IBM WebSphere Commerce
for AIX

IBM

Quick Beginnings

Version 5.4

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> **Note:**
>
> Before using this information and the product it supports, be sure to read the general information under "Notices" on page 83.

Contents

Part 1. Getting ready to install WebSphere Commerce

The chapters in this section give a basic description of WebSphere Commerce, and describe the prerequisite hardware, software, knowledge requirements and user authorities required to complete a successful installation of WebSphere Commerce. Ensuring that your system meets all the requirements stated in these chapters will significantly improve the ease with which your installation is completed.

The following chapters must be completed before you attempt to install any component of WebSphere Commerce:

- Chapter 1, "Welcome to WebSphere Commerce" on page 3
- Chapter 2, "Preinstallation requirements" on page 9

Chapter 1. Welcome to WebSphere Commerce

This book describes how to install and configure the main components of WebSphere Commerce 5.4 on a single machine, and how to create one of the sample stores. It is intended for system administrators or for anyone else responsible for performing installation and configuration tasks. For more advanced configuration scenarios please refer to the WebSphere Commerce 5.4 Installation Guides.

For instructions on the installation and configuration of WebSphere® Commerce Studio, please refer to the *IBM WebSphere Commerce Studio for Windows NT® and Windows® 2000 Installation Guide*.

To learn about last-minute changes to the product, see the README file. This file, as well as an updated copy of this book are available as PDF files from the Library → Technical Library section of the WebSphere Commerce Web site:

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

Conventions used in this book

This book uses the following conventions:

Boldface type	Indicates commands or graphical user interface (GUI) controls such as names of fields, icons, or menu choices.
`Monospace type`	Indicates examples of text you enter exactly as shown, file names, and directory paths and names.
Italic type	Used to emphasize words. Italics also indicate names for which you must substitute the appropriate values for your system.
host_name	The fully qualified host name of your WebSphere Commerce server (for example, `server1.torolab.ibm.com` is fully qualified).
instance_name	The name of the WebSphere Commerce instance with which you are working.

Default installation paths

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

WebSphere Commerce 5.4	`/usr/WebSphere/CommerceServer`

IBM DB2 Universal Database 7.1.0.55 Enterprise Edition	`usr/lpp/db2_07_01`
IBM HTTP Server 1.3.19.1	`/usr/HTTPServer`
WebSphere Application Server 4.0.2	`/usr/WebSphere/AppServer`
IBM WebSphere Payment Manager 3.1.2	`/usr/lpp/PaymentManager`

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) or later with the latest critical security updates from Microsoft— prior versions do not support full functionality of WebSphere Commerce tools.

Customers 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, including Netscape Navigator 4.04, and 4.5
- Netscape Navigator 3.0 and 4.0 for Macintosh
- Microsoft Internet Explorer 4 and 5
- AOL 5 and 6

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
443	IBM HTTP Server
900	WebSphere Application Server bootstrap
1099	WebSphere Commerce Configuration Manager
2222	WebSphere Application Server accessed as user `wasuser`
8000	WebSphere Commerce Tools

8080	WebSphere Test Environment for VisualAge® for Java™
8611	Payment Manager
8620	Payment Manager Cassette for SET™
9000	WebSphere Application Server Location Server
16999	WebSphere Commerce Cache Daemon (default)
50000	DB2® connect (default)
50001	DB2 interrupt (default)

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	LC_ALL value
German	de_DE	de_DE
English	en_US	en_US
Spanish	es_ES	es_ES
French	fr_FR	fr_FR
Italian	it_IT	it_IT
Japanese	Ja_JP	Ja_JP
Korean	ko_KR	ko_KR
Brazilian Portugese	pt_BR	pt_BR
Simplified Chinese	zh_CN	zh_CN
Traditional Chinese	zh_TW	zh_TW

To determine your locale, run the following command:
```
echo $LANG
```

If your locale is not supported, change your locale properties by running the following commands as root user:
```
LANG=xx_XX
export LANG
```

Where xx_XX is your four letter locale code with the same capitalization as shown in the above table.

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 table below. For the WebSphere Commerce user IDs, the default passwords are identified.

User ID	Default values	Notes
Configuration Manager user ID	The default Configuration Manager user ID and password are `webadmin` and `webibm`	The Configuration Manager tool's graphical interface allows you to modify the way WebSphere Commerce is configured. You can access Configuration Manager from your WebSphere Commerce machine, or any machine on the same network as WebSphere Commerce.
IBM HTTP Server User ID	Not applicable	You can access your Web server home page by opening your Web browser and typing the following Web address: `http://host_name`

WebSphere Commerce Instance Administrator	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.
		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`
		
		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. 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.	The Payment Manager Administrator role enables a user ID to control and administer Payment Manager.

Chapter 2. Preinstallation requirements

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

To perform the steps described in this publication, you must have `root` user access.

```
┌─ Important ──────────────────────────────────────────────────────────┐
│ You *must* complete these preinstallation steps to ensure that installation │
│ is successful.                                                       │
└──────────────────────────────────────────────────────────────────────┘
```

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 Universal Database™
- WebSphere Application Server Administrative Console
- Basic operating system commands

To create and customize your store, you require knowledge of the following:
- WebSphere Application Server
- IBM DB2 Universal Database
- HTML and XML
- Structured Query Language (SQL)
- Java programming

Please refer to the *WebSphere Commerce Programmer's Guide*, and the *WebSphere Commerce Store Developer's Guide* for more information on customizing your store or mall. These books are 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:

- You require a dedicated machine from either the IBM @server™ pSeries™ or IBM RS/6000® family of machines such as the following:
  - RS64: @server pSeries 620/660/680, RS/6000 F80/H80/M80
  - Power3: @server pSeries 640, RS/6000 44P-170 or 44P-270
  - Power4: Regatta

  You must also meet the following hardware requirements
  - A 375 MHz processor.
  - A minimum of 1 GB of random access memory (RAM) per processor.
  - An additional 512 MB of RAM per WebSphere Commerce instance.
  - A minimum of 6 GB of free disk space, the following recommended allocated file sizes:
    - /usr 4 GB (8388608 blocks with a block size of 512 bytes)
    - /tmp 1 GB (2097152 blocks with a block size of 512 bytes)
    - /home 1 GB (2097152 blocks with a block size of 512 bytes)
  - A minimum of 1 GB of paging space per processor.
  - A CD-ROM drive.
  - A graphics capable monitor.
- A local area network (LAN) adapter that supports the TCP/IP protocol.

Prerequisite software

You must ensure that you meet the following minimum software requirements before installing WebSphere Commerce:
- Ensure that you have a Web browser installed on your system.
- Ensure that you have AIX 5.1 on your WebSphere Commerce machine. Check your OS level by issuing this command: `oslevel`
- Ensure that the following security patch has been installed on your system:
  ```
  ftp://aix.software.ibm.com/aix/efixes/security
  tsmlogin_efix.tar.Z
  ```
- The following filesets must be installed and are not included in the base AIX 5.1 installation:
  - X11.adt.lib
  - X11.adt.motif
  - X11.base.lib
  - X11.base.rte
  - X11.motif.lib
  - bos.adt.base
  - bos.adt.include
  - bos.rte.net

- `bos.rte.libc`
- `bos.net.tcp.client`

For more information on determining if all the necessary filesets are installed and how to install them, refer to Appendix A, "AIX Tasks" on page 61.

- Ensure that the stack quota limit is at least 32768. To check the current limit, type the following in a command window:
```
ulimit -a
```

If the value returned for the stack is less than 32768, increase it to this level by running the following command:
```
ulimit -s 32768
```

Other requirements

You must also do the following before installing WebSphere Commerce:

- If you are running Lotus® Notes™, or any other server on your machine, stop the server. If you have a Web server on your machine that is currently using port 80, port 443, or port 8000, disable it.
- Since WebSphere Commerce uses both IP addresses and host names, the IP address on your system must resolve to a host name. To determine your IP address, open a command window and type the following:
```
nslookup host_name
```

The desired result is a reply from your correct IP address.

- Ensure that the host name of your Web server does not contain an underscore (_). IBM HTTP Server does not support machines with an underscore in their host name.

Pre-install requirements check

A script is available on the WebSphere Commerce Disk 1 CD that will check your system to determine if you have the correct operating system, prerequisite software and pre-installed software. You should run this script before starting your installation to determine if your system meets all the needs of WebSphere Commerce. You can also run this script at various points during your installation to ensure that the software packages have been installed properly.

To run this script, perform the following steps:

1. Log on as user ID root.
2. If necessary, mount the WebSphere Commerce Disk 1 CD. To do this, type
   ```
   mount CDROM_dir
   ```

where *CDROM_dir* is the directory that you want to specify as your mounted CD. For instructions on allocating a CD file system, refer to "Allocate a CD file system" on page 61.

3. Go to the `Software_Patches` directory of the CD.

4. Run the script by typing:

   ```
   ./wc54aixpreq.sh
   ```

Part 2. Installing WebSphere Commerce

WebSphere Commerce supports DB2 and Oracle databases. This book only describes how to install DB2 on your WebSphere Commerce machine; if you want to install it on a remote machine or if you want to use Oracle database, please refer to the appropriate WebSphere Commerce Installation Guide. You must install your database before installing other WebSphere Commerce components.

WebSphere Commerce supports IBM HTTP Server and Domino Web Server as its Web servers. The Web server can be installed on the same machine as other WebSphere Commerce components, or it can be installed on a remote machine. This book only describes how to install IBM HTTP Server on your WebSphere Commerce machine. If you are installing your Web server on a machine other than your WebSphere Commerce machine, or if you are using Domino Web Server, please follow the instructions in the WebSphere Commerce Installation Guides.

Once you have installed your database and a Web server, you need to install WebSphere Application Server, IBM SDK for Java, WebSphere Commerce and Payment Manager.

- Chapter 3, "Install IBM DB2 Universal Database 7.1.0.55" on page 15
- Chapter 4, "Installing WebSphere Application Server" on page 21
- Chapter 5, "Install WebSphere Commerce 5.4" on page 29
- Chapter 6, "Install IBM Payment Manager 3.1.2" on page 33

Chapter 3. Install IBM DB2 Universal Database 7.1.0.55

This chapter explains how to install IBM DB2 Universal Database 7.1.0.55 and create a database for WebSphere Application Server. To complete the steps in this chapter you will require the DB2 Universal Database CD.

Pre-installation steps

Before you install the DB2 Universal Database check the following:

- If you have uninstalled a previous version of DB2 from this machine, ensure that all DB2 files have been deleted. If there is any DB2 information or any DB2–related files left on the system, you may be unable to successfully install DB2 or create the instance.

- If you are using Network Information Services (NIS) or NIS+, we recommend that you disable NIS or NIS+ before using the db2setup utility. If you do not disable NIS or NIS+, you must create group and user IDs on the master server *before* installing DB2. You also need to set up the user and group names in such a way that the primary group of the Administration Server must be in the secondary group list of all the instances, and the secondary group list of the Administration Server must contain the primary group of all the instances. If NIS or NIS+ is not running on the system, secondary group lists are modified automatically.

Installation procedures

To install DB2, do the following:

1. Log in as user ID `root`.
2. Mount the DB2 Universal Database CD after inserting the CD in the CD-ROM drive of machine. To do this, type the following command in a terminal window:

   `mount CDROM_dir`

   where *CDROM_dir* is the directory is that you specified as the mount point when allocating a CD file system. For instructions on allocating a CD file system, refer to "Allocate a CD file system" on page 61.

3. Switch to the DB2 install directory on the CD by entering the following command in a terminal window:

   `cd /CDROM_dir`

   where *CDROM_dir* is the directory on which your CD is mounted.

4. To install DB2, start the db2setup utility by entering the following command in a terminal window:

```
./db2setup
```

Notes:
a. The db2setup utility works with the Bourne Again (bash), Bourne, and Korn shells. Other shells are not supported.
b. The db2setup utility can generate a trace log to record errors during installation. To generate a trace log, enter the `./db2setup -d` command instead of the `./db2setup` command. The `./db2setup -d` command generates a log in `/tmp/db2setup.trc`.

5. If you are requested to restart, type the following on an AIX command line:

```
bosboot -a
shutdown -Fr
```

Your machine will restart. When you machine has restarted, repeat steps 1 through 4 and continue with the next step.

6. The DB2 Installer starts. If you already have DB2 components installed on your system, select **Install**. After making your selection, the db2setup program scans your system for information about your current configuration.

   Note: If this is your first installation of DB2, the scan for information about your current system configuration begins after starting the db2setup program. You do not need to select **Install** in the DB2 Installer window.

7. Highlight your selections and press **Enter** to select them as follows:
   a. **DB2 Administration Client**.
   b. **DB2 UDB Enterprise Edition**.
   c. **Application Development Client**
   d. If you want DB2 messages displayed in a language other than English, select **Customize** beside **DB2 Product Messages** to open the DB2 Messages window. Then highlight your language code, press the space bar, highlight **OK**, and press **Enter**.
   e. If you want to install the DB2 publications in HTML format in a language other than English, highlight **Customize** beside DB2 Product Library and press Enter to open the DB2 Product Library window. Then highlight your language code, press the space bar, highlight **OK**, and press **Enter**.

   Selected options are indicated by an asterisk (*).

8. When you have made your selections, highlight **OK**, and press **Enter**.

9. The Create DB2 Services window displays. Highlight Create a DB2 Instance and press **Enter**. The DB2 Instance sub-window displays.

10. Complete the fields as follows:

   User Name
   > Type the DB2 instance ID that you want to use. (The instance ID *db2inst1* is used as an example in this book.) The instance ID *must* meet the following criteria:
   > - It cannot be more than 8 characters in length.
   > - It can contain only the characters A to Z, a to z, 0 to 9, @, #, $, and _.
   > - It cannot begin with an underscore (_).
   > - It cannot be any of the following, in upper, lower, or mixed case: USERS, ADMINS, GUESTS, PUBLIC, LOCAL.
   > - It cannot begin with any of the following in upper, lower, or mixed case: IBM, SQL, SYS.

   Group Name
   > Type a group name that you are not currently using for any other user ID. This group will automatically become the system administration group for the DB2 instance, and it will be given administration authority.

   Password
   > Type a password that meets the following criteria:
   > - It cannot be more than 8 characters in length.
   > - It can contain only the characters A to Z, a to z, 0 to 9, @, #, $, and _.
   > - It cannot begin with an underscore (_).

   Verify Password
   > Type the same password again.

   Accept the defaults for all other fields, highlight **OK**, and press **Enter**.

11. Complete the following steps:
   a. The Fenced User window is displayed. Accept all the defaults by highlighting **OK** and pressing **Enter**.
   b. A Notice window is displayed advising you that a system generated password will be used. Highlight **OK** and press **Enter**.
   c. The DB2 Warehouse Control Database window displays. Select **Do not set up DB2 Warehouse Control Database** then highlight **OK** and press **Enter**.
   d. The Create DB2 Services window is displayed. Highlight **OK** and press **Enter**.

e. Ignore the warning message that indicates that the Administration Server is not created by highlighting **OK** and pressing **Enter**.

12. A summary report displays, listing the components that will be installed. Highlight **Continue** and press **Enter**.

13. A warning displays, advising you that this is your last chance to stop the installation. Highlight **OK** and press **Enter**.

14. The db2setup program installs your components and creates your instance ID in the group you specified. Depending on the speed of your processor, this can take several minutes. During installation, the **IBM Product Registration** window may display. Complete the Product Registration and continue. When the installation program completes, a Notice window informs you whether it was successful. Highlight **OK** and press **Enter**.

15. Scan the Status Report to ensure that all components were installed successfully and that the DB2 instance ID was created successfully. Highlight **OK** and press **Enter**.

    Important:

    If db2setup fails to create the DB2 instance ID automatically, set up the DB2 instance manually by doing the following:

    a. Remove all DB2 Universal Database users and groups that may have been created, as well as their home directories.

    b. Type:
    ```
    cd /home/
    rm -r db2*
    ```

    Ensure that all DB2 Universal Database files have been deleted.

    c. Run db2setup from the DB2 Universal Database CD. Select **Create an Instance** instead of installing the product, and complete the required steps as outlined above.

16. To close the DB2 Installer window, highlight **Close** and press **Enter**.

17. Ignore the message that indicates that the Administration Server is not created by highlighting **OK** and pressing **Enter**.

18. To confirm that you want to exit DB2 Installer, highlight **OK** and press **Enter**.

19. Go to the root directory by typing, cd /

20. Unmount the CD by typing, unmount *CDROM_dir* where *CDROM_dir* is the directory that you specified as your mounted CD.

21. Remove the DB2 Universal Database CD.

Configuring the database manager to use jdbc2 and shared memory

Before creating a database with DB2, you must complete the following steps on your DB2 server machine:

1. Change to the db2inst1 user:

   ```
   su - db2inst1
   ```

2. Add the following lines to the bottom of the db2inst1 .profile:

   ```
   . ./sqllib/java12/usejdbc2
   EXTSHM=ON
   export EXTSHM
   db2set DB2ENVLIST=EXTSHM
   ```

3. Save the file.

4. Type db2stop

5. Type db2start

6. Type exit

Creating the WebSphere Application Server database

You must create the WebSphere Application Server database before installing the WebSphere Application Server. Depending on whether your DB2 server is on the same machine as WebSphere Commerce or if you will be installing WebSphere Commerce remotely from DB2, follow the steps in the appropriate section below.

Creating your database locally

To create the database, complete the following steps:

1. In a terminal window type the following:

   ```
   su – db2inst1
   db2 create database WAS
   ```

   Where *WAS* is the name of the WebSphere Application Server database you are creating.

2. Set the application heap size by using the **db2 update db config** command, as follows:

   ```
   db2 update db config for WAS using applheapsz 512
   ```

3. When the database creation has finished, stop and start DB2 by typing the following:

   ```
   db2stop
   db2start
   ```

4. Determine the TCP/IP service name by typing the following:

   ```
   db2 get dbm cfg | grep -i svc
   ```

5. Catalog the WebSphere Application Server database as if it were a remote database by typing the following:

```
db2 catalog tcpip node node_name remote full_host_name server
    TCP/IP_service_name
db2 catalog database WAS as WASLOOP at node node_name
```

Where *node_name* is the name you are assigning to this node, and
full_host_name is the fully qualified host name of your database server.
These commands are presented on separate lines for readability only;
ensure that you type each one on a single line.

6. Test the connection by typing:

```
db2 connect to WASLOOP user username using password
```

Verifying connectivity to the WebSphere Application Server database

To verify the connectivity to the WebSphere Application Server database,
complete the following steps on the DB2 server machine:

1. Ensure that you are logged in as the DB2 instance owner, db2inst1.

2. Connect to the database named *wasloop* by using the db2 connect
command, as follows:

```
db2 connect to WASLOOP user db2inst1 using db2inst1_password
```

3. Correct output resembles the following:

```
Database Connection Information
Database server        = DB2/6000 7.2.3
SQL authorization ID   = DB2INST1
Local database alias   = WASLOOP
```

4. To disconnect from a database and log out as the DB2 instance owner, type

```
db2 connect reset
exit
```

at the command prompt.

The next step

Now that you have installed IBM DB2 Universal Database 7.1.0.55, turn to
Part 2, "Installing WebSphere Commerce" on page 13 in order to install
WebSphere Application Server, Payment Manager and WebSphere Commerce.

Chapter 4. Installing WebSphere Application Server

Chapter checklist

To ensure that you can successfully complete the steps in this chapter, ensure that you have met the following requirements:

__ 1. You *must* have DB2 Universal Database installed and a database created and cataloged *before* beginning the steps in this chapter.

Installing WebSphere Application Server and IBM HTTP Server on the same machine

To install WebSphere Application Server on the same machine as your Web server, do the following:

1. Ensure you are logged in as user ID `root`.

2. Mount the WebSphere Application Server, Advanced Edition CD after inserting the CD in the CD-ROM drive of machine. To do this, type the following command in a terminal window:

   ```
   mount CDROM_dir
   ```

   where *CDROM_dir* is the directory that you specified as the mount point when allocating a CD file system. For instructions on allocating a CD file system, refer to "Allocate a CD file system" on page 61

3. On a command line, switch to the install directory on the CD-ROM by typing:

   ```
   cd /CDROM_dir/aix
   ```

   where *CDROM_dir* is the directory on which your CD-ROM is mounted.

4. Type the following command to start the installation program:

   ```
   ./install.sh
   ```

5. The Welcome to the IBM WebSphere Application Server Setup program dialog box opens. Click **Next** to continue.

6. The Prerequisites Check window opens. Ensure that you have the correct prerequisites to install WebSphere Application Server and click **OK**.

7. The Install Options dialog box opens. Select **Custom Installation**, and click **Next**.

8. The Choose Application Server Components panel displays. Select the following packages:

   - Server
   - Admin

- Samples
- Application Assembly and Deployment Tools
- IBM HTTP Server 1.3.19
- Web Server Plugins
- OLT/Debugger (optional)

When all packages have been selected, click **Next**.

9. The WebSphere Plugins panel displays. Select the plug-in for IBM HTTP Server and click **Next.**

10. The Database Options dialog opens. Complete the following set of instructions:

    a. In the Database Type field, select DB2 from the pull-down menu.

    b. Ensure that Remote DB is not selected.

    c. In the Database Name (Database SID) field, type the name of the WebSphere Application Server database. For example: WASLOOP

    d. In the DB Home field, type the full path name of the home directory of the DB2 instance owner, */home/db2inst1*, or specify the full path name of the home directory by using the Browse button.

    e. The DB URL, Server Name, and Port Number fields cannot be edited.

    f. In the Database User ID field, type the name of the database instance owner: db2inst1.

    g. In the Database Password field, type the current password for the database instance owner.

    h. Click **Next** to continue.

11. The Select Destination Directory dialog opens. When using IBM HTTP Server, you cannot modify the destination directory. Click **Next** to continue.

12. The Install Options Selected dialog box opens. Verify that the information is correct and click **Install** to complete the installation.

13. The Location of Configuration files dialog box opens and prompts you to enter the full path name to the specified Web server configuration file:

    ```
    /usr/HTTPServer/conf/httpd.conf
    ```

    Important:

    Before entering this information, open another command window and type the following commands:

    ```
    cd /usr/HTTPServer/conf
    mv httpd.conf httpd.conf.orig
    cp httpd.conf.sample httpd.conf
    ```

    Click **Next**.

14. The Setup Complete dialog box opens. To view the ReadMe file, ensure that Yes, I want to view the ReadMe File is selected and click **Finish**; the ReadMe file is displayed in a default browser window.
15. Unmount the CD by typing,

```
cd /
umount CDROM_dir
```

where *CDROM_dir* is the directory that you specified as your mounted CD.
16. Remove the WebSphere Application Server, Advanced Edition CD.
17. Restart IBM HTTP Server by running the following command:

```
/usr/HTTPServer/bin/apachectl restart
```

18. Start a browser and enter the name of the local machine as the URL. If you see the IBM HTTP Server Web page, the server is installed and configured correctly.

Create a password for IBM HTTP Server Administrator

The Administration Server is installed with Authentication enabled for the directory containing all configuration forms. This means that after installation, the Administration Server will not service a page without a user ID and Password. This is done to protect the IBM HTTP Server Configuration file from unauthorized access immediately after successful installation of the IBM HTTP Server and the Administration Server. At installation, the password file (`admin.passwd`) is ″empty″, therefore until you supply a user ID and password in the Administration Server Password file (`admin.passwd`), you will not have access to the IBM HTTP Server Configuration pages through the Administration Server.

To create a user ID and password for IBM HTTP Server 1.3.19.1, perform the following steps:
1. Type `cd /usr/HTTPServer/bin`.
2. Type `./htpasswd –m ../conf/admin.passwd user_ID`.
3. You will be prompted to supply a password, and then to verify this password.

This will be the user ID and Password that will allow access to the Administration Server Configuration GUI. This user ID should be unique for access to the Administration Server.

Set up IBM HTTP Server administration server

You have to run a setup script for IBM HTTP Server which creates a user ID and group, and changes the permissions for various configuration files. To set up the IBM HTTP Server administration server, perform the following steps:
1. Change to the HTTP Server directory by typing `cd /usr/HTTPServer/bin`.

2. Run `./setupadm`.
3. Answer the prompts as follows:
    a. Supply a user ID to run the Administration Server (the user ID will be created using the System Administration tools). Enter the user ID (which can not be the same as the logon ID). Click **Enter**.
    b. Supply a Group Name to run the Administration Server (the Group will be created using the System Administration tools). Enter a group name and click **Enter**.
    c. You are prompted to supply the directory containing the files for which a change in the permissions is necessary. The default is `/usr/HTTPServer/conf`. Either accept the default or enter the path to your IBM HTTP Server configuration files.
    d. You are prompted to perform changes (enter 1), or Quit with no changes (Enter 2). Enter 1 to make the changes.
    e. You are prompted to update the Administration Server Configuration file. Continue (enter 1) or exit (enter 2). Enter 1 to make the update.
    f. You may be asked if you want to run the administrative server and the IBM HTTP Server in a language other than English. If yes enter 1, or exit (enter 2). If you choose to use another language, you will be prompted to select that language.
4. The updates are performed and you can exit the setupadm program.

Installing the WebSphere Application Server eFixes and FixPak

If you are installing your DB2 server, your Web server, WebSphere Application Server and WebSphere Commerce on the same machine, you do not need to complete the steps in this section.

If your DB2 server or Web server is on a remote machine, you must complete the steps in this section on your WebSphere Application Server machine

Complete the following steps:
1. Ensure that WebSphere Application Server is stopped. To stop WebSphere Application Server, do the following:
    a. Start the WebSphere Application Server Administration Console by entering the following in a terminal window:

       ```
       export DISPLAY=fully_qualified_host_name:0.0
       cd /usr/WebSphere/AppServer/bin
       ./adminclient.sh
       ```
    b. In the WebSphere Application Server Administration Console, select the node with your short host name.
    c. Click the stop button. You will get a warning message similar to the following:

> *You are trying to stop the node that the console is connected to. This will cause the console to exit after the node is stopped. Do you want to continue?*

Click **Yes** to continue.

   d. After the WebSphere Application Server Administration Console, confirm that all WebSphere Application Server–related processes have stopped by issuing the following command in a terminal window:

```
ps -ef | grep AppServer | grep -v grep
```

   e. If this command returns any Java processes, stop them by issuing a kill command.

2. Ensure that all WebSphere Application Server eFixes that have been previously installed are removed.

3. Run `/usr/sbin/slibclean` to remove any Web server libraries loaded into system memory.

4. If your Web server is on the same machine as WebSphere Application Server, ensure that it is stopped.

5. If necessary, mount the WebSphere Commerce Disk 2 CD. To do this, type

```
mount CDROM_dir
```

where *CDROM_dir* is the directory that you want to specify as your mounted CD.

6. Go to the `Software_Patches` directory of the CD, and run the following commands:

```
cp wc54wasefixunix.tar /tmp
cd /tmp
tar -xvf wc54wasefixunix.tar
./wc54wasefixunix.sh
```

7. When prompted for the source point of the eFix, enter the mount point for your CD.

To verify that the script upgraded your software with no errors, check the following error logs:

- `/tmp/wc54efixunix.log`
- `/usr/WebSphere/AppServer/eFix/PQ54291/Extractor.Log`
- `/usr/WebSphere/AppServer/eFix/PQ57814/Extractor.Log`
- `/usr/WebSphere/AppServer/eFix/PQ58443/Extractor.Log`

Testing the installation

This section describes how to test the installation and configuration of your WebSphere Application Server system. These instructions assume that you have installed a supported Web server, database, and the WebSphere Application Server component.

Perform the following steps to test your WebSphere Application Server installation:

1. Ensure that you are logged into the machine with superuser (root) privileges.

2. Start the WebSphere administrative server by executing the startupServer script, as follows:

   ```
   cd /usr/WebSphere/AppServer/bin
   ./startupServer.sh &
   ```

3. Ensure that the administrative server has started successfully by checking the file named tracefile located in the /usr/WebSphere/AppServer/logs directory. The message Server_adminServer open for e-business appears in this file when the server has started successfully.

4. Start the Administrative Console by running the adminclient script, as follows:

   ```
   cd /usr/WebSphere/AppServer/bin
   ./adminclient.sh &
   ```

5. When the console displays the message Console Ready, administer the application server by performing the following steps:

   a. When the administrative console opens, a tree view is displayed. Click the plus sign (+) next to **WebSphere Administrative Domain** entry to expand the view.

   b. Expand the view of the **Nodes** entry.

   c. Identify the name of your host machine and expand the view of that entry.

   d. Expand the view of the **Application Servers** entry.

   e. Select the **Default Server** entry and click the **Start** icon located on the toolbar. An information window opens and indicates that the server has started. Click **OK** to close the information window.

   The default server will return to its previous state when you restart the WebSphere Application Server AdminServer; if it was stopped then it will remain stopped and if it was running then it will restart.

6. If your Web Server is installed on a different machine, copy /usr/WebSphere/AppServer/config/plugin-cfg.xml from the WebSphere Application Server machine to the Web Server machine.

   Important:

   The default server is used for testing only. You can stop it or remove it after testing. It should never be left running on a production system, as it may pose a security hazard to your site.

7. Ensure that the Web server is running. If the Web server is not running, start it.

8. Start a browser and enter the URL for the snoop servlet, which is a sample servlet that is installed by default, as follows:

```
http://machine_name/servlet/snoop
```

Information about /servlet/snoop is displayed.

The next step

Now that you have installed WebSphere Application Server, you are ready to install WebSphere Commerce following the steps in Chapter 5, "Install WebSphere Commerce 5.4" on page 29.

Chapter 5. Install WebSphere Commerce 5.4

This chapter explains how to install WebSphere Commerce 5.4. To complete the steps in this chapter, you will need the WebSphere Commerce Professional Edition CD or the WebSphere Commerce Business Edition CD.

Important:

The following tasks must be completed before installing WebSphere Commerce 5.4:

- Ensure that you have installed:
  - IBM HTTP Server
  - DB2 Universal Database
  - WebSphere Application Server
- It is strongly recommended that you run the Intallation and Configuration Checker at this time. This tool will ensure that you have the correct levels of software installed to support WebSphere Commerce. Download this tool from:

  The tool can be accessed and downloaded online from the following URL locations:

  ▶ Business

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

  ▶ Professional

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

  Instructions for using the IC Checker are included with the downloaded package.

Installation procedures

To install WebSphere Commerce 5.4, do the following:

1. Log on as user ID root.
2. If necessary, mount the WebSphere Commerce Disk 1 CD. To do this, type

   mount *CDROM_dir*

where *CDROM_dir* is the directory that you want to specify as your mounted CD. For instructions on allocating a CD file system, refer to "Allocate a CD file system" on page 61.

3. On an AIX command line, switch to the WebSphere Commerce install directory on the CD by typing:

   `cd /CDROM_dir/WebSphereCommerce`

   where *CDROM_dir* is the directory on which your CD is mounted.

4. On the command line, type `smitty install_all`

5. In the **Input device/directory for software** field, type: **./** and press **Enter**.

6. Select **Software to install** and press F4=List to list the components available for installation.

7. To select WebSphere Commerce for installation, select the following from the list:

   - Commerce.Base:

     5.4.0.0 Commerce Base Files

     5.4.0.0 Commerce license

     5.4.0.0 Commerce properties

     5.4.0.0 Commerce runtime

     5.4.0.0 Commerce samples

     5.4.0.0 Commerce schema

   - Commerce.Blaze

     5.4.0.0 Blaze Advisor Suite

   - Commerce.Docs

     5.4.0.0 Commerce xxxxxxxxx docs, readme and help
     where xxxxxxxxx is a descriptive phrase for your language. For example, `5.4.0.0  WebSphereCommerce US english help and manuals`.

8. When you have made all your selections, press **Enter** to close the list.

9. In the **Detailed Output** field, press the **Tab** key to toggle from No to Yes. Press **Enter**.

10. To begin installation, press **Enter**.

11. A confirmation message appears. Press **Enter**.

    The Command Status window appears, indicating that the installation of the selected components has started. The installation completes when the **Command** field at the top of the window changes from **Running** to **OK**.

    Depending on the speed of your processor and the components you select, the install may take up to about 20 minutes.

12. When the installation has completed, scroll to the Installation section at the bottom of the listing. In the Result column, you should see either "Success" or "Already installed" next to the name of each component; if you do not, correct the problem and attempt the install again.

13. Press F10=Exit.

14. Unmount the CD by typing,
    ```
    cd /
    umount CDROM_dir
    ```

    where *CDROM_dir* is the directory on which your CD is mounted.

15. Remove the WebSphere Commerce Disk 1 CD.

Upgrading your DB2 and WebSphere Application Server version

You should only complete the steps in this section if you have installed your DB2 server and Web server on the same machine as your WebSphere Commerce server. For all other installation scenarios these products have already ben upgraded.

Complete the following steps:

1. Ensure that WebSphere Application Server is stopped and all processes associated with your Web server are stopped.

2. Ensure that your DB2 services have been stopped.

3. Run `/usr/sbin/slibclean`

4. If necessary, mount the WebSphere Commerce Disk 2 CD. To do this, type
    ```
    mount CDROM_dir
    ```

    where *CDROM_dir* is the directory that you want to specify as your mounted CD.

5. Go to `/usr/WebSphere/CommerceServer/bin`

6. Type: `./wc54efixunix.sh`

To verify that the script upgraded your software with no errors, check the following error logs:

- `/usr/WebSphere/CommerceServer/logs/wc54efixunix.log`
- `/usr/WebSphere/AppServer/eFix/PQ54291/Extractor.Log`
- `/usr/WebSphere/AppServer/eFix/PQ57814/Extractor.Log`
- `/usr/WebSphere/AppServer/eFix/PQ58443/Extractor.Log`

The next step

Now that you have installed WebSphere Commerce 5.4, you are ready to
install Payment Manager as described in Chapter 6, "Install IBM Payment
Manager 3.1.2" on page 33.

Chapter 6. Install IBM Payment Manager 3.1.2

This chapter describes how to install and configure Payment Manager on your local WebSphere Commerce machine. To complete the steps in this chapter, you will need the IBM Payment Manager 3.1.2 CD.

For additional information on configuring Payment Manager, see the following:

- The *IBM WebSphere Payment Manager for Multiplatforms Install Guide, Version 3.1* on the Payment Manager CD.
- The *IBM WebSphere Payment Manager for Multiplatforms Administrator's Guide, Version 3.1* on the Payment Manager CD.
- The WebSphere Commerce online help. After you have finished installing WebSphere Commerce you can find all the information you need to configure Payment Manager to work with your WebSphere Commerce store.

Prerequisites for installation

1. Read the latest readme file, `readme.framework.html`, accessed through documentation links on the Payment Manager Web site: `http://www.ibm.com/software/websphere/paymgr/support/index.html` and on the Payment Manager CD-ROM.
2. Change to the database instance owner and start DB2:

   ```
   su - db2inst1
   db2start
   ```
3. Create a database for Payment Manager (for example, `payman`):

   ```
   db2 create db payman
   ```

   This database must be running during Payment Manager installation. Ensure that the application heap size for this database is at least 256 by typing the following in a DB2 command window:

   ```
   db2 update db cfg for payman using APPLHEAPSZ 256
   ```
4. When the database creation has finished, start DB2 and the WebSphere Application Server by doing the following:

   a. Stop and restart the DB2 server:

      ```
      su - db2inst1
      db2stop
      db2start
      exit
      ```

   b. Start the WebSphere Application Server:

```
cd /usr/WebSphere/AppServer/bin
./startupServer.sh
```

5. Ensure that the WebSphere Application Server administration server is
   running at installation. Also, ensure WebSphere Application Server does
   not have an application server named `WebSphere Payment Manager`
   configured for another purpose. If so, rename or delete it.

Install Payment Manager

To install IBM Payment Manager 3.1.2, do the following:

1. Log in as user ID `root`.

2. If necessary, mount the IBM Payment Manager 3.1.2 CD. To do this, type

   `mount CDROM_dir`

   where *CDROM_dir* is the directory that you want to specify as your
   mounted CD.

3. Run the `Install` command to launch the Payment Manager install
   program:

   `./Install`

4. On the Payment Manager Install screen, click **Next**.

5. Review the license agreement and if you agree to the terms, accept the
   agreement.

6. Accept the default destination directory or enter another directory.

7. If the installation program can not determine which IBM SDK for Java
   that WebSphere Application Server is using, you will be asked to enter
   the location of the IBM SDK for Java directory. If the location displayed is
   correct, click **Next**. If not, enter the correct location and click **Next**.

8. Select which database you will use with Payment Manager: IBM
   Universal Database

9. Enter your JDBC™ information. Since you are using DB2, the install
   program searches for JDBC driver information automatically. When the
   installation finds the JDBC driver information, enter the DB2 instance
   name in the appropriate field (default is `db2inst1`), and click **Next**.

10. On the Payment Manager Database Access Information screen, enter the
    appropriate values:

    - Database Owner User ID (default is `db2inst1`)
    - Database Administrator's User ID (default is `db2inst1`)
    - Database Administrator's Password
    - Commerce Payments Database Name (for example, `payman`)

    Click **Next**.

11. On the Payment Manager WebSphere Configuration Information screen, accept the default node name if it is correct for your machine, or enter the node name if necessary. The node name should be the same as what is listed in the WebSphere Application Server Administration Console for node name of your machine. Click **Next**.

12. On the Installation Summary screen, review the chosen parameters. Click **Next** to continue the installation.

> **Note:** At times during the installation, the progress bar may appear to have stopped. Do not terminate the installation, which is continuing. The progress bar will resume moving, when system resources permit.

13. You are asked if you want to read the ReadMe file. Select the check box and click **Next**.

14. Unmount the CD by typing the following:

```
cd /
umount CDROM_dir
```

where *CDROM_dir* is the directory that you specified as your mounted CD.

15. Remove the IBM Payment Manager 3.1.2 CD.

CustomOffline and OfflineCard are installed automatically with Payment Manager OfflineCard is configured automatically since Payment Manager is installed on the same machine as WebSphere Commerce. These cassettes can be used for testing, but cannot process online transactions.

Payment Manager Administrator role

When you install Payment Manager, the WebSphere Commerce Administrator ID, wcsadmin, is automatically assigned the Payment Manager Administrator role. The Payment Manager Administrator role enables an 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. Doing so will stop some of the functions in WebSphere Commerce related to Payment Manager integration from working.

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 it.

> **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:
>
> - Create the above administration IDs in WebSphere Commerce using the WebSphere Commerce Administration Console.
> - In the Payment Manager User Interface, select **Users**, and remove the Payment Manager Administrator role from these two IDs.

Configuring your Payment Manager machine

After you have completed all the necessary steps in the WebSphere Commerce installation guide, and have successfully created your WebSphere Commerce instance, you can configure your Payment Manager machine, using the "Getting Started" chapter of the *IBM WebSphere Payment Manager Administrator's Guide*. This section will guide you through the processes of:

- Starting the Payment Manager user interface
- Creating a Payment Manager merchant and authorizing a cassette
- Assigning user roles
- Creating an account
- Managing Payment Processing

Before you log on to the Payment Manager User Interface, ensure that WebSphere Commerce is running and that the Payment Manager engine has been started. For more information, see "Starting and stopping Payment Manager" on page 71.

The next step

Now that you have installed IBM Payment Manager 3.1.2, you are ready to configure a WebSphere Commerce instance as described in Part 3, "Configuring a WebSphere Commerce instance" on page 37.

Part 3. Configuring a WebSphere Commerce instance

Once you have installed all the required software and any optional software packages that you want to use, you can create a WebSphere Commerce instance.

This section contains the following chapter:

- Chapter 7, "Pre-configuration steps" on page 39
- Chapter 8, "Creating an instance with Configuration Manager" on page 41
-

Chapter 7. Pre-configuration steps

This chapter contains a list of tasks that must be completed before you configure your WebSphere Commerce instance. Please complete the appropriate sections from the following list:

- Running the `wcpostinstall.sh` script.
- Starting the WebSphere Application Server (all users)

Running the postinstall script

After you have installed WebSphere Commerce and all its required components, you must run the post install script. This will create the user ID `wasuser` that will allow you to run WebSphere Application Server, Payment Manager and WebSphere Commerce as a non-root user. To run the script complete the following steps:

1. Ensure that WebSphere Application Server is stopped and all processes associated with your Web server are stopped.
2. Ensure that your DB2 services have been stopped.
3. Go to `/usr/WebSphere/CommerceServer/bin`

   `cd /usr/WebSphere/CommerceServer/bin`
4. Type: `./wcpostinstall.sh`
5. Follow the onscreen prompts, ensuring that you select `yes` when asked if you want to run as a non-root user.

   Notes:

   a. If you choose to use an existing user rather than creating a new user, the home directory for this user must be `/home`.

   b. It is strongly suggested that you accept the default group and user names, and the default port number suggested by the `wcpostinstall.sh` script. If you choose different names and port numbers you must remember to substitute those names throughout the documentation.

   c. Group or user names must meet the following guidelines:

      - No more than eight characters
      - No special characters (alphanumeric characters only)
      - All lower case

Once you have run this script, you may have to specify the port number specified in this script when launching certain tools or starting and stopping certain applications. Details on this are included when these tasks are described in this book.

Updating the root user and wasuser profiles

After running the postinstall script, you must update the .profile files for both root and wasuser by adding the following information:

```
PATH=$PATH:/usr/ucb
export PATH
```

If you do not add this information WebSphere Commerce Configuration Manager may not start.

Starting the WebSphere Application Server

To start WebSphere Application Server, type the following while logged in as user ID wasuser that was created in "Running the postinstall script" on page 39, and do the following

1. Ensure that your database server is running.
2. Ensure that your Web server is running.
3. Enter the following the commands in terminal window:

```
su - wasuser
DISPLAY=fully_qualified_host_name :0.0
export DISPLAY
cd /usr/WebSphere/AppServer/bin
./startupServer.sh &
```

where fully_qualified_host_name is either the hostname or the TCP/IP address of the workstation that you are currently using.

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 8, "Creating an instance with Configuration Manager" on page 41

Chapter 8. Creating an instance with Configuration Manager

This chapter describes how to create a basic instance with the Configuration Manager. If you have not completed the steps in Part 1, "Getting ready to install WebSphere Commerce" on page 1 and Part 2, "Installing WebSphere Commerce" on page 13, you will not be able to create an instance.

Note: A single WebSphere Commerce Server consists of a commerce database, an EJB container, and servlet engines 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.

For more advanced configurations and information on how to complete the fields not described in this chapter, refer to the *WebSphere Commerce Installation Guide*.

Chapter checklist

- Ensure that your DB2 server is running.
- Ensure that your IBM HTTP Server is running.
- Ensure that your system is using a supported locale as described in "Locales used by WebSphere Commerce" on page 5.
- Ensure that you are running the Korn shell.

Launching the Configuration Manager

To start the Configuration Manager, complete the following steps:

1. Open a terminal window.
2. Ensure that you are logged on as the WebSphere Application Server user created in "Running the postinstall script" on page 39:

   ```
   su - wasuser
   ```

3. Export your display, even if you are working on the WebSphere Commerce machine:

   ```
   export DISPLAY=fully_qualified_host_name:0.0
   ```

where the *fully_qualified_host_name* is the host name of the machine that you are using to access Configuration Manager. If your system replies with `Can not open DISPLAY=`, run the following command on your WebSphere Commerce machine:

```
xhost +host_name
```

where *host_name* is the fully qualified host name of the machine from which you want to access the Configuration Manager.

4. Issue the following commands:

```
cd /usr/WebSphere/CommerceServer/bin
./config_server.sh
```

   Notes:

   a. Do not close the terminal window you entered the `config_server.sh` command in or the Configuration Manager server will stop.

   b. Do not run the Configuration Manager server as a background process – this is a potential security risk.

5. Wait for the following message: `Registry created. CMServer bound in registry.`

6. Open another terminal window.

7. Ensure that you are logged on as the WebSphere Application Server user created in "Running the postinstall script" on page 39:

```
su - wasuser
```

8. Export your display, even if you are working on the WebSphere Commerce machine:

```
export DISPLAY=fully_qualified_hostname:0.0
```

9. Issue the following commands:

```
cd /usr/WebSphere/CommerceServer/bin
./config_client.sh &
```

10. A window displays and you will be prompted to enter the Configuration Manager user ID and password. The default Configuration Manager user ID is `webadmin`, and the default password is `webibm`.

11. You will be asked to change your password the first time you log in.

Instance Creation wizard

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

1. Expand your host name.

2. Right-click **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 — the fields marked with asterisks (**) must be filled in to create your instance.

Instance

Instance name

> This is the name that you want to use for your instance. The default name is demo.

Instance's root path

> Enter the path where you want to store all files related to your WebSphere Commerce instance. The default path is /usr/WebSphere/CommerceServer/instances/*instance_name*

Merchant Key

> This is the 16-digit hexadecimal number for the Configuration Manager to use as the encryption key. The Merchant Key must have at least one alphanumeric character (a to f) and at least one numeric character (0 to 9), any alphanumeric character must be entered in lower case letters, and you cannot have the same character entered more than four times in a row. After you have created a store you must *not* change this key. Ensure that the key that you enter will be sufficient to protect your site, especially for a production server.

PDI encrypt

> Enable this check box to specify that information specified in the ORDPAYINFO and ORDPAYMTHD tables should be encrypted.

PVC header enabled

> Reserved for future releases.

URL mapping file

> Enter the path to the file you will be using for URL mapping or accept the default file /usr/WebSphere/CommerceServer/xml/mapping/urlmapper.xml

Database

Database administrator name

> Enter the user name of your database administrator. The default is db2inst1.

Database administrator password

> Enter the password associated with the database administrator's user ID. The default is db2inst1.

Database Administrator home directory

> The home directory of the Database Administrator. The default is /home/db2inst1

Database name

Accept the default, or type the name you want to assign to your
database. The name must be eight characters in length or less. When
creating your instance using the Instance Creation wizard, do not
specify the WebSphere Application Server database which you created
earlier for the WebSphere Application Server repository. Instead,
specify a unique database name for your WebSphere Commerce store
(for example, you can use MALL) in the **Database name** field on the
Database page of the wizard.

Database type

Select DB2 Universal Database.

Database user name

If you have created a DB2 user for the database other than the
database administrator, you can enter their user ID in this field. If you
have no DB2 users other than the administrator, enter the
administrator's user name.

Database user password

This is the password that is associated with the above database user
name. If you have no DB2 users other than the administrator, enter
the administrator's password.

Database User home directory

The home directory of the Database User. The default is
`/home/db2inst1`

Run Database Performance Wizard

Select the **Run Database Performance Wizard** check box to perform
DB2 database optimization.

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
help.

Set as active database

Select this option to use this database for your instance.

Use remote database

Clear this check box. If you want to use a remote database server you
must follow the instructions provided in the *WebSphere Commerce
Installation Guide*.

Languages

Use the Languages panel of the Configuration Manager to configure your database to support all required languages. At least one language must be chosen. To add language support 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.

Web Server

Use Remote Web Server
Ensure that this check box is clear. If you want to use a remote Web server you must follow the instructions provided in the *WebSphere Commerce Installation Guide*.

Hostname
Accept the default, or type the *fully qualified* host name of your WebSphere Commerce machine (`host_name.domain.com` is fully qualified). The default is the host name of your system. Ensure that you do not enter the `www` prefix in the host name field. If you want to accept the default host name, ensure the default host name is fully qualified before accepting it.

Web Server Type
Select IBM HTTP Server.

Primary Document Root
Accept the default, or type the path of your Web server document root.

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 want 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. Enter the DataSource name or accept the default.

Port Number
Enter the port address that WebSphere Application Server is listening on, as specified in "Running the postinstall script" on page 39. The default is 2222.

JDBC Driver Location
Enter the location of the db2java.zip file on your system or accept the default.

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. This check box is disabled after your instance is created.

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. This check box is disabled after your instance is created.

Tools Port Number
The port number used for accessing WebSphere Commerce administration tools. The default port number is 8000.

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

Hostname
Enter the fully qualified host name of the Payment Manager machine. This defaults to the WebSphere Commerce host name.

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
/usr/WebSphere/CommerceServer/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 Server to communicate with Payment Manager without using SSL.

Webserver 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 this check box has not been selected the default value for this field is 443 (the SSL port).

Use Socks Server
> Select this check box if WebSphere Commerce must go through a socks server in order to communicate with Payment Manager.

Socks Hostname
> This field is enabled if the **Use Socks Server** check box is selected. Enter the fully-qualified host name of your socks server.

Socks Port Number
> This field is enabled if the **Use Socks Server** check box is selected. Enter the port number that your socks server uses.

Log System

Trace File Location
> This is the file that collects debugging information. It contains debug messages in English. The default location is
> `/usr/WebSphere/CommerceServer/instances/`*instance_name*`/logs/`
> `ecmsg.log`
>
> **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 size is 40 MB. Once the trace file reaches this size, another trace file will be created.

Message File Location
> This is the file that collects messages, describing the state of the WebSphere Commerce system. Messages are locale-sensitive. The default location is
> `/usr/WebSphere/CommerceServer/instances/`*instance_name*`/logs/`
> `ecmsg.log`
>
> **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 size is 40 MB. Once the message file reaches this size, another message file will be created.

Activity log Cache Size

Enter the maximum size of the activity log's cache. The default size is 20 MB.

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 receive 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
`/usr/WebSphere/CommerceServer/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 outlines 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
> /usr/WebSphere/CommerceServer/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
> Select the **Enable** check box to enable Auctions.

SMTP Server
> Define the SMTP server that is used to receive e-mail messages.

Reply Email
> The sender's e-mail information

Once you have completed 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. After your instance has been created WebSphere Commerce will attempt to start the WebSphere Commerce Server associated with the instance. When this has completed, click **OK** to close the Instance Creation wizard.

Verifying your instance creation

To verify that the instance has been properly created, check the following files:

- /usr/WebSphere/CommerceServer/instances/*instance_name*/xml/ *instance_name.xml*. This file contains all of the configuration information about your WebSphere Commerce instance.
- /usr/WebSphere/CommerceServer/instances/*instance_name*/logs/ createdb.log. This file contains information about the WebSphere Commerce database creation.
- /usr/WebSphere/CommerceServer/instances/*instance_name*/logs/ populatedb.log. This file contains information about the WebSphere Commerce database population process .

- /usr/WebSphere/CommerceServer/instances/*instance_name*/logs/ WASConfig.log. This file contains information about the installation and configuration of your new WebSphere Commerce instance, within WebSphere Application Server.
- /usr/WebSphere/CommerceServer/instances/*instance_name*/logs/wcs.log. This file describes the operation of the WebSphere Commerce application server. Use this log to ensure that the server has started correctly.

The next step

After you have configured and started your WebSphere Commerce instance, you need to complete the installation by following the instructions in .

Part 4. Creating a store with WebSphere Commerce

Chapter 9. Creating a store from a sample store archive

This chapter guides you through the process of creating a sample store from one of the store archives provided with WebSphere Commerce. For information on additional store creation methods and store customization, refer to the WebSphere Commerce online help.

In WebSphere Commerce, the fastest and easiest way to create an online store is to use one of the sample stores provided with WebSphere Commerce and the browser-based tools available in Store Services. Sample stores are provided as store archives.

A store archive is a compressed file that contains all the assets necessary (including Web and database assets) to create a store. In order to create your own store, you create a new store archive based on one of the sample store archives, using the tools in Store Services. Since your new store archive is based on the sample store archive, it is an exact copy of the assets in the sample store archive, saved under a new file name and directory structure.

At this point you have two options. You can publish the store archive to the commerce server to create a functional store based on one of the sample stores, or you can make changes to your new store archive first and then publish it to the server.

To change the database information in the store archive, edit the assets directly or use the tools in Store Services: the Store Profile notebook, the Tax notebook and the Shipping notebook.

To change the Web assets (store pages) contained in the store archive or to create new Web assets, use the tools in WebSphere Commerce Studio, or tools of your choice.

For more information on store creation, see the *IBM WebSphere Commerce Store Developer's Guide*.

To create a store using one of the sample stores, do the following:
1. Create a store archive.
2. Publish a store archive.

Creating a store archive

To create a store archive using one of the sample stores, do the following:

1. Ensure the following are running:
   - DB2
   - IBM HTTP Administration
   - IBM HTTP Server
   - WebSphere Application Server
   - In the WebSphere Application Server Administration Console, ensure the following are started:
     - Websphere Commerce Server – *instance_name*
     - WebSphere Payment Manager
2. Start Payment Manager by doing the following:
   a. Open a command window and change directory to the directory where IBM Payment Manager is installed.
   b. Enter the following command:

      ```
      ./IBMPayServer
      ```

      If Payment Manager is installed remotely from your Web server, start it using the following command:

      ```
      ./IBMPayServer -pmhost fully_qualified_Web_server_host_name
      ```

   You are prompted to enter your Payment Manager password. This is the password of the user you specified to use when connecting to the Payment Manager database.
3. Start Store Services by opening Microsoft Internet Explorer 5.5 and typing the following URL:

   ```
   https://host_name.domain.com:8000/storeservices
   ```

   The **Store Services Logon** page displays. Enter the default Instance Administrator user ID (wcsadmin), and the default password (wcsadmin) and click **Log on**. You will be asked to change your password the first time you log in.
4. The **Create Store Archive** page displays. In the **Store archive** field, type the name of your store archive. The extension .sar is added to the name you type, for example, *Mystore*.sar. This name becomes the filename for the store archive. When you finish creating your store archive, it is saved in the following location:

   ```
   /usr/WebSphere/CommerceServer/instances/instance_name/sar
   ```

5. In the **Store directory** field, type the directory name for your store. The directory name defines the directory to which the web assets will be published on the server. When the store archive is published, it will be

published to the store directory defined here by default. For example, if you enter the directory name "Mystore" in the **Store directory** field, the following directory is created:

```
/usr/WebSphere/AppServer/installedApps/WC_Enterprise_App_
instance_name.ear/wcstores.war/Mystore
```

6. ▶Business From the **Store owner** drop-down list, select the organization that owns the store, for example Seller Organization.

   Note: The Default Organization is available for customers who do not have a buying organization. Do not select the default organization as your store owner.

7. From the **View** drop-down list, select which sample store you would like to view.

8. From the **Sample** list box, select the store archive on which you will base your store. A description of the sample displays in the Sample description box. To view the sample store first, click **Preview**.

9. Click **OK**.

10. A dialog box opens informing you that your store archive was created successfully. Click **OK**.

11. The Store Archive list displays. Note that the store archive you created displays in the list and that the name in the Store name field is the same as the name of the sample store. You can change this name using the Store Profile notebook.

You have now created a new store archive, based on a sample store. As a result, the new store archive contains all of the same information as the sample store. When you are creating your own store, you will want to change this information. For more details on changing this information, see the WebSphere Commerce online help and the *IBM WebSphere Commerce Store Developer's Guide*. For the purpose of this guide, do not change this information now.

Publish a store archive

Publishing a store archive to a WebSphere Commerce Server allows you to create a running store. You have two options for publishing a store archive:

- Publish a store archive from Store Services
- Publish a store archive from the command line

This section will only cover publishing from Store Services. Additional information on publishing is available in the WebSphere Commerce online help and *IBM WebSphere Commerce Store Developer's Guide*.

Publish a store archive from Store Services

Publishing a store archive to a WebSphere Commerce Server allows you to create a running store. To publish a store archive, complete the following steps:

1. Ensure the following are running:
   - DB2
   - IBM HTTP Administration
   - IBM HTTP Server
   - WebSphere Application Server
   - In the WebSphere Application Server Administration Console, ensure the following are started:
     - Websphere Commerce Server – *instance_name*
     - WebSphere Payment Manager

2. If Payment Manager is not running, start IBM Payment Manager, by doing the following:
   a. Open a command window and change directory to the directory where IBM Payment Manager is installed.
   b. Enter the following command:

      `./IBMPayServer`

      If Payment Manager is installed remotely from your Web server, start it using the following command:

      `./IBMPayServer -pmhost `*fully_qualified_Web_server_host_name*

   You are prompted to enter your Payment Manager password. This is the password of the user you specified to use when connecting to the *payman* database.

3. Ensure that you have Site Administrator or Store Administrator access. If you have Store Administrator access, ensure that the access is for all stores.

4. From the **Store Archive** list in Store Services, select the check box beside the store archive you want to publish.

5. Click **Publish**. The Publish Store Archive page displays.

6. Select your desired publishing options. For more information on publishing options, click **Help**.

   Note: To create a fully functional store, select all publishing options, including the product data option, the first time you publish a store archive.

7. Click **OK**. While the store publishes you are returned to the Store Archive list page. The publishing state is reflected in the Publish status column.

Depending on the speed of your system, it may take several minutes to complete the publishing process. Click **Refresh** to update the status.

8. Select the store archive from the list and click **Publish Summary** to see the results of the publish.

9. When publishing is complete, click **Launch Store** to view and test your store. When you have finished, bookmark the site and close the browser.

Compiling the JavaServer Pages files

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

1. From a command prompt, switch to `/usr/WebSphere/CommerceServer/bin`.

2. Run the following command:

```
./WCSJspBatchCompiler.sh -enterpriseApp "WebSphere
   Commerce Enterprise Application - instance_name"
  -webModule  "WCS Stores" -nameServerHost "short_host_name"
   -nameServerPort port_number
```

Several errors may be logged when you perform these compiles. These may be safely ignored

Important:

- Only one store archive can be published at a time. Concurrent publishing is not supported and may cause the publish of both stores to fail.

- During publish, the consistency checker confirms that the files referenced by the store archive exist. If the consistency check finds an error, the error will be written to the log. Publishing continues as normal.

- Before republishing a store, delete the files from following directory: `/usr/WebSphere/CommerceServer/instances/instance_name/cache`.

  While in the store development phase, you should disable caching. To do this, open the Caching panel of the Configuration Manager, and ensure that Enable Cache is deselected.

- When you launch the store from Store Services, you are logged into the store with the same user name and password that you used to log into Store Services. If you change your password in the store, you are also changing it for that user. Instead, to test the features in the store, including changing your password, bookmark the site, close the browser, then log on to the store again. You can also launch your store by entering the following URL in a browser:

  `https://host_name/webapp/wcs/stores/servlet/store_directory/index.jsp`

Placing a test order at your store

To place a test order at your store, do the following:

1. Open your store by doing the following:

     a. In the Store Services window, select your store and click **Publish Summary**.

     b. On the Publish Summary screen, select **Launch Store**.

     c. A window opens asking for the Web application Web path for the store. Enter the appropriate path (the default is `/webapp/wcs/stores`).

     d. Bookmark your store's location in your Web browser.

     e. Close all of your existing Web browsers, and open a new Web browser.

     f. Navigate to your Store's home page.

2. On the home page, select product. On the product page click **Add to shopping cart**.

3. Complete the order process. For testing purposes you can use the credit card number 0000000000000000 (16 zeros) for VISA. An order confirmation page displays, confirming that your order is complete.

Part 5. Appendixes

Appendix A. AIX Tasks

This appendix describes a variety of tasks that an AIX administrator will perform during the installation of WebSphere Commerce. These include:

- Allocating and mounting a CD file system
- Increasing free space
- Working with paging space
- Determining the size of a physical partition
- Installing prerequisite file sets

Allocate and mount a CD file system

Allocate a CD file system

If your CD-ROM does *not* mount automatically, allocate a CD file system by doing the following:

1. Log in as user ID root.
2. In a terminal window, type smitty storage.
3. Select **File Systems**.
4. Select **Add/Change/Show/Delete File Systems**.
5. Select **CDROM File Systems**.
6. Select **Add a CDROM File System**.
7. At the DEVICE name prompt, Press F4=List to select the device name.
8. At the MOUNT POINT prompt, type in a directory name to used as your CD-ROM directory, such as /cdrom. If this directory already exists, ensure it is empty before using it as a mount point.
9. Press **Enter**.
10. The Command Status window appears. When the command completes, Press F10=Exit.

Mount a CD file system

If your CD-ROM is not mounted, mount the CD-ROM file system by doing the following:

1. Log in as user ID root.
2. In a terminal window, type smitty mountfs.
3. At the FILE SYSTEM prompt, either type /dev/cd0 or select it from the list.
4. At the DIRECTORY prompt, select the name of your CD-ROM directory from the list.

5. At the TYPE prompt, press F4=List and select cdrfs from the list.
6. Press **Enter**.
7. The Command Status window appears. When the command completes, press F10=Exit.

Increase free space

You must have the following minimum amounts of free space:

- 1GB (2097152 blocks with a block size of 512 bytes) in the /home directory. This is required for DB2. If there is not enough space in the /home directory, the DB2 installation may fail or encounter difficulties. Depending on the size of your database, you may require more space.
- 4 GB (8388608 blocks with a block size of 512 bytes) in the /usr directory.
- 1GB (2097152 blocks with a block size of 512 bytes) in the /tmp directory. The root directory may be used to store temporary files during installation.

To determine whether you have enough space, type df on an AIX command line and look for information about the /home, /usr and root directories. If the free space is greater than the amounts indicated above, continue with step "Verify paging space" on page 63.

If there is not enough free space, record the current size and amount of free space currently available (to use in step 9 below), and change the size of the /home, /usr and root directories by following the steps below.

Note: Do not increase the size of these directories by decreasing the size of another file system. Use only the method described below.

1. Log in as user ID root.
2. In a terminal window, type smitty.
3. From the System Management menu, select **System Storage Management (Physical & Logical Storage)**.
4. Select **File Systems**.
5. Select **Add/Change/Show/Delete File Systems**.
6. Select **Journaled File Systems**.
7. Select **Change/Show Characteristics of a Journaled File System**.
8. Select **/home**.
9. Calculate the size required for the /home directory by using this formula:

   new_size = current_size + required_space - free_space

   where *current_size* and *free_space* are the values you recorded above, and *required_space* is the amount of free space required as indicated at the beginning of this section.

10. Type the value of *new_size* into the **SIZE of file system** field.
11. Click **Enter**.
12. Press F10=Exit.
13. Repeat these steps for the /usr and root directories, if necessary.

Paging space

Verify paging space

You must have at least 1 GB of paging space per processor per WebSphere Commerce instance. If you are using iPlanet Web Server, you may need to add another 20 MB of paging space to the recommended 1 GB of paging space.

To determine whether you have enough paging space, do the following:
1. On an AIX command line, type lsps -a.
2. All the *active* paging space is now listed. Ensure that the total is at least 1 GB per processor per WebSphere Commerce instance. If not, record the total, and increase the amount of paging space by following the instructions in "Increase the size of an existing paging space" on page 64.

Activate an inactive paging space

To activate an inactive paging space, do the following:
1. From the System Management menu, select **System Storage Management (Physical & Logical Storage)**.
2. Select **Logical Volume Manager**.
3. Select **Paging Space**.
4. Select **Change/Show Characteristics of a Page Space**.
5. Select the paging space that you want to activate.
6. Select **yes** in the **Use this paging space each time the system is RESTARTED** field.
7. Click **OK**.
8. The Command Status window appears, indicating that your request has started. When the command completes, press F10=Exit.
9. Restart your machine.
10. Recheck the size of your paging space, using the procedure in "Verify paging space". If it is still less than 1 GB, perform one of the procedures in this appendix to increase it.

Increase the size of an existing paging space

Before increasing the size of an existing paging space, you will need to know the size of the physical partitions on your AIX machine. Refer to "Find the size of physical partitions" on page 65 for instructions on finding the size of physical partitions.

To increase the size of an existing paging space, do the following:

1. From the System Management menu, select **System Storage Management (Physical & Logical Storage)**.
2. Select **Logical Volume Manager**.
3. Select **Paging Space**.
4. Select **Change/Show Characteristics of Paging Space**.
5. Select the paging space whose size you want to increase.
6. Calculate the number of partitions that you need to add by subtracting the total size for all active partitions (in MB) from 1024 and dividing by the physical partition size of the physical volume. Round up any fractional result to the next whole number. For example, if after completing the steps in "Verify paging space" on page 63, you calculated the total size for all the active partitions to be 256 MB and you have a physical partition size of 16, you require (1024-256)/16 = 48 additional partitions for paging space.
7. Enter the value you calculated above in the **NUMBER of additional logical partitions** field.
8. Click **OK**.
9. The Command Status window appears, indicating that your request has started. When the command completes, press F10=Exit.
10. Restart your machine.
11. Recheck the size of your paging space, using the procedure in "Verify paging space" on page 63. If it is still less than 1 GB, perform one of the procedures in this appendix to increase it.

Create new paging space

Before creating new paging space, you will need to know the size of the physical partitions on your AIX machine. Refer to "Find the size of physical partitions" on page 65 for instructions on finding the size of physical partitions.

To create a new paging space, do the following:

1. From the System Management menu, select **System Storage Management (Physical & Logical Storage)**.
2. Select **Logical Volume Manager**.
3. Select **Paging Space**.

4. Select **Add Another Paging Space**.

5. Select a volume group from a list of names.

6. In the Add Another Paging Space menu, do the following:

   a. Calculate the number of partitions that you need to add by subtracting the total size for all active partitions from 1024 and dividing by the physical partition size. For example, if after completing the steps in "Verify paging space" on page 63, you calculated the total size for all the active partitions to be 256 MB and the physical partition size to be 16 MB, you require (1024-256)/16 = 48 partitions of additional paging space.

   b. Enter the value you calculated above in the **SIZE of paging space (in logical partitions)** field.

   c. Use the Tab key to select yes in the **Start using the paging space now** field.

   d. Use the Tab key to select yes in the **Use this paging space each time the system is RESTARTED** field.

7. Click **OK**.

8. The Command Status window appears, indicating that your request has started. When the command completes, press F10=Exit.

9. Recheck the size of your paging space, using the procedure in "Verify paging space" on page 63. If it is still less than 1 GB, perform one of the procedures in this appendix to increase it.

Find the size of physical partitions

To find the size of physical partitions, do the following:

1. In a command line window, enter the following command: **lsvg -o**. This command returns a list of all active volume groups on your AIX machine. Take note of the output, you will need it in the next step. For example, executing the command on a machine with the default volume group, will return the following:

   ```
   rootvg
   ```

2. In a command line window, run the following command: **lsvg** *volume_group* where *volume_group* is one of the volume groups from the list you found in step 1. For example, lsvg rootvg

3. From the command output, take note of the **PP SIZE**. It is the physical partition size of the physical volume. For example, here is the output from the example command in step 2:

```
VOLUME GROUP:    rootvg          VG IDENTIFIER:  0007866266359e7e
VG STATE:        active          PP SIZE:        16 megabyte(s)
VG PERMISSION:   read/write      TOTAL PPs:      1352 (21632 megabytes)
MAX LVs:         256             FREE PPs:       1077 (17232 megabytes)
LVs:             12              USED PPs:       275 (4400 megabytes)
OPEN LVs:        9               QUORUM:         2
TOTAL PVs:       3               VG DESCRIPTORS: 3
STALE PVs:       0               STALE PPs:      0
ACTIVE PVs:      3               AUTO ON:        yes
MAX PPs per PV: 1016             MAX PVs:        32
```

In this case, the partition size of the rootvg volume group is 16MB.

4. Repeat steps 2 through 3 for each volume group you found in step 1. Take note of the physical partition size of each volume group.

Ensure that prerequisite filesets are installed

The following filesets must be installed and are not included in the base AIX 5.1 installation:

- X11.adt.lib
- X11.adt.motif
- X11.base.lib
- X11.base.rte
- X11.motif.lib
- bos.adt.base
- bos.adt.include
- bos.rte.net
- bos.rte.libc
- bos.net.tcp.client

To determine if the files are present on your system, run the following command from a terminal window:

```
lslpp -l X11.adt.lib X11.adt.motif X11.base.lib X11.base.rte X11.motif.lib
lslpp -l bos.adt.base bos.adt.include bos.rte.net bos.rte.libc
 bos.net.tcp.client
```

If the files are present they will be listed as follows in the output:

```
  Fileset                    Level   State      Description
  ---------------------------------------------------------------------------
Path: /usr/lib/objrepos
  X11.adt.lib               5.1.0.0   COMMITTED  AIXwindows Application
                                                 Development Toolkit Libraries
  X11.adt.motif             5.1.0.0   COMMITTED  AIXwindows Application
                                                 Development Toolkit Motif
  bos.adt.base              5.1.0.10  COMMITTED  Base Application Development
                                                 Toolkit
  bos.adt.include           5.1.0.10  COMMITTED  Base Application Development
                                                 Include Files
```

Any files that are not installed will be listed as errors at the bottom of the command output; for example:

`lslpp: 0505-132 Fileset X11.adt.lib not installed`

To install any files that are not present on your system, complete the following steps:

1. Insert AIX 5.1 Vol. 1 CD in the CD-ROM drive of the machine.
2. Run the following command from terminal window:

   ```
   installp -aX -d device_path X11.adt.lib X11.adt.motif bos.adt.base
    bos.adt.include
   ```

   This command is presented on separate lines for readability only; ensure that you type it on a single line.
3. Follow any instructions that appear in the terminal window while this command runs.
4. The Installation Summary panel opens indicating the fileset levels installed.

Appendix B. Starting and stopping WebSphere Commerce components

This appendix explains how to start and stop each product that is provided as part of the WebSphere Commerce package. Use this information if you need to restart any component.

Starting and stopping WebSphere Commerce

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

1. Ensure that your database management system and WebSphere Application Server are started. For DB2, refer to "Starting and stopping DB2 Universal Database" on page 71. For WebSphere Application Server, refer to "Starting and stopping WebSphere Application Server".

2. Launch the WebSphere Application Server Administration Console by entering the following in a terminal window:

   ```
   su – wasuser
   export DISPLAY=fully_qualified_host_name:0.0
   cd /usr/WebSphere/AppServer/bin
   ./adminclient.sh host_name port_number
   ```

3. Expand **WebSphere Administrative Domain**.

4. Expand **Nodes**.

5. Expand your host name.

6. Expand **Application Servers**.

7. Select **WebSphere Commerce Server —***instance_name* and right-click. Select **Start** or **Stop** as appropriate.

Starting and stopping WebSphere Application Server

To start WebSphere Application Server, do the following:

1. Ensure that your database management system is started.

2. Type the following commands in a terminal window:

   ```
   su – wasuser export DISPLAY=fully_qualified_host_name:0.0 cd
     /usr/WebSphere/AppServer/bin ./startupServer.sh &
   ```

   where `fully_qualified_host_name` is either the hostname or the TCP/IP address of the workstation that you are currently using.Check the `/usr/WebSphere/AppServer/logs/tracefile` to ensure that WebSphere Application Server started successfully.

To stop WebSphere Application Server, do the following:

1. Start the WebSphere Application Server Administration Console by entering the following in a terminal window:

```
su – wasuser
export DISPLAY=fully_qualified_host_name:0.0
cd /usr/WebSphere/AppServer/bin
./adminclient.sh host_name port_number
```

2. In the WebSphere Application Server Administration Console, select the node with your short host name.

3. Click the stop button. You will get a warning message similar to the following:

   You are trying to stop the node that the console is connected to. This will cause the console to exit after the node is stopped. Do you want to continue?

   Click **Yes** to continue.

4. After the WebSphere Application Server Administration Console, confirm that all WebSphere Application Server–related processes have stopped by issuing the following command in a terminal window:

```
ps -ef | grep AppServer | grep -v grep
```

5. If this command returns any Java processes, stop them by issuing a kill command.

Starting and stopping IBM HTTP Server

IBM HTTP Server has two servers that can be started and stopped:

- IBM HTTP Server
- IBM HTTP Administration Server

To start IBM HTTP Server, enter the following commands in a terminal window:

```
su – root
cd /usr/HTTPServer/bin
./apachectl start
```

To stop IBM HTTP Server, do the following:

1. Ensure that WebSphere Commerce and WebSphere Application Server are stopped.

2. Enter the following commands in a terminal window:

```
su – root
cd /usr/HTTPServer/bin
./apachectl stop
```

To start IBM HTTP Administration Server, enter the following commands in a terminal window:

```
su - root
cd /usr/HTTPServer/bin
./adminctl start
```

To stop IBM HTTP Administration Server, enter the following commands in a terminal window:

```
su - root
cd /usr/HTTPServer/bin
./adminctl stop
```

Starting and stopping DB2 Universal Database

To start DB2 Universal Database, do the following:

1. Log on as your DB2 instance ID.
2. Type db2start.

To stop DB2, do the following:

1. Stop WebSphere Commerce according to the instructions in "Starting and stopping WebSphere Commerce" on page 69.
2. Stop WebSphere Application Server according to the instructions in "Starting and stopping WebSphere Application Server" on page 69.
3. While logged on as your DB2 instance ID, type db2stop. If any applications are connected to DB2, use the following command instead:

   ```
   db2stop force
   ```

Starting and stopping Payment Manager

Starting Payment Manager

To start Payment Manager:

1. Ensure your database is started.
2. Start your Web server.
3. Ensure WebSphere Application Server is started.
4. Start the Payment Manager application server in the WebSphere Application Server Administration Console as described in "Starting the Payment Manager application server".
5. Start the Payment Manager as described in "Starting Payment Manager" on page 72.

Starting the Payment Manager application server

When using WebSphere Application Server 4.0.2, you can start all servlets by starting the Payment Manager application server. To start the Payment Manager application server:

1. Open the WebSphere Application Server Administration Console.

2. Expand **WebSphere Administrative Domain**.
3. Expand **Nodes**.
4. Expand the node where Payment Manager is installed.
5. Expand **Application Servers**.
6. Right-click **WebSphere Payment Manager** and select **Start**.

Starting Payment Manager

When you start Payment Manager using the `IBMPayServer` script, you will need to specify the database administrator password.

Enter the following commands from a terminal window:

```
su - wasuser
export DISPLAY=fully_qualified_host_name:0.0
cd /usr/lpp/PaymentManager
./IBMPayServer
```

If Payment Manager is installed remotely from your Web server, start it using the following command:

```
./IBMPayServer -pmhost fully_qualified_Web_server_host_name
```

You will be prompted for your Payment Manager password.

Alternately, you can start Payment Manager using the password file that was created for you automatically during the Payment Manager installation (the `.payment` file). The command to start Payment Manager would have the following syntax:

```
./IBMPayServer -file
```

Since this file contains your Payment Manager password in clear text, if you do not plan to use this method of starting Payment Manager, it is strongly suggested that you delete this file.

Start the Payment Manager user interface

After starting Payment Manager and the Payment Manager application server, to start the Payment Manager user interface:

1. Point your web browser to:

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

   where *host_name* is the fully qualified host name of your Web server.
2. On the Payment Manager Logon window, enter the Payment Manager administrator's user ID and password, and click **OK**. The default user ID is wcsadmin and the password is your wcsadmin password (the default is wcsadmin, and must be changed the first time you log on to any components of WebSphere Commerce through the wcsadmin user ID).

If you are using Payment Manager with WebSphere Commerce, all WebSphere Commerce administrators are also Payment Manager users. However, only the administrator ID "wcsadmin" has been assigned the "Payment Manager administrator" role initially. In order to login to the Payment Manager user interface you must use an administrator ID that has been assigned one of the four Payment Manager roles:

- Payment Manager administrator
- merchant administrator
- supervisor
- clerk

For information on the Payment Manager roles, see the *Payment Manager Administrator's Guide*.

Before using the wcsadmin ID to login to the Payment Manager user interface, you must have changed the default password of the ID by logging into the WebSphere Commerce Administration Console using the `wcsadmin` user ID. At that time, you will be asked to change the password.

You can also access Payment Manager adminstration functions from the WebSphere Commerce Administration Console.
Stopping Payment Manager

To stop Payment Manager, you need to:
1. Ensure your database is started.
2. Ensure WebSphere Application Server is started.
3. Stop Payment Manager
4. Stop the Payment Manager application server under WebSphere Application Server

Stopping Payment Manager

You can stop Payment Manager using the `StopIBMPayServer` command:
1. Change to the `/usr/lpp/PaymentManager` directory.
2. Type: `./StopIBMPayServer`. There are no arguments to the `StopIBMPayServer` script.
3. Enter the Payment Manager password when prompted.

Stopping the Payment Manager application server

When using WebSphere Application Server, you can stop all servlets by stopping the Payment Manager application server. To stop the Payment Manager application server:
1. Open the WebSphere Application Server Administration Console.
2. Expand **WebSphere Administrative Domain**.

3. Expand **Nodes**.
4. Expand the node where Payment Manager is installed.
5. Expand **Application Servers**.
6. Right-click **WebSphere Payment Manager** and select **Stop**.

Appendix C. 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:

- 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
  ```

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.

Payment Manager information

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

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

Payment Manager documentation is available in the following locations:

- In the /docs/*locale* directory of the IBM Payment Manager 3.1.2 CD.
- In the /docs/*locale* directory of the IBM Payment Manager 3.1.2 Cassette CDs.
- Installed in the Payment Manager directory of the WebSphere Application Server installation directory after Payment Manager is installed.

The following Payment Manager documentation is available:

- The *IBM WebSphere Commerce Payments for Multiplatforms Installation Guide* PDF file format (paymgrinstall.pdf)
- The *IBM WebSphere Commerce Payments Administrator's Guide* PDF file format (paymgradmin.pdf)
- The *IBM WebSphere Commerce Payments for Multiplatforms Pogrammer's Guide and reference* PDF file format (paymgrprog.pdf)
- The *IBM WebSphere Commerce Payments for Multiplatforms for SET Supplement* , in PDF file format (paymgrset.pdf)
- The *IBM WebSphere Commerce Payments for Multiplatforms Cassette for VisaNet Supplement* PDF file format (paymgrvisanet.pdf)
- The *IBM WebSphere Commerce Payments for Multiplatforms for CyberCash Supplement* , in PDF file format (paymgrcyber.pdf)
- The *IBM WebSphere Commerce Payments for Multiplatforms for BankServACH Supplement* , in PDF file format (paymgrbank.pdf)
- The WebSphere Commerce Payments 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

If you installed the DB2 documentation, the HTML documentation files are available under the `/doc/`*`locale`*`/html` subdirectory, where *locale* is the language code for your locale (for example, *en* for American English). Any documentation that is not available in a national language is shown in English.

For a complete list of the available DB2 documentation, and how to view or print it, refer to the *DB2 Quick Beginnings for UNIX*® book. Additional DB2 information is available at the following Web address:

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

AIX information

For information about any AIX command, ensure that the AIX man pages are installed and type the following on an AIX command line:

`man` *`command`*

where *command* is the command about which you want more information.

For AIX support and other AIX information, visit the following Web address:

`http://www.ibm.com/servers/aix`

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 Editions, WebSphere Commerce 5.1 Business Edition, and WebSphere Commerce 5.4 Professional and Business Editions.

- The tool can be accessed and downloaded online from the following URL locations:

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

Other IBM publications

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

Appendix D. Program specifications and specified operating environment

This version of WebSphere Commerce supports the following operating environments:

- AIX 5.1

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
> - IBM Payment Manager functions
> - Brokat Blaze Rules administration

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

IBM DB2 Universal Database 7.1.0.55

> DB2 Universal Database is a full-feature relational database used by WebSphere Commerce as a repository for all of the information about the site. This includes product and category data, pointers to graphical elements for the pages, order status, address information, and many other types of data.

DB2 Extenders

> DB2 Extenders is an optional component for DB2 which provide additional search capabilities to your site. DB2 Text Extender adds the ability to support numerous search types by your customers including searching for synonyms, inexact matches and words in close proximity, as well as boolean and wildcard searches.

IBM HTTP Server 1.3.19.1

> IBM HTTP Server is a robust Web server that provides extensive management capabilities; support for Java deployment; proxy server services; and security features including support for SSL 3, such as client and server authentication, and data encryption.

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 Initiated Authorization.

WebSphere Application Server 4.0.2

> WebSphere Application Server is a Java-based application environment for building, deploying and managing Internet and Intranet Web applications. This product includes the IBM Developer Kit for AIX, Java Technology Edition, v1.3.

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.

IBM SecureWay Directory Server 3.2.1
> IBM SecureWay® Directory provides a common directory for you to reduce the high costs associated with application-specific directories. IBM SecureWay Directory is an LDAP cross-platform, highly scalable, robust directory server for security, and e-business solutions. The version of SecureWay that was shipped with WebSphere Commerce was 3.1.1.5, however support is now offered for IBM SecureWay Directory Server 3.2.1, which is available for Web download.

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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