited number of users and where longer server initialization times can be tolerated.

Furthermore, you require the following:

- A workstation, such as a Pentium® processor running a Windows operating system and capable of running a Web browser such as Internet Explorer with a graphics-capable monitor
- A mouse or other pointing device

- A local area network (LAN) adapter that is supported by the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol

Prerequisite software

You must ensure that you meet the following minimum software requirements before installing WebSphere Commerce:

- IBM OS/400®, V5R1 or higher, which includes:
  - DB2® for iSeries, V5R1
  - IBM HTTP Server for iSeries (5722-DG1)
  - Digital Certificate Manager (5722-SS1 Option 34)
  - QShell Interpreter (5722-SS1 Option 30)
  - Crypto Access Provider for iSeries (5722-AC3 (128-bit))
- Java® Developer Kit 1.3.1 (JDK®) (5722-JV1 Option 5)
- AS/400® Toolbox for Java (5722-JC1)
- TCP/IP Connectivity Utilities for OS/400, V5R1 (5722-TC1)
- DB2 Query Manager and SQL Development Kit (5722-ST1)

You may want to have the following optional products:

- One of the following:
  - Client Access Windows family Base (5722-XW1)
  - Client Access Express for Windows (5722-XE1)
  - Client Access Optimized for Windows (5722-XD1)
- LDAP Directory Services (5722-SS1 Option 32)

> **Important:**
> You should also have the latest PTFs for the above listed products, as listed on the WebSphere Commerce Web site. Depending on the version of the product you are using, refer to one of the following addresses (on one line):
>
> ▶Professional
> ```
> www.software.ibm.com/software/webservers/commerce/wc_pe/lit-techgeneral.html
> ```
>
> ▶ Business
> ```
> www.software.ibm.com/software/webservers/commerce/wc_be/lit-techgeneral.html
> ```
>
> You can obtain the latest PTFs either by applying the latest cumulative package, fix pack, group PTF, or by ordering the PTFs directly from your iSeries service representative.

Creating an iSeries user profile

Before you install WebSphere Commerce, ensure that you have access to the QSECOFR user profile, or an iSeries user profile of USRCLS(*SECOFR).

If you need to create an iSeries user profile, you can either use the OS/400 command line or use Client Access. If you are using the command line, do the following to create a user profile:

1. Enter CRTUSRPRF.
2. Press PF4 for a prompt.

3. Complete the necessary parameters, and then press Enter to create the user profile.

If you are using Client Access, do the following to create a user profile:

1. On the navigation tree, double-click the iSeries server where you want to create the new user.
2. Double-click **Users and Groups**.
3. Click **All Users**. A list of all of the users on the iSeries displays in the right panel.
4. Right-click **All Users**, then select **New User**. A New User window opens.
5. Enter the required information, and then press Enter to create the user profile.

The iSeries user profile should be created with the following localized settings:

Table 2.

Language	CCSID	LangID	CountryID
English	37	ENU	US
French	297	FRA	FR
German	273	DEU	DE
Italian	280	ITA	IT
Spanish	284	ESP	ES
Brazilian Portugese	37	PTB	BR
Japanese	5035	JPN	JP
Korean	933	KOR	KR
Traditional Chinese	937	CHT	TW
Simplified Chinese	935	CHS	CN

Using an iSeries user profile other than those defined above may work, but has not been tested.

Chapter 2. Administrative tasks

This chapter contains a variety of tasks that an administrative user may have to perform during the installation and maintenance of WebSphere Commerce.

Changing the Configuration Manager password

You can change the Configuration Manager password when you launch the Configuration Manager by clicking **Modify** in the window where you enter your user ID and password.

Chapter 3. Understanding iSeries unique concepts

This chapter describes concepts that are unique to the IBM @server iSeries 400 and the OS/400 operating system. It includes the following:

- A discussion of the different file systems within the Integrated File System (IFS)
- File organization for the WebSphere Commerce system

The OS/400 file systems used by WebSphere Commerce

It is important that you understand the *Integrated File System (IFS)* so that you can decide where to store your Web assets, such as JSP and HTML files, and how to configure the corresponding file servers.

A file system provides the support to access specific segments of storage that are organized as logical units. These logical units are files, directories, folders, libraries, and objects.

Each file system has a set of logical structures and rules for interacting with information in storage. These structures and rules may be different from one file system to another. From the perspective of structures and rules, the OS/400 support for accessing database files and various other object types through libraries can be thought of as a file system. Similarly, the OS/400 support for accessing documents (which are really stream files) through the folder structure behaves as a separate file system.

The Integrated File System treats the library support and folder support as separate file systems. Other types of OS/400 file management support, all with their own capabilities, function as separate file systems. The iSeries file systems that are used by WebSphere Commerce are described below. For information about other OS/400 file systems, refer to your OS/400 documentation.

WebSphere Commerce stores information in two different file systems within the Integrated File System: *QSYS.LIB* library file system and the *root* file system.

The QSYS.LIB file system

The QSYS.LIB library file system supports the iSeries library structure. This file system provides access to database files and all of the other iSeries object types that the library support manages.

The installation and configuration process creates the QWEBCOMM library in the QSYS.LIB file system. It contains the following types of objects:

```
*PGM
*SRVPGM
*MSGF
*FILE - QYWCTXTSRC (Contains the README)
*CMD
*PNLGRP
*PRDDFN
*PRDLOD
```

The root file system

The root, or /, file system takes full advantage of the hierarchical directory structure and stream file support of the Integrated File System. The root file system has the characteristics of the *DOS* and *OS/2*® file systems.

WebSphere Commerce uses a divided root file structure. All the data that is used by WebSphere Commerce which can be modified or needs to be configured by the user is placed in the UserData subdirectory, and all of the WebSphere Commerce proprietary data is placed in the ProdData subdirectory. This has been done to make a clear distinction between the two types of information, to make future migration as simple as possible, and to facilitate the servicing of files therein.

Notes:

1. You can only change the files that are contained in the instance root path, which by default is: /QIBM/UserData/WebCommerce/instances/*instance_name*.

2. When the instance's Enterprise application is deployed, all of the JSP files and other assets are stored in:

   /QIBM/UserData/WebASAdv4/*was_instance_name*/installedApps/
     WC_Enterprise_App_*instance_name*.ear

   Files in this directory can be modified as well.

When you configure WebSphere Commerce for a particular instance, the Configuration Manager copies all of the required files for the selected configuration option to the UserData path. You should not change the original files, contained in the following path:

/QIBM/ProdData/WebCommerce

Attention: Applying PTFs or reinstalling the product may delete or overwrite the files in the ProdData directory path. You should therefore not store any customized files in the ProdData directory path.

The table below lists the directories and stream files that are created by the WebSphere Commerce installation and configuration process and stored in the root file system. The directory path /*instance_root*/ refers to the directory path /QIBM/UserData/WebCommerce/instances/*instance_name*, where *instance_name* is the name you provide for your instance during configuration.

Path	Significance
/*instance_root*/xml/instance_name.xml	The instance configuration file. This file contains configuration settings for the WebSphere Commerce server.
/*instance_root*/web	The IBM HTTP server document root directory.
/QIBM/UserData/WebASAdv4/*WAS_instance_name*/ installedApps/WC_Enterprise_App_*Inst_name*.ear	The directory containing instance properties files. For exact location of customized assets, refer to the *WebSphere Commerce Programmer's Guide*
/*instance_root*/logs	The directory containing WebSphere Commerce log files.

Path	Significance
/instance_root/xml	The directory containing WebSphere Commerce instance configuration XML files.
/instance_root/cache	The directory containing cached files for the instance.
/instance_root/sar	The directory containing theWebSphere Commerce store archive file.

Querying the layout of the database

You can query information about the database layout by using SQL statements. You can use either the DB2/400 Query Manager and the SQL development kit, or you can use Operations Navigator for iSeries. To use Client Access™ to perform database queries, do the following:

1. Start Operations Navigator for iSeries from the PC where it is installed.
2. Right-click the **Database** icon and select **Run SQL Scripts**. The **Run SQL Scripts** window opens.
3. Type the desired SQL statement in the window. For example,
   - To view a list of all the tables in the database, type (on one line, uppercase only):

     ```
     SELECT TABLE_NAME FROM QSYS2.SYSTABLES WHERE
             TABLE_SCHEMA='DB_SCHEMA_NAME'
     ```
   - To view a list of the columns in a particular table, type (on one line):

     ```
     SELECT * FROM QSYS2.SYSCOLUMNS WHERE TABLE_SCHEMA='DB_SCHEMA_NAME'
             AND TABLE_NAME='TABLE_NAME'
     ```
   - To view the records in a particular table, type:

     ```
     SELECT * FROM 'DB_SCHEMA_NAME'.'TABLE_NAME'
     ```

   where

   'DB_SCHEMA_NAME'
   : is the name of the instance database.

   'TABLE_NAME'
   : is the name of the database table that you want to query.

For more information about these and other SQL statements, see the *AS/400 DB2 UDB for AS/400 SQL Reference Information*, SC41-5612-04.

Chapter 4. Installing IBM WebSphere Commerce

This chapter describes how to install the WebSphere Commerce system on the iSeries. Before beginning, ensure that you have completed the steps that are described in "Creating an iSeries user profile" on page 4.

> **Important**
>
> It is important that you meet the requirements outlined in Chapter 1, "Preinstallation requirements" on page 3; otherwise you may encounter difficulties during the installation process. You must also review the License Agreement (in the WebSphere Commerce media kit) for the product.

The procedures for installing WebSphere Commerce on multiple machines are similar to those described for a single machine. However, if you are installing WebSphere Commerce on multiple machines, you must install it on each machine, and then set up the database for remote database access.

Regardless of whether you are installing on a single machine or on multiple machines, you must follow the steps in "Installing WebSphere Commerce" on page 19.

IBM WebSphere Payment Manager 3.1.2

IBM WebSphere Payment Manager 3.1.2 is a protocol-independent payment transaction server for an online merchant. It provides cash register functionality to a site, supporting multiple payment methods using protocol-specific cassettes. These cassettes are software components that can be attached to the Payment Manager framework to interpret generic payment and administrative commands into payment protocol-specific requests, which are then forwarded to the appropriate recipient, such as the payment gateway of an Acquirer institution. The end result is similar to when a cashier swipes a payment card at the checkout counter in a traditional store.

Before installing Payment Manager

Read the latest README file, `readme.framework.html`, available on the Payment Manager Web site at the following Web address:

`www.ibm.com/software/webservers/commerce/paymentmanager/support/readme31.html`

Installing Payment Manager

IBM WebSphere Payment Manager 3.1.2 can either run locally or remotely. If you plan to run Payment Manager on the same machine as WebSphere Commerce, both applications may share a single database collection, which can be either local or remote. The database collection will be shared if the Payment Manager instance and the WebSphere Commerce instance have a common instance name and port. If you plan to run Payment Manager on a separate machine from your WebSphere Commerce machine, the two applications will use two distinct database collections. The Payment Manager database collection should be on the remote Payment Manager machine.

To use a local Payment Manager instance, install Payment Manager on your WebSphere Commerce machine. To install Payment Manager, do the following:

1. Insert the Payment Manager CD into your CD-ROM drive.
2. Use the Restore Licensed Program (**RSTLICPGM**) command to install the Payment Manager for iSeries product.
3. Specify the Payment Manager product number and the device from which the product is to be installed. For example: RSTLICPGM LICPGM(5733PY3) DEV(OPT01).

Enabling the WCSRealm

If you create your Payment Manager instance using the **CRTPYMMGR** command, then PSOS400Realm is provided as the supporting default realm. However, to use the WCSRealm where the Payment Manager instance is created, you must manually configure Payment Manager through the Administration Console. To manually configure your system to use WCSRealm, do the following:

1. Open the WebSphere Application Server Administration Console on the Payment Manager machine.
2. Stop the WebSphere Payment Manager Application Server:
   a. Expand **WebSphere Administrative Domain**.
   b. Expand **Nodes**.
   c. Expand *node name*.
   d. Expand **Application Servers**.
   e. Select **WPM** *instnace_name* **WebSphere Payment Manager** and click **Stop**.
3. Select the **JVM Settings** tab and scroll down to the System Properties box. Select the **wpm.RealmClass** system property and change the value from:

   ```
   com.ibm.etill.framework.payserverapi.PSOS400Realm
   ```

   to

   ```
   com.ibm.commerce.payment.realm.WCSRealm
   ```

   Click **Apply**.

4. In the Payment Manager instance directory, /QIBM/UserData/PymSvr/*instance_name*/, create an ASCII file called WCSRealm.properties and add the following entries:

   ```
   WCSHostName=domain-qualified host_nameUseNonSSLWCSClient=[0|1]
   WCSWebServerPort=port_number
   WCSWebPath=/webapp/wcs/stores/servlet
   ```

   Notes:
   a. Set UseNonSSLWCSClient to 1 if NonSSL is used, or 0 if SSL is used.
   b. Set WCSWebServerPort to the NonSSL WebSphere Commerce port number (for example, 80) if UseNonSSLWCSClient=1, or to the SSL WebSphere Commerce port number (for example, 443) if UseNonSSLWCSClient=0.

   Save the file.

5. Copy WCSRealm.jar to the Payment Manager instance ear directory by running the following command from an iSeries session:

   ```
   CPY OBJ('/QIBM/ProdData/PymSvr/Java/WCSRealm.jar')
   TOOBJ('/QIBM/UserData/WebASAdv4/server/installedApps/
       payment_instance_name_IBM_PaymentManager.ear/WCSRealm.jar')
   ```

where *server* is the name of the WebSphere Application Server on which you Payment Manager instance is running, and *payment_instance_name* is the name of your Payment Manager instance.

6. Restart the Payment Manager instance from an iSeries session. Use the following command to end the Payment Manager instance:

```
ENDPYMMGR PYMMGR(payment_instance_name) PWD(payment_instance_password)
```

Use the following command to start the Payment Manager instance:

```
STRPYMMGR PYMMGR(payment_instance_name) PWD(payment_instance_password)
```

where *payment_instance_password* is the password provided for the CRTPYMMGR command when creating the Payment Manager instance.

For more information on the WCSRealm, refer to the WebSphere Commerce online help.

Installing Payment Manager cassettes

If you install Payment Manager you may also want to install the accompanying cassettes. To install a cassette, perform the following steps:

1. Insert the Payment Manager CD into your CD-ROM drive.
2. Use the Restore Licensed Program (**RSTLICPGM**) command to install the Payment Manager SET, CyberCash, VisaNet, or BankServACH cassette for iSeries product.
3. Specify the Payment Manager product number, the device from which the product is to be installed, and the appropriate option number for the cassette you want to install.
   - To install the SET cassette, type:
     ```
     RSTLICPGM LICPGM(5733PY3) DEV(OPT01) OPTION(1)
     ```
   - To install the CyberCash cassette, type:
     ```
     RSTLICPGM LICPGM(5733PY3) DEV(OPT01) OPTION(2)
     ```
   - To install the VisaNet cassette, type:
     ```
     RSTLICPGM LICPGM(5733PY3) DEV(OPT01) OPTION(3)
     ```
   - To install the BankServACH cassette, type:
     ```
     RSTLICPGM LICPGM(5733PY3) DEV(OPT01) OPTION(4)
     ```

Installing WebSphere Application Server 4.0

The installation process consists of two steps:

1. Installing the WebSphere Application Server run-time environment on your iSeries server.
2. Installing the WebSphere Administrative Console component on your workstation.

You can install the Administrative Console before you install the product on your iSeries server, but you cannot start the Administrative Console until you have successfully installed and started the WebSphere Application Server environment.

To install WebSphere Application Server on your iSeries server and to install the WebSphere Administrative Console on your workstation complete the following steps:

1. Install the WebSphere Application Server environment on your iSeries server:

a. Ensure that the iSeries server has the prerequisite software. Refer to "Prerequisite software" on page 4

b. Install the WebSphere Application Server product.

1) Place the WebSphere Application Server 4.0 Advanced Edition for iSeries CD-ROM in the CD-ROM drive of your iSeries server.

   Notes:

   a) Do not use the WebSphere Application Server Advanced Edition for Windows NT, AIX, Solaris, or Linux CD-ROM (which also came in your WebSphere Application Server Advanced Edition for iSeries package) for this set of steps.

   b) Your user profile must have *ALLOBJ authority.

2) Enter the following command exactly as shown on one continuous line. Be sure to use the same capitalization as shown:

   ```
   RUNJVA CLASS(SETUP) CLASSPATH('/QIBM/ProdData/Java400/jt400ntv.jar:
   /QOPT/WebSphere/OS400:/QOPT/WebSphere/OS400/INSTALL.JAR:
   /QOPT/WebSphere') PROP((os400.runtime.exec QSHELL)
   (java.compiler jitc) (java.version 1.3))
   ```

   Note: This command has been wrapped for display purposes. Enter it as one command.

c. Verify that the correct OS/400 cumulative PTF package is installed.

1) Sign on to your server.

2) Enter the Display PTF Status (**DSPPTF**) command on the OS/400 command line. The first PTF listed with a status of **Temporarily applied** correlates to the cumulative PTF that is installed on the server.

   You must order and install the prerequisite OS/400 cumulative PTF package before proceeding to the next step in this process.

d. Install additional PTFs required for WebSphere Application Server.

Fixes for the WebSphere Application Server product are shipped as group PTFs for iSeries. The latest WebSphere Application Server 4.0 for iSeries group PTF must be loaded and applied prior to starting WebSphere for the first time. This group PTF includes the latest WebSphere for iSeries PTFs that bring the product up to the latest WebSphere for iSeries level, which at time of printing is 4.0.2. This group PTF also contains miscellaneous PTFs for IBM Developer Kit for Java, DB2 Universal Database for iSeries, and IBM HTTP Server that are not included in other group PTFs or cumulative PTF packages. These miscellaneous PTFs must be installed or the administrative server may fail when it is started.

See the PTFs page on the WebSphere Application Server Web site to determine which group PTF you must order and install for your WebSphere Application Server V4.0 edition (Advanced or Advanced Single Server) and OS/400 release level. This page is available using the **PTFs** link at the following URL:

www.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/

All product prerequisites must be installed before you install the group PTF package. For example, the Java PTFs contained in the package will not be installed if IBM Developer Kit for Java 1.3 (5722-JV1 option 5) is not installed on the server. If all prerequisites are not installed, WebSphere Application Server may fail when it is started.

The following instructions describe how to install the WebSphere Application Server for iSeries group PTF:

1) Verify that all of the prerequisite software is installed.

2) Place the WebSphere for iSeries group PTF CD-ROM into the CD-ROM drive on your iSeries server.

3) Sign on to the system console. Your user profile must have *ALLOBJ authority.

4) Enter the following command to bring your system into a restricted state:

   ```
   ENDSBS SBS(*ALL)
   ```

5) Enter the following command from the OS/400 command line once the system is in a restricted state:

   ```
   GO PTF
   ```

6) Select option 8 (Install program temporary fix package) from the menu.

7) Specify the following parameter values and press Enter:

   a) Specify the device for your CD ROM drive (for example, OPT01)

   b) Automatic IPL: Y

   c) PTF type: 1 (All PTFs)

   This will restart the server after all of the PTFs have been installed.

8) For information on the release as well as a description of known problems and workarounds, see the product Release Notes for the version of WebSphere that you are installing after installing the group PTF. The Release Notes are available on the WebSphere Applicaiton Server 4.0 Advanced Edition documentation page.

2. Install the WebSphere Administrative Console on your workstation:

   a. Install the Administrative Console component.

      1) Insert the WebSphere Application Server 4.0 Advanced Edition CD-ROM for your workstation's operating system. For example, if you are using Windows NT, insert the WebSphere Application Server 4.0 Advanced Edition for Windows NT CD-ROM.

         Note: Do not use the WebSphere Application Server 4.0 Advanced Edition for iSeries CD-ROM (which also came in your WebSphere Application Server Advanced Edition for iSeries package) for this set of steps.

      2) If you are using a Windows workstation and Autorun is enabled, the Windows InstallShield program starts automatically. If Autorun is not enabled, run the Windows InstallShield program by using Windows Explorer to navigate to your CD-ROM drive. Double-click the setup.exe file.

         If you are using an AIX, Solaris, HP-UX, or Linux workstation, go to the subdirectory that is named for your operating system, (AIX, Solaris, HP, or Linux) and type ./install.sh to run the install script file.

      3) Select the language for the installation and click **OK**.

      4) Click **Next**.

      5) If you have a previous version or versions of WebSphere Application Server installed on the workstation machine, the Previous Installation Detected panel is displayed. Click Next to install a new version of the WebSphere Administrative Console on the workstation.

         If this panel is not displayed, continue to the next step.

      6) On the Installation Options panel, select Custom Installation. Click **Next**.

7) On the Choose Application Server Components panel, select Administrator's Console and Application and Development Tools, and IBM JDK 1.3.0. Click **Next**.

8) Type the host name. To determine the host name, follow these steps after you verify that the WebSphere Application Server environment has been started:

   a) Enter the Configure TCP/IP (CFGTCP) command on the OS/400 command line.

   b) Select option 12 (Change TCP/IP domain information).

   c) Note the host name value. This value should be used as the host name parameter.

      Note: You must have a host name entered on iSeries. The WebSphere Administrative Console will not connect if the entry is not present. If you do not have a host name entry, add it.

      Additionally, the host name parameter is case-sensitive. For example, if the host name on iSeries is in lowercase, you must also use the lowercase name when connecting the WebSphere Administrative Console to the iSeries server.

   This method works in most simple cases. More complicated scenarios, with systems that have multiple IP addresses, multiple alias names, or multiple Domain Name System (DNS) entries, may require additional TCP/IP configuration.

   The WebSphere Administrative Console uses port 900 by default. If you changed the default port with the `admin.bootstrapPort` parameter when starting the administrative server, you need to specify that port for the WebSphere Administrative Console.

9) Type the name of the destination directory. This is the directory on the workstation that will contain the Administrative Console installation. Click **Next**.

10) On the Select Program Folder panel, click **Next** to accept the default program folder name.

11) Verify the options that you selected. To make changes, click **Back**. To continue with the installation, click **Next**.

    The Installing IBM WebSphere Application Server panel is displayed, indicating the progress of the installation process.

12) The installation program copies all files to the workstation and performs any necessary configuration. The Setup Complete panel is displayed when the installation is complete. Click **Finish**.

b. Install the appropriate FixPak for the Administrative Console.

   Fixes for the Administrative Console are shipped as a FixPak that is installed on each Administrative Console machine. Each FixPak includes the fixes from the previous FixPak. For example, FixPak 2 contains new fixes, plus the fixes from FixPak 1.

   The correct FixPak must be installed on the Administrative Console workstation so that the Administrative Console version matches the version of WebSphere Application Server installed on your iSeries server. For example, if you install version 4.0.4 of WebSphere Application Server, you must also install FixPak 4 to upgrade the Administrative Console to version 4.0.4.

To determine which level of WebSphere Application Server you have, compare the Edition, Version, and Build values in the product.xml files. On the workstation, the file is located in the `was_install_dir\properties\com\ibm\websphere`, where `was_install_dir` is the WebSphere installation directory. On your iSeries server, the file is located in `/QIBM/ProdData/WebASAdv4/properties/com/ibm/websphere`. If the workstation and server are at the same level, these files should contain the same values for Edition, Version, and Build.

For information about obtaining and installing FixPaks for the Administrative Console, see the WebSphere Application Server 4.0 for iSeries Release Notes.

> **Note:** The instructions on how to install FixPaks are located in the Installation Instructions section of the Release Notes.

If you have problems with any part of the installation, see the troubleshooting information section of the WebSphere Application Server documentation center.

Installing WebSphere Commerce

The following steps describe how to install IBM WebSphere Commerce. You must install WebSphere Application Server before you continue with the steps in this section.

Note: Refer to the product's README for information detailing what is contained on each of your software CD's. The README can be viewed at one of the following URLs:
`www.software.ibm.com/software/webservers/commerce/wc_pe/lit-tech-general.html`
Business `www.software.ibm.com/software/webservers/commerce/wc_be/lit-tech-general.html`

If you are installing WebSphere Commerce on multiple machines, repeat the following steps for each machine on which you want to install WebSphere Commerce.

To install all components of the WebSphere Commerce system, do the following:
1. If the products in the "Software Requirements" section are not already installed, install them using the documentation that is provided with them.
2. Log on as the user profile that you created in "Creating an iSeries user profile" on page 4.
3. Type the following command on a command line:
   `CHGMSGQ QSYSOPR *BREAK SEV(70)`
4. Insert the WebSphere Commerce CD into your iSeries CD-ROM drive.
5. Type `RSTLICPGM` on the command line.
6. Press PF4 for a prompt.
7. Type the LICPGM (`5733WC5`) and DEV name in the appropriate entry fields.
8. Type the feature code for the language feature that you want to install in the LNG field, and press Enter.
9. If you are installing WebSphere Commerce on a system where the Primary language is not English, you will be asked to answer a message `Load another`

volume into device OPTxx. Insert the CD containing the language MRI into the CD drive, and answer the message. On an English-only system, simply proceed to the next step.

10. An acknowledgment message displays, indicating that *BASE has been restored.

11. If you were required to insert a CD containing a language MRI other than English above, remove this CD now and insert the WebSphere Commerce CD.

12. Type RSTLICPGM on the command line.

13. Press PF4 for a prompt.

14. Type the LICPGM (5733WC5) and DEV name in the appropriate entry fields.

15. Type OPTION (1) and RSTOBJ (*PGM) to install additional WebSphere Commerce components, and press Enter. An acknowledgment message displays, indicating that Option 1 has been restored.

16. Type RSTLICPGM on the command line.

17. Press PF4 for a prompt.

18. Type the LICPGM (5733WC5) and DEV name in the appropriate entry fields.

19. Type OPTION (2), and RSTOBJ (*PGM) to install additional WebSphere Commerce components, and press Enter. An acknowledgment message displays, indicating that Option 2 has been restored. You have now completed installing WebSphere Commerce Professional Edition.

20. ▶ Business If you are installing WebSphere Commerce Business Edition, you must complete these remaining steps. Type RSTLICPGM on the command line.

21. Press PF4 for a prompt.

22. Type the LICPGM (5733WC5) and DEV name in the appropriate entry fields.

23. Type OPTION (3) and RSTOBJ (*PGM) to install additional WebSphere Commerce Business Edition components, and press Enter. An acknowledgment message displays, indicating that Option 3 has been restored. You have now completed installing WebSphere Commerce Business Edition.

Part 2. Configuring WebSphere Commerce 5.4

Topics covered in this section include:

- Chapter 5, "Pre-configuration steps" on page 23
- Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25
- Chapter 7, "Creating an instance with the Quick Configuration command" on page 47
- Chapter 8, "Post-Configuration Steps" on page 51

You *must* complete the appropriate steps inChapter 5, "Pre-configuration steps" on page 23 and Chapter 8, "Post-Configuration Steps" on page 51 in order to successfully configure WebSphere Commerce. You can create your instance using the Configuration Manager tool by following the steps in Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25.

Chapter 5. Pre-configuration steps

This chapter contains a list of tasks that must be completed before you configure your WebSphere Commerce instance.

Configure a remote instance

If you are using a relational database other than `*LOCAL`, you will need to set up the database for remote access. When you configure a WebSphere Commerce instance, a user profile will be created on the `*LOCAL` system.

To configure your system to use a remote database, do the following:

1. Start the DDM TCP/IP server on the remote machine using either the **Network** option under your remote machine in the Operations Navigator, or the following command:

   ```
   STRTCPSVR SERVER(*DDM)
   ```

2. On the machine where Websphere Commerce is installed, use the **WRKRDBDIRE** command to ensure that there is an entry for the database in which you want to create your instance's schema.

3. Once per machine, logon to the machine where WebSphere Commerce is installed, and run the following command on one line:

   ```
   RUNJVA CLASS(com.ibm.db2.jdbc.app.DB2PackageCreator)
      PARM('remote_system' 'user' 'password')
   ```

   where *remote-system* is the hostname of the machine where you will be creating your database schema, *user* is a profile with authority to create new objects on the remote system, and *password* is the password associated with the user.

4. Create a user profile on the remote system that has the same name as the instance name that you are creating. Configure the user profile so that it's language settings match the language you intend to choose as the default language for your instance.

5. The password for this user profile must be the same as on the `*LOCAL` system. This is the password that will be entered while configuring the database in the **Database Logon Password** field in the Configuration Manager.

6. Once per instance, ensure that the instance user profile you just created on the remote system has authority to the *SQLPKG objects in the QGPL library, by running the following command:

   ```
   GRTOBJAUT OBJ(QGPL/*ALL) OBJTYPE(*SQLPKG) USER(instance_user_profile) AUT(*CHANGE)
   ```

7. Ensure that the **JDBC driver location** field in the WebSphere panel of the Instance Creation wizard contains the correct location for the ToolBox driver .JAR file. By default, this file is located in the following directory:

   ```
   /QIBM/ProdData/HTTP/Public/jt400/lib/jt400.jar
   ```

Start the WebSphere Application Server

To start the WebSphere Application Server, perform the following steps:

1. Log on to the iSeries server as an administrator.
2. From the OS/400 command line, type:

   ```
   WRKACTJOB SBS(QEJBADV4)
   ```

3. If the subsystem is not running, type the following from an OS/400 command line:

```
STRSBS SBSD(QEJBADV4/QEJBADV4)
```

4. Enter the command: `WRKACTJOB SBS(QEJBADV4)` and refresh the screen until you see the QEJBADMIN and QEJBMNTR jobs. You may also see other WebSphere Application Server instances starting that were running at the time when the subsystem was ended.

For information on starting non-default WebSphere Application Server instances, please refer to the following Web page:

```
http://publib.boulder.ibm.com/was400/40/AE/english/docs/admmustr.html
```

The next step

After you have completed all the necessary steps in this chapter, you can create your instance with the Configuration Manager by completing the steps in the following chapter:

- Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25

Chapter 6. Creating or modifying an instance with Configuration Manager

This chapter describes how to create or modify an instance with the Configuration Manager. If you have not completed the steps in Chapter 5, "Pre-configuration steps" on page 23, you will not be able to create an instance.

Notes:

1. If you want to use IBM WebSphere Payment Manager 3.1.2 to handle online transactions for your instance, you should install Payment Manager before creating your instance. To install Payment Manager, see "Installing Payment Manager" on page 13.

2. In WebSphere Application Server 4.0, a single WebSphere Commerce Server consists of an Installed EJB Module, and an Installed Web Module to serve client requests to one or more stores. In the WebSphere Commerce Configuration Manager, each WebSphere Commerce instance appears as a separate root category in the instances tree. In the WebSphere Application Server topology view, a WebSphere Commerce instance will appear under a node entry as a separate WebSphere Commerce application server.

Chapter checklist

- Ensure that your DDM server is running.
- Ensure that the WebSphere Application Server has been started.

  Attention: If WebSphere Application Server security is turned on, you must disable it before creating your instance. Details on enabling and disabling WebSphere Application Server security are located in Chapter 11, "Enabling WebSphere Application Server security" on page 61.

Launch the Configuration Manager

The Configuration Manager is a utility that provides a graphical interface to the complex options available for configuring a WebSphere Commerce instance. The Configuration Manager is accessed from a Windows machine attached to the same network as the iSeries server. The Windows machine from which you access the Configuration Manager must have IBM Developer Kit for Windows, Java 2 Technology Edition, v1.3 installed.

To access the Configuration Manager, complete the following steps:

Set-up:

1. Using the Windows machine, copy the contents of the iSeries server `/QIBM/ProdData/WebCommerce/wcs400` directory to the hard drive on the PC. Your PC hard drive will now have a new directory, called `WCS400`. This directory will be referred to by this name in the following instructions.

2. Modify the JDK path in the following file (on your PC):

   `WCS400\config_env.bat`

   In this file, define the JDK path by adding the following line:

   `set PATH=Drive:\jdk131\bin;%PATH%`

where *jdk131* is the path to the JDK directory. If you have WebSphere Application Server installed on the Windows machine, you can use its JDK, in which case, set the JDK path using the following line:

```
set PATH=Drive:\websphere\appserver\java\bin;%PATH%
```

3. On the Windows machine, perform the following steps:

   a. From the **Start** menu, click **Run**.

   b. In the dialog box that displays, type the following:

   ```
   JAVA_bin_path\java -jar WCS400_Path\RAWTGui.jar
   ```

   where *JAVA_bin_path* is the `bin` directory for IBM Developer Kit for Windows, Java 2 Technology Edition, v1.3., and *WCS400_Path* is the full PC drive and path to the WCS400 folder.

   c. Click **OK**.

4. Change the `jobd` for the profile so that the job log wraps. From the OS/400 command line, type:

   ```
   CHGJOBD JOBD(QDFTJOBD) JOBMSGQFL(*WRAP)
   ```

Start the server:

1. Log on to the iSeries ensuring that the profile has a *SECOFR user class, and is set up with with the language specific settings of either English, or the language that you will choose as the default language for your instance. Refer to "Creating an iSeries user profile" on page 4.

2. Ensure that WebSphere Application Server is installed on your iSeries system and that the Admin Server is running by looking at active jobs using the **WRKACTJOB** command. You should see job QEJBADMIN under subsystem QEJBADV4. Note that this job may have another name if you are using a custom WebSphere Application Server instance. If the subsystem is not there, it can be started by running the following command:

   ```
   STRSBS SBSD(QEJBADV4/QEJBADV4)
   ```

   If the subsystem is there but job QEJBADMIN is not present, end the subsystem (using the **ENDSBS** command), and restart it.

3. Enter the following command:

   ```
   STRWCSCFG IP('Client_IP_address') PORT('Server_port_number')
   ```

   where

   Client_IP_address
   is either the numeric IP address or the host name of the client machine on which you will run the Configuration Manager client.

   Server_port_number
   is the port number on the iSeries server to which Configuration Manager will listen. This parameter is optional, with the default being 1099. This value must be between 1024 and 65535, and not currently in use.

   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 QSYS*language_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.

4. The first time that the Configuration Manager is run on the system, you will see the following messages:

```
Attaching Java program to /Qibm/ProdData/WebCommerce/lib/WCSConfig.jar.
Press ENTER to end terminal session.
```

When these messages are displayed, press enter to continue.

5. When you receive the following messages, proceed to the next section, "Start the client":

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

Start the client:

1. Using a command prompt on the client machine, change to the WCS400 directory.

2. Configure the client by running the following command:

```
config_client.bat iSeries_Host_name Server_port_number
```

where *iSeries_Host_name* is the fully qualified host name of the server, and *Server_port_number* is the port number on the iSeries server on which the Configuration Manager is listening.

3. When the Configuration Authentication window displays, enter the user ID and password. The first time this is run, the user ID is webadmin, and the password is webibm. You will be required to change this when you log in the first time.

4. Configure your instance using the information provided in "Instance Creation Wizard".

Instance Creation Wizard

To create your instance, do the following in the WebSphere Commerce Configuration Manager:

1. Expand your host name.
2. Right-click on **Instance List**.
3. From the resulting pop-up menu, select **Create Instance**.
4. The Instance Creation wizard opens. Complete the fields in each of the following panels.

Instance

Instance name
> This is the name that you want to use for your instance. The default name is demo. The instance name must be 9 characters or less.

Instance's root path
> Enter the path where you want to store all files related to your WebSphere Commerce instance. The default path is /QIBM/UserData/WebCommerce/instances/*instance_name*

Merchant Key
> This is the 16-digit hexadecimal number for the Configuration Manager to use as the encryption key. *You must enter your own key in the Merchant Key field.* Ensure that the key that you enter will be sufficient to protect your site, especially for a production server. After you have created a store you can only change this key by using the **Database Update Tool**. To use

this tool, access Configuration Manager. Expand the tree under instance properties and then right-click on the database node, and select **Run Database Update Tool**.

PDI encrypt

Enable this check box to specify that information specified in the ORDPAYINFO and ORDPAYMTHD tables should be encrypted. By selecting this check box, payment information will be stored in the database in encrypted format.

PVC header enabled

Reserved for future releases.

URL mapping file

Enter the path to the file you will be using for URL mapping. You can also accept the default file

Database

Relational Database name

Enter the name assigned to the database.

The name must be 18 characters in length or less.

Instance Logon Password

This is the password for the new instance user profile that will be created.

Use staging server

If **Use staging server** is selected, the Configuration Manager defines this database as being for use by a staging server. For more information on staging servers, see the WebSphere Commerce online information. (See "Using the online help" on page 85 for guidance on accessing this information.)

Use remote database

Enable this check box if your database server is on a different node than WebSphere Commerce.

Note: If you have installed your database server on a different node than WebSphere Commerce (for example, if you are configuring a two or three tier environment), you *must* select this check box.

Database Server Hostname

This field is enabled if you select **Use Remote Database**. Type the fully qualified name of the host name of this remote database server.

Languages

Use the Languages panel of the Configuration Manager to configure your database to support all required languages. Choose your default language from the drop down list. The `wcs.bootstrap_multi_xx_XX.xml` file that matches your default language must also be in the Selected Languages window. To add support for additional languages to your database, complete the following steps:

1. Select the appropriate language `.xml` file from the Available Languages window. The `.xml` file will be in the form of `wcs.bootstrap_multi_xx_XX.xml`, where xx_XX is the four letter locale code for the language you want to select.

2. Click the arrow that points to the Selected Languages window. The language you have chosen should now be listed in the Selected Languages window.

3. Repeat steps 1 and 2 for each language for which support is needed.

Note: If you plan to create stores that support more than one language, for example, a store that is available in either English or Spanish, you must select all languages your stores will support. In this case, you must have both English and Spanish in the Selected Languages window. The sample stores provided with WebSphere Commerce support more than one language. If you select only one language on the Languages panel, then you will not see certain portions of the sample store that does support multiple languages.

Web Server

Use Remote Web Server
Select this check box if you are installing your Web server on a separate machine from your WebSphere Commerce server. If this box is selected, your Web server will not be configured by the Configuration Manager.

> **Note:** If you have installed your Web server on a different node than WebSphere Commerce (for example, if you are configuring a three tier environment), you *must* select this check box.

Hostname
Type the *fully qualified* host name of your Web instance (`hostname.domain.com` is fully qualified). Ensure that you do not enter the `www` prefix in the hostname field.

Web Server Type
From the drop-down list, select the Web server software that you intend to use.

Primary Document Root
Accept the default, or type the path of your Web server document root.The default path is `/QIBM/UserData/WebCommerce/instances/`*instance_name*`/web`. The path you type must already exist.

Server Port
Enter the port number that you want your WebSphere Commerce Server to use. The default value is 80.

Authentication Mode
Select the authentication mode that you would like to use for this WebSphere Commerce instance. The choices are as follows:

Basic Authentication will be performed using a custom certificate.

X.509 Authentication will be performed using the X.509 certificate standard.

WebSphere

DataSource Name
Used to set up the Connection Pool for access to the database with which WebSphere Commerce works. Accept the default, or type in the DataSource name.

Port Number
Enter the port address that WebSphere Application Server is listening on. You can accept the default unless you specified a different port when starting the WebSphere Application Server.

WebSphere administrative server
Enter the name of Websphere Admininstarive Server that you want to use.

Your Websphere Admininstarive Server must be fully started before configuring your instance. The default Websphere Admininstarive Server name is ″default″.

JDBC Driver Location

Enter the location of your JDBC driver. The default is /QIBM/ProdData/Java400/ext/db2_classes.jar.

Stores Web Application

Select this if you want the default Stores web application configured for you under the WebSphere Commerce Server in WebSphere Application Server.

Tools Web Application

Select this if you want the default Tools web application configured for you under the WebSphere Commerce Server in WebSphere Application Server.

Tools Port Number

The port number used for accessing WebSphere Commerce administration tools. The default port number is 8000. If you are using a Domino Web Server you must change this to port number 443.

WebSphere Catalog Manager

If this check box is selected the WebSphere Catalog Manager WebEditor will be installed. It will be accessible at: https://*host_name*:8000/wcm/webeditor. It is installed by default.

Payment Manager

Use Payment Manager

Select this check box if you want WebSphere Commerce to create a Payment Manager instance during WebSphere Commerce instance creation. The Payment Manager instance that the Configuration Manager creates will have the same instance name as the WebSphere Commerce instance, except in the special cases mentioned below in the Hostname and Web Server Port sections. The Payment Manager instance password will be the same as the WebSphere Commerce Instance Logon Password.

Note for local Payment Manager instances: If a Payment Manager instance and a WebSphere Commerce instance have indentical instance names, they share the same instance library. That is, both the WebSphere Commerce tables and the Payment Manager tables are in the same relational database. The Payment Manager instance also shares the HTTP server with the WebSphere Commerce instance. Any Payment Manager aliases are added to the WebSphere Commerce store HTTP server configuration file. The Payment Manager instance also shares the virtual host

> with WebSphere Commerce
> instance in the WebSphere
> Application Server.

Use Remote Payment Manager
> Select this check box if you want WebSphere Commerce to create a remote
> Payment Manager instance during WebSphere Commerce instance creation.
>
> **Note:** You need to have a user profile with the same ID and password on
> the remote system as the one you use to start WebSphere Commerce
> Configuration Manager (using the **STRWCSCFG** command) on the
> local machine. Otherwise, the WebSphere Commerce Configuration
> Manager will not be able to access the remote machine.

Remote System Name
> Type the fully qualified host name of the remote Payment Manager
> machine.

Hostname
> Type the fully qualified host name of the Payment Manager instance. The
> default for this field is the system host name. If you have installed
> Payment Manager on a remote machine, you must ensure that this field
> contains the fully-qualified host name of the remote Payment Manager
> instance.
>
> **Note for local Payment Manager instances:** If the host name specified is
> not the same as the
> WebSphere Commerce
> instance host name, the
> Configuration Manager
> creates the Payment Manager
> instance with an instance
> name which is the WebSphere
> Commerce instance name,
> with letter `p` appended to the
> end. For example, if the
> WebSphere Commerce
> instance is called `wcinst`, the
> Payment Manager instance
> will be called `wcinstp`. This is
> done to avoid conflicts with
> HTTP servers and virtual
> hosts between WebSphere
> Commerce instance and the
> Payment Manager instance. In
> this case, the Payment
> Manager instance has its own
> instance library, HTTP server,
> and virtual host.

Profile Path
> The full path name of the directory where the Standard WebSphere
> Commerce Payment Manager Cashier Profiles are to be stored. The default
> value is `/QIBM/UserData/WebCommerce/instances/`*instance_name*`/xml/`
> `payment`

Use non-SSL Payment Manager Client
> Enable this check box if you want WebSphere Commerce to use the

non-SSL Payment Manager client to communicate with the Payment Manager server. This allows the WebSphere Commerce to communicate with Payment Manager without using SSL.

Web Server Port

Enter the Web server TCP port that Payment Manager uses. If you have selected the Use non-SSL Payment Manager Client check box, the default value for this field is 80 (the non-secure port). If the Use non-SSL Payment Manager Client check box has not been enabled, the default value for this field is 443 (the SSL port).

Note for local Payment Manager instances: If the Payment Manager Web server port is not the same as the WebSphere Commerce store web server port (that is, SSL port is not 443, or non-SSL port is not the value in Server Port field of Web Server panel), Configuration Manager will create a Payment Manager instance whose instance name is the WebSphere Commerce instance name with p appended to the end. For example, if the WebSphere Commerce instance is called `wcinst`, the Payment Manager instance will be called `wcinstp`. This is needed to avoid conflicts with HTTP servers and virtual hosts between WebSphere Commerce instance and Payment Manager instance. In this case, Payment Manager instance has its own instance library, HTTP server, and virtual host. If an SSL port is used, Payment Manager HTTP server will use a hard coded non-SSL port: 8999, to avoid conflict with WebSphere Commerce store HTTP server non-SSL port (80).

Log System

Trace File Location

This is the location of the file collecting debugging information. It contains debug messages in English. Note: if the Trace File Location is the same as the Message File Location then the contents of the files will be merged.

Trace File Size

This is the maximum size of the trace file in MB. The default trace file size is 40 MB. Once the trace file reaches this size, another trace file will be created.

Message File Location

This is the location of the file collecting messages, describing the state of the WebSphere Commerce system. Messages are locale-sensitive. Note: if the Trace File Location is the same as the Message File Location then the contents of the files will be merged.

Message File Size

This is the maximum size of the message file in MB. The default trace file size is 40 MB. Once the message file reaches this size, an additional message file will be created.

Activity log Cache Size

Enter the maximum size of the activity log's cache.

Notification Enabled

Select this check box if you want to be notified of error level messages. You must also modify the notification information in the WebSphere Commerce Administration Console to recieve these messages.

Messaging

User Template File

This is the name of the XML message template definition file that allows you to add new inbound XML messages to be supported by your system. An outline should be added to this file for each new XML message that you want to support. It is recommended that you use the default user_template.xml which is stored in the template path directory.

Inbound Message DTD Path

This is the path where all the DTD files for inbound XML messages are stored. The default is `/QIBM/ProdData/WebCommerce/xml/messaging`

WebController User ID

This is the ID used by WebSphere Commerce to execute all the WebSphere Commerce MQSeries® Adapter inbound messages. It should be an ID that has Site Administrator authority. The default is `wcsadmin`. Ensure that only authorized persons have the authority to update the User Template File and System Template File since the inbound XML messages can be mapped to execute WebSphere Commerce commands using this ID.

System Template File

This is the name of the XML message template definition file that contains the outline of all inbound XML messages supported by the WebSphere Commerce MQSeries Adapter. This file defines the data fields for each message, mapping the message to the appropriate WebSphere Commerce Controller Command, and mapping each field within the message to the appropriate parameter for that command. It is recommended that you use the default `sys_template.xml` which is stored in the template path directory.

Template Path

This is the path where the User Template File and System Template File are stored. The default is `/QIBM/ProdData/WebCommerce/xml/messaging`

Inbound Message DTD Files

This is the list of the DTD and include files for inbound XML messages. If you add a new inbound XML message, you need to add it in this field.

Auction

Enable Auction

Select the **Enable** checkbox to enable Auctions.

SMTP Server

This field is enabled if you select **Enable Auction**. Define the SMTP server that is used to receive email messages.

Reply Email

This field is enabled if you select **Enable Auction**. Define the sender's email information

Starting the instance creation

Once you have filled in the necessary information on all the panels, the **Finish** button is enabled. Click **Finish** to create your WebSphere Commerce instance.

Depending on the speed of your system, it will take several minutes to several hours for your instance to be created. The progress bar that displays when you start creating the instance will indicate when the process has finished. When this has successfully completed click **Ok** to close the Instance Creation wizard.

Complete the configuration of a remote database

Once you have configured your instance, you are ready to complete the configuration of your remote database. To do this, change the instance user profile on the remote machine so that the instance library is set to the current library. To complete these changes, run the following command:

```
CHGUSRPRF USRPRF(instance_name) CURLIB(instance_name)
```

where *instance_name* is the name of the WebSphere Commerce instance.

Start and stop your instance

Once your instance has been created, you must start it. To accomplish this, please complete the following steps:

1. Open the WebSphere Application Server Administrator's Console.
2. Expand **WebSphere Administrative Domain**.
3. Expand **Nodes**.
4. Expand **Node_name**.
5. Expand **Application Servers**.
6. Select *instance_name* — **WebSphere Commerce Server** and right-click. Select **Start** or **Stop** as appropriate.

Additional configuration options

Once you have created and started your basic instance, you can configure additional aspects of WebSphere Commerce through the following nodes:

Note: Many options cannot be re-configured once the instance has been created. Only the options you are allowed to change are listed in this section of the book.

Instance Properties

All panels that were available in the Instance Creation wizard appear under the Instance Properties node of the Configuration Manager. The following panels are either new or modified from the Instance Creation wizard panels:

Database

Use the Database panel of the Configuration Manager to configure WebSphere Commerce to work with your database. Complete the fields as follows:

Instance Logon Password
> This is the password for the instance user profile associated with the database.

Languages

Use the Languages panel of the Configuration Manager to configure your database to support all required languages. To add support for additional languages to your database, complete the following steps:

1. Select the appropriate language `.xml` file from the Available Languages window. The `.xml` file will be in the form of `wcs.bootstrap_multi_xx_XX.xml`, where `xx_XX` is the four letter locale code for the language you want to select.

2. Click the arrow that points to the Selected Languages window. The language you have chosen should now be listed in the Selected Languages window.

3. Repeat steps 1 and 2 for each language for which support is needed.

Note: If you plan to create stores that support more than one language, for example, a store that is available in either English or Spanish, you must select all languages your stores will support. In this case, you must have both English and Spanish in the Selected Languages window. The sample stores provided with WebSphere Commerce support more than one language. If you select only one language on the Languages panel, then you will not see certain portions of the sample store that does support multiple languages.

WebSphere

Use the WebSphere panel of the Configuration Manager to configure the way that WebSphere Application Server interacts with WebSphere Commerce. Complete the fields as follows:

DataSource name
> Used to set up the Connection Pool for access to the database with which WebSphere Commerce works.

Port number
> Enter the port address to which WebSphere Application Server is connected. You can accept the default unless you specified a different port when starting the WebSphere Application Server.

WebSphere Administrative Server
> Enter the name of the WebSphere Administrative Server that you want to use. Your WebSphere Administrative Server must be fully started before configuring your WebSphere Commerce instance. The default WebSphere Administrative Server name is `default`.

JDBC driver location
> Enter the location of your JDBC driver. The default is `/QIBM/ProdData/Java400/ext/db2_classes.jar`.

WebServer

The General tab of the Web server panel contains the same parameters as the version of the panel that appears in the Instance Creation wizard.

Use the Web server panel of the Configuration Manager to configure WebSphere Commerce to use your Web server. Complete the fields as follows:

Web Server Type
> From the drop-down list, select the web server to be used.

Primary Document Root
> Accept the default, or type the path of your Web server document root. The path you type must already exist.

Server port
> Enter the port number on which your Web server is running. The default value is 80.

Authentication Mode
> Select the authentication mode that you would like to use for this WebSphere Commerce instance. The choices are as follows:
> - Basic Authentication will be performed using a custom certificate.
> - X509 Authentication will be performed using the X509 certificate standard.

The **Advanced** tab contains a list of all Web server aliases. To add a new alias, select the Advanced tab, right-click and select **Add row**. To delete an alias, select the alias that you want to delete, right-click and select **Delete row**.

Note: The Advanced tab is not currently functional.

Instance

The Instance panel of the Configuration Manager is used to specify basic information about the instance. If creating multiple instances ensure that each instance has a different name and root path.

PDI encrypt
> Select this check box to encrypt the information specified in the ORDPAYINFO and ORDPAYMTHD tables. By selecting this check box, payment information will be stored in the database in encrypted format.

PVC header enabled
> Reserved for future releases.

URL mapping file
> Enter the path to the file you will be using for URL mapping. You can also accept the default
> file:/QIBM/ProdData/WebCommerce/xml/mapping/urlmapper.xml

Payment Manager

If you have used the Configuration Manager to create a Payment Manager instance before, all of the fields on this panel, except Profile Path, will be disabled. You cannot use the Configuration Manager to alter a Payment Manager instance. To use the Configuration Manager to re-create a Payment Manager instance, you must delete the Payment Manager instance, back up and modify the `instance_name.xml` file (usually found in `/QIBM/UserData/WebCommerce/instances/`*instance_name*`/xml` folder) as follows:

1. In Payment Manager section of the `instance_name.xml` file, change the value of the `UsePayment` attribute from `true` to `false`.

2. Save the file.
3. Launch the Configuration Manager.
4. Complete the Payment Manager panel as descibed in "Instance Creation Wizard" on page 27, and click **Apply**.

Member Subsystem

Use the Member Subsystem panel of the Configuration Manager to configure WebSphere Commerce to use a directory server.

Authentication mode
> Select LDAP, Database or Other to select an alternate mode of authentication. If you select LDAP the rest of the fields on this panel will be enabled.

LDAP Version
> The version of the LDAP protocol that the WebSphere Commerce Server will use to communicate with the LDAP server.

LDAP Type
> Select the Directory Server software you are using with WebSphere Commerce.

Single Sign-on
> Select this check box to allow users who have already been authenticated by WebSphere Application Server to be recognized by WebSphere Commerce. Single Sign-on is not supported by WebSphere Commerce at this time.

Host   The fully qualified host name specifying where the LDAP server is installed.

Port   The port used by the LDAP server. The default port is 389.

Administrator Distinguished Name
> The distinguished name of the LDAP server administrator.

Administrator Password
> The LDAP server administrator's password.

Confirm Password
> Re-enter the LDAP administrator's password.

LDAP Authentication Mode
> Specifies the authentication mechanism that the LDAP server uses. **None** means that WebSphere Commerce does not authenticate to the LDAP server. **Simple** means that WebSphere Commerce uses a distinguished name and password to authenticate to the LDAP server.

Time out
> The time in seconds before an LDAP search times out.

Entry File Name
> The entry file used for LDAP server initialization.

Messaging

User Template File
> This is the name of the XML message template definition file that allows you to add new inbound XML messages to be supported by your system. An outline should be added to this file for each new XML message that you want to support. It is recommended that you use the default user_template.xml which is stored in the template path directory.

Inbound Message DTD Path
This is the path where all the DTD files for inbound XML messages are stored. The default is

WebController User ID
This is the ID used by WebSphere Commerce to execute all the WebSphere Commerce MQSeries Adapter inbound messages. It should be an ID that has Site Administrator authority. The default is `wcsadmin`. Ensure that only authorized persons have the authority to update the User Template File and System Template File since the inbound XML messages can be mapped to execute WebSphere Commerce commands using this ID.

System Template File
This is the name of the XML message template definition file that contains the outline of all inbound XML messages supported by the WebSphere Commerce MQSeries Adapter. This file defines the data fields for each message, mapping the message to the appropriate WebSphere Commerce Controller Command, and mapping each field within the message to the appropriate parameter for that command. It is recommended that you use the default `sys_template.xml` which is stored in the template path directory.

Template Path
This is the path where the User Template File and System Template File are stored. The default is

Inbound Message DTD Files
This is the list of the DTD and include files for inbound XML messages. If you add a new inbound XML message, you need to add it in this field.

Session Management

The Session Management panel of the Configuration Manager has two tabs:

General tab:

Enable cookies
This check box specifies that the site uses cookies for session management. This is always enabled for WebSphere Commerce.

Enable URL rewriting
Select this check box to use URL rewriting for session management.

Cookie acceptance test
Select this check box to check if the shopper's browser accepts cookies for a site that only supports cookies.

Cookie session manager
You can select whether you want WebSphere Commerce or WebSphere Application Server to manage your cookies. The default is WebSphere Commerce.

Advanced tab:

Cookie path
Specifies the path for the cookie, which is the subset of URLs to which a cookie should be sent.

Cookie age
This field should not be altered. The default is for a cookie to expire when the browser is closed.

Cookie domain

Specifies a domain restriction pattern. A domain specifies the servers that should see a cookie. By default the cookie is only sent back to the WebSphere Commerce server that issued them.

Security

Security can be configured through the Configuration Manager.

Enable security

Select this checkbox to enable EJB security.

> **Note:** You must enable Global Security Settings within the WebSphere Application Server before selecting this checkbox.

Authentication mode

Determine which type of registry to use to authenticate users : Operating system user registry, LDAP user registry

User ID

Enter the user name that allows access to EJBs.

User password

Enter the password associated with the above user ID.

Password Invalidation

Use the Password Invalidation node of the Configuration Manager to enable or disable the password invalidation feature. This feature, when enabled, requires WebSphere Commerce users to change their password if the user's password has expired. In that case, the user is redirected to a page where they are required to change their password. Users are not able to access any secure pages on the site until they have changed their password. To enable this feature:

1. Go to the Password Invalidation node in the Configuration Manager, which can be found under *instance_name* → **Instance Properties**
2. To activate the password invalidation feature, click the **Enable** check box.
3. To apply your changes to your instance, click **Apply**.
4. Upon successfully updating the configuration for your instance, you will receive a message indicating a successful update.

Login Timeout

Use the Login Timeout node of the Configuration Manager to enable or disable the login timeout feature. When this feature is enabled, a WebSphere Commerce user that is inactive for an extended period of time is logged off the system and requested to log back on. If the user subsequently logs on successfully, WebSphere Commerce runs the original request that was made by the user. If the user logon fails, the original request is discarded and the user remains logged off the system. To enable this feature:

1. Open the Configuration Manager and go to the Login Timeout node for your instance as follows:

   WebSphere Commerce → *host_name* → **Instance List** → *instance_name* → **Instance Properties** → **Login Timeout**
2. To activate the login timeout feature, click the **Enable** check box.
3. Enter the login timeout value, in seconds, in the Login Timeout Value field.
4. To apply your changes to your instance, click **Apply**.
5. Upon successfully updating the configuration for your instance, you will receive a message indicating a successful update.

Password Protected Commands

Use the Password Protected Commands node of the Configuration Manager to enable or disable the password protected commands feature. When this feature is enabled, WebSphere Commerce requires registered users to enter their password before continuing a request that runs designated WebSphere Commerce commands. To enable this feature:

1. Open the Configuration Manager and go to the Password Protected Commands node for your instance as follows: **WebSphere Commerce** → *host_name* → **Instance List** → *instance_name* → **Instance Properties** → **Password Protected Commands**

2. In the General tab:
   a. To activate the password protected commands feature, click **Enable**.
   b. Enter number of retries in the **Retries** field. (The default number of retries is 3.)

3. In the Advanced tab:
   a. Select a WebSphere Commerce command you want to protect from the list in the Password Protected Command List window and click **Add**. The command you have selected is listed in the Current Password Protected List window.
   b. If you want to disable password protection for any WebSphere Commerce command, select the command in the Current Password Protected Command list window and click **Remove**.

4. To apply your changes to your instance, click **Apply**.

5. Upon successfully updating the configuration for your instance, you will receive a message indicating a successful update

Note: WebSphere Commerce will only display the commands that are designated as "authenticated' in the CMDREG table in the list of available commands.

Cross Site Scripting Protection

Use the Cross Site Scripting Protection node of the Configuration Manager to enable or disable the cross site scripting protection feature. When enabled, this feature rejects any user requests that contain attributes or characters that are designated as not allowable. You can specify the disallowed attributes and characters in this node of the Configuration Manager. To enable this feature:

1. Open the Configuration Manager and go to the Cross Site Scripting Protection node for your instance as follows:

   WebSphere Commerce → *host_name* → **Instance List** → *instance_name* → **Instance Properties** → **Cross Site Scripting Protection**

2. Use the General tab to activate the cross site scripting protection feature, as follows:
   a. Click **Enable**.
   b. To add attributes that you want to disallow for WebSphere Commerce commands, right-click on the Prohibited Attributes table and select **Add row**. Add the attributes that you want to disallow, separated by commas (,). For example, user_id, passwd.
   c. To remove attributes from the Prohibited Attributes table, highlight and right-click the line containing the attribute in the table and select **Delete row**.

d. To add characters that you want to disallow for WebSphere Commerce commands, right-click on the Prohibited Characters table and select **Add row**. Add the character that you want to disallow, separated by commas (,). For example, <, >.

e. To remove characters from the Prohibited Characters table, highlight and right-click the line containing the character in the Prohibited Characters table and select **Delete row**.

3. Use the Advanced tab to disable cross site scripting protection for specified attributes of selected WebSphere Commerce commands, as follows:

a. Select the commands from the Command List box.

b. Type in a list of attributes, separated by commas, for which prohibited characters are allowed in the List of Excepted Attributes window and click **Add**.

c. To remove a command along with its attributes, select the command from the List of Excepted Commands window and click **Remove**.

You can also remove specific attributes from a command by selecting the attribute and clicking **Remove**.

4. To apply your changes to Configuration Manager, click **Apply**.

5. Upon successfully updating the configuration for your instance, you will receive a message indicating a successful update.

Trading

Trading can be configured through the Configuration Manager.

XML Path
> The Path where xml files for trading component are stored.

DTD Path
> The Path where dtd files for trading component are stored.

DTD File Name
> The dtd file name for the trading component.

Collaboration – SameTime

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

Enable
> Select this check box if you want Customer Care collaboration function available to your site.

Host Name
> Type the fully qualified host name of your Sametime server (hostname.domain.com is fully qualified). Ensure that you do not enter www in the Hostname field. The default is the fully qualified host name of the machine where your WebSphere Commerce server is installed.

Registration URL
> Type the Registration URL of your Sametime server. A Site Administrator can register Customer Service Representatives on the Sametime server using the WebSphere Commerce Administration Console's User list - "Register Customer Care" button.

Applet CodeBase URL
> Type the Applet CodeBase URL to where all the applet codes are located. Ensure that the applet codes are installed on the Sametime server machine.

Monitor Type

Select the type of monitoring that you want to use in Customer Care applet.

- Monitor Waiting Queue.
- Monitor All Shoppers in Store.
- Monitor Waiting Queue and All Shoppers in Store.

The default is Monitor Waiting Queue.

Initiation Type

Select who can initiates help request during the Customer Care collaboration.

- Shoppers initiate help.
- Both Customers and CSR initiate help.

Help Session Limit

Type the value to set how many help sessions a Customer Service Representative can open at one time. The value must be a positive integer. The default value is 7.

CollaborativeWorkspaces – DirectoryAccess

▶ Business

You must designate LDAP as the authentication mode for Member Subsystem in order to properly configure directory access.

BaseDN

This is the LDAP suffix used in the WebSphere Commerce Member Subsystem (e.g. o=root organization).

CollaborativeWorkspaces – QuickPlace

▶ Business

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

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

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

Domain

The domain of your QuickPlace server.

Host Name

The hostname of your QuickPlace server.

Administrator Login

The login name of your Domino administrator, with `/domain` appended to the end.

Administrator Password

The password of your Domino administrator.

Collaboration Administrator
The login name of the super user of the Collaborative Workspaces feature, with /domain appended to the end.

Collaboration Admin Password
The password of the Collaborative Workspaces super user.

Locale The locale of the QuickPlace server.

Components

The components node contains a list of all components that have been created for your WebSphere Commerce instance. You can enable or disable any of these components by selecting it and selecting the Enable Component check box. For more information on individual components, please refer to the WebSphere Commerce online help.

You can also create or delete components through this node. To Remove a component select it, right-click and select **Remove Component**. To add a component, select **Components**, right-click and select **Create Component**. Enter the name that you want to call the component, the class that you want to associate with this component, and select **Enable Component**.

Protected Parameters

Protected parameters are those parameters whose values will not be exposed in plain text in the trace files generated by WebSphere Commerce. They include sensitive information such as credit card numbers and user passwords. The Protected Parameters panel of the Configuration Manager displays a list of all parameters that are currently protected.

To add a parameter to the list, complete the following steps:
1. On the Protected Parameters panel, right-click and select **Add row**.
2. In the table row that is created, enter the name of the parameter that you want protected.
3. Click **Apply**.

To remove a parameter from the list, right-click the parameter and select **Delete row**.

Registries

A registry is normally used to cache relatively static information that is stored in the database. During the initialization of the RequestServlet, the registry manager will initialize all registries that are defined through the Configuration Manager as well as WebSphere Commerce's internally defined registries. Database information is cached in a registry for performance improvement.

To create a registry, right-click **Registries** and select **Create Registry**. This will launch the Registry Creation wizard. Complete the fields as follows:

Registry Name
Enter the name that you want to assign to the registry that you are creating.

Registry Class Name
Enter the name of the class that you want associated with the new registry.

Auction

Enable Auction
Select the **Enable** checkbox to enable Auctions.

SMTP Server
This field is enabled if you select **Enable Auction**. Define the SMTP server that is used to receive email messages.

Reply Email
This field is enabled if you select **Enable Auction**. Define the sender's email information

External Server List

The External Server List contains the default LikeMinds server address. It also contains a list of listener classes that process external events.

The LikeMinds listener is added by default. This listener will add the external event into the LikeMinds server.

Commerce Accelerator

The Commerce Accelerator node of the Configuration Manager allows you to configure the Business Intelligence component of WebSphere Commerce, and integrate it with WebSphere Commerce Analyzer. Commerce Analyzer is an optional software package that accompanies WebSphere Commerce. For more information on installing and configuring Commerce Analyzer, please see the *WebSphere Commerce Additional Software Guide*.

To configure Business Intelligence, complete the following fields:

Statistic source
Enter the fully qualified host name of the machine where your statistics data is kept. This can be either a production server or a staging server. The default value is the machine on which WebSphere Commerce is installed.

Is WebSphere Commerce Analyzer Installed?
Select **Yes** if you have installed and configured Commerce Analyzer and you want to use it with WebSphere Commerce.

Reports Document Root
Enter the path where you want the reports generated by Commerce Analyzer to be stored. The path entered in this field is appended to the end of the the instance directory root. The default path is
`/QIBM/UserData/WebCommerce/instances/`*instance_name*

Log System

The General tab of the Log System node contains all the parameters that were contained in the Instance Creation wizard. The Advanced tab allows you to choose which components you want to appear in the trace file, as well as the level of defect tracking that you want the trace file to contain. Select the components you want traced and the trace level, and then click **Apply**.

For more information on individual components, please see the WebSphere Commerce online help.

Caching Subsystem

The Cache node of the Configuration Manager allows you to configure the cache, add a command to the cache, remove key sets from a command, and remove keys from a key set.

Configure the cache by selecting the Cache node and entering the appropriate values. Additional information on these values can be found by clicking **Help** in the Configuration Manager, or in the online help under `Caching Parameters`.

To add a command to cache, use the Cache wizard. This can be launched by right-clicking **Cache** and selecting **Add a command to cache**. Complete all fields on the three panels, and click **Finish** when you entered all parameters. To remove a command from cache, select the command that you want to remove, right-click and select **Remove a command from cache**.

To delete a key set, select the key set that you want to delete, right-click and select **Remove key set from this cached command**. To delete a key, select the associated key set. On the **Advanced** tab, select the key you want to delete, right-click and select **Delete row**.

Configure Store Services

Store Services allows you to quickly create a store archive based on a sample provided with WebSphere Commerce. For additional information on using Store Services, please refer to the WebSphere Commerce online help.

The Configure Store Services node of the Configuration Manager allows you to configure three parameters of Store Services:

Temporary Path
> This is the directory that Store Services uses to copy temporary files during publishing. This directory will be automatically purged of these files once publishing has completed. The default directory is:
> `/QIBM/UserData/WebCommerce/instances/`
> *instance_name*`/temp/tools/devtools`

Maximum Errors
> This is the maximum number of errors that the publishing process will allow while loading the store data. If this number is exceeded, the publish will stop and rollback. The default value is 1.

Commit Count
> This number is used during publishing. The database gets committed after each commit count number of records gets loaded. If there are errors in the data, the database gets rolled back to the last commit point. Modify this number depending on the amount of data you are loading - setting the commit count to a number greater than the number of rows in the archive will ensure that if a rollback occurs, the entire archive will be rolled back. The default value is 17000.

Transports

By default, the e-mail transport system is enabled. However the mail host must be set to prevent errors from occurring. To set the e-mail host, complete the following steps:

1. Expand **Transports**, **Outbound**, **JavaMail** and select **ConnectionSpec**.
2. Select the **Advanced** tab.

3. In the value field of the host row, enter the fully qualified host name of your SMTP mail server.

4. In the value field of the protocol row, ensure that the value listed is smtp.

5. Click **Apply**.

6. Stop and restart the WebSphere Commerce Server in the WebSphere Application Server Administration Console.

The Configuration Manager cannot be used to configure outbound transports or interaction specifications for inbound transports. Please refer to the online help for transport-related tasks.

The next step

After you have configured and started your WebSphere Commerce instance, you need to complete the steps in Chapter 8, "Post-Configuration Steps" on page 51 in order to finish setting up your system. If you do not complete the steps in that chapter you will not be able to quickly access the WebSphere Commerce Accelerator or WebSphere Commerce Administration Console.

Chapter 7. Creating an instance with the Quick Configuration command

The Quick Configuration command allows users to quickly create an instance without lauching the Configuration Manager graphic user interface. A native command, **CRTWCSINST**, is used instead. The Quick Configuration command allows you to quickly and easily get up and running with a working instance. To increase the ease of use, instances created using the Quick Configuration command do not use some of the advanced configuration options that are avalaible through the Configuration Manager user interface.

For more advanced configurations, refer to Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25.

Assumptions and Restrictions

Creating an instance using the Quick Configuration command either assumes the following, or imposes the following restrictions:

- The command creates the instance in the default WebSphere Application Server instance listening on port 900.
- The instance directory is /QIBM/UserData/WebCommerce/instances/*instance_name*.
- The instance loads the boot strap data for each of the ten supported languages.
- The instance uses a local database.
- Auctions are not configured. If required, you must lauch the Configuration Manager after instance creation to configure auctions.
- If you choose to use Payment Manager, the Quick Configuration command configures a local Payment Manager instance that has the same instance name as the WebSphere Commerce instance.
- You must ensure that your Java Virtual Machine is started with the correct `file.encoding` property which match the localized settings for the instance user profile as defined in "Creating an iSeries user profile" on page 4. To do this, complete the following steps:

  1. Use the DSPUSRPRF command to determine the Home Directory (HOMEDIR) of your SECOFR user profile. Ensure that the HOMEDIR exists. If it does not, create it.
  2. The HOMEDIR must contain a file named `SystemDefault.properties`, tagged as 819 and containing ASCII data. This file must specify the file.encoding property that matches your user profile. The `file.encoding` property must be specified on one line, must contain no spaces, and is case sensitive. If this file already exists, use the EDTF command to set the `file.encoding` property to one of the following values:

     - China

       `file.encoding=Cp1381`
     - Korea

       `file.encoding=KSC5601`
     - Taiwan

       `file.encoding=Cp950`
     - Japan


```
                     file.encoding=SJIS
```
– For all other languages
```
                     file.encoding=ISO8859_1
```

If this file does not exist, you must copy it to your HOMEDIR using one of
the commands below:
– China
```
COPY OBJ('/QIBM/ProdData/WebCommerce/config/SystemDefault_CN.properties')
  TOOBJ('home_directory/SystemDefault.properties')
```
– Korea
```
COPY OBJ('/QIBM/ProdData/WebCommerce/config/SystemDefault_KR.properties')
  TOOBJ('home_directory/SystemDefault.properties')
```
– Taiwan
```
COPY OBJ('/QIBM/ProdData/WebCommerce/config/SystemDefault_TW.properties')
  TOOBJ('home_directory/SystemDefault.properties')
```
– Japan
```
COPY OBJ('/QIBM/ProdData/WebCommerce/config/SystemDefault_JP.properties')
  TOOBJ('home_directory/SystemDefault.properties')
```
– For all other languages
```
COPY OBJ('/QIBM/ProdData/WebCommerce/config/SystemDefault.properties')
  TOOBJ('home_directory/SystemDefault.properties')
```

3. Once the file is created, verify that it is tagged with 819, and contains the
   proper ASCII data. Sign off and back on before running the **CRTWCSINST**
   command.

Launching the Quick Configuration command

To create an instance using the Quick Configuration command, enter the following
at an OS/400 command prompt:

```
CRTWCSINST INSTNAME(instance_name)
INSTPWD(instance_password)
INSTHOST(instance_hostname)
MERKEY(instance_merchant_key)
DFTLANG(instance_default)
USEPAYMENT(usePayment)
CNNCTTIME(connect_time)
PORT(port_number)
SERVERSTRT(serverStart)
SERVERSHUT(serverShutdown)
```

where

instance_name
> the name of the WebSphere Commerce instance that you want to create,
> currently is restricted to 9 characters.

instance_password
> the instance user profile password, currently is restricted to 10 characters.

instance_hostname
> the hostname used by the instance, a non-zero string.

instance_merchant_key
> the merchantkey used by the instance, a 16-digit hexadecimal, case-sensitive
> string.

instance_default
> is the default language for the instance. The valid values are: *EN, *FR, , *DE,
> *IT, *ES, *PT, *ZH_CN, *ZH_TW, *KO, *JA.

usePayment

*YES option will create a local Payment Manager instance. "Local" in the sense that the payment instance is on the same system as the WebSphere Commerce instance and shares the same instance name, hostname (hence, HTTP server) and instance library as the WebSphere Commerce instance. *NO option will not create a payment instance. The Payment Manager instance password is the same as the WebSphere Commerce instance user profile password.

connect_time

the amount of connect time in minutes

serverStart

*YES option starts the Configuration Manager server in the background before calling CRTWCSINST, *NO option will not start the Configuration Manager server. If you choose the *NO option, the Configuration Manager server should be started by the user manually, by running the STRWCSCFG command before running the CRTWCSINST command. The default is *YES.

serverShutdown

*YES option will stop the Configuration Manager server after an instance is created. This is good for security reasons. *NO option will not stop the Configuration Manager server after an instance is created. You may want to do this when creating multiple instances so that you don't have to start the Configuration Manager server again. The default is *YES

port_number

the port number the Configuration Manager server listens on. Default is 1099.

The **CRTWCSINST** command starts the Configuration Manager server as a job running in the background, and then starts the Quick Configuration program. The Quick Configuration program first attempts to connect to the server. The program exits if it cannot connect to the server in a period of CNNCTTIME time (specified by the user, default to 5 mintues). After it connects to the server, the program parses the input parameters. It also checks if each input is valid. The Quick Configuration program then constructs the instance configuration XML file, and proceeds to create the WebSphere Commerce instance. If the instance is created successfully, a "Successfully added instance to the instance list" message will be displayed on the Java shell screen. If the instance is not created successfully, a "Failed to add instance. Please check the configuration log for more information" message will be displayed on the Java shell screen.

Chapter 8. Post-Configuration Steps

This chapter contains all the steps that you may need to complete in order to finish your WebSphere Commerce configuration.

Compiling the JavaServer™ Pages files

Compiling the JavaServer Pages™ will significantly reduce the amount of time needed to load the WebSphere Commerce tools. To batch compile JavaServer Pages (JSP) files, do the following:

1. Log on to the iSeries server using a user profile which has *SECOFR authority.
2. Launch a QSHELL session by entering QSH from OS/400 command line.
3. To mass compile the JSP files run the following commands from a QSHELL command line (on one line each):

```
/QIBM/ProdData/WebCommerce/bin/WCSJspBatchCompiler
    -instance WAS_Admin_Server_Name
    -nameServerHost host_name
    -nameServerPort port_number
    -enterpriseApp 'instance_name - WebSphere Commerce
            Enterprise Application'
    -webModule 'WCS Stores' -keepgenerated true

/QIBM/ProdData/WebCommerce/bin/WCSJspBatchCompiler
    -instance WAS_Admin_Server_Name
    -nameServerHost host_name
    -nameServerPort port_number
    -enterpriseApp 'instance_name - WebSphere Commerce
            Enterprise Application'
    -webModule 'WCS Tools' -keepgenerated true
```

where

host_name
is the name of the node; usually this is the short host name of the machine. This parameter is mandatory. It should match the host name in option 12 of CFGTCP.

WAS_Admin_Server_Name
is the name of your WebSphere Admin Server. This parameter is not required if you are using the default WebSphere Administrative server.

port_number
is the port number on the iSeries server that you intend to use. The port number should match the number specified for the com.ibm.ejs.sm.adminServer.bootstrapPort parameter in the admin.properties file. This parameter is not required if you are using the default WebSphere Administrative server.

instance_name
is the name of your WebSphere Commerce instance.

Several errors will be logged when you perform these compiles. Ignore them.

Enabling session-independent caching

Whenever you run **Regen Webserver Plugin** from the WebSphere Administrative Console, this feature will be disabled. To enable it, do the following steps:

1. Open the following file in a text editor:

   /QIBM/UserData/webasadv4/*WebSphereAppServer_instance*/config/plugin-cfg.xml

2. Add the following line directly below <Config> in the plugin-cfg.xml file:

   < Property name="CacheLibrary" value="QWEBCOMM/QYWCCACHE" />

3. Restart the HTTP server for the instance.

Set the time zone

To ensure that the appropriate time zone is written in your trace files, set the user.timezone property. The property has the following syntax:

user.timezone=*time_zone*

where *time_zone* is the code for your time zone (for example, CST for Central Standard Time).

Edit the SystemDefault.properties file that is located in the/*instance_name*/home directory, where *instance_name* is the instance user profile under which the application server runs. If the file does not exist, create it in this directory. Specifying the time zone property in this way only affects WebSphere Application Server. For additional information, refer to the following Web address:

publib.boulder.ibm.com/was400/40/AE/english/docs/trctimez.html

The next step

After you have finished all of the steps required to complete your configuration of WebSphere Commerce, you can continue by doing one or more of the following:

- Create and publish your own store using Store Services. For information on using Store Services, refer to the WebSphere Commerce online help. Information on accessing WebSphere Commerce online help is available in Appendix E, "Where to find more information" on page 85.

- Publish the demonstration store, InFashion, provided with WebSphere Commerce to see how a typical store is built. Publish InFashion using Store Services. For information on using Store Services, refer to the WebSphere Commerce online help. Information on accessing WebSphere Commerce online help is available in Appendix E, "Where to find more information" on page 85.

- Configure additional options, such as:
  - Chapter 9, "Enabling SSL on the IBM HTTP Server"
  - Chapter 11, "Enabling WebSphere Application Server security"

Information on configuring additional options is available in Part 3, "Advanced Configuration Options" on page 53.

Part 3. Advanced Configuration Options

This section contains information on how to use additional software packages and advanced configuration options with WebSphere Commerce. The following topics are covered:

- Chapter 9, "Enabling SSL on the IBM HTTP Server" on page 55
- Chapter 11, "Enabling WebSphere Application Server security" on page 61

For a production server, chapters "Installing Payment Manager" on page 13 and Chapter 9, "Enabling SSL on the IBM HTTP Server" on page 55 must be completed. All other chapters are optional depending on your needs.

Chapter 9. Enabling SSL on the IBM HTTP Server

SSL is a security protocol. SSL ensures that data transferred between a client and a server remains private. It allows the client to authenticate the identity of the server and the server to authenticate the identity of the client.

Digital certificates are electronic documents that authenticate the servers and clients involved in secured transactions over the Internet. The issuer of digital certificates is called a certificate authority (CA). The iSeries system can perform the role of CA in an Intranet environment issuing server and client certificates, and run as an authenticated server with server certificates issued either by an iSeries CA or an Internet CA like VeriSign®. As a Web server, the IBM HTTP Server for iSeries can also be configured to request client certificates for authentication of SSL-enabled clients.

For detailed information on how to enable SSL on the IBM HTTP Server for iSeries, refer to the iSeries Information Center at following Web address:

`http://publib.boulder.ibm.com/html/as400/infocenter.html`

Once there, select your operating system version, and your language, and click **Go**. Search on `Securing applications with SSL` for guidance on how to enable SSL.

Using SSL with Payment Manager

If you create the system certificate store after creating your WebSphere Commerce instance, you must grant both the Payment Manager instance and the WebSphere Commerce instance access to the system certificate store. For example, the following commands will grant the Payment Manager instance the required access on a V5R1 system:

```
CHGAUT OBJ('/QIBM/UserData/ICSS/Cert/Server') USER(QPYMSVR) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS/Cert/Server/DEFAULT.KDB') USER(QPYMSVR) DTAAUT(*R)
```

and the following commands will grant the WebSphere Commerce the required access on a V5R1 system:

```
CHGAUT OBJ('/QIBM/UserData/ICSS/Cert/Server') USER(QEJBSVR) DTAAUT(*RX)
CHGAUT OBJ('/QIBM/UserData/ICSS/Cert/Server/DEFAULT.KDB') USER(QEJBSVR) DTAAUT(*R)
```

If you choose to use a remote Payment Manager instance, you must configure both the WebSphere Commerce instance and the Payment Manager instance to trust the remote certificate authority that issues the digital certificate. To establish a trust relationship between the two remote applications, refer to the following high-level procedure:

1. On the WebSphere Commerce machine, use the Digital Certificate Manager to export the server's certificate authority.
2. Transfer the certificate file to the Payment Manager machine.
3. On the Payment Manager machine, use the Digital Certificate Manager to import the WebSphere Commerce server's certificate authority.
4. Configure the Payment Manager application server to trust the imported WebSphere Commerce server's certificate authority.
5. On the Payment Manager machine, use the Digital Certificate Manager to export the server's certificate authority.

6. Transfer the certificate file to the WebSphere Commerce machine.
7. On the WebSphere Commerce machine, use the Digital Certificate Manager to import the Payment Manager server's certificate authority.
8. Configure the WebSphere Commerce application server to trust the imported Payment Manager server's certificate authority.

For detailed information refer to the following Web address, and look for **Hints and Tips**.:

www.ibm.com/software/webservers/commerce/servers/lit-tech-os400.html

Chapter 10. Create Multiple WebSphere Commerce Instances

WebSphere Commerce 5.4 supports the creation of multiple WebSphere Commerce instances. That is, with WebSphere Commerce, you can run two or more instances of WebSphere Commerce concurrently by using a different host name for each WebSphere Commerce instance. In this case, a customer can access *host1.domain.com* and *host2.domain.com*. This method involves the use of *virtual host names*.

Notes:

1. The following examples refer to *demo1*, *demo2*, *host1*, *host2*, *htdocs1*, and *htdocs2*. These examples represent the parameter values for your first and second instance and are intended to show that these values are unique between instances.

2. Normally, you will have an operational pre-existing WebSphere Commerce instance and you simply need to create an additional instance or instances. If you have a pre-existing instance, you do not have to modify any of the parameter values for that instance in order to add an additional instance. You can optionally modify some parameters of your original instance in order to better organize your multi-instance environment. For example, you could consider renaming your document root directory from `...\htdoc` to `...\htdoc1` to correspond to your first instance.

Multiple Instances Using Virtual Host Names

This section shows you how to create multiple WebSphere Commerce instances using virtual host names.

Prerequisites

1. Normally, you require one Internet Protocol (IP) address for each instance, plus one additional IP address for the machine. For example, for two instances, you would normally require a total of three IP addresses. The three IP addresses must be valid on the network, with associated host names in the Domain Name System (DNS) server. The example that follows assumes that you have a pre-existing instance and shows you how to create an additional instance. In this example, the IP addresses and host names for the instances are:

   - *m.mm.mm.mmm* with host name *host1.domain.com* (pre-existing)
   - *n.nn.nn.nnn* with host name *host2.domain.com* (for the additional instance)

   - You can also use the IP address and host name of the machine for one of the instances. In this case, you need just two IP addresses for two instances.
   - You cannot share host names between instance. Each instance requires a unique host name.

2. The host name for each instance must resolve fully to separate IP addresses. For example, to verify that you can run Configuration Manager and create multiple instances, run the `nslookup` command on both the host name and IP address for each instance. The host name should resolve to its correct IP address, and the IP address should resolve to its correct host name:

   ```
   nslookup host1.domain.com
   nslookup m.mm.mm.mmm
   ```

```
nslookup host2.domain.com
nslookup n.nn.nn.nnn
```

3. Before you create the second instance, ensure that the IBM WebSphere Administration instance has been started.
4. For each additional instance, you should increase your machine memory by 1.5 GB.

Create the Multiple Instances

Assuming you have already created your first WebSphere Commerce instance, you can create each additional instance that you require by following the instructions in Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25. In the following table, the existing instance is represented by **Instance 1** and the new instance is represented by **Instance 2**. You do not have to modify the values for an existing instance. The table lists the modified default values for the new instance. Replace these values with the actual values (such as your instance name, your host name, and so on) that you want to use for your instance.

Field in Configuration Manager	Instance 1	Instance 2
Instance - Instance name	*demo1*	*demo2*
Instance - Instance root path	`\ instances\demo1`	`\ instances\demo2`
Database - Database name	*NodeName1.domain.com*	*NodeName1.domain.com*
Webserver - hostname	*host1.domain.com*	*host2.domain.com*
Webserver - Primary Document Root (for IBM HTTP Server)	`\instances\demo1\web`	`\instances\demo2\web`
Payment Manager - hostname	*host1.domain.com*	*host2.domain.com*

Start Your Instances

Once the WebSphere Commerce instances have been created:

1. Check that the following entries have been created in the WebSphere Application Server Administration Console:
   - `demo1` – WebSphere Commerce Server
   - `demo2` – WebSphere Commerce Server
   - `demo1` – WebSphere Commerce DB2 DataSource
   - `demo2` – WebSphere Commerce DB2 DataSource
   - `demo1` – WebSphere Commerce DB2 JDBC Driver
   - `demo2` – WebSphere Commerce DB2 JDBC Driver
   - `default_host` (corresponding to demo1)
   - `VH_demo2`
2. Ensure that you are able to load the Web server home page for each instance (for example, `http://host1.domain.com` and `http://host2.domain.com`)

3. Ensure that you are able to load the secure Web server home page for each instance (for example, `https://host1.domain.com` and `https://host2.domain.com`)

4. Start each instance in the WebSphere Application Server Administration Console.

5. Ensure that you are able to load each instance's WebSphere Commerce Accelerator.

Chapter 11. Enabling WebSphere Application Server security

This chapter describes how to enable security for WebSphere Application Server. Enabling WebSphere Application Server security prevents all Enterprise JavaBean components from being exposed to remote invocation by anyone.

Before you begin

Before you begin to enable security, you will need to know how the WebSphere Application Server you are enabling security on validates user IDs. WebSphere Application Server can use either LDAP or the operating system's user registry as the WebSphere Application Server user registry.

Enabling security with an LDAP user registry

To enable WebSphere Application Server security when you are using LDAP as the WebSphere Application Server user registry, log into the system and do the following steps:

1. Start the WebSphere Application Server Administration Server and open the WebSphere Application Server Administrator's Console.

2. In the Console, modify the global security settings as follows:

   a. From the Console menu, select **Security Center**.

   b. On the General tab, select the **Enable Security**.

   c. On the **Authentication** tab, select Lightweight Third Party Authentication (LTPA). Fill in the LTPA settings, and uncheck the **Enable Single Sign On** check box if you do not want to use this functionality. Fill in the **LDAP Settings** tab as follows, depending on the type of directory server you are using:

Table 3. SecureWay Users

Field Name	Definition	Sample Values	Notes
Security Server ID	User ID	*user_ID*	• This must not be the LDAP administrator. • Do not use a user that has been specified as cn=xxx. • Ensure that the objectclass of this user is compatible with the objectclass specified in the User Filter field of the LDAP Advanced Properties window.
Security Server password	User Password	*password*	
Directory Type	Type of LDAP server	SecureWay	
Host	Host name of the LDAP server	*hostname.domain.com*	
Port	Port that the LDAP server is using		This field is not required
Base Distinguished Name	Distinguished Name under which searching occurs	o=ibm,c=us	
Bind Distinguished Name	Distinguished Name for binding to the directory when searching		This field is not required
Bind Password	Password for the Bind Distinguished Name		This field is not required

  d. Restart WebSphere Application Server Administration Server, and then reopen the WebSphere Application Server Administrator's Console.

  e. On the **Role Mapping** tab, select the WCS appserver and click the **Edit Mappings...** button.

   1) Select the WCSSecurity Role and click the **Select...** button.

   2) Check the Select users/groups check box and add the userID that was entered in step 2c on page 61.

  f. Click **Finish**.

3. Close the administrative console, and stop and restart the WebSphere Application Server Administration Server. From now on, when you open the WebSphere Application Server Administrator's Console, you will be prompted for the Security Server ID and password.

4. Open the WebSphere Commerce Configuration Manager and select **Instances >** *instance_name* **> Instance Properties > Security** and click the **Enable** check box. You are prompted to enter the user name and password that you entered in step 2c on page 61. Click **Apply** then exit Configuration Manager.

5. Stop and restart the WebSphere Application Server administration server.

Enabling security with an operating system user registry

To enable WebSphere Application Server security when you are using the operating system user validation as the WebSphere Application Server user registry, log in as a user with administrative authority and do the following steps:

1. In the WebSphere Application Server Administration Console, modify the global security settings as follows:
   a. From the Console menu, select **Security Center**.
   b. On the General tab, select the **Enable Security** checkbox.
2. Select the **Authentication** tab and select the **Local Operating System** radio button
3. Enter your security server ID in the **Security Server ID** field. Enter the user name you as follows:

Table 4.

Field Name	Sample Values	Notes
User ID	*user_ID*	
Security Server Password	*password*	This is the password belonging to the user with operating system administrative privileges that you logged in with.

4. Restart WebSphere Application Server Administration Server, and then reopen the WebSphere Application Server Administrator's Console.
5. On the **Role Mapping** tab, select the WC enterprise application and click the **Edit Mappings...** button.
   a. Select the WCSecurityRole and click the **Select...** button.
   b. Select the Select users/groups check box, enter the user ID that was used in step 3 into the Search field, and click **Search**. Select that user from the Available Users/Groups list and click **Add** to add it to the Selected Users/Groups list. Then click **OK** on each panel until you exit the Security Center.
6. Open the WebSphere Commerce Configuration Manager and select **Instances List ➔** *instance_name* **➔ Instance Properties➔ Security** and select the **Enable Security** check box. Select **Operating System User Registry** for the authentication mode, and to enter the user name and password that you entered in step 3. Click **Apply** then exit Configuration Manager.
7. Stop and restart the WebSphere Application Server administration server. From now on, when you open the WebSphere Application Server Administration Console, you will be prompted for the Security Server ID and password.

Disabling WebSphere Commerce EJB security

WebSphere Commerce Business Edition allows you to disable EJB security. To disable WebSphere Commerce EJB Security, do the following:

1. Start the WebSphere Application Server Administration Console.
2. Click **Console ➔ Security Center...** and deselect the **Enable Security** check box on the **General** tab.

3. Open the WebSphere Commerce Configuration Manager and select **Instances List** → *instance_name* → **Instance Properties** → **Security** and clear the **Enable Security** check box.

4. Exit the WebSphere Application Server Administration Console.

5. Stop and restart the WebSphere Application Server administration server.

WebSphere Commerce security deployment options

WebSphere Commerce supports various security deployment configurations. The following table illustrates the security deployment options available to you.

Table 5. Single machine security scenarios

WebSphere Application Server security is enabled.	• Use the operating system as the WebSphere Application Server registry. • Use the database as the WebSphere Commerce registry.
	• Use LDAP as the WebSphere Application Server registry. • Use LDAP as the WebSphere Commerce registry.
	• Use LDAP as the WebSphere Application Server registry.
WebSphere Application Server security is disabled, and your WebSphere Commerce site is located behind a firewall.	• A WebSphere Application Server registry is not required. • Use the database as the WebSphere Commerce registry.
	• A WebSphere Application Server registry is not required. • Use LDAP the WebSphere Commerce registry.

Table 6. Multiple machine security scenarios

WebSphere Application Server security is enabled. LDAP is always deployed.	• Use LDAP as the WebSphere Application Server registry. • Use LDAP as the WebSphere Commerce registry.
	• Use LDAP as the WebSphere Application Server registry. • Use a database as the WebSphere Commerce registry. • You will need to set up LDAP, and place one administrative entry into the LDAP registry.

Table 6. Multiple machine security scenarios (continued)

WebSphere Application Server security is disabled, and your WebSphere Commerce site is located behind a firewall.	• Use a database as the WebSphere Commerce registry. • A WebSphere Application Server registry is not required. • Single sign-on is not supported.
	• Use LDAP as the WebSphere Application Server registry. • A WebSphere Application Server registry is not required.

Note: If you operate your WebSphere Commerce site from behind a firewall, you can disable WebSphere Application Server security. You should only disable WebSphere Application Server security if you are sure that no malicious applications are running behind the firewall.

Part 4. Appendixes

Appendix A. Starting and stopping components

At various times during the installation process you are required to start and stop components of WebSphere Commerce. The following instructions describe how to start and stop the components successfully.

Note: The very first time you start an instance, it will take a long time to start. This delay results from the caching of information about java programs. While the delay can be lengthy, it improves the start-up time in subsequent attempts.

Starting the WebSphere Commerce instance

There are two ways to start your WebSphere Commerce instance. You can either run an OS/400 system command, or use the WebSphere Admin Console. The instructions for both methods are listed below:

- To start the WebSphere Commerce instance using an OS/400 system command, run the following command (on one line):

  ```
  STRWCSSVR INSTNAME(instance_name)
  ```

  where

  instance_name
  is the name of your WebSphere Commerce instance as specified in the Configuration Manager.

  Notes:
  1. If security is enabled for your administrative server, ensure you have completed the steps in "Using STRWCSSVR and ENDWCSSVR in a secure environment" on page 71.
  2. If security is enabled, and you get the following errors when you start WebSphere Commerce instance:

     ```
     Unexpected Java Exception: org.omg.CORBA.NO_PERMISSION: Failed mutual
         authentication handshake. Session does not exist in the session table
     ```

     You must adjust the `com.ibm.CORBA.sessionGCinterval` setting in the `sas.server.props` file. By default, it is set to 5 minutes. If the `com.ibm.CORBA.sessionGCinterval` property is not listed in the file, add it at the end of the file. For more information, refer to the following Web site:

     ```
     publib.boulder.ibm.com/was400/40/AE/english/docs/secsapp.html
     ```

- To start the WebSphere Commerce instance using the WebSphere Admin Console, perform the following steps:
  1. Log on to the iSeries server using the instance user profile.
  2. From the OS/400 command line, type:

     ```
     WRKACTJOB  SBS(QEJBADV4)
     ```
  3. If there are no jobs in this subsystem, type the following from an OS/400 command line and wait until QEJBADMIN and QEJBMNTR start:

     ```
     STRSBS SBSD(QEJBADV4/QEJBADV4)
     ```

     This will also start all WebSphere Application Server instances that were running when the subsystem was ended.

Note: This command will only start the default WebSphere Admin server. If your WebSphere Commerce instance is running under a different WebSphere Admin server, ensure that your WebSphere Admin server is started after running the above command. For more information, refer to the following Web address:

`publib.boulder.ibm.com/was400/40/AE/english/docs/admmwas.html`

4. If QEJBADV4 is already there, but your WebSphere Application Server instance is not listed under QEJBADV4, you must start your WebSphere Application Server instance by performing the following steps:

Staring the WebSphere Application Server instance from the iSeries command line

Enter the following command on one line:

```
SBMJOB CMD(QSYS/CALL PGM(QEJBADV4/QEJBMNTR) PARM('-p'
   '/QIBM/UserData/WebASAdv4/WAS_instance/
   properties/admin.properties')) JOB(MONITOR_JOB_NAME)
   JOBD(QEJBADV4/QEJBJOBD) JOBQ(QEJBADV4/QEJBJOBQ) USER(QEJB)
```

where *WAS_instance* is the WebSphere Application Server instance name, and *MONITOR_JOB_NAME* is the monitor job name which must be 10 characters or less.

Staring the WebSphere Application Server instance from the QSHELL

Enter the following commands:

a. `STRQSH`

b. `/QIBM/ProdData/WebASADV4/bin/strwasinst -instance`
   `WAS_instance`

where *WAS_instance* is the WebSphere Application Server instance name.

5. Start the WebSphere Commerce instance from the WebSphere Admin Console by doing the following:

a. On a Windows workstation, open an MS-DOS command window, and run the following command:

`AdminClient host_name port_number`

where *host_name* is the fully qualified, case-sensitive host name of your iSeries WebSphere Commerce machine, and *port_number* is the port number that you assigned to the WebSphere Application Server.

b. Expand **WebSphere Administrative Domain**.

c. Expand **Nodes**.

d. Expand the HOST_NAME.

e. Expand **Application Servers**

f. Right-click *instance_name* – **WebSphere Commerce Server** and select **Start**.

If your WebSphere Commerce machine is slow, increase the `Ping timeout` and `Ping initial timeout` values so that your WebSphere Commerce instance can start. To do this, perform the following steps:

1. On a Windows workstation, open an MS-DOS command window, and run the following command:

`AdminClient host_name port_number`

2. Expand *HOST_NAME*.

3. Select *instance_name* - **WebSphere Commerce Server** and then select the **Advanced** tab.

4. Increase the values of `Ping timeout` and `Ping initial timeout`, depending on the speed of your machine. The default values are 100000 seconds for `Ping timeout`, and 150000 seconds for `Ping initial timeout`.

5. Click **Apply**.

Using STRWCSSVR and ENDWCSSVR in a secure environment

To use STRWCSSVR and ENDWCSSVR when security is enabled for your administrative server, you must perform the following steps:

1. Open the `sas.client.props` property file for editing. This file is located in the `properties` subdirectory the instance root of your administrative server. For the default administrative server, this file is located in the `/QIBM/UserData/WebASAdv4/default/properties` directory.

2. Edit or add the following property-value pairs:

```
com.ibm.CORBA.loginSource=properties
com.ibm.CORBA.loginUserid=user_id
com.ibm.CORBA.principalName=domain/user_id
com.ibm.CORBA.loginPassword=password
```

where

user_id
   is your user ID

domain
   is the domain name

password
   is the password for the specified user ID. Set the password to the appropriate unencrypted value.

3. Encode the password using the PropFilePasswordEncoder utility.

   a. Start the QShell environment by entering STRQSH on an OS/400 command line.

   b. Enter the following on a single line:

   ```
   /QIBM/ProdData/WebASAdv4/bin/PropFilePasswordEncoder
       /QIBM/UserData/WebASAdv4/wasinstanceName/properties/sas.client.props -SAS
   ```

   You can find the encoding algorithm in `admin.properties` file, XOR is the default setting. If you use the OS/400 password encoding algorithm, please refer to the following Web site for details:

   `publib.boulder.ibm.com/was400/40/AE/english/docs/secpmgt.html`

For instructions on configuring a secure environment, see Chapter 11, "Enabling WebSphere Application Server security" on page 61.

Stopping the WebSphere Commerce instance

There are two ways to stop your WebSphere Commerce instance. You can either run an OS/400 system command, or use the WebSphere Admin Console. The instructions for both methods are listed below:

- To start the WebSphere Commerce instance using an OS/400 system command, run the following command:

`ENDWCSSVR INSTNAME(`*instance_name*`)`

where

instance_name
> is the name of your WebSphere Commerce instance as specified in the Configuration Manager.

If security is enabled for your administrative server, ensure you have completed the steps in "Using STRWCSSVR and ENDWCSSVR in a secure environment" on page 71.

- To stop the WebSphere Commerce instance using the WebSphere Admin Console, perform the following steps:
  1. On a Windows workstation, open an MS-DOS command window, and run the following command:

     ```
     AdminClient host_name port_number
     ```

     where *host_name* is the fully qualified, case-sensitive host name of your iSeries WebSphere Commerce machine, and *port_number* is the port number that you assigned to the WebSphere Application Server.
  2. Expand the HOST_NAME.
  3. Right-click *instance_name* – **WebSphere Commerce Server** and select **Stop**.
  4. A message displays, stating that the server stopped successfully. Your WebSphere Commerce instance will no longer be listed under the QEJBADV4 subsystem on the iSeries system.

Starting and stopping IBM HTTP Server

Starting your IBM HTTP Server instance

There are two IBM HTTP Server instances associated with your WebSphere Commerce instance. One is called the Stores HTTP server, and the other is called the Tools HTTP server. The distinction is made so that you can disable access to the Tools HTTP server to eliminate potential security problems.

You can start each of the IBM HTTP Server instances from either the command line or a Web browser.

In the following instructions, *web_server_instance_name* is the same as the name of your WebSphere Commerce instance.

To start your IBM HTTP Server Stores instance from the command line, do the following:
1. Log on to the iSeries using the instance user profile.
2. From the command line, type:
   ```
   STRTCPSVR SERVER(*HTTP) HTTPSVR(web_server_instance_name)
   ```

To start your IBM HTTP Server Tools instance from the command line, do the following:
1. Log on to the iSeries using the instance user profile.
2. From the command line, type:
   ```
   STRTCPSVR SERVER(*HTTP) HTTPSVR(web_server_instance_nameT)
   ```

   Note: You must append the letter T to the end of the *web_server_instance_name* in order to indicate that you want to start the Tools HTTP server instance.

To start either IBM HTTP Server instance from the Web browser, do the following:

1. Ensure that the HTTP administrator server instance is running by typeing the following at an OS/400 command line:

   `WRKACTJOB SBS(QHTTPSVR)`

   Make sure that there are `ADMIN` jobs in the subsystem. If the HTTP administrator server instance is not running, start it by typing the following at an OS/400 command line:

   `STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)`

2. Once the HTTP administrator server instance go to the following URL:

   `https://host_name:2010`

   where 2010 is the Web configuration server port. If you are using the non-secure HTTP administrator server at port 2001, replace this URL with:

   `http://host_name:2001`

   If you use the non-secure port, your passwords and other information will not be encrypted.

3. Click **IBM HTTP Server for iSeries**.

4. Click the **Configuration and Administration** link.

5. Select **Server Instances**.

6. Select **Work with server instances**.

7. From the drop-down list, select the Web server instance that you want to start, and click **Start**.

   Note: The Tools HTTP server instance will have T appended to the *web_server_instance_name*.

8. To verify, type the following from the OS/400 command line:

   `WRKACTJOB SBS(QHTTPSVR)`

   and look for entries for your Web server instance under the **Subsystem/Job** heading and QTMHHTTP under the **User** heading.

Stopping your IBM HTTP Web Server instance

You can stop either IBM HTTP Web Server instance from either the command line or the Web browser.

In the following instructions, `web_server_instance_name` is the same as the name of your WebSphere Commerce instance.

To stop your Stores HTTP server instance from the command line, do the following:

1. Log on to the iSeries server using the instance user profile.

2. From the command line, type:

   `ENDTCPSVR SERVER(*HTTP) HTTPSVR(web_server_instance_name)`

To stop your Tools HTTP server instance from the command line, do the following:

1. Log on to the iSeries server using the instance user profile.

2. From the command line, type:

   `ENDTCPSVR SERVER(*HTTP) HTTPSVR(web_server_instance_nameT)`

Note: You must append the letter T to the end of the *web_server_instance_name* in order to indicate that you want to start the Tools HTTP server instance.

To stop either instance from a Web browser, do the following:

1. Type the following URL:

   ```
   https://host_name:2010
   ```

   Note: If you are using the non-secure HTTP administrator server at port 2001, replace this URL with:

   ```
   http://host_name:2001
   ```

   If you use the non-secure port, your passwords and other information will not be encrypted.

2. Click **IBM HTTP Server for iSeries**.
3. Click the **Configuration and Administration** link.
4. Select **Server instances**.
5. Select **Work with server instances**.
6. From the drop-down list, select the Web server instance that you want to stop, and click **Stop**.

   Note: The Tools HTTP server instance will have T appended to the *web_server_instance_name*.

7. To verify, type the following from the OS/400 command line:

   ```
   WRKACTJOB SBS(QHTTPSVR)
   ```

   and look to make sure that there are no entries for the Web server instance under the **Subsystem/Job** heading and QTMHHTTP is not under the **User** heading.

Starting and stopping the IBM HTTP administrator

To start the HTTP administrator server instance, do the following:

1. Log on to the iSeries using the instance user profile.
2. From the command line, type the following:

   ```
   STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   ```

3. To verify, type the following from the OS/400 command line:

   ```
   WRKACTJOB SBS(QHTTPSVR)
   ```

   If the server has been started successfully, you will see ADMIN under the **Subsystem/Job** heading and QTMHHTTP under the **User** heading.

The HTTP administrator server port number is 2010.

Note: Port 2001 is also available for a non-secure connection for the HTTP administrator server instance. If you use the non-secure port, your passwords and other information will not be encrypted.

To stop the HTTP administrator server instance, do the following:

1. Log on to the iSeries server using the instance user profile.
2. From the command line, type the following:

   ```
   ENDTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
   ```

3. To verify, type the following from the OS/400 command line:

```
WRKACTJOB SBS(QHTTPSVR)
```

and ensure that there are no entries for `ADMIN` under the **Subsystem/Job** heading and `QTMHHTTP` is not under the **User** heading.

The HTTP administrator server port number is 2010.

Note: Port 2001 is also available for a non-secure connection for the HTTP administrator server instance. If you use the non-secure port, your passwords and other information will not be encrypted.

Starting and stopping Payment Manager

To start Payment Manager, start the Payment engine as described in "Starting the Payment Manager engine".

Starting the Payment Manager engine

There are two ways to start the Payment Manager Engine. The two methods are as follows:

Using the OS/400 Tasks page

1. Access the OS/400 Tasks page from a web browser by typing *hostname*:2001/ in the URL field. The IBM HTTP administrator server instance must be started to access the Tasks page.
2. Select **IBM WebSphere Payment Manager for AS/400**.
3. Select a Payment Manager instance from the drop-down menu
4. Select **Start/End**
5. Enter the Payment Manager instance password, if requested, and then click **Start**

Using an OS/400 Command line
Use the **STRPYMMGR** command to start the Payment Manager.

When the Payment Manager engine is started, the corresponding IBM HTTP Server and WebSphere Payment Manager Application Server are also started. To verify that these processes are active, issue the work with active job (**WRKACTJOB**) command:

- The Payment Manager engine runs as a job that has the Payment Manager instance name under the QSYSWRK subsystem. This job will end automatically after the Payment Manager instance has been successfully started.
- The IBM HTTP Server runs as multiple jobs with the Payment Manager instance name under the QHTTPSVR subsystem.
- The WebSphere Payment Manager Application Server runs as a job with the name PYM_ under the QEJBADV4 subsystem.

Accessing the Payment Manager user interface

After starting the Payment Manager engine and WebSphere Payment Manager Application Server , do the following to access the Payment Manager user interface:

1. Go to the following Web address:

   ```
   http://host_name/PaymentManager/
   ```

   where *host_name* is the Payment Manager instance host name.

2. On the Payment Manager Logon window, enter the Payment Manager administrator's user ID and password, and click **OK**. The default user ID and password are both `wcsadmin`.

   For information on creating Payment Manager user IDs refer to one of the following:

   - If you are using the WCSRealm, refer to the WebSphere Commerce online help. You are using WCSRealm if the default Payment Manager administrator's user ID is `wcsadmin`.

   - If you are using the PSOS400Realm, refer to the Payment Manager Administrator's Guide. You are using PSOS400Realm if the default Payment Manager administrator's user ID is `QPYMADM`.

   Tip: You can also access a subset of the Payment Manager user interface function from the WebSphere Commerce Administration Console.

Stopping the Payment Manager

There are two ways to stop the Payment Manager. The two methods are as follows:

Using the OS/400 Tasks page

1. Access the iSeries Tasks page
2. Select **Payment Manager for iSeries Tasks** Web page
3. Select a Payment Manager instance from the drop-down menu
4. Select **Start/End**
5. Enter a password, if requested, and then click **End**

Using an OS/400 Command line
Use the **ENDPYMMGR** command to stop the Payment Manager.

The preceding two methods stop the WebSphere Payment Manager Application Server. The IBM HTTP Server is not stopped as other applications may be using the same HTTP server.

Stopping Payment Manager servlets using WebSphere Application Server

When using WebSphere Application Server 4.0, you can stop all servlets by stopping the WebSphere Payment Manager application server. To stop the WebSphere Payment Manager application server:

1. Go to the WebSphere Application Server Administration Client.
2. Select **WPM** *instance_name* **WebSphere Payment Manager**.
3. Right-click the application server and select **Stop**.
4. Exit the Administration Client.

Appendix B. Uninstalling WebSphere Commerce Components

If you encounter problems installing WebSphere Commerce, you may want to uninstall one or more components and start again. This appendix explains how to uninstall each component of WebSphere Commerce, and provides guidance on the reinstall process.

Uninstalling WebSphere Commerce

To uninstall WebSphere Commerce, do the following:

1. If you plan to reinstall WebSphere Commerce once you have uninstalled it, ensure that you back up all of the directories that contain user data for stores that you previously created.

2. Stop WebSphere Commerce, as described in "Stopping the WebSphere Commerce instance" on page 71.

3. While logged on to the iSeries server using a user ID with *QSECOFR authority, enter the Delete License Program (DLTLICPGM) command using the following syntax:

   ```
   DLTLICPGM LICPGM(5733WC5)
   ```

4. To continue removing all user data, refer to Appendix C, "Deleting a WebSphere Commerce instance" on page 79.

Uninstalling Payment Manager

To uninstall IBM Payment Manager 3.1.2, refer to your *IBM WebSphere Payment Manager Administrator's Guide*. For details on where to find this document, refer to "Payment Manager information" on page 86.

Reinstalling WebSphere Commerce and its Components

If you are reinstalling the entire WebSphere Commerce package follow the instructions in Part 1, "Installing WebSphere Commerce 5.4" on page 1.

If you are reinstalling portions of WebSphere Commerce, refer to the appropriate chapter in Part 1, "Installing WebSphere Commerce 5.4" on page 1, but follow these additional guidelines:

- Install all components through the WebSphere Commerce install program. To do this insert the WebSphere Commerce Professional Edition CDWebSphere Commerce Business Edition CD and double-click `setup.exe`.

- Uninstall all the components that you want to uninstall, and then reinstall them all (rather than uninstalling and reinstalling one component at a time).

- You *cannot* uninstall and reinstall your Web server without uninstalling and reinstalling WebSphere Application Server.

- You will need to delete and recreate your instance following the instructions in Chapter 6, "Creating or modifying an instance with Configuration Manager" on page 25.

Appendix C. Deleting a WebSphere Commerce instance

Notes:

1. These steps must be performed in the following documented sequence. In addition, step 10 (Deleting the instance user profile) must not be done concurrently with any of the other steps, and must be the last step performed.

2. To delete a Payment Manager instance, refer to "Deleting a Payment Manager instance" on page 80. If the Payment Manager instance has the same instance name as the WebSphere Commerce instance, make sure to delete the Payment Manager instance before deleting WebSphere Commerce instance library.

To clean up any remaining user data after uninstalling WebSphere Commerce, do the following:

1. Remove the Enterprise Application:
   a. Launch the WebSphere Application Server Administration Console by doing the following:
      1) From a Windows machine run the following DOS command:

         `AdminClient host_name port_number`

   b. Expand **WebSphere Administrative Domain**.
   c. Expand **Enterprise Applications**.
   d. Right-click **WC Enterprise Application -** *instance_name*.
   e. Select **Remove**.
   f. If you want to export the application in order to save it for later use, click **Yes**. Otherwise, click **No**.
   g. Click **Yes** to remove the application.

2. Remove the Application Server:
   a. Launch the WebSphere Application Server Administration Console by doing the following:
      1) From a Windows machine run the following DOS command:

         `AdminClient host_name port_number`

   b. Expand **Nodes**.
   c. Expand your host name.
   d. Expand **Application Servers**.
   e. Right-click *instance_name* **- WebSphere Commerce Server** and select **Remove**.
   f. Click **Yes** to remove the Application Server.

3. Remove the datasource:
   a. Launch the WebSphere Application Server Administration Console by doing the following:
      1) From a Windows machine run the following DOS command:

         `AdminClient host_name port_number`

   b. Expand **Resources**.
   c. Expand **Datasources**.
   d. Expand *instance_name* **WebSphere Commerce DB2 JDBC Driver**.
   e. Click **DataSources**.

f. Right-click *instance_name* **WebSphere Commerce DataSource**, and select **Remove**.

g. Click **Yes** to remove the Datasource.

h. Right-click *instance_name* **WebSphere Commerce DB2 JDBC Driver** and select **Remove**.

i. Click **Yes** to remove the JDBC Driver.

4. Remove the virtual hosts:

a. Launch the WebSphere Application Server Administration Console by doing the following:

1) From a Windows machine run the following DOS command:

```
AdminClient host_name port_number
```

b. Click **Virtual Hosts**.

c. Right-click **VH_***instance_name* and select **Remove**.

d. Click **Yes** to remove this Virtual Host.

e. Right-click **VH_***instance_name*_**tools** and select **Remove**.

f. Click **Yes** to remove this Virtual Host.

5. Delete the Commerce Suite instance using the Configuration Manager by doing the following:

a. Open the Configuration Manager.

b. Expand your host name, and then expand **Instance List**.

c. Right-click the instance you want to delete, and click **Delete**.

6. Delete the instance database library by running the following SQL statements:

```
drop collection instance_name
```

If you try to delete a collection and you get a message indicating that you cannot delete a receiver while it is attached, try the following command:

```
ENDJRNPF FILE(*ALL) JRN(instance_name/QSQJRN)
```

7. Delete your HTTP entries. Using the following two commands, delete the member that corresponds to your instance:

```
WRKMBRPDM QUSRSYS/QATMHTTPC
WRKMBRPDM QUSRSYS/QATMHINSTC
```

8. Delete the /QIBM/UserData/WebCommerce/Instance/*instance_name* directory, and all of its contents, in IFS.

9. Delete the *Commerce_instance_name*_-_WebSphere_Commerce_Server folder in /QIBM/UserData/WebASAdv4/*WAS_instance_name*/node/ and the WC_Enterprise_App_*Commerce_instance_name*.ear folder in /QIBM/UserData/WebASAdv4/*WAS_instance_name*/installedApps/ where: *Commerce_instance_name* is the WebSphere Commerce instance name, and *WAS_instance_name* is the WebSphere Application Server instance name ("default" if using the default server) and *node* is the node name

10. Delete the instance user profile by typing the following command:

```
DLTUSRPRF USRPRF(instance_name) OWNOBJOPT(*DLT)
```

Deleting a Payment Manager instance

Note: Ensure that the WebSphere Admin job is active and ready to accept requests. The WebSphere Admin job is started when the QEJBADV4 subsystem is started. Use the CL command STRSBS QEJBADV4/QEJBADV4 to start the subsystem, and then look at the joblog for the QEJBADMIN job. That joblog

will contain the message EJB0106 ″WebSphere administration server QEJBADMIN ready″ when the job is active and ready to accept requests.

1. If the Payment Manager instance is running, end it according to the instructions found in "Starting and stopping Payment Manager" on page 75.

2. Delete the Payment Manager Instance using the **DLTPYMMGR** command. This command will delete the database tables and the configuration data. The instance library however, is not deleted. If the instance library does not contain database tables used by other applications, for example, a WebSphere Commerce instance, use the **DLTLIB** command to delete the instance library. Note you do not need to delete the instance library before re-creating the same Payment Manager instance.

Appendix D. Troubleshooting

This appendix is divided into two sections:
- Log files and how to use them
- Specific troubleshooting steps
- Downloadable tools

Downloadable tools

WebSphere Commerce Installation and Configuration Checker

WebSphere Commerce Installation and Configuration Checker, or IC Checker is a standalone, downloadable problem determination tool, which enables users to verify the installation and configuration of WebSphere Commerce. IC Checker gathers configuration data and logs, and performs simple error-checking. The following are some details pertaining to WebSphere Commerce IC Checker:

- Products currently supported include WebSphere Commerce Suite 5.1 Start and Pro, WebSphere Commerce 5.1 Business Edition, and WebSphere Commerce 5.4 Pro, and Business Edition.
- Platforms currently supported are Windows NT 4.0, and Windows 2000.
- The tool can be accessed and downloaded online from the following URL locations:

> Business

```
www.ibm.com/software/webservers/commerce/whats_new_support.html
www.ibm.com/software/webservers/commerce/wc_be/support-tools.html
```

> Professional

```
www.ibm.com/software/webservers/commerce/whats_new_support.html
www.ibm.com/software/webservers/commerce/wc_pe/support-tools.html
```

Log files

WebSphere Commerce produces the following logs:

WASConfig.log
> Found in your /QIBM/UserData/WebCommerce/instances/*instance_name*/logs directory. This log describes WebSphere Application Server actions such as importing WebSphere Commerce entity beans and creating the data source.

wcsconfig.log
> Found in your /QIBM/UserData/WebCommerce/instances/*instance_name*/logs/ directory. This log describes what the Configuration Manager is doing. You can modify the level of detail in this log through the menu options in the Configuration Manager.

messages.txt
> Found in your

/QIBM/UserData/WebCommerce/instances/*instance_name*/logs/ IFS
directory. This log contains information about WebSphere Commerce
database population.

RESWCSID.txt
Found in your
/QIBM/UserData/WebCommerce/instances/*instance_name*/logs/ IFS
directory. This log contains information about WebSphere Commerce
database population.

Schema.log
Found in your
/QIBM/UserData/WebCommerce/instances/*instance_name*/logs/ IFS
directory. This file contains information about the WebSphere Commerce
database creation. There should be no schema.err log file.

Note: The paths listed here are the default locations. If you specify a different
location during instance creation, the log files are created in that location.

Troubleshooting

There are currently no troubleshooting items for WebSphere Commerce for iSeries
400.

WebSphere Application Server problems

Appendix E. 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 portable document format (PDF) files
- WebSphere Commerce Web site

Using the 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:

```
http://host_name/wchelp/
```

where *host_name* is the fully qualified TCP/IP name of the machine where you have installed WebSphere Commerce.

Locating the printable documentation

Some of the online information is also available on your system in PDF files, which you can view and print using Adobe® Acrobat® Reader. You can download Acrobat Reader for free from the Adobe Web site at the following Web address:

```
http://www.adobe.com
```

Viewing the WebSphere Commerce Web site

WebSphere Commerce product information is available at the WebSphere Commerce Web site:

```
http://www.ibm.com/software/webservers/commerce/
```

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.

IBM HTTP Server information

IBM HTTP Server information is available at the following Web address:

```
http://www.ibm.com/software/webservers/httpservers/
```

The documents are in HTML format, PDF files, or both.

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Payment Manager information

Payment Manager documents are available after installation of the Payment Manager and can be accessed from the Payment Manager Tasks Web page, accessible from the AS/400 Tasks Page at `http://host_name:2001` where `host_name` is the TCP/IP host name of the AS/400 system. The link name in the navigation frame is **Documentation**.

Additional Payment Manager information is available through the library link on the Payment Manager Web site:

`http://www.ibm.com/software/webservers/commerce/payment`

The following Payment Manager documentation is available:

- The *IBM WebSphere Payment Manager for Multiplatforms Installation Guide* PDF file format (`paymgrinstall.pdf`)
- The *IBM WebSphere Payment Manager Administrator's Guide* PDF file format (`paymgradmin.pdf`)
- The *IBM WebSphere Payment Manager for Multiplatforms Pogrammer's Guide and reference* PDF file format (`paymgrprog.pdf`)
- The *IBM WebSphere Payment Manager for Multiplatforms for SET™ Supplement* , in PDF file format (`paymgrset.pdf`)
- The *IBM WebSphere Payment Manager for Multiplatforms Cassette for VisaNet Supplement* PDF file format (`paymgrvisanet.pdf`)
- The *IBM WebSphere Payment Manager for Multiplatforms for CyberCash Supplement* , in PDF file format (`paymgrcyber.pdf`)
- The *IBM WebSphere Payment Manager for Multiplatforms for BankServACH Supplement* , in PDF file format (`paymgrbank.pdf`)
- The Payment Manager README file, in HTML format (`readme.framework.html`)
- The IBM Cassette for SET README file, in HTML format (`readme.set.html`)
- The IBM Cassette for VisaNet README file, in HTML format (`readme.visanet.html`)
- The IBM Cassette for CyberCash README file, in HTML format (`readme.cybercash.html`)
- The IBM Cassette for BankServACH README file, in HTML format (`readme.bankservach.html`)

The *Secure Electronic Transactions* section of the WebSphere Commerce online help also contains Payment Manager information.

WebSphere Application Server

WebSphere Application Server information is available at the WebSphere Application Server Web site:

`http://www.ibm.com/software/webservers/appserv`

DB2 Universal Database information

DB2 documentation is available at the following Web address:

`http://www.ibm.com/software/data/db2`

Other IBM publications

You can purchase copies of most IBM publications from your IBM authorized dealer or marketing representative.

Appendix F. Program specifications and specified operating environment

This version of WebSphere Commerce supports the following operating environment:

- OS/400 for iSeries V5R1

WebSphere Commerce 5.4 includes the following components:

WebSphere Commerce Server
> The WebSphere Commerce Server handles the store, and commerce-related functions, within your e-commerce solution. Functionality is provided by the following components:
>
> - Tools (Store Services, Loader package, Commerce Accelerator, Administration Console)
> - Subsystems (catalog, member, negotiation, order)
> - Product Advisor
> - Common server run time
> - System management
> - Messaging services
> - WebSphere Application Server

Store Services
> The Store Services provides a central location for creating, customizing, and maintaining certain operational features of a store.

Loader package
> The Loader package allows the initial load of product information through ASCII and XML files, as well as incremental updates of complete or partial information. Online catalogs are updated using this tool.

WebSphere Commerce Accelerator
> Once your store and product data have been created, use the WebSphere Commerce Accelerator to manage your store and to facilitate your business strategies. WebSphere Commerce Accelerator provides an integration point for all functionality that WebSphere Commerce delivers for operating an online store, such as store and product management, marketing, customer orders, and customer service.

WebSphere Commerce Administration Console
> The Administration Console allows a Site Administrator or Store Administrator to perform tasks related to site and store configuration, including the following:
>
> - User and group management (access control)
> - Performance monitoring
> - Messaging configuration
> - IBM WebSphere Payment Manager functions
> - Brokat Blaze Rules administration

The following products are bundled with, and supported by, WebSphere Commerce 5.4:

IBM Payment Manager 3.1.2
Payment Manager provides real-time Internet payment processing for merchants using a variety of methods including SET (Secure Electronic Transaction), and Merchant Originated Payment.

WebSphere Application Server 4.0
WebSphere Application Server is a Java-based application environment for building, deploying and managing Internet and Intranet Web applications.

IBM WebSphere Commerce Analyzer 5.4
IBM WebSphere Commerce Analyzer is a new, optionally installed feature of WebSphere Commerce. A WebSphere Commerce-specific entry edition of IBM WebSphere Commerce Analyzer provides reports for customer profiling and monitoring campaign performance. The reports cannot be customized. Note that you cannot install IBM WebSphere Commerce Analyzer without Brio Broadcast Server.

Brio Broadcast Server
The Brio Broadcast Server is a batch processing server that automates query processing and report distribution. Although the Brio Broadcast Server can deliver large amounts of data to many people, security safeguards are built into the product to enable administrators to tightly control database access and document distribution.

Segue SilkPreview 1.0
Segue SilkPreview provides a repository of information to analyze and report results throughout application development.

WebSphere Commerce 5.4 Recommendation Engine powered by LikeMinds
Macromedia LikeMinds provides product recommendations and targeted promotions for each individual Web visitor. It is a personalization server based on collaborative filtering and market basket analysis.

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