

IBM® WebSphere™ Commerce Suite
Service Provider Edition
for Windows NT®



Installing and Getting Started Guide

Version 3.2

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Service Provider Edition
for Windows NT®



Installing and Getting Started Guide

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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 181.

Third Edition Refresh (June 2000)

This edition applies to Version 3.2 of WebSphere Commerce Suite, Service Provider Edition for Windows NT (Program 5648-B47) and to all subsequent releases and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

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Welcome to WebSphere Commerce Suite, Service Provider Edition

This book describes how to install and configure WebSphere Commerce Suite, Service Provider Edition for Windows NT, and provides guidance on creating and customizing your store or mall. This book is intended for system administrators or for anyone else responsible for performing the above tasks.

This book refers to *WebSphere Commerce Suite, Service Provider Edition* by its short name, *WebSphere Commerce Service Provider*.

Note:

To learn about last-minute changes to the product, see the README file on our Technical Library page at our product Web site at:

<http://www.ibm.com/software/webservers/commerce/servers/lit-tech-general.html>

In addition, a copy of this book, and any updated versions of this book, are available in PDF format from the *Library* section of our product Web site at:

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

Conventions Used in This Book

This book uses the following highlighting conventions:

- **Boldface type** indicates commands or graphical user interface (GUI) controls such as names of fields, icons or menu choices.
- Monospace type indicates examples of text you enter exactly as shown.
- *Italic type* indicates names for which you must substitute the appropriate values for your system. Italics are also used to emphasize words. When you see any of the following names, substitute your system value as described:

host_name The fully qualified host name of your WebSphere Commerce Service Provider server (for example, *www.ibm.com* is fully qualified).

drive The letter representing the drive on which you installed the product or component being discussed.



This icon to the left denotes a Tip - additional information that can help you complete a task.

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

drive:\Ibm\NetCommerce3

The WebSphere Commerce Service Provider installation path. You can override this path in the Choose Destination Location window during installation.

drive:\Ibm\sql1ib

The DB2[®] installation path. You can override this path in the Choose Destination Location window during installation.

drive: \Ibm\dmb
The DB2 Text Extender installation path.

drive: \Ibm\www
The Domino™ Go Webserver installation path. You can override this path in the Choose Destination Location window during installation. Note that the Domino Go Webserver installation directory does not accept spaces. If you specify an installation directory, ensure that it does not contain blank spaces.

drive: \Ibm\PayServer
The Payment Server installation path. You can override this path in the Choose Destination Location window during installation.

drive: \Ibm\WAServer
The WebSphere Application Server installation path.

drive: \Ibm\netdata
The Net.Data installation path.

If you want to override the default paths during installation, you must substitute your own path names where applicable, and use the new installation path names in the procedures described throughout this book.

Products Included with WebSphere Commerce Service Provider

The following products are packaged with Service Provider Edition:

- IBM DB2 Universal Database® 6.1.0.6
- DB2 Text Extenders 6.1 + FixPak 1
- IBM Net.Data® 6.1
- Lotus® Domino Go Webserver 4.6.2.61
- Netscape Communicator 4.61 for Windows®
- IBM WebSphere Application Server 2.0.3.1 and JDK 1.1.7
- IBM Payment Server™ 1.2.20.3
- WebSphere Commerce Service Provider 3.2

Compatible Web Servers

Although Domino Go Webserver 4.6.2.61 is the Web server provided with WebSphere Commerce Service Provider, you can use Netscape Enterprise Server 3.6.1.

If you are using Netscape Enterprise Server 3.6.1, you will need to perform a *Custom* installation when prompted in step 8 on page 16 in Chapter 3. Installing WebSphere Commerce Service Provider

Compatible Databases

Although DB2 Universal Database 6.1.0.6 is the database provided with WebSphere Commerce Service Provider, you can alternatively use Oracle 8.0.5 as your database.

If you are using Oracle 8.0.5 or Oracle 8.0.6, you will need to perform a *Custom* installation when prompted in step 8 on page 16 in Chapter 3. Installing WebSphere Commerce Service Provider.

If you have DB2 Universal Database 5.x currently installed, you must upgrade it to IBM DB2 Universal Database 6.1.0.6, and migrate your database. Follow the DB2 migration instructions in “Preparing to Migrate DB2” on page 120.

Supported Web Browsers

WebSphere Commerce Service Provider access to the Administrator is supported using Netscape Communicator 4.61 from any Windows NT machine that is on the same network as your WebSphere Commerce Service Provider machine.

Merchants can access the Administrator using Netscape Navigator 4.06 and higher, or Microsoft® Internet Explorer 4.01 and higher.

Shoppers can access Web sites by using use Netscape 3.x or Netscape 4.x.

Quick Reference to User IDs, Passwords, and Web Addresses

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

Windows NT User ID

Your Windows NT user ID *must* have Administrator authority. DB2 requires that the user ID and password adhere to the following rules:

- They cannot be more than 8 characters in length.
- They can contain only the characters A to Z, a to z, 0 to 9, @, #, \$, and _.
- They cannot begin with an underscore (_).
- The user ID cannot be any of the following, in upper, lower, or mixed case: USERS, ADMINS, GUESTS, PUBLIC, LOCAL.
- The user ID cannot begin with any of the following in upper, lower, or mixed case: IBM, SQL, SYS.
- The user ID cannot be the same as any Windows NT service name.
- The user ID must be defined on the local machine, and belong to the Local Administrator’s group.
- The user ID should have the *Act as part of the operating system* advanced user right.



You can perform the installation without the *Act as part of the operating system* advanced user right, however, the DB2 setup program will be unable to validate the account that you specify for the Administration Server. We recommend that any user account used to install DB2 have this advanced user right

Important

If your Windows NT user ID does *not* have Administrator authority and is more than 8 characters in length, and is not defined on the local machine, you will be notified of the problem and will not be able to proceed with the installation.

Later, you will use this user ID as the DB2 database user name (database user logon).



If you need to create a user ID fitting the above criteria, you can find information on creating a Windows NT user ID in the Windows NT online help.

DB2 Administrator User ID

When you install DB2, the user ID and password `db2admin` are automatically created with Administrator authority. As soon as you have completed the installation, you should change the password.

The `db2admin` user ID is not used by WebSphere Commerce Service Provider; it is a default user ID created by DB2. Although it is not used by WebSphere Commerce Service Provider, you should change the `db2admin` password immediately after installing all the WebSphere Commerce Service Provider components to prevent unauthorized access to your database. Refer to “Changing the DB2 Administrator Password” on page 45 for more information.

Configuration Manager User ID

The Configuration Manager tool has a graphical interface that allows you to modify the way WebSphere Commerce Service Provider is configured. You can access Configuration Manager from any PC running the required version of Netscape, and is on the same network as the WebSphere Commerce Service Provider server.

To access Configuration Manager, on your WebSphere Commerce Service Provider machine, click **Start**, point to **Programs**, then **WebSphere Commerce Suite, Service Provider Edition**, and **WebSphere Commerce Suite Configuration**. This process starts the Web server and opens a Web browser window to the following Web address:

```
http://host_name:4444
```

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine. The Configuration Manager main window appears.

To access Configuration Manager from another Windows machine running the required software:

1. Ensure that WebSphere Commerce Service Provider has been started on the WebSphere Commerce Service Provider machine as described above.
2. From the Windows machine, open the following Web address in your Web browser:

```
http://host_name:4444
```

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine.

The Configuration Manager main window appears.

For more information, see “Accessing the Configuration Manager” on page 45. The Configuration Manager user ID is `webadmin` and the default password is `webim`.

To protect the configuration settings you defined during installation, you should change the default password after installation. See “Changing Your Configuration Manager Password” on page 47 for more information.

Web Server User ID

If you are using Domino Go Webserver, you can access your Domino Go Webserver home page by opening your Web browser and typing the following Web address:

`http://host_name`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine.

If you have customized your Web server, you may be required to type the name of the Domino Go Webserver's front page after the host name. After WebSphere Commerce Service Provider installation is complete and you launch the Configuration Manager for the first time as in step 3 on page 25, your Domino Go Webserver user ID is `webadmin` and the default password is `webibm`. For details on changing your password, refer to "Changing Your Domino Go Webserver Password" on page 50.

The user ID `webadmin` is used for both the Configuration Manager and Domino Go Webserver. Using the different methods described in "Changing Your Configuration Manager Password" on page 47 and "Changing Your Domino Go Webserver Password" on page 50, you can set different passwords for the `webadmin` user ID; one password for the Configuration Manager and a different password for Domino Go Webserver.

WebSphere Commerce Service Provider Administrator User ID

The WebSphere Commerce Service Provider Administrator (NCAdmin) allows you to maintain your store or mall. You must have an instance created and SSL enabled before you are able to access the Administrator.

To access the Administrator, open your Web browser and type the following Web address:

`http://host_name/ncadmin`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine. The Administrator user ID is `ncadmin` and the default password is `ncadmin`. For information on changing the Administrator password, see "Changing the WebSphere Commerce Service Provider Administrator Password" on page 49.

Certificate File Password

If you are using Payment Server, you must use a password to protect your certificate file.

If you select a **Typical** installation when installing WebSphere Commerce Service Provider (step 8 on page 16 in Chapter 3. Installing WebSphere Commerce Service Provider), you are assigned a certificate file password that is the same as your Windows NT user ID password. If you select a **Custom** installation, you can enter a password on the **Payment** tab of the Configuration Manager.

WebSphere Application Server Administrator User ID

The WebSphere Application Server Administrator User ID administers Java[®] servlets in the application server. This administrator ID specifies the Java Virtual Machine (JVM) settings, views and configures Java servlets, sets up security for the application server, and monitors execution of the application server.

To access the WebSphere Application Server Administrator, open your Web browser and type the following Web address:

`http://host_name:9527`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine. The WebSphere Application Server Administrator user ID is `admin` and the default password is `admin`.

Quick Reference to the Components Installed During a Typical Install

A typical installation will install the following components for the bundled software:

DB2 UDB Enterprise Edition 6.1.0.6

- Required DB2 components
- ODBC Support
- Java Enablement
 - JDBC Support
 - SQLJ Support
 - IBM enhanced Java Runtime Environment
- Control Center
- Event Analyzer
- Web Administration
- DB2 Query Patroller Client
 - QueryEnabler Tool
 - QueryMonitor Tool
 - Tracker Tool
 - QueryAdminTool
- Client Configuration Assistant
- Command Center
- First Steps
- Sample Database
- Documentation
- Miscellaneous Tools
 - Database Tools
 - Client Tools

Domino Go Webserver 4.6.2.61

All components including GSK with the exception of the servlet component.

Payment Server 1.2.20.3

All components

Net.Data 6.1

All components

WebSphere Application Server 2.0.3.1

- Core component
- Java servlet page (JSP) component
- Admin GUI component

- The plug-in which corresponds to the Web server that you are using. These plug-ins are required for Netscape Enterprise Server 3.6.1 and Domino Go Webserver 4.6.2.61.

How This Book Is Organized

The following table helps you quickly find the related information you need.

If you want to . . .	Refer to . . .
Review what user IDs, passwords and Web addresses are used by WebSphere Commerce Service Provider,	"Quick Reference to User IDs, Passwords, and Web Addresses" on page ix.
Confirm that your system meets the WebSphere Commerce Service Provider hardware and software prerequisites,	"Chapter 1. Preinstallation Requirements" on page 3.
Install WebSphere Commerce Service Provider,	"Chapter 3. Installing WebSphere Commerce Service Provider" on page 15.
Migrate an existing version of Net.Commerce Hosting Server to WebSphere Commerce Service Provider 3.2,	"Part 4. Migrating to WebSphere Commerce Service Provider" on page 101.
Install and configure a remote DB2 database (2-tier installation),	"Chapter 8. Installing Your Database on a Separate Machine" on page 53.
Configure a multi-tier WebSphere Commerce Service Provider system,	"Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3" on page 61
Create and customize your WebSphere Commerce Service Provider site,	"Part 3. Getting Started" on page 79.
Start and stop WebSphere Commerce Service Provider components,	"Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components" on page 143.
Uninstall WebSphere Commerce Service Provider components,	"Appendix D. Uninstalling WebSphere Commerce Service Provider Components" on page 151.
Troubleshoot your WebSphere Commerce Service Provider installation,	"Appendix E. Troubleshooting" on page 165.
Print or review online documentation,	"Appendix F. Where to Find More Information" on page 173.

Navigating Through This Book

Depending the configuration of your components, you should visit the chapters listed in the sections below in order to complete your installation and configuration:

One-tier Installation

With a one-tier installation, you can essentially proceed sequentially through the book.

DB2 With Domino Go Webserver

- "Chapter 1. Preinstallation Requirements" on page 3 to meet all preinstallation requirements on your machine.

- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components. You can either perform a Typical or Custom installation as required.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, populate the database, and start the instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

DB2 With Netscape Enterprise Server

- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on your machine, to preinstall Netscape Enterprise Server, and to create a server for port 80 and a secure server for port 443.
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components. You can either perform a Typical or Custom installation as required.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, populate the database, stop and restart the Netscape Enterprise Server servers and then start the instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you have essentially completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Oracle With Domino Go Webserver

- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on your machine including preinstalling Oracle.
- “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11 to install and configure JDBC and ODBC, create necessary user IDs, and verify Oracle connectivity.
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components. You can either perform a Typical or Custom installation as required.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, populate the database, and start the instance.
- “Chapter 5. Creating a Schema Using Oracle (1-Tier)” on page 37 to populate your Oracle database and start your WebSphere Commerce Service Provider instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Oracle With Netscape Enterprise Server

- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on your machine, to preinstall Netscape Enterprise Server, and to create a server for port 80 and a secure server for port 443.

- “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11 to install and configure JDBC and ODBC, create necessary user IDs, and verify Oracle connectivity.
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components. You can either perform a Typical or Custom installation as required.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, populate the database, and start the instance.
- “Chapter 5. Creating a Schema Using Oracle (1-Tier)” on page 37 to populate your Oracle database and start your WebSphere Commerce Service Provider instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Two-tier Installation

With a two-tier installation, you should begin by reading “Chapter 8. Installing Your Database on a Separate Machine” on page 53 and then proceeding through the chapters listed below for the components you are using:

DB2 With Domino Go Webserver

- “Chapter 8. Installing Your Database on a Separate Machine” on page 53 for an overview of installing in a two-tier environment.
- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements (on both machines).
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components on your WebSphere Commerce Service Provider. Perform a custom installation as described in “A Custom Install” on page 19. You should include DB2, Domino Go Webserver, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider. Select the Remote database checkbox when you are prompted.
- “Installing the Components On the Remote DB2 Server Machine” on page 54 to install your DB2 and Text Extender server on your DB2 server machine and “Creating the Remote Database” on page 55 to populate your database.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, populate the database, and start the instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

DB2 With Netscape Enterprise Server

- “Chapter 8. Installing Your Database on a Separate Machine” on page 53 for an overview of installing in a two-tier environment.
- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on both machines, to preinstall Netscape Enterprise Server, and to create a server for port 80 and a secure server for port 443 on your WebSphere Commerce Service Provider machine.

- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components on your WebSphere Commerce Service Provider. Perform a custom installation as described in “A Custom Install” on page 19. You should include DB2, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider. Select the Remote database checkbox when you are prompted.
- “Installing the Components On the Remote DB2 Server Machine” on page 54 to install your DB2 and Text Extender server on your DB2 server machine and “Creating the Remote Database” on page 55 to populate your database.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager, create a WebSphere Commerce Service Provider instance, and start the instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you have essentially completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Oracle With Domino Go Webserver

- “Chapter 8. Installing Your Database on a Separate Machine” on page 53 for an overview of installing in a two-tier environment.
- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on both machines.
- “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11 to install the Oracle server on your Oracle server machine; install the Oracle client, install and configure JDBC and ODBC, create necessary user IDs, and verify Oracle connectivity on your WebSphere Commerce Service Provider machine.
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components on your WebSphere Commerce Service Provider. Perform a custom installation as described in “A Custom Install” on page 19. You should include Domino Go Webserver, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider. Select the Remote database checkbox when you are prompted.
- “Configuring the Oracle Server Machine” on page 58 and “Configuring the Oracle Client Machine” on page 58 to populate your Oracle database and start your WebSphere Commerce Service Provider instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Oracle With Netscape Enterprise Server

- “Chapter 1. Preinstallation Requirements” on page 3 to meet all preinstallation requirements on both machines, to preinstall Netscape Enterprise Server, and to create a server for port 80 and a secure server for port 443 on your WebSphere Commerce Service Provider machine.
- “Chapter 8. Installing Your Database on a Separate Machine” on page 53 for an overview of installing in a two-tier environment.
- “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11 to install the Oracle server on your Oracle server machine; install the Oracle client, install and configure JDBC and ODBC, create necessary user IDs, and verify Oracle connectivity on your WebSphere Commerce Service Provider machine.

- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to install WebSphere Commerce Service Provider components on your WebSphere Commerce Service Provider. Perform a custom installation as described in “A Custom Install” on page 19. You should include, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider. Select the Remote database checkbox when you are prompted.
- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25 to start Configuration Manager and create a WebSphere Commerce Service Provider instance without starting it.
- “Configuring the Oracle Server Machine” on page 58 and “Configuring the Oracle Client Machine” on page 58 to populate your Oracle database and start your WebSphere Commerce Service Provider instance.
- “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

At this point you will have completed your installation. You can proceed to any of the remaining chapters in the book depending on your requirements.

Multi-tier Installation

For a multi-tier installation of WebSphere Commerce Service Provider using eNetwork Dispatcher, you should begin by reading “Chapter 1. Preinstallation Requirements” on page 3 and then proceeding to “Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3” on page 61. The navigation provided in “Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3” on page 61 guides you through the other chapters in this book that are required to set up the WebSphere Commerce Service Provider components that you need for your eNetwork Dispatcher configuration.

Part 1. Installing WebSphere Commerce Service Provider

This part describes how to install each component of WebSphere Commerce Service Provider. Topics covered include the following:

- “Chapter 1. Preinstallation Requirements” on page 3
- “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11
- “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15

Migration

If you are migrating from an existing version of Net.Commerce Hosting Server, refer to “Part 4. Migrating to WebSphere Commerce Service Provider” on page 101 for detailed migration instructions. *Do not follow the instructions in this section, “Part 1. Installing WebSphere Commerce Service Provider”, as you may overwrite your existing files and lose any customizations you have performed.*

Important!

Do not install WebSphere Commerce Service Provider 3.2 before obtaining the WebSphere Commerce Service Provider 3.2 Upgrade CD. You can obtain this CD from your IBM Service & Support representative. Use the Upgrade CD in place of the WebSphere Commerce Service Provider 3.2 CD provided in the product box.

Chapter 1. Preinstallation Requirements

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

Important

You *must* complete these preinstallation steps to ensure that installation will be successful. If you are migrating from an existing version of Net.Commerce Hosting Server, refer to “Part 4. Migrating to WebSphere Commerce Service Provider” on page 101 for detailed migration instructions.

Knowledge Requirements

To install and configure WebSphere Commerce Service Provider, you should be knowledgeable about the following:

- Personal computers and your operating system
- The Internet
- Web server operation and maintenance
- Your database system (IBM DB2 Universal Database or Oracle)
- IBM DB2 Text Extender (if you are using DB2 as your database system)
- Your Web server (Domino Go Webserver or Netscape Enterprise Server)
- IBM Net.Data
- HTML
- Structured Query Language (SQL)

Preinstallation Requirements

Prerequisite Hardware

You must ensure that you meet the following minimum hardware requirements before installing WebSphere Commerce Service Provider 3.2:

- You require a dedicated Pentium® 166 MHz (or higher) IBM-compatible personal computer with:
 - A minimum of 256 MB of random access memory (RAM).
 - A minimum of 810 MB of free disk space for WebSphere Commerce Service Provider on your target install drive. This is the amount of storage for the standard components in a **Typical** install. These components include: Domino Go Webserver, DB2, DB2 Text Extender, Net.Data, Java Development Kit, WebSphere Application Server, and WebSphere Commerce Service Provider. For a **Custom** install, your disk space will vary depending on the components installed, however, a minimum of 810 MB of free disk space is recommended. You will also need an additional 40 MB on the C: drive. If your machine is formatted with FAT partitioning and the partition is over 1.024 GB, you will need twice as much free disk space on that partition. The installation program will check for sufficient free disk space and will warn you if there is not enough space.
 - A CD-ROM drive.

- A graphics-capable monitor with a color depth of at least 256 colors.
- A mouse or other pointing device.
- A local area network (LAN) adapter that is supported by the TCP/IP protocol.
- To access the WebSphere Commerce Service Provider Administrator, you require a personal computer capable of running Windows NT, Windows 98, or Windows 95, with a graphics-capable monitor with at least 256 colors, and a mouse or other pointing device.

Prerequisite Software

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

- Ensure that you have Windows NT Server Version 4.0 with Service Pack 4 installed on your WebSphere Commerce Service Provider server. Service Pack 4 includes updates for euro currency support and Year 2000 changes. You can obtain the service pack by clicking on *Downloads* at the following Web address: <http://www.microsoft.com/ntserver/>

Important

If you do not apply Service Pack 4 *before* installing WebSphere Commerce Service Provider, you will not be able to install WebSphere Commerce Service Provider.



To determine whether your system already includes the service pack, open Windows NT Explorer, click **Help** on the menu bar, and click **About Windows NT** on the drop-down menu. If you have the correct service pack installed, the system information will include a reference to *Service Pack 4*.

- Install Netscape Communicator 4.61 on the machine(s) you will use to access the WebSphere Commerce Service Provider Administrator. A copy of Netscape Communicator 4.61 is provided on the WebSphere Commerce Service Provider CD.



To install Netscape Communicator 4.61 from the WebSphere Commerce Service Provider CD, do the following:

1. Insert the WebSphere Commerce Service Provider CD into your CD-ROM drive.
2. Switch to the \netscape directory on the CD drive.
3. Run cc32e461.exe and follow the instructions to perform the installation.
4. When installation is complete, remove the CD from the drive.

Using Supported Software Not Bundled with WebSphere Commerce Service Provider

Oracle

If you want to use Oracle instead of DB2, after reading this chapter on preinstallation requirements, see “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11. Chapter 2. Installing and Configuring ODBC and Oracle provides a checklist for a list of the Oracle products that you must install, and the items that you must create before you install and configure WebSphere Commerce

Service Provider. It also provides information on obtaining and configuring the ODBC driver and verifying database connectivity. Ensure that you have also read the Oracle product documentation for installation information. You will need to perform a *Custom* install when prompted in step 8 on page 16 in Chapter 3. Installing WebSphere Commerce Service Provider. After you have installed all the WebSphere Commerce Service Provider components, you need to create a database schema as described in “Chapter 5. Creating a Schema Using Oracle (1-Tier)” on page 37.

Netscape Enterprise Server

If you are using Netscape Enterprise Server instead of Domino Go Webserver, it must be version 3.6.1. Install it according to the instructions provided by Netscape. Netscape Enterprise Server will be configured later, when the WebSphere Commerce Service Provider instance is created. You will need to perform a *Custom* install when prompted in step 8 on page 16 in Chapter 3. Installing WebSphere Commerce Service Provider.

Notes:

1. Ensure that you create two Web servers: one server for non-SSL communication (on port 80); and one server for SSL communication (on port 443).
2. You *must* install a secure certificate signed by a certifying authority, according to Netscape’s instructions.
3. If you have WebSphere Application Server pre-installed, create the `WAS_install_path-443` directory for the secure port. Copy all the files under the `WAS_install_path` directory to the new directory. Edit the file `WAS_install_path-443\properties\bootstrap.properties`, and change all references to `WAS_install_path` in the file to `WAS_install_path-443`.

Other Requirements

You must also do the following:

1. Ensure that you have logged on as a Windows NT user ID that has Administrator authority. The user ID and password *must* adhere to the rules as stated in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix. Later, you will use this user ID as the DB2 database user name (database user logon ID).

Important

You will not be able to proceed with the installation and be notified of the problem if your Windows NT user ID:

- Does *not* have Administrator authority.
- Is more than 8 characters in length.
- Is not defined on the local machine.

2. If you have any applications running, stop them. You will need to reboot your machine during the installation process, which can cause running applications to lose data.
3. Install and activate an E-mail server that supports SMTP (Simple Mail Transfer Protocol) in order to send order notifications to merchants.

4. 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, or 443, or both, disable it.

Recommended Production System Hardware

Although the minimum system requirements will allow you to install WebSphere Commerce Service Provider and to develop your store, they are not adequate for a full-time production setting. The following table outlines the minimum recommended hardware required for full-time operation in various load environments.

Table 1. Recommended Production System Configuration Requirements

1-Tier System (Database and Web Server on the Same Machine)	<p>For the Web/Database Server:</p> <ul style="list-style-type: none"> • 2-way Netfinity® 5500 M20 (500 MHz Pentium III) • 1 GB RAM (could be greater depending on the size of your database) • 1 drive for the operating system and for the applications • 1 drive for paging • 8 drives for the database • 1 drive for the database logs • 1 drive for the Web server and for the WebSphere Commerce Service Provider logs
2-Tier System (Single Web Server Connected to Remote Database Server)	<p>For the Web Server:</p> <ul style="list-style-type: none"> • 2-way Netfinity 4000R or 5500 M20 (500 MHz Pentium III) • 512 MB RAM • 1 drive for the operating system and for the applications • 1 drive for paging • 1 drive for the Web server and for the WebSphere Commerce Service Provider logs
	<p>For the Database Server:</p> <ul style="list-style-type: none"> • 2-way Netfinity 5500 (500 MHz Pentium III) • 1 GB RAM (could be greater depending on the size of your database) • 1 drive for the operating system and for the applications • 1 drive for paging • 8 drives for the database • 1 drive for the database logs

Table 1. Recommended Production System Configuration Requirements (continued)

3-Tier System (Multiple, Load-Balanced Web Servers Connected to a Remote Database Server)	For each Web Server:
	For the Database Server:

Notes:

1. You may want to consider the following guidelines for determining the number of tiers in your system configuration:
 - If you expect your Web server to receive up to 15 commands per second, use a 1-tier configuration.
 - If you expect your Web server to receive more than 15 commands per second, use a multi-tier configuration.
 - For a multi-tier configuration, you can add Web servers until your maximum load is accommodated, or until you maximize the load on your database server.
 - For all the above configurations, your Web server should be sized to accommodate up to five server processes per CPU.
2. All CPU numbers, CPU speed, memory, and drive requirements are minimum recommendations for a production environment.
3. None of the drive estimates include mirroring requirements. However, we strongly suggest, at a minimum, that you mirror the following on all production servers on all platforms.
 - Paging drives
 - Database log drives

We also recommend that you mirror the following on all production servers and platforms:

- Database drives
- Operating system drives
- Application drives

To access the WebSphere Commerce Service Provider Administrator, you require a personal computer capable of running Windows NT, Windows 98, or Windows 95, with a graphics capable monitor with a color depth of at least 256 colors, and a mouse or other pointing device.

Supported WebSphere Commerce Service Provider Configurations

The following section describes possible WebSphere Commerce Service Provider configurations. These configurations have been tested and are fully supported. If you have requirements beyond these configurations, contact your IBM representative for additional information.

Supported Software

The following software is supported, and has been tested in the configurations documented below on the AIX, NT and Solaris Operating Environment platforms:

- *One* Web server with a dedicated Network Adapter card and IP address. It can be either:
 - Domino Go Webserver 4.6.2.61
 - Netscape Enterprise Server 3.6.1
- *One* back-end database. It can be either:
 - DB2 Universal Database 6.1.0.6
 - Oracle 8.0.5
- eNetwork Dispatcher 2.0.0.3
- DB2 Text Extenders 6.1 + FixPak 1
- Net.Data 6.1
- IBM WebSphere Application Server 2.0.3.1 and JDK 1.1.7
- IBM Payment Server 1.2.20.3
- Netscape Communicator 4.61 for Windows
- WebSphere Commerce Service Provider 3.2

Multiple Web servers and databases are not supported.

Supported Configurations

The following configurations have been tested with no concurrent products running. The configurations vary based upon the interaction of the following:

- WebSphere Commerce Service Provider server instances
- Database instances
- Web servers
- Machines

In a 1–tier configuration, the Web server, the WebSphere Commerce Service Provider server and the database all reside on one machine. In a 2–tier configuration, the Web server and the WebSphere Commerce Service Provider server are on one machine, and the database is on a second machine. A 3–tier configuration has multiple machines with the Web server and WebSphere Commerce Service Provider server pairs, communicating with a single, database machine.

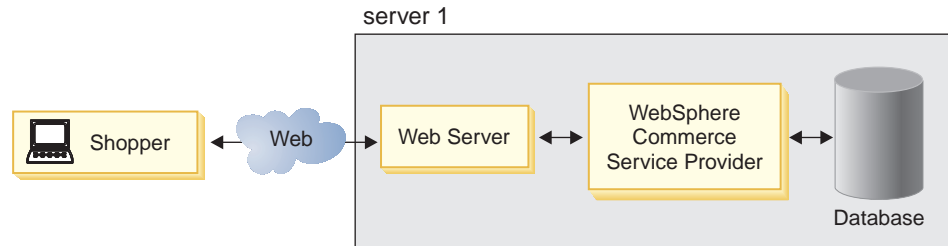
For configurations other than those explicitly identified below, extensive operational testing is recommended before going to production. It is also recommended that WebSphere Commerce Service Provider run on dedicated servers in order to minimize interference from other applications, thus attaining optimum performance and security.

Examine this section to develop a better understanding of the configuration requirements for developing and operating your store.

1-Tier Configuration

The simplest configuration is the single tier configuration. In this case, there is one machine upon which a single WebSphere Commerce Service Provider server instance, a single database instance, and single Web server reside. The following diagram displays this configuration.

Single Server Configuration



This configuration is particularly useful during development because it allows developers to have a self-contained development environment. It can also be used for the operation of low-volume stores, but is not recommended for high volume stores or malls.

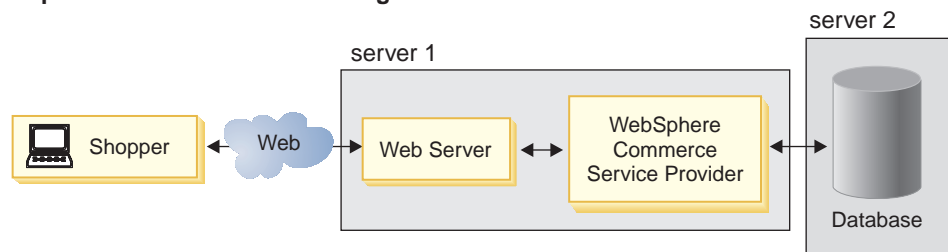
2-Tier Configuration

The separate database configuration is one of the configurations that uses multiple servers. In this case, the WebSphere Commerce Suite server and Web server reside on one machine and the database server resides on a separate machine.

Whenever the database resides on a separate machine from WebSphere Commerce Service Provider, you must ensure that the platforms for the database server and WebSphere Commerce Service Provider server are the same.

The following diagram displays a 2-tier configuration.

Separate Database Server Configuration



This configuration is recommended for moderate volume stores. This type of configuration is ideal for ensuring that you can tune the Web and database servers separately for performance (since performance tuning considerations of a Web server vary widely from that of a database server). In addition, the separate database configuration lends itself to further extensibility, scalability and reliability. As the load on the Web site increases, you can scale from this configuration to a 3-tier configuration by adding additional machines that are running a Web server and WebSphere Commerce Service Provider.

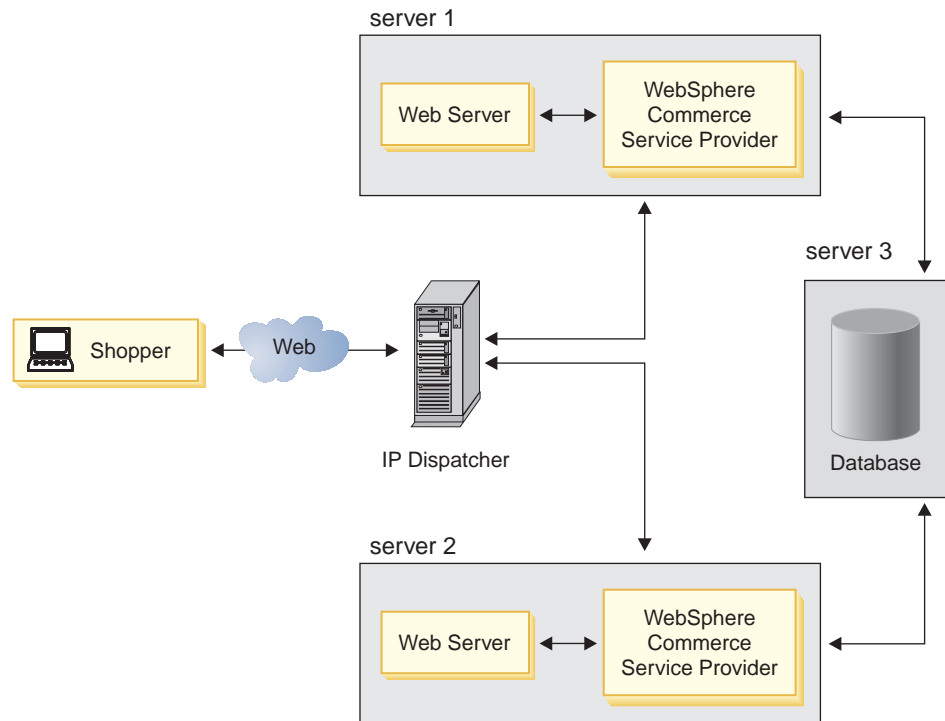
3-tier Configuration

A 3-tier configuration has multiple Web server and WebSphere Commerce Service Provider server pairs, communicating with a single database. This configuration

uses a single instance (each WebSphere Commerce Service Provider server is running the same mall or store) with an IP dispatcher that directs traffic between the servers.

The following diagram displays a multiple Web server configuration that also uses a remote database (on a separate machine).

Multiple Server Configuration



This configuration is recommended for high volume sites because it can be part of an effective work load balancing strategy.

The Next Step

If you are not using Oracle, once you have met all the preinstallation requirements documented in this chapter, turn to “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to continue.

If you are using Oracle, once you have met all the preinstallation requirements documented in this chapter, turn to “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11 to continue.

If you are installing your database for a 2-tier configuration, that is if you want to install your database server on a machine that is remote from your WebSphere Commerce Service Provider machine (database client machine), see “Chapter 8. Installing Your Database on a Separate Machine” on page 53.

If you want to perform a multi-tier installation of WebSphere Commerce Service Provider using eNetwork Dispatcher, see “Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3” on page 61.

Chapter 2. Installing and Configuring ODBC and Oracle

This chapter provides information on configuring ODBC and Oracle. It does not provide detailed information on installing Oracle.

Notes:

1. Only Oracle 8.0.5 is supported by WebSphere Commerce Service Provider.
2. You need advanced knowledge of Oracle (at the DBA level) to follow the instructions in this chapter.
3. For more information about Oracle, go to <http://www.oracle.com>. You can obtain copies of the Oracle documentation from <http://technet.oracle.com>. The Oracle installation and configuration information in this chapter is provided only as a guideline.

Installing and Configuring Oracle

If you want to use Oracle as your database management system instead of DB2, you must do the following:

1. Install the following Oracle products (recommended) from the Oracle CD-ROM:
 - Net8
 - Oracle8 Enterprise Manager
 - ODBC driver
 - SQL*Plus
 - TCP/IP Protocol Adapter
 - Oracle Intelligent Agent
 - Object Type Translator
2. Create the `$ORACLE_HOME\jdbc\lib` directory to contain the Oracle 8i JDBC drivers, where `$ORACLE_HOME` is your Oracle install path (for example, `drive:\orant\jdbc\lib`)
3. Download the Oracle 8i JDBC Thin Driver.
Before downloading the drivers, back up any existing `classes111.zip` file on your machine.
You can get the Oracle 8i JDBC Thin Driver from Oracle's Web address at:
<http://technet.oracle.com>

On this Web page:

- Select **Software**.
- From the drop-down list for **Select a Utility or Driver** that appears, select **Oracle JDBC Drivers**.
- On the page that appears, scroll to **Oracle8i (8.1.5) JDBC Drivers for use with JDK 1.1.x** and click on **JDBC-Thin, 100% Java for JDK 1.1.x** and download the driver.
- Rename the `classes111b.zip` file that accompanies the JDBC thin driver to `classes111.zip` and copy this file into the `$ORACLE_HOME\jdbc\lib` directory.
- If you using Product Advisor, copy this file to the `drive:\IBM\NetCommerce3\html\locale\ncadmin\ictmgr` directory, where *locale* is your country code, for example `en_US` is American English.

Notes:

- a. You need to register with Oracle Technology Network before you can download this driver. Registration is free.
 - b. The Web address and instructions specified were valid at the time of printing. Please see your Oracle representative to obtain the driver if the instructions are no longer valid.
4. Create the following items:
 - a. Oracle SID, if not created for you during the installation.
 - b. Oracle user ID for WebSphere Commerce Service Provider.
 - c. Oracle user ID, EJSADMIN, with administrative privileges for WebSphere Commerce Service Provider.
 - d. Oracle table space or table spaces for Oracle user ID for WebSphere Commerce Service Provider.
 - e. Oracle table space or table spaces for Oracle user ID, EJSADMIN.
 - f. Oracle service name for the Oracle listener.
 5. Add the path for `classes111.zip`, `drive:\orant\jdbc\lib\classes111.zip`, to the CLASSPATH environment variable. From your Windows NT Control Panel, click on the **System** icon, then click the **Environment** tab in the **System Properties** window. Find and highlight CLASSPATH in the **System Variables** window. Append the following path to the existing value:
`drive:\orant\jdbc\lib\classes111.zip`
 6. Configure the ODBC driver, as described in “Configuring the ODBC Driver” .

Configuring the ODBC Driver

To configure ODBC for Oracle, do the following:

1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
2. On the Control Panel window, double-click the **ODBC** icon.
3. On the ODBC Data Source Administrator window, click or select **System DSN**. Depending on the version of the ODBC manager that you are using, this name may appear as a push button or a property sheet tab.
4. Click **Add**. A list of drivers appears.
5. From the list of drivers, select **Oracle ODBC Driver**, and click **Finish**. The Oracle 8 ODBC Driver Setup window appears.
6. In the **Data Source Name** field, type the name of the data source that you want to export. This name must match what you will enter in the **Database Name** field on the **Database** tab in Configuration Manager during configuration. The name must also be the Oracle database system identifier (SID), for example, the default SID is ORCL.
7. In the **Description** field, type IBM WebSphere Commerce Service Provider.
8. In the **Service Name** field, type the Oracle service name that you created prior to installing WebSphere Commerce Service Provider.
9. In the **User ID** field, type the name of the Oracle user ID.
10. Click **OK**.

Verifying Connectivity

To verify database connectivity, follow the steps in this section:

1. Verify connectivity through SQL*PLUS. Ensure that you logon to the Oracle user ID before running SQL*PLUS, and ensure that you specify *@service_name* following the password when using this command.
2. Verify connectivity through the ODBC client. To do this, follow these steps:
 - a. From the **Start** menu, click **Programs**.
 - b. Click **Oracle for Windows NT**.
 - c. Click **Oracle ODBC Test**.
 - d. Click **Connect**.
 - e. Click the **Machine Data Source** tab.
 - f. Select the entry for the data source name that you defined during ODBC configuration.
 - g. Click **OK**.
 - h. Enter your Oracle user name and password in the pop-up window. If successful, you should see **Ready** on the status bar on the bottom and the **Connect** button will be grayed out.

This is the end of the prerequisites for Oracle, prior to installing the WebSphere Commerce Service Provider components.

The Next Step

Turn to “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15 to continue.

Chapter 3. Installing WebSphere Commerce Service Provider

This chapter describes how to install WebSphere Commerce Service Provider.

Note: This chapter describes how to install WebSphere Commerce Service Provider using the CDs provided with the product box. If you copy one or more of the CDs to a network for the purpose of installing from a network drive, it is recommended that you do not change the name of the folders, paths, and directories that are on the CDs. During the installation process, if you are prompted for a component or CD, you must specify the location of the component, which is the top level directory on the CD.

To complete the steps in this chapter, you will need the following CDs:

- DB2 Universal Database, Enterprise Edition
- DB2 Universal Database Extenders
- Net.Data
- Lotus Domino Go Webserver
- WebSphere Application Server, Standard Edition
- WebSphere Commerce Suite, Service Provider Edition

The WebSphere Commerce Service Provider installation program will prompt you for these CDs during the installation process.

Note: The WebSphere Commerce Service Provider installation process will update two Windows dynamic link libraries. The two files will be backed up and renamed with a .netc extension. The two files are mfc42.dll and msvcrt.dll. Both are located in the \winnt\system32 folder on your Windows drive.

Important

The instructions in this chapter only apply if you are installing WebSphere Commerce Service Provider for the first time and you do not have an existing version of Net.Commerce Hosting Server installed. If you have an existing version of Net.Commerce Hosting Server installed, you *must* refer to the Migration section of an updated version of this book. It is available in PDF format from the *Library* section of our product Web site. To access it, type the following Web address on your browser:

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

If you do not follow the migration instructions, any files you may have customized will be overwritten.

Chapter Prerequisites

Before you begin, ensure you have met the following requirements:

- 1. You are using, or have created, an NT user ID that meets the requirements specified on page ix.
- 2. You have installed Netscape Communicator 4.61.

- ___ 3. If you are using Netscape Enterprise Server 3.6.1, it has already been installed as described in “Chapter 1. Preinstallation Requirements” on page 3.
- ___ 4. If you are using Oracle 8.0.5, it has already been installed as described in “Chapter 1. Preinstallation Requirements” on page 3.
- ___ 5. Your system meets the preinstallation requirements outlined in “Chapter 1. Preinstallation Requirements” on page 3.

Installation Procedures

To install WebSphere Commerce Service Provider, do the following:

1. Log on to a Windows NT user ID that has Administrator authority and is 8 characters or less. Your Windows NT user ID must adhere to the criteria outlined in **Windows NT user ID** in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix.
2. If you are using your NT machine as a backup Domain Controller, you must install DB2 before installing WebSphere Commerce Service Provider. Install IBM DB2 Universal Database 6.1.0.6 based on the components listed in “Quick Reference to the Components Installed During a Typical Install” on page xii.
3. If you are running an anti-virus program, you must set its start-up type to **Manual** in the Services menu and reboot your machine before you begin to install WebSphere Commerce Service Provider. After you finish installing WebSphere Commerce Service Provider, remember to set the start-up type back to **Automatic**.
4. Insert the WebSphere Commerce Service Provider CD into your CD drive.
5. From the root directory of the WebSphere Commerce Service Provider CD, run `setup.exe`.

If your system does not meet the preinstallation requirements, a dialog box will appear detailing the requirements which have not been met. Click **Cancel** and then **Exit Setup** to exit the installation program. Take the appropriate steps to meet the preinstallation requirements which were listed and begin the installation again.

6. A Welcome window appears. Click **Next** to continue.
7. A License Agreement window appears. After reviewing and accepting the licensing conditions, click **Accept** to continue.
8. The Install Type window appears if you do not have any of the WebSphere Commerce Service Provider components installed (for example, DB2 Universal Database, Domino Go Webserver 4.6.2.61, or Payment Server 1.2.20.3). If you see the Install Type window, click **Typical** or **Custom**, and then **Next** to continue, depending on which type of installation you wish to perform, as follows:

Typical Install	<p>Select a Typical install if you want to install the default components which are packaged with WebSphere Commerce Service Provider. The following components will be installed:</p> <ul style="list-style-type: none"> • WebSphere Commerce Service Provider 3.2 (includes Net.Commerce 3.2) • DB2 Universal Database 6.1.0.6 • DB2 Text Extenders 6.1 + FixPak 1 • Net.Data 6.1 • Domino Go Webserver 4.6.2.61 • WebSphere Application Server 2.0.3.1 and JDK 1.1.7 • Payment Server 1.2.20.3 <p>You can change the location in which the WebSphere Commerce Service Provider components are installed.</p> <p>With a Typical install, the installation program creates a default WebSphere Commerce Service Provider instance, mser, and a default database, called mser. It also stores log files that contain information on the instance and database creation. A progress indicator indicates the progress of the instance and database creation.</p> <p>Note: You do not have to create a new WebSphere Commerce Service Provider instance with a Typical install since the installation creates a default instance. If you want to update the characteristics of the default instance, mser, refer to “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.</p>
Custom Install	<p>Select a Custom install if you want to do one of the following:</p> <ul style="list-style-type: none"> • Use Netscape Enterprise Server 3.6.1 with your WebSphere Commerce Service Provider system. • Use Oracle as your database. • Install a DB2 client in a two-tier DB2 installation. • Select which components get installed. <p>With a Custom install, you will need to create a WebSphere Commerce Service Provider instance as documented in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.</p>

If you select **Typical**, continue with the steps in “A Typical Install” below. If you select **Custom**, continue with the steps in “A Custom Install” on page 19.

9. If you do have WebSphere Commerce Service Provider components installed, you will see the Component Selection window. In this case, proceed to step 1 on page 19.

A Typical Install

If you selected a Typical install in step 8 on page 16 above, continue with the steps in this section to complete your install.

1. If you clicked **Typical**, the installation program displays a window to allow you to override the default install path. The program will install all WebSphere Commerce Service Provider components under this directory.

When you have chosen your installation path, click **Next**.



By default, the installation program uses the drive that contains the most free space.

2. On the next window, either accept the default folder name, WebSphere Commerce Suite, Service Provider Edition, in the **Program Folders** name field, or overwrite this default folder name with a new name. The installation program will create a folder for WebSphere Commerce Service Provider in the Program folder using this name. Click **Next** to continue.
3. The Summary window displays a summary of the selections you have made. This window lists the setup type, the components which will be installed, and the drives on which they will be installed. Click **Next** to continue.
4. The installation program prompts you for CDs in the following order:
 - DB2 Universal Database
 - DB2 Text Extender
 - Net.Data
 - Domino Go Webserver
 - WebSphere Application Server (includes Java Development Kit)
 - WebSphere Commerce Service Provider

When prompted for each CD, insert the requested CD and click **OK** to begin the installation of that product

5. After Payment Server, DB2 Text Extender FixPak 1, and WebSphere Commerce Service Provider have been installed, the installation program prompts you to complete an IBM Product Registration form. After completing the panels that make up this form, click **Submit** to continue. If you have not completed any of the mandatory fields on the form, the product registration process prompts you to complete these fields.
6. After submitting the Product Registration form, the Setup Complete window appears and prompts you to restart your computer. Ensure that **Yes, I want to restart my computer now** is checked and click on **Finish** to reboot your machine.
7. After your system reboots, log on to NT using the same user ID and password that you used at the beginning of the installation.
8. After you log on, WebSphere Commerce Service Provider launches a window containing two fields. Your database logon ID should be entered for you in the **Database User Logon** field. If it is not, enter your Windows NT logon ID in this field. In the **Database Logon Password** field, enter the password for the ID entered in the **Database User Logon** field. Click **OK** to continue.
9. The installation program creates a default WebSphere Commerce Service Provider instance, *mser*, and a default database, called *mser*. It also stores log files that contain information on the instance and database creation. A progress indicator indicates the progress of the instance and database creation. Upon completion of the instance and database creation, click **OK** to complete the installation.

Note: You do not have to create a new WebSphere Commerce Service Provider instance with a Typical installation since the installation creates a default instance. If you want to update the characteristics of the default instance, *mser*, refer to “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.

After you have completed the steps in the Typical install, you can proceed to any of the chapters in “Part 2. Configuring WebSphere Commerce Service Provider Components” on page 23. If you want to update any of the characteristics of the default WebSphere Commerce Service Provider instance, *mser*, created in a Typical install, proceed to “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25. If you want to use Payment Server, you need to set

it up for Secure Electronic Transactions in accordance with instructions in “Setting Up IBM Payment Server” on page 50. You will also need to configure the Payment Wizard in the Merchant Tool to accept SET as described in the online help topic, *Enable SET as the Payment Authorization Method*.

A Custom Install

If you selected a Custom install in step 8 on page 16, follow the steps below to complete your installation.

1. When presented with the **Component Selection** window, use the drop-down menus to indicate which Web server, database management system and payment server you will be using with WebSphere Commerce Service Provider. Use the following points for guidance:

Database	<p>Use the drop-down menu to indicate one of the following:</p> <p>IBM Universal Database 6.1.0.6 This is the database management system provided with WebSphere Commerce Service Provider.</p> <p>If you are planning to install your database on a separate machine (and you do not already have DB2 Universal Database installed), ensure that this component <i>is</i> selected, as the WebSphere Commerce Service Provider server requires the client component of DB2 in this configuration.</p> <p>Select this option if you have DB2 Universal Database 5.x already installed, as you must upgrade to DB2 Universal Database 6.1.0.6.</p> <p>Remote Database Check Box Enable this check box if you want to install your database on a remote machine. This check box is only enabled when DB2 Universal Database is selected in the database drop down list. This option installs the DB2 Administration Client on your remote machine. Before you can create your database on the remote machine, you will need to install the DB2 Universal Database server on the remote machine as described in “Chapter 8. Installing Your Database on a Separate Machine” on page 53.</p> <p>Oracle 8.05 Select this option if you intend to use Oracle 8.0.5 with WebSphere Commerce Service Provider. You must install Oracle separately, and prior to WebSphere Commerce Service Provider, as described in “Chapter 1. Preinstallation Requirements” on page 3.</p>
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Web Server	<p>Use the drop-down menu to indicate one of the following:</p> <p>Lotus Domino Go Webserver 4.6.2.61 This is the Web server provided with WebSphere Commerce Service Provider. If you select Domino Go Webserver 4.6.2.61 from the list, it will be installed.</p> <p>Netscape Enterprise Server 3.6.1 Select this option from the list to indicate that you will be using Netscape Enterprise Server with WebSphere Commerce Service Provider. Netscape Enterprise Server must already be installed, as described in "Chapter 1. Preinstallation Requirements" on page 3.</p>
Payment	<p>Use the drop-down menu to indicate one of the following:</p> <p>None Select this option if you do not intend to use a payment server with WebSphere Commerce Service Provider.</p> <p>Payment Server 1.2.20.3 This is the secure payment server provided with WebSphere Commerce Service Provider. Select Payment Server if you intend to enable Secure Electronic Transactions (SET). After installing Payment Server, you need to set it up for SET in accordance with instructions in "Setting Up IBM Payment Server" on page 50. You will also need to configure the Payment Wizard in the Merchant Tool to accept SET as described in the online help topic, <i>Enable SET as the Payment Authorization Method</i>.</p> <p>CyberCash Select this option to indicate that you are using CyberCash for payment processing. Note that CyberCash always gets installed for WebSphere Commerce Service Provider. The Merchant Tool provided with WebSphere Commerce Service Provider is enabled to work with CyberCash.</p>

When you have made your selections, click **Next**.

2. A dialog box will appear if any of the following apply:

- One of the following products is already installed, or if it will be upgraded:
 - Net.Commerce Hosting Server
 - DB2 Universal Database
 - Domino Go Webserver
 - WebSphere Application Server
 - Payment Server
- You have indicated that you will be using one of the following products and it is not currently installed:
 - Oracle
 - Netscape Enterprise Server

If the required software is not installed, press **Cancel** to exit the installation program and install the required software. Once you have installed the applications indicated by the dialog box message, begin the WebSphere Commerce Service Provider installation process again.

If the message(s) presented in the dialog box are informational only, click **Next** to continue.

3. The **Choose Destination Location** window allows you to override the default install path for each component you selected. If a back-level version of a component is already installed, the updated version will be installed in the same directory path.

Notes:

- a. Domino Go Webserver does not support spaces in the installation path. If you have spaces in the path that you indicate, installation will not continue.
- b. If you specify a WebSphere Commerce Service Provider installation path greater than twenty-two characters, and you have chosen Oracle 8.05 as your database, the installation will not continue as a longer path results in problems with Oracle schema creation.

When you have chosen your installation paths, click **Next**.



By default, the WebSphere Commerce Service Provider installation program uses the first drive it finds that has enough space for all your selections. If you wish, you can change the drive for all components, or use a different drive for each component.

4. On the **Select Program Folder** window, either accept the default folder name or enter the name of the folder which will be created for WebSphere Commerce Service Provider in the Program folder. Click **Next** to continue.
5. The **Summary** window displays a summary of the selections you have made. This window lists setup type, the components which will be installed, the drives on which they will be installed, and whether any applications will be upgraded. Click **Next** to continue.
6. Depending on which applications you indicated on the Select Components window, one or more of the following will occur:
 - The installation program prompts you to insert the IBM DB2 Universal Database 6.1.0.6 CD. Insert the CD and click **OK** to continue.
 - The installation program prompts you to insert the IBM DB2 Text Extenders 6.1 CD. Insert the CD and click **OK** to continue.

Note: DB2 Text Extenders are only installed if you are using DB2. It is not installed if you are using Oracle.

- The installation program prompts you to insert the Net.Data 6.1 CD. Insert the CD and click **OK** to continue.
- The installation program prompts you to insert the Domino Go Webserver 4.6.2.61 CD. Insert the CD and click **OK** to continue.
- The installation program prompts you to insert the WebSphere Application Server CD. Insert the CD and click **OK** to continue.

If you are using Netscape Enterprise Server, you are prompted to specify the directory and file name of the Netscape Enterprise Server configuration file (`obj.conf`). Specify the directory that contains the `obj.conf` file for your non-secure server port (port 80). The secure server port (port 443) requires servlet support, but WebSphere Commerce Service Provider automatically performs the necessary modifications to the secure port `obj.conf` file at configuration time. You can either enter the path, or click **Browse**, to select it. (The default installation path is `drive:\Netscape\Suitespot\server_name\config` directory.)

After WebSphere Application Server has been installed, you are prompted to insert the WebSphere Commerce Service Provider CD. Insert this CD and click **OK** to continue.

- DB2 Text Extender FixPak 1, Payment Server (if you selected it), and WebSphere Commerce Service Provider are installed. Note that the DB2 Text Extender FixPak 1 is not installed if DB2 is not selected or DB2 Text Extender 6.1 is pre-installed on your machine.
 - After WebSphere Commerce Service Provider has been installed, you are prompted to complete an IBM Product Registration form. After completing the panels that make up this form, click **Submit** to continue. If you have not completed any of the mandatory fields on the form, the product registration process prompts you to complete these fields.
7. After submitting the Product Registration form, the Setup Complete window appears and prompts you to restart your computer. Ensure that **Yes, I want to restart my computer now** is checked and click on **Finish** to reboot your machine.
- You *must* reboot in order to begin configuring WebSphere Commerce Service Provider.

The Next Step

For a Custom install, after your system reboots, log on to NT as the same user ID that you used at the beginning of the installation. If you are using NES, you will also be prompted to enter the NES Key File password. Enter the password and click **OK**. You will receive a prompt to fill in the user name and password for Configuration Manager, which by default are `webadmin` and `webibm`. After you specify the user ID and password, WebSphere Commerce Service Provider launches a browser window and starts the WebSphere Commerce Service Provider Configuration Manager. Turn to step 3b on page 25 to continue.

Otherwise, if you have completed a Typical install, you can proceed to any of the chapters in “Part 2. Configuring WebSphere Commerce Service Provider Components” on page 23. If you want to update any of the characteristics of the default WebSphere Commerce Service Provider instance, `mser`, created in a Typical install, proceed to “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.

Part 2. Configuring WebSphere Commerce Service Provider Components

This part describes how to configure WebSphere Commerce Service Provider and its associated components. Depending on your system configuration you may be referred to the following chapters:

- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25
- “Chapter 5. Creating a Schema Using Oracle (1-Tier)” on page 37
- “Chapter 6. Verifying Your Installation and Configuration” on page 41
- “Chapter 7. Administrative Tasks” on page 45
- “Chapter 8. Installing Your Database on a Separate Machine” on page 53
- “Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3” on page 61
- “Chapter 10. Enabling SSL for Production on Domino Go Webserver” on page 73

Chapter 4. Configuring a WebSphere Commerce Service Provider Instance

This chapter describes how to create a new WebSphere Commerce Service Provider instance or update an existing instance. If you need to modify the settings for an existing instance, you can refer to the information in this chapter for guidance on changing the current settings.

Note: WebSphere Commerce Service Provider instance creation will configure Domino Go Webserver and Netscape Enterprise Server. Each time you modify your instance, the Web server configuration files will be overwritten. It is recommended that you keep a backup copy of your `obj.conf` or `httpd.conf` files.

Configuration Procedures

If you have just completed a **Typical** install, the installation program creates a default WebSphere Commerce Service Provider instance, `mser`, and a default database, `mser` after you reboot. You are not required to create a new instance. If you wish to update an existing instance, proceed to step 3 below.

If you have just completed a **Custom** install, after you reboot, the installation program launches a Web browser window pointing to `http://host_name:4444`, where `host_name` is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, `www.ibm.com` is fully qualified). Proceed to step 3b below.

To create and configure a WebSphere Commerce Service Provider instance, do the following:

1. If you are using DB2, ensure you have started it, as described in “Starting and Stopping DB2” on page 145.
If you are using Oracle, ensure you have started it. Refer to the Oracle documentation on starting Oracle.
2. If your Web server is not started, start it now. If you are using Domino Go Webserver, see “Starting and Stopping Domino Go Webserver” on page 143. If you are using Netscape Enterprise Server, start it in accordance with Netscape Enterprise Server documentation.
3. Access Configuration Manager by doing the following:
 - a. Click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Configuration**. The Web browser window appears, launching the Web address, `http://host_name:4444`, where `host_name` is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, `www.ibm.com` is fully qualified).
 - b. When prompted, enter your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin` and your password is `webibm`.
 - c. To create a *new instance*, click **New** on the main Configuration Manager window. To update an *existing instance*, highlight the instance and click the **Settings** button.

4. The following window displays:

The screenshot shows a configuration window titled "Use Configuration Manager to change the settings for WebSphere Commerce components. You can accept the defaults or make changes to all enabled fields. Click the tabs to switch components." The window has five tabs: "Commerce Suite Server", "Instance Data", "Web Server", "Database", and "Payment". The "Database" tab is selected. The form contains the following fields and options:

- Database Name:
- DBMS: - Instance Owner ID:
- Database User Logon:
- Database Logon Password:
- Database Option: Use Staging Server, Use remote database
- Remote Database location:
- Remote Database Node Name:

At the bottom of the window are three buttons: "OK", "Cancel", and "Help".

This window includes five tabs that allow you to review and update a variety of configuration settings for your WebSphere Commerce Service Provider components.

On the **Database** tab, complete the fields as follows:

Database Name

Enter the name assigned to the database.

For DB2, accept the default, or type the name you wish to assign to your database. The name must be seven characters in length or less. WebSphere Commerce Service Provider reserves one character in the normal eight character name for internal use.

For Oracle, enter the ODBC data source name that you defined in the `.odbc.ini` file. This file is located in the `c:\WINNT` directory by default. For more information, refer to "Chapter 2. Installing and Configuring ODBC and Oracle" on page 11.

DBMS

From the drop-down list, select the name of the database management system you intend to use. You can select either DB2 or Oracle.

If you select Oracle, you will have to create the database manually. After you complete the steps in this section to create an instance, you will proceed to "Chapter 5. Creating a Schema Using Oracle (1-Tier)" on page 37 to create your database. Note that you should not start your instance until after you create the database.

Instance Owner ID

This field is enabled only if you select **Oracle 8** from the **DBMS** drop-down list.

If you are using DB2, the instance owner ID is the same as the database user logon ID. Once you update the database user logon ID, the instance owner ID will be updated automatically.

If you are using Oracle, type the user ID of the Oracle instance owner for your Oracle server in a 2-tier installation or from your Oracle installation in a 1-tier installation. (This is the NT ID used for the Oracle server installation in a 2-tier configuration or in the Oracle installation for a 1-tier configuration.) The instance owner ID that you enter must already exist. If it does not, instance creation will fail.

Database User Logon

For DB2, accept the default, which is the name of the Windows NT user ID that you logged onto to begin the installation of WebSphere Commerce Service Provider. You will use this user ID as the DB2 database logon ID for accessing the database.

For Oracle, type the name of the database administrator ID that you will use to perform database administration.

Database Logon Password

Type the password of the user ID that you specified in the **Database User Logon** field. The password must be eight characters in length or less if you are using DB2.

Database Option

The **Use Staging Server** check box is enabled only if you are using DB2.

Leave this box unchecked. The staging server is used when migrating databases. For more information, see the Migration section of an updated version of this book. It is available in PDF format from the *Library* section of our product Web site. To access it, type the following Web address on your browser:

<http://www.ibm.com/software/websphere/commerce/servers>

Use Remote Database

Enable this check box if the database is on a different machine than the WebSphere Commerce Service Provider server. If this box is selected, the host name and node name fields are enabled.

Remote Database Location

Use this field to enter the host name of the machine where your DB2 or Oracle database server resides.

Remote Database Node Name

Use this field to enter the name with which your remote database will be locally catalogued. It is the TCP/IP node to connect to the remote machine.

Note: This field is enabled only if you are using DB2. Ensure that the DB2 Universal Database server is already installed on your remote machine.

5. Click the **Commerce Suite Server** tab to review and update the settings for the WebSphere Commerce Service Provider server. The following window is displayed:

Use Configuration Manager to change the settings for WebSphere Commerce components.
 You can accept the defaults or make changes to all enabled fields
 Click the tabs to switch components.

Commerce Suite Server	Instance Data	Web Server	Database	Payment
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Instance Name: <input type="text" value="mser"/></p> <p>Communication Port Base: <input type="text" value="16570"/></p> <p>Number of Server Processes: <input type="text" value="2"/></p> <p>Server Options:</p> <p><input checked="" type="radio"/> Enable Basic Caching</p> <p><input type="radio"/> Enable Advanced Caching</p> <p><input type="radio"/> No Caching</p> <p><input checked="" type="checkbox"/> Use Default Merchant Key</p> <p>Merchant Key: <input type="text"/></p> </div> <div style="width: 50%; border-left: 1px solid gray; padding-left: 10px;"> </div> </div>				
<input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>				

Complete the fields as follows:

Instance Name

Accept the default, or type an alphanumeric name for the WebSphere Commerce Service Provider instance that you want to create. This name must be unique for each instance. The maximum length for this field is 8 characters.



If you wish to create multiple instances of WebSphere Commerce Service Provider, you can do so after you have completed the procedures in this book. *Note that WebSphere Commerce Service Provider does not support multiple instances that are run simultaneously. You may set up additional instances for testing purposes only. Before going into production, you should delete any test instances you have created. Refer to Configuration Manager in the WebSphere Commerce Service Provider online information for details. (See "Using the Online Help" on page 173 for guidance on accessing this information.)*

Communication Port Base

Accept the default, or type the base port address that you want the WebSphere Commerce Service Provider server to use to communicate with your Web server.

This address will be used by the first server process. Each additional process will use consecutive port addresses, starting at this address. Therefore, ensure that there are sufficient free addresses above the base address to accommodate the number of processes you intend to create. If you are using Payment Server, note that it uses five port addresses.

The default port address allows room for at least two processes to be defined.



The base address must be greater than 1024. The range of addresses, starting at the base, cannot include 1080 or 8080, and the highest address in the range cannot be greater than 65535.

Note: Do not use a Communication Port Base that will cause your range of ports to include port 16560.

Number of Server Processes

Accept the default (2 processes), or type the number of processes that you want started for this WebSphere Commerce Service Provider instance. The minimum number of processes is 1. A higher number will allow WebSphere Commerce Service Provider to process more transactions simultaneously, but the load on the machine will be increased. 5 server processes per CPU is recommended for WebSphere Commerce Service Provider.

Server Options

Select one of the following options:

Enable Basic Caching

Caching reduces the amount of time it takes for WebSphere Commerce Service Provider to display frequently used dynamic pages.

Basic caching uses Web server extensions and runs much faster than advanced caching. For WebSphere Commerce Service Provider, always select basic caching.

Each time a shopper requests a product or category page, Web server extensions search the cache for the requested file. If the file exists in the cache, it is immediately sent to the shopper's browser. This method only permits pages to be cached based on the following parameters:

- Product reference number (PRRFNBR in the PRODUCT table) or category reference number (CGRFNBR in the CATEGORY table).
- Product number (PRNBR in the PRODUCT table) or category number (CGNBR in the CATEGORY table).
- Merchant reference number.
- Price expiry date.

Enable Advanced Caching

For WebSphere Commerce Service Provider do not select this option. There are no advanced caching features that are advantageous to WebSphere Commerce Service Provider, and it does not provide as great a performance improvement as does Basic Caching.

No Caching

Select this radio button if you do not want caching enabled.

Note: If you select either *advanced* or *basic* caching, you will have to enable the Synchronization Daemon. For information on how to do this, refer to the online help. For information on starting and stopping the Synchronization Daemon, refer to "Starting and Stopping the Synchronization Daemon" on page 146.

Use Default Merchant Key

If you want Configuration Manager to generate the merchant key automatically, ensure that this box *is* selected. If you want Configuration Manager to prompt you for a key to encrypt the shopper and administrator passwords in the WebSphere Commerce Service Provider database, ensure that this checkbox is *not* selected.

Merchant Key

If you have deselected the **Use Default Merchant Key** checkbox, the Merchant Key field becomes enabled. Type a 16-digit hexadecimal number for the Configuration Manager to use as the encryption key. Keep a record of this number, as you will need it if you reconfigure your system later.

If the key that you enter does not conform to certain criteria required for strong encryption, the encryption algorithm will automatically enhance your key. The enhancement of your key will not affect the operation of WebSphere Commerce Service Provider.

6. Click the **Instance Data** tab to review and update the directory paths where your instance files will be stored. The following window is displayed: Complete the fields as follows:

The screenshot shows a dialog box titled "Use Configuration Manager to change the settings for WebSphere Commerce components. You can accept the defaults or make changes to all enabled fields. Click the tabs to switch components." The dialog has five tabs: "Commerce Suite Server", "Instance Data", "Web Server", "Database", and "Payment". The "Instance Data" tab is selected. It contains the following fields and values:

Field	Value
Root Path:	D:\IBM\NetCommerce3\instance\mscr
Configuration File Path:	D:\IBM\NetCommerce3\instance\mscr\config
Log File Path:	D:\IBM\NetCommerce3\instance\mscr\logs
Cache File Path:	D:\IBM\NetCommerce3\instance\mscr\cache
Shared Configuration Path:	D:\IBM\NetCommerce3\globals

Below the fields is a checkbox labeled "Use Default Parameters" which is unchecked. At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Root Path

Enter the base directory path in which all instance files will be stored. The default path is *drive:\Ibm\NetCommerce3\instance\instance_name*, where *instance_name* is the name you entered in the **Instance Name** field on the **Commerce Suite Server** tab.

Note: The path you enter in this field is automatically entered for the remaining fields on this tab. If you wish to change the paths for the remaining fields, enter the directory path for the **Root Path** field first, and then enter the paths for the remaining fields.

Configuration File Path

Enter the directory path in which all configuration files for this instance will be stored. The default path is *drive:\Ibm\NetCommerce3\instance\instance_name\config*, where *instance_name* is the name you entered in the **Instance Name** field on the **Commerce Suite Server** tab.

Log File Path

Enter the directory path in which all log files for this instance will be stored. The default path is

drive:\Ibm\NetCommerce3\instance\instance_name\logs, where *instance_name* is the name you entered in the **Instance Name** field on the **Commerce Suite Server** tab.

Cache File Path

Enter the directory path in which all cached files will be stored. The default path is

drive:\Ibm\NetCommerce3\instance\instance_name\cache, where *instance_name* is the name you entered in the **Instance Name** field on the **Commerce Suite Server** tab.

Shared Configuration Path

If a previous Net.Commerce Hosting Server instance has been created, you can share the configuration files of that instance with the instance that you are currently configuring. Enter the directory path in which configuration files exist that you want to share with the current WebSphere Commerce Service Provider instance. If the **Use Default Parameters** checkbox is selected, the configuration tool will use default parameters specified in the shared configuration files (in which case, some fields within the Configuration Manager tabs will be disabled). If the **Use Default Parameters** checkbox is not selected, the shared configuration files will not be used. The shared configuration files are also referred to as global configuration files.

7. Click the **Web Server** tab to review and update the Web server settings. The following window is displayed:

The screenshot shows a configuration window titled "Use Configuration Manager to change the settings for WebSphere Commerce components. You can accept the defaults or make changes to all enabled fields. Click the tabs to switch components." The window has five tabs: "Commerce Suite Server", "Instance Data", "Web Server", "Database", and "Payment". The "Web Server" tab is selected. The form contains the following fields:

Host Name:	lcmd.torolab.ibm.com
Web Server:	Domino Go Webserver
Document Root:	D:\IBM\www\HTML
CGI Path:	D:\IBM\www\CGI-Bin
Macro Path:	D:\IBM\NetCommerce3\macro\en_US
Number of Cached Files:	1000
Secure Server Configuration Path:	
Non-secure Server Configuration Path:	

At the bottom of the window are three buttons: "OK", "Cancel", and "Help".

Complete the fields as follows:

Host Name

Accept the default, or type the *fully qualified* host name of your WebSphere Commerce Service Provider machine (for example, *www.ibm.com* is a fully qualified name). The default is the host name of your Windows NT system.

Web Server

From the drop-down list, select the Web server that you have installed and intend to use. All instances must use the same Web server.

Document Root

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

Note: The path you type must already exist.

For Netscape Enterprise Server, this path is known as the *primary document root*. If you installed Netscape Enterprise Server as your Web server, the default value for this path is *drive:\Netscape\suitespot\docs*. This path must be unique for each WebSphere Commerce Service Provider instance. If other Web servers are installed but you want to use Netscape Enterprise Server, you must type this path manually.

CGI Path

If you installed Domino Go Webserver, accept the default or type the path in which you intend to store the WebSphere Commerce Service Provider CGI programs. The path you type must already exist. This path must be the same for all instances.

If you installed only Netscape Enterprise Server as your Web server, the default value for this path is *drive:\Ibm\NetCommerce3\cgi-bin*. If Netscape Enterprise Server is not the only Web server installed but you wish to use it, you must type this path name or the name of path in which you intend to store the WebSphere Commerce Service Provider CGI programs. If you intend to use Netscape Enterprise Server, record this path, as you will need it to configure the Web server.

Macro Path

Accept the default path. When merchants create a store on your site, the Net.Data macro files are located in a store-specific directory under this path. Do not change this path from the default. This path must be unique for each WebSphere Commerce Service Provider instance.

Number of Cached Files

Accept the default number, or enter the maximum number of cached files. The default value is 1000. This field is only enabled if caching has been enabled on the **Commerce Suite Server** tab. If caching is disabled, this field is disabled.

The value in this field the limit for cached files per merchant. If the number of cached files for a merchant exceeds this value, the Synchronization daemon will begin to delete that merchant's cache files.

Secure Server Path

This field is enabled only if you are using Netscape Enterprise Server. It is the path for the server used for secure communications.

Enter the full path to the `obj.conf` file for the server port that you configured for secure communications.

If you used the default path when you installed Netscape Enterprise Server to the default directory, type *drive:\netscape\suitespot\secure_server\config*, where *secure_server* is the name of your Netscape Enterprise Server secure server.

Non-secure Server Path

This field is enabled only if you are using Netscape Enterprise Server.

Enter the full path to the `obj.conf` file for the server port that you configured for non-secure communications.

If you used the default path when you installed Netscape Enterprise Server, type `drive:\netscape\suitespot\non-secure_server\config`, where `non-secure_server` is the name of your Netscape Enterprise Server non-secure server.

- Click the **Payment** tab to configure the Payment Server settings, only if you are using Payment Server to process payments.

Note: Fields in this tab are only enabled if you have installed the Payment Server.

The following window is displayed:

The screenshot shows a dialog box titled "Use Configuration Manager to change the settings for WebSphere Commerce components. You can accept the defaults or make changes to all enabled fields. Click the tabs to switch components." The dialog has five tabs: "Commerce Suite Server", "Instance Data", "Web Server", "Database", and "Payment". The "Payment" tab is selected. The settings are as follows:

Server Cycle Time (seconds):	<input type="text" value="30"/>
Processing Interval (seconds):	<input type="text" value="30"/>
Transaction Timeout (minutes):	<input type="text" value="60"/>
Certificate Password:	<input type="password"/>
Confirm Password:	<input type="password"/>
Payment Option:	<input type="checkbox"/> Enable Message Trace

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Complete the fields as follows:

Server Cycle Time

Accept the default, or type the number of seconds you want the payment background server to wait between polls for work.

Processing Interval

Accept the default, or type the number of seconds you want the payment background server to wait between the execution of consecutive jobs waiting in the queue.

Transaction Timeout

Accept the default, or type the number of minutes you want transactions to stay in a pending state before the WebSphere Commerce Service Provider server checks the database for data that has not been received directly from the Payment Server machine.

Certificate Password

Type the password that has been issued to you by a certifying authority (such as Thwarte). Use this password to access your SET™

certificate files (which are also known as key files). A temporary password is created if you leave this field blank. Refer to "Setting Up IBM Payment Server" on page 50 for more information about SET certificates.

Confirm Password

Type the password again.

Payment Option

Select the **Enable Message Trace** box if you want the payment server to write log entries as it processes transactions. This log file is named eTillTrace. The log file is located in the log file directory as specified on the Instance Data tab.

9. Click **OK**. Your WebSphere Commerce Service Provider instance is configured according to your selections. A window will be displayed to inform you that your database has been created; click **OK**.

Notes:

- a. If you do not type a password in the **Certificate Password** field, a warning window is displayed. You are asked to confirm that you want to use a temporary SET certificate password. Click **Yes** to confirm. If you click **No**, you will return to the **Database** tab.
 - b. If you do not type a password in the **Certificate Password** field, a warning window is displayed. You are asked to confirm that you want to use a blank SET certificate password. Click **Yes** to confirm. If you click **No**, you will return to the **Database** tab.
 - c. If you are using the DB2 Text Extender, ensure you update your DB2 configuration file after you create your DB2 database, by typing in the following command on the DB2 server machine:

```
db2 update db config for database_name using APP_CTL_HEAP_SZ 1024
```

where *database_name* is the database you will use for WebSphere Commerce Service Provider (for example, mser).
10. If you are using Netscape Enterprise Server, you must do the following before you start your instance:
 - a. The Configuration Manager updates the obj.conf file. You must open the Netscape Enterprise Server administration page and apply the changes to each server and then stop and restart the servers to continue.
 - b. You will have to start the instance after you restart the servers.
 11. If you are using DB2 as your database, from the main Configuration Manager window, highlight your WebSphere Commerce Service Provider instance, and click **Start**.
 12. Close the Domino Go Webserver window that is minimized on your Windows Task Bar. This is a Web server process launched by WebSphere Commerce Service Provider and is required to run Configuration Manager in your browser and to listen to port 4444. This has nothing to do with the Web server (Domino Go Webserver or Netscape Enterprise Server) you are using.

Note: If you do not close the Domino Go Webserver window, you cannot access Configuration Manager again. Each time you exit from Configuration Manager, ensure that you close the Domino Go Webserver window as well.

The Next Step

Now that WebSphere Commerce Service Provider is installed and you have configured an instance, you are ready to configure the other supported applications depending on your requirements. Refer to any of the following chapters:

- To configure Oracle to work with WebSphere Commerce Service Provider turn to “Chapter 5. Creating a Schema Using Oracle (1-Tier)” on page 37 to continue for a 1-tier installation. If you are doing a 2-tier installation, turn to “Configuring the Oracle Server Machine” on page 58.
- If you are using DB2, to verify your WebSphere Commerce Service Provider installation, proceed to “Chapter 6. Verifying Your Installation and Configuration” on page 41.
- To change the default passwords for various user IDs, proceed to “Chapter 7. Administrative Tasks” on page 45.
- To set up a remote payment server machine, contact your IBM representative.

Chapter 5. Creating a Schema Using Oracle (1-Tier)

Chapter Prerequisites

In order to complete the steps in this chapter you must have already performed the following steps:

- ___ 1. You have completed all the steps in "Chapter 2. Installing and Configuring ODBC and Oracle" on page 11.
- ___ 2. You have installed and configured WebSphere Commerce Service Provider, as described in "Chapter 3. Installing WebSphere Commerce Service Provider" on page 15 and "Chapter 4. Configuring a WebSphere Commerce Service Provider Instance" on page 25, with the result that a WebSphere Commerce Service Provider instance is created. Note that you will not be able to start this instance yet.

If you want to use Oracle with Product Advisor, refer to the instructions in "Appendix A. Configuring Product Advisor" on page 141.

Creating a WebSphere Commerce Service Provider Database Schema

To create the WebSphere Commerce Service Provider database schema, do the following:

1. At a DOS command prompt, switch to the *drive:\Ibm\NetCommerce3\nc_schema\oracle* directory and review the scripts that are provided with WebSphere Commerce Service Provider. The main script, *schema.cmd*, contains information about the other scripts.

Note: If you want to change a script, create a backup and change the original copy.

2. To create a WebSphere Commerce Service Provider database containing only the required information, type the following in the command prompt window:
`Schema db_user db_password S|N "NCAdmin_password" [log_file]`

where the variable information is defined as follows:

db_user

The user name that connects to Oracle. (The database user logon from the Database tab of Configuration Manager.)

db_password

The password of the user name you specified above. (The database logon password from the Database tab of Configuration Manager.)

S | N The type of server. Type **S** to create the database for a staging server, or type **N** to create the database for a normal (non-staging) server.

NCAdmin_password

The encrypted password of the WebSphere Commerce Service Provider Administrator. The quotation marks are required. To determine the encrypted password, do the following:

- a. From a DOS command prompt on the machine on which you installed WebSphere Commerce Service Provider, switch to the drive on which you installed WebSphere Commerce Service Provider.
- b. Type the following:

```
cd drive:\Ibm\NetCommerce3\bin
nc3_crypt -e nadmin [merchant_key]
```

where *merchant_key* is the merchant key you used when you configured WebSphere Commerce Service Provider. If you used the default merchant key, omit this parameter. This command takes several minutes to complete execution.

- c. The command responds with two character strings, one in ASCII and one in hexadecimal. Copy the hexadecimal character string to the clipboard, and paste it into the proper position in the `schema.cmd` command.

log_file A substring of the name of the file, or files, into which the command writes log records as it populates the database, as follows:

- If the command is being run for a production server, log records are written to `schema_log_file`.
- If the command is being run for a staging server, log records are written to `schema_log_file` and `stage_log_file`.

The default value for *log_file* is `db_user.log`.

The above log files are written to the `drive:\Ibm\NetCommerce3\nc_schema\oracle` directory.

Note: When running this command, you may notice some error messages in the log concerning tables or views that are not available. You can ignore these messages.

3. To populate the database and enable store creation, run the following commands from the same DOS command prompt:

```
cd drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate
chsdata db_name db_user db_password service_name [logfile]
```

where the variable information is defined as follows:

db_name

The database name from the Database tab of Configuration Manager.

db_user

The user name that connects to Oracle. (The database user logon from the Database tab of Configuration Manager.)

db_password

The password of the user name you specified above. (The database logon password from the Database tab of Configuration Manager.)

service_name

The Net Service Name for the database. To check this name, from the NT Start menu, click **Programs**, then click **Oracle for Windows**, and click **Oracle Net8 Easy Config**. Click on **Modify**. The service name should be listed in the Existing Net Services Name box. After noting the service name, click **Cancel**. Do not make any modifications.

log_file The path and file into which you want the command to write log records. The log records are written to a file named `chsdata_log_file`.

4. Stop and start your Webserver (either Domino Go Webserver or Netscape Enterprise Server) and WebSphere Application Server. For Domino Go Webserver, see "Starting and Stopping Domino Go Webserver" on page 143; for

Netscape Enterprise Server, see the Netscape Enterprise Server documentation; for WebSphere Application Server see “Starting and Stopping WebSphere Application Server” on page 144.

5. Start the WebSphere Commerce Service Provider instance.

The Next Step

Now that you have created your Oracle database, turn to “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation.

Chapter 6. Verifying Your Installation and Configuration

The high level steps within this chapter are recommended as a guide to verify that you have successfully installed and configured a functional version of WebSphere Commerce Service Provider by creating a basic store.

Before you begin the verification process, ensure that the following tasks have been completed:

- ___ 1. You have installed either Netscape Enterprise Server 3.6.1 or Domino Go Webserver 4.6.2.61 as your Web server. You may have installed the Web server as a preinstallation requirement, or as part of the WebSphere Commerce Service Provider installation process. If you are using Netscape Enterprise Server 3.6.1, ensure that you have met the preinstallation requirements outlined in “Using Supported Software Not Bundled with WebSphere Commerce Service Provider” on page 4.
- ___ 2. You have installed either IBM DB2 Universal Database 6.1.0.6 and DB2 Text Extenders, or Oracle 8.0.5 as your database. You may have installed the database as a preinstallation requirement, or as part of the WebSphere Commerce Service Provider installation process. If you are using Oracle, ensure that you have met the preinstallation requirements outlined in “Using Supported Software Not Bundled with WebSphere Commerce Service Provider” on page 4.
- ___ 3. You have followed the WebSphere Commerce Service Provider installation instructions to install WebSphere Commerce Service Provider 3.2, Net.Data 6.1, JDK 1.1.7, WebSphere Application Server 2.02 , and Payment Server 1.2.20.3 (optional).
- ___ 4. You have created a WebSphere Commerce Service Provider instance.
- ___ 5. If you are using Oracle, you have performed the steps outlined in “Chapter 2. Installing and Configuring ODBC and Oracle” on page 11.

Verifying that All WebSphere Commerce Service Provider Components are Running

To verify that all WebSphere Commerce Service Provider components are active, do the following:

1. Access the Configuration Manager by doing the following:
 - a. Click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Service Provider Configuration**. The secure Web server starts and a Web browser window appears, launching the Web address, `http://host_name:4444`, where `host_name` is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, `www.ibm.com` is fully qualified).
 - b. When prompted, enter your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin` and your password is `webibm`.
2. Stop and start the instance by highlighting the instance name on the main Configuration Manager window, and clicking **Stop** and **Start**. If you can stop and restart the WebSphere Commerce Service Provider instance without error messages, then it has been created successfully.

To verify that your Web server is active, do the following:

1. On your Windows machine, open your Web browser.
2. Enter the following Web address:

`http://host_name`

where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine.

Note: If you have modified your Web server, you may need to type the name of your Web server's front page after the host name.

3. If you can access the Web server home page, then your Web server is running.

To verify that SSL is enabled, do the following:

1. On your Windows machine, open your Web browser.
2. Enter the following Web address:

`https://host_name`

where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine.

Notes:

- a. Ensure that you enter `https` and *not* `http`.
- b. If you have modified your Web server, you may need to type the name of your Web server's front page after the host name.

If you can access the Web server home page, then SSL has been enabled.

Verifying Functionality

Note: The following steps are high level verification steps to ensure that your WebSphere Commerce Service Provider components have been installed correctly and guidance to verify that WebSphere Commerce Service Provider is functioning correctly. The steps are not intended to ensure that your WebSphere Commerce Service Provider installation works for every configuration.

To verify the functionality of your installed version of WebSphere Commerce Service Provider, you can create a basic store by doing the following:

1. From your Windows machine, open your browser to the following Web address:

`http://host_name/cspsite`

where *host_name* is the fully qualified name of the WebSphere Commerce Service Provider server.

2. Your browser should open to the WebSphere Commerce Suite, Service Provider Edition welcome page. On the task bar on the left, click on **create store**.
3. On the *Create Store* page, Click on the **Create Basic Store** button and follow the directions of the *Create Basic Store* wizard.

The Next Step

Now that you have verified your installation, you can begin setting up your WebSphere Commerce Service Provider site. Depending on your system configuration, you may need to do some or all of the following:

- “Chapter 7. Administrative Tasks” on page 45 provides information on changing the default passwords for various user IDs, accessing the WebSphere Commerce Service Provider Administrator (NCAdmin), and requesting security certificates for your production system.
- “Chapter 10. Enabling SSL for Production on Domino Go Webserver” on page 73 provides information on creating a key ring for production.
- “Chapter 8. Installing Your Database on a Separate Machine” on page 53 provides information on setting up a remote database.

Chapter 7. Administrative Tasks

This chapter describes some of the general administrative tasks you may need to perform as you use WebSphere Commerce Service Provider.

Changing the DB2 Administrator Password

When you install DB2, the user ID and password `db2admin` are automatically created, with administrator authority. As soon as you have completed the installation, you should change the password in two places: in the panel that is displayed when you click **Control Panel**, then **Services**, then **Startup**, and in the properties of the service named `DB2 - DB2DAS00`.

The `db2admin` user ID is not used by WebSphere Commerce Service Provider; it is a default user ID created by DB2. Although it is not used by WebSphere Commerce Service Provider, you should change the `db2admin` password immediately after installing all the WebSphere Commerce Service Provider components to prevent unauthorized access to your database.

Important

If you later uninstall DB2, you must manually delete the `db2admin` user ID after the uninstall has completed. If you do not, you will be unable to reinstall DB2.

Accessing the Configuration Manager

To access the Configuration Manager from your WebSphere Commerce Service Provider machine:

1. Click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Configuration**. A Web browser window appears, launching the Web address:

`http://host_name:4444`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, *www.ibm.com* is fully qualified).

2. When prompted, type your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin`, and your password is `webibm`.

Note: When you exit the Configuration Manager, ensure that you close the Domino Go Webserver window that is minimized on the Windows Task Bar. If you do not close this window, you will not be able to access Configuration Manager again.

To access the Configuration Manager from a Windows NT machine, other than the machine on which WebSphere Commerce Service Provider is installed, do the following:

1. Open your browser and enter the following Web address:

`http://host_name:4444`

where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine.

2. When prompted, type your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin`, and your password is `webibm`.

Updating a WebSphere Commerce Service Provider Instance

If you want to change any of the configuration settings for your WebSphere Commerce Service Provider instance, you can do so from the Configuration Manager.

To update a WebSphere Commerce Service Provider instance using the Configuration Manager:

1. Access the Configuration Manager, as described in the section above.
2. From the list of instances, select the instance that you want to configure.
3. Click **Stop** to stop the instance if you want the changes to be effective immediately.
4. Click **Settings**. You can then select any of the five tabs to update your instance configuration:
 - **Commerce Suite Server**
 - **Instance Data**
 - **Webserver**
 - **Database**
 - **Payment**

For more information on the fields on each of these tabs, you can see:

- “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25
 - The WebSphere Commerce Service Provider online help
 - The **Help** push button on each tab
5. When you have made all necessary changes to your instance, click **OK** to return to the main Configuration Manager window.

Note: When you exit the Configuration Manager, ensure that you close the Domino Go Webserver window that is minimized on the Windows Task Bar. If you do not close this window, you will not be able to access Configuration Manager again. This window only appears if you launch Configuration Manager from the WebSphere Commerce Service Provider menu on your WebSphere Commerce Service Provider machine.

6. If you stopped the instance in step 3, restart it by clicking **Start**. The changes you made take effect when you restart the instance.

If you are using Netscape Enterprise Server, you must apply the changes of the Netscape Enterprise Server configuration to both the secure and non-secure server. You need to stop Netscape Enterprise Server servers, apply the changes, and then restart them in accordance with the Netscape Enterprise Server documentation.

Changing Your Configuration Manager Password

To protect the configuration settings for your WebSphere Commerce Service Provider instance that you defined during installation (or updated at any other time), change the default password of the Configuration Manager by typing the following on a DOS command window:

```
cd drive:\Ibm\NetCommerce3\server\bin
htadm.exe -deluser drive:\Ibm\NetCommerce3\server\bin\admin.pwd webadmin
htadm.exe -adduser drive:\Ibm\NetCommerce3\server\bin\admin.pwd
                    userid new_passwd real_name
```

Note: The `htadm -adduser` command must be typed on one line. It is split here for presentation purposes only.

where *userid* is your user ID, *new_passwd* is your new password, and *real_name* is your real name.

Opening WebSphere Commerce Service Provider Administrator

To launch the Administrator:

1. Ensure that the WebSphere Commerce Service Provider instance is started. You can start the instance from Configuration Manager or the NT Services window which you access from the Control Panel.)
2. Start the Administrator by clicking **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Administrator**.
3. Make the following changes to your Netscape browser settings:
 - Set the **Memory Cache** and **Disk Cache** to values greater than zero.
 - Enable the **Java** and **JavaScript** languages.
 - For variable-width fonts, select **Times New Roman 12** point. For fixed-width fonts, select **Courier 10** point. (Other fonts and font sizes may affect the layout of the Administrator forms on your screen. If you want to use something different, you should experiment to see which combination gives the best results.)
 - Enable **Once per Session** for **Document in cache is compared to document on network**.
4. For optimal results, make the following adjustments to your computer settings. From the Windows **Start** menu, select **Settings**, then select **Control Panel**, then select **Display**. In the **Display Properties** notebook, click the **Settings** tab. Make the following changes:
 - Desktop Area: Select **1024 x 768 pixels** or higher. The program will run on any resolution setting, but higher settings produce clearer screen images.
 - Color Palette: Select **256 Colors** or greater.
 - Font Size: Select **Small Fonts**.
5. Maximize your browser window.
6. You will see a series of warnings from the browser about the secure connection that is being established. Accept these warnings.
7. When the Administrator login screen appears, type the user ID and default password. Initially, the user ID and password are both set to `ncadmin`. The Administrator home page appears.

Note: Never use the **Reload** button at any time while in the Administrator. If you use the **Reload** button after you have entered data on an Administrator form, the data is lost.

Determining the Encrypted WebSphere Commerce Service Provider Administrator Password

For security reasons, the Administrator system-assigned password is encrypted. If you need to determine the encrypted password:

1. From a command prompt on the machine where you installed WebSphere Commerce Service Provider, switch to the drive on which you installed WebSphere Commerce Service Provider.

2. Type the following commands:

```
cd drive:\Ibm\NetCommerce3\bin
nc3_crypt -e nadmin [merchant_key]
```

where *merchant_key* is the merchant key you used when you configured WebSphere Commerce Service Provider. If you used the default merchant key, omit this parameter. Note that the command responds with two character strings, one in ASCII and one in hexadecimal format.

Updating the WebSphere Commerce Service Provider Administrator Password

If you are using the database creation scripts from a command line, the administrator will not be able to log in with the Administrator password unless the *NCAdmin_password* is included in double quotes. These scripts are:

- schema.cmd
- demomall.cmd
- grocery.cmd
- bus2bus.cmd
- tutorial.cmd
- remote_schema.cmd

If you encounter a password problem while logging into the Administrator, following these steps to correct the problem:

1. From a DB2 command window, connect to the database by typing the following:

```
db2 connect to db_name
```
2. Verify that the SHOPPER table Administrator password matches the nc3_crypt encrypted string (HEX) by typing the following command:

```
db2 select sh1pswd from shopper where shlogid='nadmin'
```
3. Type the following command:

```
nc3_crypt -e nadmin (Encrypted string (ASCII))
```

The output from the command should be as follows:

```
IBM*
Licensed Materials - Property of IBM
5697-A16
(C) Copyrights by IBM and by other(s) 1978, 1996. All Rights Reserved.
* Trademark of International Business Machines Corp.
Encrypted string (ASCII): KDRiGCv9hAM=
Encrypted string (hex): 4B4452694743763968414D3D
```

Following this procedure should produce the same results as above except for the padding. If this is not the case, perform a DB2 update to correct the problem. For example, type the following command on one line:

```
DB2 update SHOPPER set SHLPSWD=x'4B4452694743763968414D3D' where SHLOGID='ncadmin'
```

Please note that the value of SHLPSWD should be the same as the encrypted string (HEX) given above.

Changing the WebSphere Commerce Service Provider Administrator Password

After you open the Administrator with the system-assigned password (ncadmin), you should change the default password immediately to ensure that unauthorized individuals cannot access the program or the database.

To change your password using the Administrator, do the following:

1. From the Site Manager, click **Access Control**.
2. On the form that appears, ensure that all the fields are blank. If they are not, click **Clear**.
3. Click **Search**. A list appears in the bottom frame.
4. Select ncadmin from the list.
5. In the **Password** field, type a new password. Only letters and numbers are allowed for a password. You cannot use any special characters, such as an ampersand (&).
6. In the **Password Confirmation** field, retype the new password.
7. In the appropriate fields, type your last name and your first name. You can also fill in other fields.
8. Click **Save**.
9. Click **OK** in the confirmation window.
10. Close and then open your browser again.

Connecting to the Domino Go Webserver Home Page

If you are using the Domino Go Webserver, follow the steps below to connect to the Domino Go Webserver home page.

1. Click **Start**, select **Settings**, and then **Control Panel**.
2. In the Control Panel window, double-click the **Services** icon.
3. In the Service menu, look for Lotus Domino Go Webserver and ensure that its status shows as started. If it does not, select it and click **Start**.
4. Start your Web browser, disable and clear all disk and memory cache, and disable all proxy servers. (In some browsers, proxy servers are called *socks servers*.)
5. To access the Web server home page, open your browser and type the following Web address:

```
http://host_name
```

where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine.

If you have customized your Web server, you may be required to type the name of your Web server's home page after the host name.

You have now successfully accessed the Web server front page.

Changing Your Domino Go Webserver Password

If you are using Domino Go Webserver, follow the steps below to change your Web server password for the user ID webadmin.

1. Access the Domino Go Webserver home page by opening your browser and typing the following Web address:

`http://host_name`

where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine.

If you have customized your Web server, you may be required to type the name of your Web server's home page after the host name (for example, `http://host_name/myhomepage` where *host_name* is the fully-qualified host name of your WebSphere Commerce Service Provider machine).

2. Click **Configuration and Administration Forms**.
3. When prompted, type the default Web server administration user ID webadmin and password webibm. (If you have already changed these defaults, use the new user ID and password.) Click **OK**.
4. To change your password, do the following:
 - a. Under **Administration of Users**, click **Change password**.
 - b. In the **User Name** field, type webadmin.
 - c. In the **Password** field, type a new password, then retype it in the **Confirm password** field.
 - d. Click **Apply**.
 - e. Click **Restart server**.
 - f. Type your new password.
 - g. Click **Configuration Page**.

You have now successfully changed your Domino Go Webserver administration password.

Setting Up IBM Payment Server

As part of the Secure Electronic Transaction (SET) functions, you can use Payment Server 1.2.20.3. You use a utility called `eecertreq.exe`, which is provided by Payment Server, to request a SET merchant certificate, which you need for conducting SET transactions. A separate merchant certificate is required for each brand of payment card that your store accepts.

The information provided here is merely intended as an overview of the Payment Server process and requirements. Additional instructions on SET, Payment Server, and the Configuration Manager are provided in the online information. For information about using the `eecertreq` utility, refer to the *IBM Payment Server Administrator's Guide* in the directory where the IBM Payment Server is installed; the file is named `eTillAdmin.pdf`.

To set up IBM Payment Server:

1. Arrange for an acquiring institution to perform payment processing. The acquiring institution will provide you with configuration details and information on how to obtain a certificate.

2. Obtain a merchant certificate, and generate a private and public key pair using the `eecertreq` utility provided by Payment Server. Make sure you use a valid SET certificate file password, as stated below.
3. Configure SET using the information provided by the acquiring institution.

Changing the SET Certificate File Password

You must use a password to protect your SET certificate file. If you performed a WebSphere Commerce Service Provider custom install, you are asked to specify a password for the SET certificate file during installation of WebSphere Commerce Service Provider. If you performed a typical WebSphere Commerce Service Provider install, you are assigned a certificate file password that is the same as your database logon password. If you have migrated from an earlier version of Net.Commerce Hosting Server, your password is no longer valid.

To change your SET certificate password, you should do so before using the `eecertreq` utility. You can change the SET certificate file password on the Payment tab of the Configuration Manager. If you want to change your SET certificate password after you have received your SET certificate, you must make the change in the `eecertreq` utility and in the WebSphere Commerce Service Provider Configuration Manager.

When you use the `eecertreq` utility, make sure you use the same SET certificate password that you specified in the Configuration Manager.

Running the eecertreq Utility

When you run the `eecertreq` utility according to the instructions provided in the Payment Server documentation, the files `bci.db`, `cr1.db`, `key.db`, and `keypair.db` are created in the installation directory that you specify. These files are referred to as the "key files" in the *IBM Payment Server Administrator's Guide*. You must move these files to the following directory before running WebSphere Commerce Service Provider with Payment Server:

```
drive:\Ibm\NetCommerce3\instance\instance_name\data
```

Later, if you want to add certificates, you can run the `eecertreq` utility again to add the new certificates to the existing key files.

Requesting a Production Key Ring Certificate

If you are using Domino Go Webserver, a security key ring was automatically created during installation, and is for testing purposes only. You will need a production key ring for the site that you will create. This requires a production certificate to be issued by a certifying authority such as Equifax or VeriSign. It can take several days for this certificate to arrive, so you may want to submit your request now. Turn to "Requesting a Secure Certificate from a Certifying Authority" on page 75 for instructions.

Using Domain Name Redirection

By using a domain name redirection or a virtual host name rather than the true server host name, you can make your server more secure by hiding its file structure and also increase the professional look of your Web site. For example, use `www.abc.com` instead of `www.machine_name.com/store_name`.

To create a domain name redirection or a virtual host name, do the following:

- Consult your network administrator to obtain a useful domain name for your Web server machine, along with its IP address (for example, `www.abc.com`).
- If you are using Domino Go Webserver, redirect your store's root path to your new domain by adding the following line in your Web server's configuration file, `drive:\WINNT\httpd.cnf`:
`Pass /* driver:\WWW\HTML\store_name* www.abc.com`
- If you are using Netscape Enterprise Server, do the following:
 1. From the Netscape Enterprise Server administration home page, choose the port 80 Server Manager, and select **Content Management**.
 2. Click the **Primary Document Directory** tab, and change the document root path to your store's home page location.
 3. Select **Software Virtual Servers**.
 4. Type the host Web address with the redirection name, for example, `http://www.abc.com` for the customer home page that you want to set up.
 5. Type the full path to the home page you want to use for this virtual server. The path must include your store's home page HTML file (for example, `index.html`).
 6. Click **OK**.
 7. Click **Save and Apply** to apply your changes.
 8. Restart your Netscape Enterprise Server Web server in accordance with Netscape documentation. Also restart WebSphere Commerce Service Provider, and WebSphere Application Server. See "Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components" on page 143 for information on starting WebSphere Commerce Service Provider and WebSphere Application Server.

Chapter 8. Installing Your Database on a Separate Machine

To reduce the load on your WebSphere Commerce Service Provider server, you may wish to install your DB2 or Oracle database on a separate machine from where you have installed WebSphere Commerce Service Provider.

There are two basic configurations for using DB2 UDB or Oracle with WebSphere Commerce Service Provider. In the first scenario, the 1-tier environment, both the DB2 UDB or Oracle database server and WebSphere Commerce Service Provider are installed on the same machine. This configuration is suitable for implementations where web site usage is not high enough to fully utilize the capacity of the server. For sites anticipating high usage levels, overall performance can be increased by using separate machines for the DB2 UDB or Oracle server, and WebSphere Commerce Service Provider and its components, the 2-tier environment.

The Two-Tier Environment

In a two-tier environment, WebSphere Commerce Service Provider and its components including the DB2 or Oracle client reside on one machine. The DB2 UDB or Oracle server along with the DB2 UDB or Oracle database resides on a separate machine. In this document, the two machines are referred to as the *WebSphere Commerce Service Provider machine*, and the *DB2 server machine* or the *Oracle server machine*, respectively. The components for each machine are listed below.

- WebSphere Commerce Service Provider machine:
 - DB2 Universal Database 6.1.0.6 (Administration Client) or Oracle Client
 - DB2 UDB Text Extender 6.1.1 client (optional)
 - A web server, either Domino Go Webserver or Netscape Enterprise Server
 - Net.Data 6.1
 - WebSphere Application Server 2.0.3.1
 - Payment Server 1.2.20.3 (optional)
 - WebSphere Commerce Service Provider 3.2
- DB2 or Oracle Server machine:
 - On DB2 server machine, DB2 UDB Text Extender 6.1.1 server (optional)
 - WebSphere Commerce Service Provider database

In a two-tier installation, the WebSphere Commerce Service Provider components are typically installed on the WebSphere Commerce Service Provider machine, but with the client portion of the database management system installed. When installing DB2 UDB or Oracle in a two-tier installation, there are several additional steps relative to a one-tier installation that are required on the UDB or Oracle server machine and the WebSphere Commerce Service Provider machine before you create a WebSphere Commerce Service Provider instance. These additional steps are required to configure the TCP/IP communications between the WebSphere Commerce Service Provider machine and the DB2 or Oracle server machine, and to set up the WebSphere Commerce Service Provider database on the DB2 or Oracle server machine.

For a two-tier installation, since you are installing your WebSphere Commerce Service Provider database on a machine that is separate from your WebSphere Commerce Service Provider machine, the installation process is more complex than for a one-tier installation. For a two-tier configuration, you install most of the required components on the WebSphere Commerce Service Provider machine, and the DB2 UDB or Oracle server, the database, and optionally, the DB2 Text Extenders on the DB2 or Oracle server machine.

To install and setup the WebSphere Commerce Service Provider components using DB2 in a 2-tier configuration, see “2-tier DB2 Universal Database Set Up”.

To install and setup the WebSphere Commerce Service Provider components using Oracle in a 2-tier configuration, see “2-tier Oracle Set Up” on page 57.

2-tier DB2 Universal Database Set Up

This section describes the procedures for installing and setting up DB2 Universal Database in a 2-tier configuration.

Important Note on Navigating the Information

Note that in the following sections, you will navigate through the other chapters in the book to install various WebSphere Commerce Service Provider components. It is important to remember that after you install a component to return to this section of the book and continue with the navigation contained in this chapter.

Installing Components on the WebSphere Commerce Service Provider Machine

Complete the following high-level steps on your WebSphere Commerce Service Provider machine:

1. Perform a custom installation as described in “A Custom Install” on page 19. You should have included all basic WebSphere Commerce Service Provider components including your web server, either Domino Go Webserver or Netscape Enterprise Server, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider.
2. Install the DB2 Administration Client. This is automatically installed if you select the Remote Database check box while performing a Custom Installation as described in “A Custom Install” on page 19.
3. Install the DB2 Extenders client including the DB2 Text Extender. This is automatically installed if you select the Remote Database check box while performing a Custom Installation as described in “A Custom Install” on page 19.

Installing the Components On the Remote DB2 Server Machine

To set up your DB2 database on the remote DB2 server machine, you must install the following components on that machine:

1. Install DB2 Universal Database Enterprise Edition from the IBM DB2 Universal Database 6.1.0.6 CD. To do this, run `setup.exe` from the root of the CD. Use the

list of DB2 components in “Quick Reference to the Components Installed During a Typical Install” on page xii as a guide to install DB2.

2. Install DB2 Text Extenders server from the DB2 Extenders 6.1.1 CD. To do this, run `\db2ext\winnt95\setup.exe` on the Text Extenders CD and when prompted, accept the default components for installation.

Updating your DB2 Trial License

When you install DB2, a trial DB2 license gets installed. When you install WebSphere Commerce Service Provider in a 1-tier scenario, the trial license gets updated automatically. In 2-tier scenario, WebSphere Commerce Service Provider is not installed on the remote DB2 server machine, so the trial license does not get updated on that machine. After the trial license expires on your DB2 server machine, you receive messages that your license is not valid, or that it will expire in several days. To update the license manually on the DB2 server machine, do the following:

- On your IBM DB2 Universal Database 5.0 CD, find the DB2 license information file `db2udbee.lic` in the directory `\db2\license`.
- Copy this file to your DB2 server machine in the following directory:

```
drive:\IBM\sql1lib\bin
```

- On your DB2 server machine, open a DB2 Command Window, switch to the following directory, and run the DB2 license utility:

```
cd \drive:\IBM\sql1lib\bin
db2licm.exe db2udbee.lic
```

You then need to stop and restart the DB2 server using the following commands:

```
db2 force applications all
db2stop
db2start
```

Your DB2 license should be updated.

Creating the Remote Database

To create the remote database, perform the following on the WebSphere Commerce Service Provider machine (DB2 client machine):

1. Copy the `drive:\Ibm\NetCommerce3\bin\netcpswd.dll` file on the WebSphere Commerce Service Provider machine to the `drive:\ibm\sql1lib\function` directory on the remote database server machine.
2. Start Configuration Manager as described in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.
3. On the **Database** tab of Configuration Manager, select the **Use remote database** check box to create the remote database. The default database name for WebSphere Commerce Service Provider is `mser`.
4. Type in the the fully-qualified DB2 server host name on which the remote database is located, in **Remote Database location**.

Type in the node name for the DB2 server machine in the **Remote Database node name** field. The node name is a unique name of your choice that DB2 will use to identify the TCP/IP node. To ensure that your name is unique, you can enter the following command using your DB2 database logon ID and look for the name in the response:

```
db2 list node directory
```

If the name does not appear in the list, you can use it as the node name.

5. Create a WebSphere Commerce Service Provider instance as described in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.
6. Check the WebSphere Commerce Service Provider log files in the `drive:\Ibm\NetCommerce3\instance\instance_name\logs` directory for any errors (*instance_name* is your WebSphere Commerce Service Provider instance; the default instance is `mser`).

Once you have created your remote database, you can proceed to “Chapter 6. Verifying Your Installation and Configuration” on page 41 to verify your installation. If you have a preexisting database to which you wish to remotely connect, continue to the next section below.

Connecting to a Preexisting Remote Database

If you have a preexisting remote database, you must perform the following manual steps to connect to the database from your WebSphere Commerce Service Provider machine. On your WebSphere Commerce Service Provider machine, perform the following:

1. In a DB2 command window, catalog the TCP/IP node and remote database by typing the following :

```
db2 catalog tcpip node node_name remote host_name server port_num
db2 catalog db db_name at node node_name
```

where the variable information is defined as follows:

node_name

A unique name of your choice that DB2 will use to identify the TCP/IP node. To ensure that your name is unique, you can enter the following command using your DB2 database logon ID and look for the name in the response:

```
db2 list node directory
```

If the name does not appear in the list, you can use it as the node name.

host_name

The host name of the machine on which the WebSphere Commerce Service Provider database resides.

port_num

The DB2 connection port number. The default is 50000.

db_name

The name of your WebSphere Commerce Service Provider database.

2. Click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Server Suite Configuration**. The Web server starts and a Web browser window appears, launching the `http://host_name:4444` address, where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, `www.ibm.com` is fully qualified).
3. On the Configuration Manager window for your WebSphere Commerce Service Provider instance, click the **Database** tab.
4. In the **Database Name** field, type the name of your remote database and select the Remote Database check box. In the **Remote Database Location** field, type the host name that you used in the above `db2 catalog tcpip node` command.

In the **Remote Database Node Name** field, type the node name that you used in the above db2 catalog tcpip node command.

5. Click **OK**.

2-tier Oracle Set Up

This section describes the procedures for setting up Oracle in a 2-tier configuration.

You should be an Oracle Data Base Administrator to perform the following steps as you will require a significant amount of Oracle administration knowledge.

Important Note on Navigating the Information

Note that in the following sections, you will navigate through the other chapters in the book to install various WebSphere Commerce Service Provider components. It is important to remember that after you install a component to return to this section of the book and continue with the navigation contained in this section. For a 2-tier installation, ignore *The Next Step* sections at the end of the other chapters in the book.

Installing Your Components in a 2-Tier Installation

Install the Oracle server on your remote Oracle server machine in accordance with installation instructions from Oracle.

Complete the following high-level installation steps on your WebSphere Commerce Service Provider (Oracle client) machine:

1. Install the Oracle client in accordance with installation instructions from Oracle.
2. Perform a custom installation as described in “A Custom Install” on page 19. You should include all basic WebSphere Commerce Service Provider components including your web server, either Domino Go Webserver or Netscape Enterprise Server, Net.Data, WebSphere Application Server, and WebSphere Commerce Service Provider.
3. Install the Oracle product components, including the JDBC driver. See “Installing and Configuring Oracle” on page 11 for information on setting up the JDBC drivers.
4. Configure the ODBC driver as described in “Configuring the ODBC Driver” on page 12.
5. Verify your ODBC connectivity as described in “Verifying Connectivity” on page 12

On your Oracle server machine, install the Oracle components including the JDBC driver, as described in “Installing and Configuring Oracle” on page 11.

Create a WebSphere Commerce Service Provider instance as described in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25. Ensure that you enable the remote machine check box, and type in the fully qualified remote Oracle server machine name when you fill in the fields for the **Database** tab. Do not start the instance as you will not be able to start it yet. Ensure that you select Oracle as your DBMS when you configure WebSphere Commerce Service Provider.

If you are using Domino Go Webserver, enable SLL on your WebSphere Commerce Service Provider machine as described in “Appendix C. Enabling SSL on Domino Go Webserver for Testing” on page 147

Configuring the Oracle Server Machine

Perform the following steps on the Oracle server machine:

1. Create an Oracle table space and an Oracle database user. Grant necessary privileges to the user, and create an Oracle schema for the user.
2. Edit the following files and check that they contain the correct SID and the correct host name for the Oracle server machine:
 - *drive:\odbc_install_path\odbc.ini*
 - *drive:\\$ORACLE_HOME\Net80\Admin\listener.ora*
 - *drive:\\$ORACLE_HOME\Net80\Admin\tnsnames.ora*
3. Start the Oracle Server Manager and Listener from command line.

Configuring the Oracle Client Machine

Perform the following steps on the Oracle client machine where you have installed WebSphere Commerce Service Provider components:

1. Configure the ODBC driver as described in “Configuring the ODBC Driver” on page 12.
2. Create an NT user that has the same name as the remote Oracle server user.
3. Copy the *drive:\\$ORACLE_HOME\Net80\Admin\tnsnames.ora* file on the remote Oracle server machine to the same location on the Oracle client machine. If the file exists on the client machine, replace it with the file from the server.
4. To create the WebSphere Commerce Service Provider database schema, do the following:
 - a. Log on to NT, using the Oracle user that you will specify on the **Database** tab when you configure WebSphere Commerce Service Provider. The Oracle user is the NT user ID that is the Oracle owner.
 - b. Switch to the *drive:\Ibm\NetCommerce3\nc_schema\oracle* directory, and review the scripts that are provided with WebSphere Commerce Service Provider. The script, *remote_schema.cmd*, contains information about how to use the other scripts.
 - c. If you want to change a script, create a backup, and change the original copy.
 - d. If you want to create a default WebSphere Commerce Service Provider database (mser), type the following in a DOS window:

```
remote_schema db_user db_password S | N "NCAdmin_password"  
host_name [log_file]
```

Note: When running this script, you may notice some error messages in the log concerning tables or views that are not available. You can ignore these messages.

For the above script, the variable information is defined as follows:

db_user

The user name that connects to Oracle. (The database user logon from the Database tab of Configuration Manager.)

db_password

The password of the user name you specified above. (The database logon password from the Database tab of Configuration Manager.)

S | N The type of server. Type **S** to create the database for a staging server, or type **N** to create the database for a normal (non-staging) server.

NCAAdmin_password

The encrypted password of the WebSphere Commerce Service Provider Administrator in hexadecimal representation. The quotation marks are required. To determine the encrypted password, do the following:

1) While logged on as the Oracle user ID, type the following from a shell prompt window on the machine on which you installed WebSphere Commerce Service Provider:

```
cd drive:\Ibm\NetCommerce3\bin
```

```
nc3_crypt -e ncaadmin [merchant_key]
```

where *merchant_key* is the merchant key you used when you configured WebSphere Commerce Service Provider. If you used the default merchant key, omit this parameter.

2) The command responds with two character strings, one in ASCII and one in hexadecimal. Copy the hexadecimal character string to the clipboard, and paste it into the proper position in the `remote_schema.cmd` script.

host_name

The fully qualified remote Oracle server machine name (for example, `my_host.my_domain.ibm.com`).

log_file A substring of the name of the file, or files, into which the command writes log records as it populates the database, as follows:

- If the command is being run for a production server, log records are written to `schema_log_file`.
- If the command is being run for a staging server, log records are written to `schema_log_file` and `stage_log_file`.

The default value for *log_file* is `db_user.log`.

The above log files are written to the `drive:\Ibm\NetCommerce3\nc_schema\oracle` directory.

e. To populate the database, change to the `drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate` directory and run the `chsdata.cmd` script:

```
cd drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate
chsdata db_name user_name password host_name [log_file]
```

where the variable information is defined as follows:

db_name

The database name from the Database tab of Configuration Manager.

db_user

The user name that connects to Oracle. (The database user logon from the Database tab of Configuration Manager.)

db_password

The password of the user name you specified above. (The database logon password from the Database tab of Configuration Manager.)

host_name

The fully qualified remote Oracle server machine name.

log_file

The path and file into which you want the command to write log records. The log records are written to a file named *chsdata_log_file*.

- f. Stop and start your Webserver (either Domino Go Webserver or Netscape Enterprise Server) and WebSphere Application Server. For Domino Go Webserver, see “Starting and Stopping Domino Go Webserver” on page 143; for Netscape Enterprise Server, see the Netscape Enterprise Server documentation; for WebSphere Application Server see “Starting and Stopping WebSphere Application Server” on page 144.
- g. Start the WebSphere Commerce Service Provider instance.

You can also populate the database with information for the sample mall that is provided with WebSphere Commerce Service Provider. More information on the sample mall is provided in the WebSphere Commerce Service Provider online help. Check your logs to ensure there are no fatal errors.

If you encounter any errors when running the scripts in step 4 on page 58, or you want to refresh the database on the Oracle server machine, you must:

1. Enter Server Manager command line:
`SVRMGRL system/manager`
2. Connect to internal (system DB) using the following command:
`CONNECT INTERNAL;`
3. Drop the Oracle user using the following command:
`DROP USER oracle_user CASCADE;`
4. Recreate your Oracle user and schema as documented in “Configuring the Oracle Server Machine” on page 58.
5. Repeat step 4 on page 58 on your WebSphere Commerce Service Provider machine.

Chapter 9. Configuring eNetwork Dispatcher 2.0.0.3

This chapter describes how to configure eNetwork Dispatcher for use with WebSphere Commerce Service Provider. Read this chapter if your system configuration includes multiple Web server machines for enhanced load sharing. The chapter assumes that you have eNetwork Dispatcher installed as described in the eNetwork Dispatcher User's Guide (document number GC31-8496). Before using the information in this section, it is highly recommended that you familiarize yourself with the content of the eNetwork Dispatcher User's Guide.

WebSphere Commerce Service Provider supports eNetwork Dispatcher 2.0.0.3.

The following configurations have been tested on Windows NT:

- Domino Go Webserver 4.6.2.61 with IBM DB2 Universal Database 6.1.0.6
- Domino Go Webserver 4.6.2.61 with Oracle 8.0.5
- Netscape Enterprise Server 3.6.1 with IBM DB2 Universal Database 6.1.0.6

All the above configurations used eNetwork Dispatcher 2.0.0.3 and two WebSphere Commerce Service Provider machines on Windows NT.

Chapter Prerequisites

Before proceeding with the steps in this chapter to configure eNetwork Dispatcher for use with WebSphere Commerce Service Provider, ensure that you have completed the following:

- ___ 1. A 2-tier installation of WebSphere Commerce Service Provider that is configured to use a remote database as described in "Chapter 8. Installing Your Database on a Separate Machine" on page 53.
- ___ 2. Installation of any additional WebSphere Commerce Service Provider machines to the cluster as required to meet your anticipated WebSphere Commerce Service Provider load requirements. If you are using DB2, you will need to catalog the remote database as described in the next section.
- ___ 3. Installation of eNetwork Dispatcher 2.0.0.3 on an NT machine that is connected to the cluster that is dedicated to eNetwork Dispatcher. The installation procedure for eNetwork Dispatcher is described in the eNetwork Dispatcher User's Guide (document number GC31-8496).
- ___ 4. Creation of a WebSphere Commerce Service Provider instance for each WebSphere Commerce Service Provider machine in the cluster. Each instance should be configured to use the same remote database. See "Chapter 4. Configuring a WebSphere Commerce Service Provider Instance" on page 25 for information on configuring instances. *Do not start any of the instances until you have reviewed step 5 below.*
- ___ 5. In consultation with your System Administrator, determine the WebSphere Commerce Service Provider machine (the source machine) whose file system you wish to share with other WebSphere Commerce Service Provider machines in the eNetwork Dispatcher cluster.

Ensure that you start the WebSphere Commerce Service Provider instance for the source machine first, before starting the instances on the other WebSphere Commerce Service Provider machines in the cluster. Otherwise,

the directories containing the Sample Mall will reside on a machine other than the source machine, and you will not be able to view the Sample Mall from the other machines.

Cataloging Your Remote DB2 Databases

Before you begin the steps in this section you should have created your WebSphere Commerce Service Provider instance on *each* WebSphere Commerce Service Provider machine, as described in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25. All WebSphere Commerce Service Provider instances should be configured to use the same remote database. Note that if the database already exists, you need to catalog it manually as shown below.

For DB2, a remote database can only be created at *one* WebSphere Commerce Service Provider machine, and can be created only *once*. Create the remote database from one WebSphere Commerce Service Provider machine. After creating the remote database, catalog the remote node and database manually from each of the remaining WebSphere Commerce Service Provider machines. Issue the following DB2 commands from a DB2 command window:

```
db2 catalog tcpip node node_name remote remote_host_name
      server port_num
db2 catalog db db_name at node node_name
db2 catalog db db_name as Rdb_name at node node_name
```

where the variable information is defined as follows:

node_name

A unique name of your choice that DB2 will use to identify the TCP/IP node. To ensure that your name is unique, you can enter the following command using your DB2 database logon ID and look for the name in the response:

```
db2 list node directory
```

If the name does not appear in the list, you can use it as the node name.

host_name

The host name of the machine on which the WebSphere Commerce Service Provider database resides.

port_num

The DB2 connection port number. The default is 50000.

db_name

The name of your WebSphere Commerce Service Provider database.

Configuring the eNetwork Dispatcher Server

As documented in the eNetwork Dispatcher User’s Guide, you will require at least two valid IP addresses for the Dispatcher machine:

- An IP address specifically for the Dispatcher machine.

This IP address is the primary IP address of the Dispatcher machine and is called the non-forwarding address (NFA). This is by default the same address as that returned by the eNetwork Dispatcher hostname command. Use this address to connect to the machine for administrative purposes, such as performing remote configuration using Telnet or accessing the SNMP subagent. If the Dispatcher machine can ping other machines on the network, you do not need to do anything further to set up the nonforwarding address.

- One IP address for each eNetwork Dispatcher cluster.
A cluster address is an address that is associated with a host name (such as `www.yourcompany.com`). This IP address is used by a client to connect to the WebSphere Commerce Service Provider servers in a cluster. This is the address that is load balanced by the Dispatcher.
- The following instructions assume that the eNetwork Dispatcher machine and WebSphere Commerce Service Provider machines in your cluster use the same subnet (that is, the machines are on the same TCP/IP ring).

Windows NT Only: Ensure that IP forwarding is not enabled for the TCP/IP protocol. (See your Windows NT TCP/IP configuration.)

For more information, refer to the eNetwork Dispatcher User's Guide.

With WebSphere Commerce Service Provider, you need to set up eNetwork Dispatcher on a dedicated Windows NT machine. This configuration has been tested for use with WebSphere Commerce Service Provider. The configuration instructions provided below apply to the Windows NT platform.

On each eNetwork Dispatcher server you have, do the following:

1. Log in to your eNetwork Dispatcher Windows NT machine with a user ID that has Administrator authority.
2. Start the eNetwork Dispatcher server, by doing the following:
In Windows NT, click **Start**, point to **Settings**, click **Control Panel**, click the **Services** icon, and then click **IBM Network Dispatcher**. Click **Start**.
3. Start the eNetwork Dispatcher executor, by typing the following command on a DOS command prompt:
`ndcontrol executor start`
4. Set the Maximum Transfer Unit (MTU) for your eNetwork Dispatcher server. MTU is the maximum TCP/IP packet size in bytes. Type the following command:
`ndcontrol e xm 32 MTU_size`

where *MTU_size* is the maximum TCP/IP packet size in bytes. By default, your eNetwork Dispatcher server is set up to handle an MTU size of 1500 bytes. Depending on your application, you may need to increase this setting, especially if you are transferring large graphic images in your application. Consult your Network Administrator to obtain the appropriate MTU size for your requirements.

Note: You must set up your eNetwork Dispatcher server and each of your WebSphere Commerce Service Provider machines with the *same* TCP/IP packet size. Setting up your WebSphere Commerce Service Provider machines is described in the next section.

5. Set up a cluster host name, so that the eNetwork Dispatcher server can accept all packets and forward them to the appropriate server. To do this, type the following on a command line:
`ndconfig network_interface alias cluster_hostname netmask 255.255.0.0`

where *network_interface* is your network interface type (for example, for token ring `tr0`, or for ethernet `en0`), and *cluster_hostname* is the fully qualified host name that shoppers use to access your Web site.

6. Add the cluster address by typing the following command:

```
ndcontrol cluster add cluster_hostname
```

where *cluster_hostname* is the host name you used in step 5 on page 63.

7. Add the port numbers that the eNetwork Dispatcher server will listen to, by typing the following command:

```
ndcontrol port add cluster_hostname:80+443
```

where *cluster_hostname* is the host name you used in step 5 on page 63. If you want to add more port numbers, type the command again, substituting the new port numbers for the port numbers (80+443) that you have already added.

8. For each port number you have added, you must add each WebSphere Commerce Service Provider server to the port, so that eNetwork Dispatcher can dispatch to the appropriate server. You may want to define and configure several servers to a port on a cluster. To do this, type the following command for *each* port number:

```
ndcontrol server add cluster_hostname:port_num:server_hostname
```

where the variables are defined as follows:

cluster_hostname

The fully qualified host name that shoppers use to access your Web site.

port_num

The port number(s) you added in step 7.

server_hostname

The host name of your WebSphere Commerce Service Provider machine(s).

Note: The instructions above show you how to configure eNetwork Dispatcher using the command line utility called `ndcontrol`. An alternate way to configure eNetwork Dispatcher is to use the Network Dispatcher Graphical User Interface (GUI). To start the GUI, first make sure the eNetwork Dispatcher sever is running (refer to step 2 on page 63). To run the GUI, click **Start**, click **Programs**, and then click **Network Dispatcher** on your Windows NT machine.

If you use the GUI, remember that you must enter the `ndconfig` and `ifconfig` commands (see step 5 on page 63) from the command line before starting the GUI. For more information on using the GUI, see the eNetwork Dispatcher User's Guide.

Configuring the WebSphere Commerce Service Provider Machines

To set the MTU value for your WebSphere Commerce Service Provider machines, do the following for *each* WebSphere Commerce Service Provider machine:

1. Right-mouse click the **Network Neighborhood** icon on your desktop.
2. From the drop-down list, select **Properties**.
3. Select the **Adapters** tab.
4. Select your Network Adapter card.
5. Click the **Properties** button.
6. Select the **Advanced** tab

7. On the window that appears, in the **Maximum Transmit Frame Size** field, enter the maximum TCP/IP packet size in bytes. This value must be the same as the *MTU_size* value you specified in step 4 on page 63 above.
8. Click **OK**.
9. Exit any open windows and reboot your machine.

To configure your WebSphere Commerce Service Provider machines for eNetwork Dispatcher, do the following:

1. Log in with a Windows NT user ID with Administrator authority.
2. On *each* WebSphere Commerce Service Provider machine that you have, configure it to accept traffic for the cluster host name that you set up in "Configuring the eNetwork Dispatcher Server" on page 62, by doing the following:
 - a. Click **Start**, select **Settings**, click **Control Panel**, and double click the **Network** icon.
 - b. Add the MS Loopback Adapter Driver, by doing the following:
 - 1) In the Network window, click **Adapters**.
 - 2) Click the **Add** button.
 - 3) Select MS Loopback Adapter, and click **OK**.
 - 4) Select the default frame type, and click **OK**.
 - 5) When prompted, insert your Windows NT CD.
 - 6) When you close the window, you will be told that you have multiple adapters and that the default internal network number needs to be unique. Click **Yes**, change your internal network number to 00000001, and click **OK**.
 - 7) Select MS Loopback Adapter.
 - c. Set the loopback address to your cluster address. Accept the default subnet mask (255.0.0.0) and do not enter a gateway address. Click **OK** and reboot your machine.

Note: If you wish to change your Loopback Adapter settings at a later date:

- Click **Start**, select **Settings**, click **Control Panel**, and double click the **Network** icon.
 - In the Network window, click **Protocols**.
 - Select TCP/IP Protocol, and click **Properties**.
- d. Reboot your machine.
 - e. Check for, and delete any extra routes, by doing the following:
 - 1) From a command window, type `route print`.
 - 2) Find the network addresses for the cluster address, under the Gateway Address column. If there are any extra routes, their network address will begin with the first digit of the cluster address, and will be followed by 3 zeroes (000).
 - 3) Delete any extra routes by typing the following:


```
route delete first_clusternum.0.0.0 cluster_IPaddress
```

where *first_clusternum* is the first digit of the cluster address, and *cluster_IPaddress* is the IP address of the cluster machine.

Important

Each time you reboot your WebSphere Commerce Service Provider machine, you must repeat step 2e on page 65.

3. Using a text editor, edit the MS_HOSTNAME directive for each of the *.ini files within the /Ibm/NetCommerce3/instance/*instance_name*/config directory, where *instance_name* is the WebSphere Commerce Service Provider instance. Change the MS_HOSTNAME from the individual WebSphere Commerce Service Provider host name to the cluster host name (the *cluster_hostname* value from step 5 on page 63). Note that you *must* update the following 3 files: ncommerce.ini, scheduler.ini, and srvrctrl.ini.

Do *not* change the JDBC_hostname and Etil1_hostname values.

4. Change your Web server configuration file.
 - If you are using Domino Go Webserver, edit the \Winnt\httpd.cnf file, by making the following changes:
 - a. Change all the host names in the httpd.cnf file from the individual host name of the WebSphere Commerce Service Provider machine to the cluster host name.
 - b. Change all the IP addresses in the httpd.cnf file from the individual IP address of the WebSphere Commerce Service Provider machine to the cluster IP address.
 - If you are using Netscape Enterprise Server, change the configuration files (obj.conf and magnus.conf) for both the port 80 and 443 servers. The files are located in the following paths:

```
drive:\netscape\suitespot\<host_name>-80\config  
drive:\netscape\suitespot\<host_name>-443\config
```

For the obj.conf files, change the following lines:

```
NameTrans fn="redirect" from="/nchelp/catalog/panelinf"  
url-prefix="http://<cluster_hostname>/nchelp/catalog/panelinf"  
NameTrans fn="redirect" from="/ncadmin/ictmgr"  
url-prefix="http://<cluster_hostname>/ncadmin/ictmgr"
```

For the magnus.conf files, change:

```
ServerName <local_hostname>
```

to

```
ServerName <cluster_hostname>
```

Apply the changes you have made to your obj.conf and magnus.conf files through your Netscape Enterprise Server Administrator. Log on to the port used to configure the Netscape Enterprise Server Administrator and click on the Netscape Enterprise Server server with the obj.conf or magnus.conf file that you changed. You should see a message telling you that changes were made to these files, and you must apply your changes. Click the **Apply** button at the top of the screen, then click the **Load Configuration Changes** button that pops up.

Note: You need to apply your changes every time you make changes to these files, as well as when you create your WebSphere Commerce Service Provider instance. Otherwise you may lose your changes upon rebooting.

5. Enable file sharing between WebSphere Commerce Service Provider machines:
 - a. As described in step 5 on page 61, you should have decided the source machine whose file system you will share with the other machines in the eNetwork Dispatcher cluster.

- b. If you are using Domino Go Webserver, you need to share the following directory on your source machine:

drive: \IBM\WWW\HTML

If you are using Netscape Enterprise Server, you need to share the following directory on your source machine:

drive: \netscape\suitespot\docs

You also need to share the following directories on your source machine regardless of which Web server you are using:

drive: \IBM\NetCommerce3\CHS\source

drive: \IBM\NetCommerce3\macro\en_US

drive: \IBM\NetCommerce3\CHS\locked

drive: \IBM\NetCommerce3\Tools\public

- c. Configure the file-share system.

- On the source machine, whose file system you want to share:

- 1) Share a subdirectory.

Using Windows Explorer, point to a subdirectory you wish to share.

Right click your mouse, and select **Sharing...** In the Sharing tab, click on the **Shared As** radio button. You can optionally fill in the **Share Name**, **Comment** and **User Limit** fields. Otherwise accept the defaults. Click **OK**.

Repeat this step for all subdirectories to be shared.

- 2) Map to a network drive.

In Windows Explorer click on the **Tools** drop down menu and select **Map Network Drive...** In the **Drive** field, type in a drive letter for any unused drive on your machine, for example, M. In the **Path** field, type in your source machine host name, and the share name from step 5c1. For example, \\my_hostname\html. Click **OK**.

For Domino Go Webserver, an example configuration is:

```
M:\  \\hostname\html
N:\  \\hostname\source
O:\  \\hostname\en_US
P:\  \\hostname\locked
Q:\  \\hostname\public
```

For Netscape Enterprise Server, an example configuration is:

```
M:\  \\hostname\docs
N:\  \\hostname\source
O:\  \\hostname\en_US
P:\  \\hostname\locked
Q:\  \\hostname\public
```

- 3) Change the configuration files:

Modify file ncommerce.ini in

drive: /Ibm/NetCommerce3/instance/*instance_name*/config:

- Change the HTML_PATH line to HTML_PATH M:\
- Change the MTOOL_MSOURCE line to MTOOL_MSOURCE N:\
- Change the MACRO_PATH line to MACRO_PATH O:\
- Change the MTOOL_LOCKED line to MTOOL_LOCKED P:\

Modify file scheduler.ini in

drive:/Ibm/NetCommerce3/instance/*instance_name*/config:

- Change the HTML_PATH line to HTML_PATH M:\
- Change the MTOOL_MSOURCE line to MTOOL_MSOURCE N:\
- Change the MACRO_PATH line to MACRO_PATH 0:\

Modify file config.xml in *drive:*\IBM\NetCommerce3\Tools\config.

Change:

```
merchantSource="$NCHSBaseDirectory$/source"  
galleryRootDirectory="$baseDirectory$/public/gallery"  
catalogImportDirectory="$baseDirectory$/public/catalog_import"
```

to:

```
merchantSource="n:"  
galleryRootDirectory="q:/gallery"  
catalogImportDirectory="q:/catalog_import"
```

For Domino Go Webserver:

- Modify file httpd.cnf in *drive:*/Winnt:

- a) Change the line:

```
Pass /* drive:\IBM\www\html\* cluster_hostname
```

to:

```
Pass /* M:\* cluster_hostname
```

where *cluster_hostname* is the cluster host name you set up in step 5 on page 63.

- b) Change the line:

```
Pass /* drive:\IBM\www\html\* cluster_host_ip_address
```

to:

```
Pass /* M:\* cluster_host_ip_address
```

where *cluster_host_ip_address* is the IP address for the cluster host name you set up in step 5 on page 63.

- c) Change the line:

```
Pass /yourGallery/*  
drive:\IBM\NetCommerce3\Tools\public\gallery\*
```

to:

```
Pass /yourGallery/* Q:\gallery\*
```

- Modify the db2www.ini file in the *drive:*\IBM\WWW\Htm1 directory:

- a) Change the drive letter in all occurrences of *drive:*\IBM\WWW\Htm1 to what you specified in step 5c2. For example, M:\ in the above example.
- b) Change the drive letter in all occurrences of *drive:*\IBM\NetCommerce3\CHS\source to what you specified in step 5c2. For example, N:\ in the above example.
- c) Change the drive letter in all occurrences of *drive:*\IBM\NetCommerce3\macro\en_US to what you specified in step 5c2. For example, 0:\ in the above example.

For Netscape Enterprise Server:

- Modify the db2www.ini file in the *drive:\netscape\suitespot\docs* directory:
 - a) Change the drive letter in all occurrences of *drive:\Netscape\Suitespot\Docs* to what you specified in step 5c2. For example, M:\ in the above example.
 - b) Change the drive letter in all occurrences of *drive:\IBM\NetCommerce3\CHS\source* to what you specified in step 5c2. For example, N:\ in the above example.
 - c) Change the drive letter in all occurrences of *drive:\IBM\NetCommerce3\macro\en_US* to what you specified in step 5c2. For example, O:\ in the above example.
 - Modify the obj.conf file that is in each of the following directories:
 - drive:\netscape\suitespot\https-<your_host>-80\config*
 - drive:\netscape\suitespot\https-<your_host>-443\config*
 - a) Change the line:


```
NameTrans fn=document-root root="drive:\netscape\suitespot\docs"
```

to

```
NameTrans fn=document-root root="M:\"
```
 - b) Change the line:


```
service root="drive:\netscape\suitespot\docs" fn="nc_cache"
```

to

```
service root="M:\" fn="nc_cache"
```
 - c) Change the line:


```
service root="drive:\netscape\suitespot\docs" fn="nc_auth"
```

to

```
service root="M:\" fn="nc_auth"
```
 - d) Change the line:


```
NameTrans fn="pfx2dir" from="/YourGallery"
dir="drive:\IBM\NetCommerce3\Tools\public\gallery"
```

to

```
NameTrans fn="pfx2dir" from="/YourGallery" dir="Q:\gallery"
```
- 4) Change the Windows logon authority for the following services:
- WebSphere Commerce Suite — *instance_name*
 - WebSphere Servlet Service
 - Either Lotus Domino Go Webserver or Netscape Enterprise Server Web server
- Use the steps below for each of the above services:
- Open the Windows NT Control Panel and click on the **Services** icon.
 - In the Services window, highlight a service and click on the **Startup** button.
 - In the Service window, select the **This Account** radio button in the **Log on as** area of the window. Type in the WebSphere Commerce Service Provider instance user id, password, and confirm the password in the **This Account** fields, and click **OK**.

- On each target machine, perform the same steps as you completed on the source machine beginning at step 5c2 on page 67. When you map to the network drive on the target machines, use the source machine host name. In Windows Explorer click on the **Tools** drop down menu and select **Map Network Drive...** In the **Drive** field, type in a drive letter for any unused drive on your machine, for example, M. In the **Path** field, type in your source machine host name, and the share name from step 5c1. For example, `\\source_hostname\html`. Click **OK**.

An example configuration for Domino Go Webserver is:

```
M:\  \\source_hostname\html
N:\  \\source_hostname\source
O:\  \\source_hostname\en_US
P:\  \\source_hostname\locked
Q:\  \\source_hostname\public
```

An example configuration for Netscape Enterprise Server is:

```
M:\  \\source_hostname\docs
N:\  \\source_hostname\source
O:\  \\source_hostname\en_US
P:\  \\source_hostname\locked
Q:\  \\source_hostname\public
```

Each time you reboot any WebSphere Commerce Service Provider server machine, you need to remap the network drive.

6. The following steps are to be performed on both the source and target machines:
 - a. Ensure you are logged in with a Windows NT user ID that has Administrator authority and start the WebSphere Commerce Service Provider server from the Configuration Manager (port 4444).
 - b. From the Services window, stop the Web server, and the WebSphere Servlet service, then restart the Web server (WebSphere Application Server should start automatically).

Notes:

1. Each time you create a new instance, you must repeat steps 3 to 6b.
2. To enable Secure Socket Layer (SSL) for production, you need to purchase a production certificate from a certifying authority *that uses the cluster host name*. See "Chapter 10. Enabling SSL for Production on Domino Go Webserver" on page 73 for more information.

In a test environment, you may receive messages indicating that there is a discrepancy between the cluster host name and the individual machine names. You can ignore these messages.

Merchant Tool Considerations

In an eNetwork Dispatcher environment, you will be unable to work with orders using the Edit Order and Place Order wizards within the Merchant Tool. This is because the `KeyRing.class` file is only created for one of the WebSphere Commerce Service Provider the machines and not the other machines in the cluster. To use the Edit Order and Place Order wizards within the Merchant Tool, complete the following:

1. For each WebSphere Commerce Service Provider machine in your cluster, ensure that the secure Web server is enabled. You can verify this by pointing

your browser to `https://host_name` and if you see some windows prompting you for secure certificates, it is running. Otherwise, you need to set up SSL for your Web server on that machine.

2. On one of the WebSphere Commerce Service Provider machines in the eNetwork Dispatcher cluster, set the CLASSPATH environment variable from a DOS prompt as follows:

```
set CLASSPATH=%CLASSPATH%;drive:\ibm\NetCommerce3\Tools;  
drive:\ibm\NetCommerce3\Tools\lib\sslite1.jar;
```

3. On the same WebSphere Commerce Service Provider machine in the eNetwork Dispatcher cluster, run the following command from the `drive:\IBM\NetCommerce3\Tools` directory:

```
java com.ibm.sslite.tools.keyrng KeyRing connect hostname:443
```

where `hostname` is the machine's host name.

4. Enter the following information when prompted:

- keyRing for the password
- 0 (zero) as the site certificate number
- 0 (zero) as site

This creates the `KeyRing.class` file in the `drive:\IBM\NetCommerce3\Tools` directory.

5. Copy this java class file to the same directory for the remaining WebSphere Commerce Service Provider machines.

Configuring Payment Server for eNetwork Dispatcher

If you are using Payment Server 1.2.20.3, you must perform the following step to configure your Payment Server machines for eNetwork Dispatcher:

Note: This instruction assumes that Payment Server is installed on the same machines as WebSphere Commerce Service Provider. You must perform the step below on *each* Payment Server machine.

1. Edit `pay_back.ini` and `pay_etill.ini` files, changing the `MS_HOSTNAME` parameter from the local host name, to the cluster host name.

Note: Do not change the host name for the `ETILL_HOSTNAME` and `USEREXIT_HOSTNAME` parameters.

Verifying Your eNetwork Dispatcher Configuration

Now that you have installed and configured eNetwork Dispatcher, you can verify your configuration as follows:

1. Disconnect all WebSphere Commerce Service Provider machines from your eNetwork Dispatcher server, except for one test machine. This will keep one branch of the eNetwork Dispatcher whose functionality you will verify. Use the following eNetwork Dispatcher command:

```
ndcontrol server remove cluster_hostname:port_number:hostname
```

Run this command for each WebSphere Commerce Service Provider server machine identified by `hostname` in the above command *except for your test server*. In addition, run this command for both port 80 and port 443.

2. Create a test store through the test WebSphere Commerce Service Provider machine by pointing your browser to the CSPsite at the cluster (that is, `http://cluster_hostname/cspsite`) and using the Create Store wizard (either

Basic or Advanced). After you have created the test store, open the store by using `ncadmin` (`http://cluster_hostname/ncadmin`).

3. Disconnect the test WebSphere Commerce Service Provider machine from eNetwork Dispatcher using the command in step 1 on page 71.
4. Connect one of the previously disconnected WebSphere Commerce Service Provider machines as follows:

```
ndcontrol server add cluster_hostname:port_number:hostname
```

You must run this command for both port 80 and port 443.

5. Point your browser to the test store that you created (`http://cluster_hostname/store_name`) and attempt to browse and shop at the store.
6. Repeat steps 3 to 5 for each remaining WebSphere Commerce Service Provider machine in your cluster in order that you can access the test store on each branch in the cluster.

Optionally, you can repeat the above process and create a test store for each WebSphere Commerce Service Provider machine, and verify the access to each test store created from the remaining branches in the cluster.

Once you have verified your eNetwork Dispatcher functionality, you need to do the following:

- Close all test stores that you created.
- Connect all WebSphere Commerce Service Provider machines to your eNetwork Dispatcher machine.

Chapter 10. Enabling SSL for Production on Domino Go Webserver

When you install WebSphere Commerce Service Provider with Domino Go Webserver, the installation program automatically enables SSL for testing. The security key ring created during installation will *not* prevent shopper transactions from being viewed by unauthorized individuals.

Before you open your site to shoppers, you must enable SSL for production by following the steps in this chapter.

About Security

Domino Go Webserver provides a secure environment for your business transactions by using encryption technology. Encryption is the scrambling of information transactions on the Internet so that they cannot be read until they are unscrambled by the receiver. The sender uses an algorithmic pattern or key to scramble (encrypt) a transaction, and the receiver uses a decryption key. These keys are used by the Secure Sockets Layer (SSL) protocol.

Your Web server uses an authentication process to verify the identity of the person with whom you are conducting business (that is, to make sure they are whom they say they are). This involves obtaining a certificate signed by a trusted third party called a certification authority (CA). For Domino Go Webserver users, the CA may be Equifax or VeriSign Inc. Other CAs are available as well.

To create a production key ring, complete the following steps:

1. Create a security key ring for production.
2. Request a secure certificate from a certifying authority.
3. Set your production key ring as the current key ring.
4. Receive the certificate and test the production key ring.

These steps are described in detail below.

Notes:

- If you are already using a production key ring signed by a certifying authority, you may be able to skip these steps. Read this chapter to make this determination.
- As you perform these steps, your browser may display security messages. Review the information in each message carefully and decide how to proceed.
- Domino Go Webserver also provides a command line utility called MKKF which you can use to perform the procedures documented in this chapter. For more information about MKKF, refer to the *Domino Go Webserver Webmaster's Guide for Windows NT*.

Creating a Security Key Ring for Production

When you create the key ring file, you provide information about public keys, private keys, trusted root keys, and certificates. This information is required to enable secure transactions.

To create a security key ring for production using VeriSign as the certifying authority, do the following (if you are using a different certifying authority, contact it directly for its procedure):

1. Ensure that the Web server is running by doing the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. In the Control Panel window, double-click the **Services** icon.
 - c. In the **Service** menu, look for the name **Lotus Domino Go Webserver**, and ensure that the status of the Web server is **Started**. If it is not, select the Web server and click **Start**.
2. Start your Web browser, disable and clear all disk and memory caching, and disable all proxy servers. (In some browsers, proxy servers are known as *socks servers*.)

Note: You may want to record these settings as you will be replacing them later in this procedure.

3. To access the Web server's front page, type the following on your browser:
`http://host_name/path`
where *path* is the name of your Web server's front page, if required on your system. If you have not performed any customization on the Web server, *path* is not required.
4. Click **CONFIGURATION AND ADMINISTRATION FORMS**.
5. When prompted, type your Web server administration user ID and password, and click **OK**. The default administration user ID is `webadmin`, and the default password is `webibm`.
6. On the Configuration and Administration Forms page under **Security**, click **Create Keys**.
7. On the Create Key and Request Certificate form, select **VeriSign**, and click **Apply**.
8. On the VeriSign Secure Server Certificate form, in the **Key Name** field, type `netc`. In the **Key Ring** field, type `IBM\WWW\Bin\netc.kyr`. (You can choose different names for the key and the key ring file, if desired.)
9. Change the **Size** field to the highest setting possible.
10. Under **Key Ring Password**, type a key ring password of your choice in both password fields. You will need this password to change the default key in the key ring and to receive certificates into that key ring.
11. Enable the **Automatic login** box.
12. Complete the fields under Distinguished Name, as follows:
 - **Server Name:** The fully qualified TCP/IP name of your Web server (for example, `www.ibm.com`).
 - **Organizational Unit:** For example, you might specify the division of your company (optional).
 - **Organization:** The name of your company or organization. If you already have an account with VeriSign, the name in this field should match the name on that account.
 - **Locality/City:** The city or locality where your server resides (optional).
 - **State/Province:** The state or province where the server resides. You must specify at least three characters.
 - **Postal Code:** The postal code or zip code where the server resides.
 - **Country:** The two-character country code for the country in which the server resides.

13. If you are using VeriSign as your CA, you must save the secure server certificate request in a file and manually E-mail it to VeriSign.

Note: Some E-mail programs alter files and should not be used to send a certificate request. Also, if you are behind a fire wall, verify with your system administrator about what you need to do to electronically mail this request. The VeriSign home page at <http://www.verisign.com/enroll.s> has instructions on what you need to provide in the certificate request.

14. Under Save Copy, in the **Save certificate request to file** field, type: `drive:\IBM\WWW\Bin\netcreq.txt`. You can choose a different name for the certificate request file, if desired.
15. Check that you filled out the form correctly, and click **Apply** to process the form.

Note: Record where you have saved the `netcreq.txt` file, because in the next step you will need to send its contents to the certifying authority.

You should see a confirmation message indicating that you have successfully created your public-private key pair and certificate request. If you see an error message instead, ensure that:

- You entered the correct information.
- Your password is correct.
- You filled out the fields under Distinguished Name as specified.

Requesting a Secure Certificate from a Certifying Authority

To validate the security key ring that you just created in the previous step, you need a certificate from a certifying authority (CA) such as Equifax or VeriSign. The certificate contains the server's public key, the Distinguished Name associated with the server's certificate, and the serial number and expiration date of the certificate.

If you want to use a different CA, contact it directly for information on the procedure to follow.

Equifax Users

To request a secure server certificate from Equifax, type the following Web address on your browser and follow the instructions provided:

<http://www.equifax.com>

You should receive the secure server certificate through E-mail from Equifax in 2 to 4 business days.

VeriSign Users

To request a secure server certificate from VeriSign, type the following Web address on your browser and follow the instructions provided:

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

Follow the instructions provided. Once you submit your request, your certificate should arrive within three to five working days. When you receive it, create the production key ring as described in the previous section, if you have not already done so.

Setting Your Production Key Ring as the Current Key Ring

After the certificate arrives from the CA, you must make the Web server use your production key ring. Perform the following steps:

1. Enter the following Web address to access the Web server administration forms:
`http://host_name`
2. Click **Configuration and Administration Form**.
3. Under Security, click **Security Configuration**. The Security Confirmation form appears.
4. Under Key Rings, select **netc.kyr**, or the name of the key ring file that you created in “Creating a Security Key Ring for Production” on page 73.
5. Select **Set selected key ring as current key ring**.
6. Click **Apply**. You should see a message that confirms that the security configuration changes have been made.
7. Click **Configuration Page** to return to the Configuration and Administration Forms page.

Receiving the Certificate and Testing the Production Key Ring

To receive the production key ring certificate and test the production key, do the following:

1. Save the E-mail from the certifying authority as an ASCII text file called `netc.crt`. (Some E-mail programs may alter files, so they should not be used to receive certificates.)
2. Use a file transfer program (FTP) to copy the file to the `drive:\IBM\WWW\Bin\` directory on your server.
3. Enter the following Web address to access the Web server administration forms:
`http://host_name`
4. Click **Configuration and Administration Form**.
5. On the Configuration and Administration page, under Security, click **Receive Certificate**.
6. When prompted, type the Web server user ID and password, and click **OK**.
7. On the Receive Certificate form, enter the following information:
 - In the **Name of file containing certificate** field, type:
`drive:\IBM\WWW\Bin\netc.crt`.
 - In the **Key Ring** field, type: `drive:\IBM\WWW\Bin\netc.kyr`.
 - In the **Key Ring Password** field, type the password that you defined in step 10 on page 74.
 - Click **Apply**. You should see a confirmation page that indicates that the form was successfully processed. The certificate is now stored in the key ring.
8. Click **Configuration Page** to return to the Configuration and Administration Forms page.
9. Under Security, click **Key Management**.
10. In the **Key Ring Password** field, type the server key ring password that you defined in step 10 on page 74, select **Manage Keys**, and then click **Apply**.
11. A list of the keys in the key ring appears. Select **netc** (or the name that you specified in “Creating a Security Key Ring for Production” on page 73), then

select **Set as Default**, and then click **Apply**. You should see a confirmation page that indicates that the default was successfully applied.

12. Stop and start the Web server by doing the following:
 - a. Click **Start**, select **Settings**, and then **Control Panel**.
 - b. In the Control Panel window, double-click the **Services** icon.
 - c. In the **Service** menu, look for the name of your Web server, highlight it, and click **Stop**.
 - d. When the Web server stops, click **Start**.
13. To test the key, type the following on your browser:
`https://host_name`

Notes:

- a. If you have customized your Web server, you may need to type the name of the Web server's front page after the host name.
- b. Be sure to type `https`, not `http`

If your key is defined correctly, you will see several messages about your new certificate.

14. On the **New Site Certificate** panel, if you want to accept this certificate, select the **Accept this certificate forever (until it expires)** radio button.
15. From your Web browser, restore your caching and proxy (or socks) server settings to their original states.

You have now enabled SSL on your server.

Part 3. Getting Started

This part provides an overview of the following topics:

- “Chapter 11. WebSphere Commerce Suite, Service Provider Edition Guided Tour” on page 81 provides a guided tour of WebSphere Commerce Service Provider.
- “Chapter 12. Configuring WebSphere Commerce Suite, Service Provider Edition” on page 93 shows you how to configure the main components of WebSphere Commerce Service Provider.

Chapter 11. WebSphere Commerce Suite, Service Provider Edition Guided Tour

Welcome to the guided tour of WebSphere Commerce Suite, Service Provider Edition. This chapter describes the major components of WebSphere Commerce Service Provider, and is designed for users who have limited or no experience with the product.

After completing this chapter, you will have more knowledge about the options available for your commerce service provider Web site. Moreover, you will understand how merchants create stores and be familiar with the main features of these hosted stores.

For more detailed information about WebSphere Commerce Service Provider, refer to the online help.

Learning about the Sample Site

WebSphere Commerce Suite, Service Provider Edition includes a sample site, mall, hosted store, and service store. The product installation process automatically installs these samples. They provide practical hands-on experience with the product. They also act as a reference point when you begin using WebSphere Commerce Service Provider. Read this guide in conjunction with the information about samples in the Customization Guide. This file, *customization.pdf*, is located in the following directory:

drive:\IBM\NetCommerce3\books\locale

where *locale* is the locale you are using (for example, *En_US*). These two sources of documentation will provide you with a comprehensive understanding of the four samples.

The sample site is the most extensive sample, and includes links to the other three samples. You can link pages of the sample site to your existing Web site and customize these pages as required.

The sample site has a straightforward design consisting of a main window to display information, and a navigation bar on the left side of the page. The navigation bar contains links to the different components of your Web site. The following section describes the principal components of the sample site.

Exploring the Sample Site

Access the sample site with a Web browser. Open your Web browser and type the sample site Web address, `http://<host_name>/csp/site`, in the address line. WebSphere Commerce Suite, Service Provider Edition generates the sample site for a commerce service provider.

The opening page welcomes people to your site and briefly describes your services. The navigation bar contains a list of links that are grouped according to subject matter. The first group of links provides general information about your Web site, the second group relates to hosted stores, and the third group of links

gives further reference on related topics. The online help and the `customization.pdf` describe the content, structure, and customization options for all sample site pages.

General Information Links

General information links provide a basic introduction to your commerce service provider Web site. These links are located at the top of the navigation bar. The general information pages are all static HTML files that you can edit or replace.

ISP Logo

Displays a welcome message for merchants and describes how to access the key functions on the Web site. You should replace this sample logo at the top of the navigation bar with your own logo. For more information on the process of branding your own Web site, see the online help.

home Displays the home page for your commerce service provider Web site. The home page briefly discusses hosted stores, and provides some statistics about the activity on your Web site, such as the average number of visitors per day. These statistics are hardcoded into the page.

about us

Displays a page with brief facts about your company. This page tells merchants more about your company before they decide to buy services from you.

services provided

Displays a page that lists the services you provide. For example, you can use this page to describe how you host merchant stores on your server, and what other services you supply to merchants.

prices Displays one or more pages that show prices for the various services your company provides.

Store Information Links

Store information links provide information about the different levels of store that you support. After reading the general information, merchants use this group of links to investigate hosted stores further. They can navigate through your mall, create their own store, purchase the store and administer a store they have purchased. You may want to customize these links to allow merchants to develop test stores at no cost.

view mall

Displays the sample mall page in a new browser window. The concept of an online mall is similar to the reality of a shopping mall. Shoppers can browse through a variety of stores, or browse through stores within a specific category. The mall page can display graphics, store advertisements, and store specials that are selected at random from all hosted stores. For more information on this component of WebSphere Commerce Service Provider, see "Learning about the Sample Mall" on page 91.

create store

Displays the main Create Store page, which describes the three levels of store that a merchant can create. You can test the capabilities of these store levels, and place test orders.

manage store

Generates a logon dialog box where merchants log on to access their hosted store. After you logon, the merchant tool page displays in a new browser window. This tool allows merchants to administer all aspects of their online stores. Merchants can create and edit their store catalog,

customize the look and text of store pages, process shopping orders, and generate shopping reports. For more information on the merchant tool, see “Understanding the Store” on page 87.

buy store

Displays the sample service store in a new browser window. The service store provides an example of a commerce service provider store you could include on your Web site. Merchants can access the service store catalog and purchase the level of store they require. Assuming that you have configured your store for online payments, you can process merchants’ payments immediately. When payment has cleared, you change the merchant store state in the Administrator to open the store. Merchants can then access their new store through the **manage store** link. See “Exploring the Sample Service Store” on page 90 for further detail on the sample service store. For more information on administering merchant stores, see “Chapter 12. Configuring WebSphere Commerce Suite, Service Provider Edition” on page 93.

Reference Information Links

Reference information links are a source of further information about your Web site, and these links provide further detail about online hosted stores.

view sample store

Displays the sample store Everything Green in a new browser window. This fully functional store shows an example of a basic store created in WebSphere Commerce Suite, Service Provider Edition. Merchants can test out the capabilities of the sample store, and begin to understand the structure, capabilities, and features of a basic hosted store. Everything Green demonstrates how an online store displays to shoppers, and may provide merchants with ideas for their own store catalog, layout, and style. For further information on the sample store, see “Exploring the Sample Store as a Shopper” on page 83.

faq Displays a page listing general questions and answers about the performance, capabilities, and functions of hosted stores.

contact us

Displays an e-mail form that is addressed to your Web site administrator. Merchants can type questions or comments on this form and then submit the form to you. You may want to include information on this page about configuring browsers to support e-mail messages. Merchants cannot send this e-mail form unless their browsers are configured correctly.

Exploring the Sample Store as a Shopper

Before creating a hosted store, it is worthwhile to take a tour through the sample store provided with WebSphere Commerce Suite, Service Provider Edition. This store, Everything Green, displays what a store would look like when created using the Store Creator wizard. It is an example of a fully-operative basic store.

Note: The sample mall includes a link to Everything Green when you first begin using the product. This demonstrates how stores display in the mall when you have clients listed there. The link also shows how shoppers access stores through the mall.

Shopping at Everything Green

From the sample site navigation bar, click **view sample store**. The Everything Green store displays in a new browser window. The Everything Green store is an

example of a retail online store. It sells a variety of plants and flower arrangements, and features a simple catalog and store front.

Exploring the Home Page

The Everything Green store has a similar layout to the sample site, containing a banner bar, navigation bar on the left, and central information window. This is one of the many available store layouts. A merchant can change this layout at any time after creating the store, using the merchant tool.

home Generates the Everything Green home page with general information about the store.

catalog

Opens the main Catalog page, where shoppers can browse through the store catalog and order products online. This catalog has only one category with different products, and one product is featured on the main Catalog page. The featured product is the last product to be added to the store catalog.

search Opens the Search page. Shoppers can use this function to search for any product in the store catalog, based on the product name, description, or product number. This is a useful feature when shoppers want to locate a product quickly, or when the store has a large catalog with many different categories and product lines. The search function employs JavaServer Pages technology. See the online help.

shopping cart

Opens the Shopping Cart page, where shoppers can see their current order and decide about buying the products they have selected.

customer service

Opens the Customer Service page, where shoppers can update their personal information, and track the status of their orders.

registration

Opens the Registration page, where shoppers can add themselves to the merchant's shopper list. Shoppers can enter the store and browse without any obligation to buy something or register with the store. When shoppers register with the store, however, their orders are tracked and available for them to see whenever they log on to the store.

logon Shoppers must log on to the store to change their personal information or access their order information on the Customer Service page.

logoff For security reasons, shoppers should log off when they have finished updating their personal information.

Purchasing a Product as a Guest Shopper

To purchase a type of flower for your garden at Everything Green, do the following:

1. From the sample site navigation bar, click **view sample store**. The Everything Green flower shop displays in a new browser window.
2. If you know a specific type of flower, you can click **search** to see if Everything Green stocks this flower. For example, to locate a Flanders Poppy, do the following:
 - a. Click **search**. In the Search form, type in the name of the flower. If you want to also include the description in the search, check that box. If you had been to the store before and knew the product number, you could search using this number instead.

- b. Click **Search**. The search results display below the Search form.
 - c. Click the active link to display the product page for the Flanders Poppy.
 - d. Continue from step 5 to order the Flanders Poppy.
3. If you prefer to see the full range of flowers, click **catalog**. In the Everything Green store catalog, notice that there is one category named Everything Green. There is also a featured product. You can look at the feature, or click **Everything Green** to see the products for the store catalog. In some catalogs, there will be several categories.
 4. The Everything Green category page displays several different flowers. Find the Flanders Poppy and click **View Product Details**.
 5. The product page describes the flower. Click **Add to Shopping Cart** to purchase this product.
 6. On the Shopping Cart page, you can view your order and change the quantity of the order. You can now continue shopping and add additional products, or proceed to buy your product.
 7. Click **Order** on the Checkout—Billing Address page. You must complete the required fields to receive the product. Note that the basic store does not support broadcast e-mail. This encourages merchants to upgrade to an advanced store.
 8. Click **Continue** after you have completed the fields. The Checkout—Payment Information page displays. Note that no shipping or tax is applied to the order, because the basic store does not support automatic calculations of tax or shipping. Everything Green supports offline payment. This means shoppers can send credit card information securely through SSL, use COD options, or call a toll-free number and have the order processed later. You can also change this sample store to support online payments through CyberCash.
 9. Click **Complete** to finish your order. On the Order Confirmation page, you see your order, as well as a unique order number and your customer reference number. You need this information to pay offline, and to track the status of your order.

The Everything Green store demonstrates how quickly a shopper can locate a product and purchase an order in a basic hosted store. The sample services store is an Advanced store, and includes a catalog with two categories and several products within each category. Proceed to “Exploring the Sample Service Store” on page 90 to learn more about the sample services store.

Registering with the Store

When you register with the store, the system saves your information in the database. Registering allows you to check the status of any of your store orders. Note that the basic store does not support broadcast e-mails to shoppers.

Shoppers can also change their registration information using this page, or using the Customer Service page. Moreover, store administrators can change their passwords using this page, rather than contacting the site administrator.

To become a registered shopper, do the following:

1. Click **registration**. On the Registration page, complete the required fields.
2. Click **Update Registration**. Check your account information on the confirmation page.

After you are registered, you can use the Customer Service page to update the details of your profile. You can change your password, registration information, and mailing options. You can also check the status of your orders from a link on this page.

Managing the Sample Store

As with any store created using WebSphere Commerce Service Provider, you can manage and change the Everything Green store through the merchant tool. To access the merchant tool as a site administrator, do the following:

1. From the sample site navigation bar, click **manage store**. The Manage Store page displays.
2. In the **LogonID** and **Password** fields, enter a site administrator ID and password. The default site administrator LogonID and password are nadmin. The Choose Store page displays.
3. In the **Store name** field, enter the name of the sample store. To access the sample store, type Everything Green.
4. The merchant tool for the Everything Green store displays. You can now change this store to meet your own requirements.

Creating Stores

Now that you have toured through a sample hosted store, you are ready to create your own store. WebSphere Commerce Suite, Service Provider Edition provides three levels of stores, tailored to the different requirements of merchants. The basic store is the easiest store to work with when you are first testing the store models. The advanced store includes additional features to develop a more sophisticated store. The remote store allows merchants to develop a hosted advanced catalog, which is linked to the merchant's remote Web site.

Using the Store Creator Wizard

To create any level of store, click **create store** from the sample site navigation bar. The Create Store page displays. You need to choose a level of store and create a LogonID, and then the Store Creator wizard displays.

The Store Creator wizard guides you through the process of creating a store in all three store levels. As you click through the pages, the Store Creator uses the settings you specify to build a framework for your store. Once you have completed the pages, you can view the store summary and go back to change any settings as needed. When the store framework is completed, use the merchant tool to customize the store pages and add additional features.

The Store Creator wizard asks merchants for a number of details about their store. This includes pertinent addresses, store currency, store design, and payment methods. Merchants can, however, change the majority of this information after they create their stores, using the merchant tool. They must contact the site administrator to change the currency of the store, the category of the store, and their domain name and URL.

Creating a Store

To create any level of store, do the following:

1. Go to the sample site home page.
2. From the navigation bar on the left, click **create store**.

3. On the Create Store page, click the appropriate button for the store level. For example, to create a basic store, click **Create Basic Store**.
4. Fill in the Create Store dialog box fields with the appropriate information. This form saves your logon information so that only you may access your merchant store.
5. Click **Create Store**.
6. Follow the Store Creator wizard directions to create your store.

Understanding the Store

Creating the store is the first stage in the development of a hosted store. Creating a store provides merchants with a store template they can change and develop to suit their business requirements. This section of the guided tour discusses the merchant tool and introduces the basic functions of hosted stores. Help is available to the merchant from every screen.

Levels of Stores

WebSphere Commerce Suite, Service Provider Edition provides three levels of store. The following is a brief overview of the store levels. Refer to the online help for more detailed information, and for help creating the stores using the Store Creator wizard.

The Basic Store

The basic store provides a good introduction to the functions available in all three store levels. This store level is very simple in structure and navigation, allowing shoppers to quickly find the products they want and place their orders. You may want to offer the basic store at a reasonable price. In this way, more merchants can purchase a hosted store and may later need to upgrade to the advanced store. You can upgrade a basic store to an advanced store by running an SQL command, as described in the online help.

The Advanced Store

The advanced store offers merchants increased functionality and capability. Additional features include the following:

- A sophisticated store catalog structure that can easily support thousands of items.
- A catalog editor that enables modifications to a complex store catalog.
- Store page editors that enable you to customize your store in numerous ways.
- Tax wizards and shipping wizards that help you to develop a comprehensive set of tax jurisdiction codes and shipping options. WebSphere Commerce Service Provider then calculates tax and shipping on every order automatically.
- A group of order management functions to make order processing and management quick and efficient.
- Detailed reporting capability to enable you to monitor your store's activity in many different ways.
- The ability to add remote content to your store using the remote commerce functions.

The Remote Store

The remote store allows merchants to maintain their own remote sites and add e-commerce functionality. Merchants with a remote store use the checkout, authorization, and order management functions of an advanced catalog.

Examining the Storefront

A store created with the merchant tool contains three types of pages:

- Static pages that users create and change
- Dynamic pages that the system generates from the database
- Shopping pages that combine static text and generated information to allow shoppers to buy products in your store

User—Developed Pages

Pages that users develop contain static HTML. This means that the content of the page only changes when you make an update to the page. These pages include any page that you update using the different editors, and pages that you upload to the Commerce Server, such as:

- The store Home page
- The Customer Service page, where you can change the text that displays to shoppers

For advanced and remote stores, this also includes any other pages you add to your merchant Web site, such as an uploaded Home page or pages created using the Edit Pages functions.

Generated Pages

The system generates these pages based upon information that you enter into the merchant tool, and the products that shoppers select. These pages are dynamic, meaning that they automatically refresh when new information is added. Generated pages include:

- The store catalog pages that display the store products
- The Customer Service page, where shoppers update their account information and track their orders.
- The Search page where shoppers can locate a specific catalog category or product
- The Registration page where shoppers register with the merchant store
- The Logon page and Logoff page

Store Shopping Flow Pages

Shopping flow pages are store pages that directly enable online shopping. The number and sequence of these pages affect the overall shopping experience for customers in the merchant store. The following pages comprise the shopping flow for all levels of hosted store:

- The Shopping Cart page that displays products the shopper is interested in purchasing.
- The Order Billing Address page where shoppers type their shipping address, and request promotional e-mails.
- The Order Payment Information page that displays the details of your order and applicable taxes and shipping.
- The Order Confirmation page that confirms a shopper's order and provides a unique order number for reference. Shoppers can print this confirmation from the Web browser window.

Classic and Express Shopping Flow Model Options

WebSphere Commerce Suite, Service Provider Edition provides two options for shopping flow on advanced and remote levels of store. While creating the store through the Store Creator Wizard, merchants can choose a store with a Classic shopping flow or an Express shopping flow. The Everything Green sample store is an example of a Classic store model shopping flow. The table illustrates the

differences in shopper functionality between the two store models:

Shopper Tasks	Classic Store Model	Express Store Model
Browse and search the catalog	supported	supported
Choose to become a registered shopper	supported	supported
View their shopping cart	supported	—
View the status of their orders	supported	supported
View their customer information	supported	supported
Quick Find: Enter the product number and proceed directly to the specific product page	—	supported
Quick Order: Enter the product number and proceed directly to the checkout page to order the product	—	supported

The Express store model is useful for stores where shoppers may want to order a specific product quickly and leave the store. It does not promote browsing through the catalog and adding products individually, but instead accelerates the process of ordering online through a "quick shop" option.

Under **Store Style** in the merchant tool, click **Choose Shopping Flow** to change the shopping model in a store.

As a commerce service provider, you can change the shopping flow pages and even add additional shopping models if needed. Shopping flow pages use Net.Data macros. For more information on this topic, refer to the Customization Guide, as previously discussed.

Changing the Store

Merchants use the merchant tool to change their store. The merchant tool enables merchants to complete the following tasks:

Basic Store Functions:

- Change the text, style, color, and graphics on store pages
- Create and change a simple catalog with a series of products
- Manually apply the costs for tax and shipping to orders
- Set up online and offline payment methods
- Manage orders
- Process payment transactions and create transaction batches

Advanced and Remote Store Functions:

- Change the text, style, color, and graphics on store pages, and create custom variations
- Create and change a large product catalog with multiple categories, product families, and items
- Upload store pages and pictures
- Set up automatic shipping categories and tax categories
- Set up online and offline payment methods
- Define store administrators

- Manage their files on the server
- Open their store to the public, and create store and mall specials from their catalog
- Manage shopping orders
- Send out e-mails with links to sale items or special interest items in the catalog
- Process payment transactions and create transaction batches
- Generate reports for various aspects of store activity
- Add a hosted catalog to an existing remote Web site

The best way to understand these functions is to browse through the merchant tool. Refer to the online help for further information.

Exploring the Sample Service Store

The sample service store, which sells online store creation services, is an advanced store with a Classic Model shopping flow. It is an example of a store you may want to create to sell hosted stores to merchants. Refer to the Customization Guide for information on customizing this sample service store.

To open the sample service store, click **buy store** or type the service store Web address, `http://<host_name>/servicestore` in your Web browser address line.

The sample service store contains the similar navigation links to the sample store. The catalog displays the services offered, grouped by category:

Basic Internet Services

Dial up lines, dedicated T1 to T3 lines, e-mail accounts, search engine registration, Web page design, and domain name registration.

E-Commerce Services

Web store design, CyberCash or secure electronic transactions, and three levels of online store.

These are examples of services you could offer through your online store. Merchants purchase a service in the same way that shoppers purchase goods or services in any store. When setting up your service store you decide whether to receive payment online or offline, or both, and you configure your store accordingly.

If merchants decide to buy a store they have created, you process the payment and then change the state of the store through the Administrator. You must change the store state from *new* to *open* in the Administrator before shoppers can access the store. The online help provides more detail on different store states.

Managing the Service Store

You can manage and change the sample service store through the merchant tool. To access the merchant tool as a site administrator, do the following:

- From the sample site navigation bar, click **manage store**. The Manage Store page displays.
- In the **LogonID** and **Password** fields, enter a site administrator ID and password. The default site administrator LogonID and password are `ncadmin`. The Choose Store page displays.
- In the **Store name** field, enter the name of the sample store. To access the service store, type Service Store.

- The merchant tool for the service store displays. You can now change this store to meet your own requirements.

Learning about the Sample Mall

From the navigation bar on the sample site, click **view mall**. The WebSphere Commerce Suite, Service Provider Edition sample mall displays in a new browser window. The mall directory page displays a list of store categories, two graphics frames, and a mall navigation bar. You can change each of these features to suit the needs of your Web site. For example, you can customize the left-hand frame with graphics or specials, and use the frame on the right side to display store advertisements. You can also change the links that are provided with the sample mall. The majority of the mall pages are static HTML files with static images. The search page and the mall directory pages employ JavaServer Pages technology.

View Mall Directory

Displays the Mall Directory page that lists stores according to their subject category. From this main page, shoppers can access the home page of any store in the commerce service provider mall. The mall only includes stores that are created with the merchant tool. It does not support stores that are created with the Administrator or the Net.Commerce Store Creator wizard.

Create Store

Displays the main Create Store page, which describes the three different levels of stores that a merchant can create. You can test out the capabilities of these store levels and place test orders, as can any merchant entering your Web site. This link is the same as the **create store** link on the commerce service provider sample site page.

Shopper FAQ

Displays a page with a list of general questions and answers about online shopping. This is a good reference point if shoppers have any questions about merchant stores or security.

Search

Displays a form where shoppers can search for a store in the mall. The search function looks for appropriate products, product descriptions, category names, category descriptions, and product numbers. The search results generate an active hyperlink to the appropriate category or store. The search is only conducted in stores in the mall that are in either an open or a closed state. The Search form uses JavaServer Pages technology.

Your Next Step

You have completed the guided tour for WebSphere Commerce Suite, Service Provider Edition.

You are now ready to configure the components of WebSphere Commerce Service Provider. Turn to “Chapter 12. Configuring WebSphere Commerce Suite, Service Provider Edition” on page 93 to continue.

Chapter 12. Configuring WebSphere Commerce Suite, Service Provider Edition

Your commerce service provider Web site is not fully functional until you configure WebSphere Commerce Service Provider. This chapter shows you how to activate many functions including site administration and store administration, messaging, data collection, and reporting.

For information on customizing WebSphere Commerce Service Provider, or creating stores by using the Store Creator or Site and Store Manager, refer to the online help.

Complete the configuration steps in the following order:

1. **Create additional site administrators**
Designates site administrator access for WebSphere Commerce Suite, Service Provider Edition. This step is required if you have more than one administrator.
2. **Configure the messaging system**
Configures the order message delivery method (e-mail or plain file). The messaging system delivers system error messages, order summaries, commerce reports, usage reports, password reset messages, and broadcast e-mail.
3. **Configure the data collector**
Defines the type of statistical information to collect from the server. The data collector monitors activity on the site and stores, and then generates statistics by way of usage reports. The data collector also locates the Web servers so that they can be read and consolidated.
4. **Configure commerce reports**
Configures commerce reports so you can view and manage statistical information generated by the site's traffic and sales. This information can help you to plan your service offering, and to decide on billing amounts for merchants based upon the commerce reports.

Create Additional Administrators

In this step, you create additional site administrators. You set up site administrators through the Administrator. If you only require one administrator, you do not need to complete this section. Proceed to "Configuring the Messaging System" on page 94.

Creating an Administrator

WebSphere Commerce Suite, Service Provider Edition provides you with the default administrator, `ncadmin`. Use this administrator information to create a new site administrator.

To create a new site administrator, do the following:

1. Open the Administrator.
2. Click **Site Manager**, then click **Access Control**.
3. On the Access Control form, enter the administrator information into the appropriate fields, and click **Save**. A confirmation box opens, confirming that you want to create a new administrator. Click **OK**. A new record is added to the database for the new administrator.

4. From the main navigation bar, click **Access Assignment**. The Administrator — Access Group Assignment form displays. The new administrator's Login ID displays in the top field.
5. Under the **All Groups** list, select **Payment Administrators (Mall)** and **Site Administrators (Mall)**. Click **Add Groups**. The two groups now display in the **Groups Assigned to Administrator** field.
6. Click **Save**. A confirmation message displays at the bottom of the window, stating that you have successfully updated the user's access level in the database.

The new administrator now has the same privileges as the default site administrator LoginID.

Configuring the Messaging System

This section demonstrates how to configure the WebSphere Commerce Suite, Service Provider Edition messaging system. The messaging system allows you to set up and manage the delivery of all messages for your site and stores.

You configure the WebSphere Commerce Service Provider messaging system using three forms in the Administrator. Set up and manage the messaging system with the Messaging System Setup form. Set up the e-mail delivery method for your Simple Mail Transfer Protocol (SMTP) server with the Set Up E-mail form. Then specify recipients for delivery of system errors with the Error Delivery Setup form. Complete the messaging system configuration in the following order:

1. E-mail delivery
2. Plain file delivery
3. Message delivery preferences
4. Error message delivery
5. Order message delivery

Configuring E-mail Delivery

WebSphere Commerce Suite, Service Provider Edition will not send out e-mail messages until e-mail delivery is configured. To set up the e-mail delivery method for messages, do the following:

1. Open the Administrator.
2. Click **Site Manager**, then click **Messaging System**. The Messaging System Setup form displays.
3. Click **Set Up** under the E-Mail column. The Set Up E-Mail form displays.
4. In the **Server Name** field, type the name of your SMTP server.
5. In the **Port** field, type the number of your SMTP server's port.
6. In the **Timeout** field, type the timeout period, in seconds, for the SMTP socket connection. This is the number of seconds the messaging system waits for the server to respond. The connection terminates if the server does not respond, and the system attempts to resend the message later.
7. In the **Site Administrator's E-mail Address** field, type the address which should appear as the default sender's address on outgoing e-mail messages.
8. In the **Length of Message Queue** field, type the maximum number of messages to accumulate in the e-mail queue before the system sends them. This number will be used unless the flush interval occurs before the tenth message is queued, or unless the message is a system error message. System

error messages are treated as top priority and are sent immediately, regardless of the setting. Note that a short queue length sends messages sooner, but at the expense of system resources.

9. In the **Queue Flush Interval (In Minutes)** field, type the number of minutes for the messaging system to wait before automatically sending messages. This does not take into account the number of messages in the queue.
10. In the **Number of Retries** field, type the number of times the system tries to resend messages before placing them in the error queue.
11. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**. A message confirms that your e-mail configuration has been successfully updated.
12. Click **Return** to return to the Messaging System Setup form.

Configuring Plain File Delivery

Plain file delivery allows you to provide merchants with order delivery messages in plain file format, sent through the method of your choice. You may want to choose this method of delivery if you need to:

- Parse the message files and integrate them with a fax server
- Encrypt the message files before sending them through e-mail
- Place message files in a File Transfer Protocol (FTP) site that merchants can access to download their messages
- Create a new interface that merchants can access to download their message files securely using HTTP

To configure the plain file delivery method for messages, do the following:

1. Open the Administrator.
2. Click **Site Manager**, then click **Messaging System**. The Messaging System Setup form displays.
3. Click **Set Up** under the Plain File column. The Set Up File Delivery form displays.
4. In the **Length of Message Queue** field, type the maximum number of messages to accumulate in the file queue before the system processes them. This number will be used unless the flush interval occurs before the tenth message is queued.
5. In the **Queue Flush Interval (In Minutes)** field, type the desired number of minutes for the queue to wait before processing messages, regardless of the number of messages in the queue.
6. In the **Number of Retries** field, type the number of times the system tries to resend messages before placing them in the error queue.
7. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**. A message confirms that the file configuration has been successfully updated.
8. Click **Return** to return to the Messaging System Setup form.

Configuring Message Delivery Preferences

To set up the site and store message delivery preferences, do the following:

1. Click **Site Manager**, then click **Messaging System**. The Messaging System Setup form displays.

2. If you have not already configured your delivery methods, complete the steps “Configuring the Messaging System” on page 94 for each of the delivery methods you intend to use.
3. In the **Available Delivery Methods** section of the Messaging System Setup form, make sure that the **Installed** checkbox is selected for each of the delivery methods you want. Only choose to install a method if you can support it. For example, if you have an SMTP server installed, you can support e-mail message delivery.
4. For each of the installed delivery methods, select the **Active** checkbox. This allows the messaging system to transmit messages from the queue.
5. In the **Delivery Preferences by Message Type** section, select the corresponding **Active** checkbox for each of the message types listed. If you have enabled plain file delivery for the order delivery message type, select the **Active** checkbox for plain file delivery as well.
6. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**.

Configuring System Error Message Delivery

After you have configured the message delivery options, you can establish the recipients of system error messages for the commerce service provider Web site.

1. Click **Site Manager**, then click **Messaging System**.
2. Click **Errors**. The Error Delivery Setup form displays.
3. In the **Recipients** field, type the e-mail address of users who should receive system error messages. If there is more than one recipient, add a comma and space between the e-mail addresses.
4. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**.

Configuring Order Message Delivery

You can provide a number of different services to merchants. The Order Delivery feature allows you to establish the delivery method for merchant store order messages. The default method is e-mail, but you may also choose to make plain file order messages available to merchants. You can specify order templates and maximum batch sizes for each method you activate.

In addition, you can provide your customers with daily summarized information about orders. Merchants use this summarized information to verify order messages received against those actually sent. Site administrators also have access to order delivery log files through the View Order Delivery Notices form.

You can also change the information sent to merchants by creating a customized template. For example, you can include specific header text, such as a salutation, for your orders and order summaries. Although this makes messages more personal, it may produce problems when you are migrating WebSphere Commerce Suite, Service Provider Edition to future releases.

Note: You can work with the forms without the system being active, but no messages will be delivered. You must set up each delivery method and make them active before you can work with your order delivery forms.

Configuring Order Summaries

To set up the template and subject text of order summary messages for all merchants, do the following:

1. Click **Site Manager**, and then click **Order Delivery**.
2. Click **Orders**. On the Order Delivery Setup form, choose your message delivery method.
3. Change your message settings as required, and change the maximum number of orders per message as required. Note that you must click **Save** when you are using this form for the first time, even if the default settings are correct.
4. From the main navigation bar, click **Summary**. The Order Summary Setup form displays. Note that you must click **Save** when you are using this form for the first time, even if the default settings are correct.
5. If you want to use a customized order summary template, type the file name of the customized template in the **File Name of Default Template** field. The default template file is `odsummary.tpl`.
6. In the **Contents of Subject Field** field, type a brief description of the summary. For example, Order Summary Report.
7. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**.

Configuring the Data Collector

The data collector monitors the activity on the Web site and in the stores, then generates monthly statistical usage reports. The data collector also locates the Web servers so that they can be read and consolidated. Usage reports are a valuable tool for several reasons:

- **Statistics**

Merchants can use these reports to find out how many visitors their store is receiving, and to review trends in online shopping. Commerce service providers can use these reports to determine how to charge merchants for different levels of service, and for hardware growth and planning. For example, the usage reports may show that merchants are generating a large volume of e-mail, so you may decide to charge for the use of broadcast e-mail.

- **Availability**

Usage reports are available both online and by way of automated e-mail delivery. As a commerce service provider, you may view activity at any time for any merchant, or for your entire site. You may also view usage by current billing period, or by any past billing period. WebSphere Commerce Suite, Service Provider Edition generates automatic usage reports for merchants beginning one month after the store is opened and continuing monthly.

- **Customization**

You may customize the usage report template to your own specifications. The data collector collects information for usage reports based upon what you have configured. This allows you to produce many different reports, depending on your current areas of interest, or interests that are specified by your merchants.

As discussed, usage reports are generated by the data collector. To configure the data collector, do the following:

1. Click **Site Manager**, and then click **Usage Reports**.
2. Click **Data Collector**. The Settings for the Data Collector form displays.

3. In the **Host Name** field, type the host name of your Web server. This must be the same name specified in the WebSphere Commerce Service Provider server `ncommerce.ini` configuration file.
4. From the **Web Server** drop-down list, select your Web server type.
5. In the **Log File Path** field, type the path name of your Web server's log file. If you are using Netscape Enterprise Server, type the path names of the log file paths for both the HTTP (80) and HTTPS (443) server ports; separate the path names with a comma.
6. In the **Common Prefix of Access Log File** field, type the name of your Web server's access log file name. The prefix is the portion of the file name that is not related to the date. The default prefix is the one for Domino Go Webserver, which is `ht tpd-log`. For Netscape Enterprise Server, change the prefix to `access`.
7. In the **File Extensions to Ignore** field, type the extensions of file types that you do not want included in reports. If there is more than one file type, separate the extensions by commas.
8. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**.
9. From the main navigation bar, click **Set Up**. The Usage Report Setup form displays.
10. In the **Recipients** field, type the e-mail addresses of all the people to whom you want to send the report. Separate e-mail addresses with commas.
11. In the **Default Template** field, specify the template you want to use for the e-mail.
12. To restore the previous settings, click **Reset**. To accept the revised settings, click **Save**.

Note: For Netscape Enterprise Server, you must configure the server so that it archives the logs at midnight every night. Lotus Domino Go Webserver automatically performs this action. See the online help for further details.

Configuring Commerce Reports

Commerce reports allow you to view and analyze information about your site's traffic and sales. These reports are an important tool for the following reasons:

- **Statistics**

Commerce reports help you plan your service offering and advertise it to merchants by way of broadcast e-mail.

Reports are available online and by automated e-mail delivery. Reports are generated using the following criteria:

- The geographic region of the shopper's server - Region report
- Referring Web addresses - Click trail report
- Items for which shoppers search - Search queries report
- Browsers most used by shoppers - Browsers used report

- **Availability**

With online reports, you can access your site's traffic and sales information at any time. You can also print and view graphs of reports. Automated e-mail reports are generated every thirty days, as well as at quarterly intervals.

- **Customization**

You can customize the automated commerce report template to your own specifications. Automated reports are available both in text file and comma-separated data file formats. Text file reports are in an easy-to-read

format, while comma-separated data files may be imported into spreadsheets for further analysis by your report recipients.

Configure the commerce reports by specifying a fiscal year and setting up commerce report templates, as described in the following two sections.

Configuring the Fiscal Year

To set up the fiscal year for automated commerce reports, do the following:

1. Click **Site Manager**, and then click **Commerce Reports**.
2. Click **Fiscal Year**. The Fiscal Year form displays.
3. From the **Date** drop-down list, select the month your fiscal year begins.
4. In the **Day** field, type the day of the month that your fiscal year begins.
5. To save the settings, click **Update**. To restore the previous settings, click **Reset** before you click **Save** to save the final version of the information.

Configuring Templates for Automated Commerce Reports

To set up templates for automated commerce reports, do the following:

1. Click the **Site Manager**, and then click **Commerce Reports**.
2. Click **Templates**. The Templates for Automated Report Delivery form displays, showing the default files for all report templates.
3. If you want to use a customized quarterly or monthly commerce report template, type the file name of the customized template in the appropriate **Text File** field. In the **Comma-separated Data File** field, type the new comma-separated data file template name.
4. Click **Update** then **Save**. To restore the previous settings, click **Reset** before you click **Save**.

Configuring Recipients for Automated Commerce Reports

To set up recipients for automated commerce reports, do the following:

1. Click the **Site Manager**, and then click **Commerce Reports**.
2. Click **Recipients**. The Automated Report Delivery Setup form displays.
3. Select a report type from the drop-down list. Select a format for the report type, either text file or comma separated file.
4. In the **Recipients** field, type the list of recipients for that type of commerce report. Use commas to separate recipients.
5. Click **Update** then **Save**. To restore the previous settings, click **Reset** before you click **Save**.
6. Repeat these steps to configure the recipients for the other type of commerce report.

Part 4. Migrating to WebSphere Commerce Service Provider

This part describes how to migrate from Net.Commerce Hosting Server (3.1.2 or 3.1.2 Plug-In Enhancement) to WebSphere Commerce Service Provider 3.2.

“Chapter 13. Guidance for Migrating to WebSphere Commerce Service Provider 3.2” on page 103 provides helpful information for a Net.Commerce Hosting Server migration.

“Chapter 14. Migrating Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider” on page 115 provides migration instructions for migrating from Net.Commerce Hosting Server to WebSphere Commerce Service Provider 3.2.

Note: The information in this part applies only if you are migrating from Net.Commerce Hosting Server 3.1.2 (or the 3.1.2 Plug-In Enhancement) to WebSphere Commerce Service Provider 3.2. If you currently have Net.Commerce Hosting Server 3.1.1 installed, you must migrate and upgrade your current installation to Net.Commerce Hosting Server 3.1.2 before you follow the steps in this section to migrate to WebSphere Commerce Service Provider 3.2.

Chapter 13. Guidance for Migrating to WebSphere Commerce Service Provider 3.2

This chapter provides guidance on how to migrate from a previous version of Net.Commerce Hosting Server (3.1.2 or 3.1.2 Plug-In Enhancement) to WebSphere Commerce Service Provider 3.2. It is recommended that you read this information prior to migration. This chapter contains high level helpful hints and tips for migration.

Note: To learn about last-minute changes to the product affecting migration, see the README file on our Technical Library page at our product Web site at: <http://www.ibm.com/software/webservers/commerce/servers/lit-tech-general.html>

Publishing Existing NCHS Stores

As an ISP, before shutting down and migrating Net.Commerce Hosting Server, you will need to inform your merchants to publish all stores before you perform your migration. Any unpublished changes to your merchants' stores will be published after the migration.

You also need to advise your merchants that they will not be able to manually publish their stores after you have migrated to WebSphere Commerce Service Provider. From that time forward, all changes to your merchants' stores are automatically carried through when they are saved. They will not be able to hold or defer changes that are not ready to be published since after the migration, all such changes will be automatically published.

For more information, see "What You Need to Tell Your Merchants" on page 106.

Administrator Default ID (NCadmin)

If you have deleted and recreated the ncadmin ID, you must update the SHRFNBR column to reflect that ncadmin contains a value of 0.

When the WebSphere Commerce Service Provider database is initially installed, a row is inserted into the SHOPPER table defining the default site administrator logon ID and password as ncadmin; that is, column SHLOGID is set to ncadmin, and column SHLPSWD is set to the encrypted form of ncadmin. In addition, column SHRFNBR stores ncadmin's reference number with a value of 0.

Migrating From Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2

Before you migrate from Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, it is recommended that you read the following information, which may be useful to your migration process.

Replacing Net.Commerce Hosting Server Files

Installing WebSphere Commerce Service Provider 3.2 replaces all Net.Commerce Hosting Server files. You *cannot* revert to your previously installed version of Net.Commerce Hosting Server. It is strongly recommended that prior to installing

WebSphere Commerce Service Provider 3.2, you perform a complete system backup, including backing up any customized files, macros, and directories for Net.Commerce Hosting Server and its associated components (DB2, Domino Go Webserver, eTill/Payment Server, or Netscape Enterprise Server, as applicable).

Backing up Net.Commerce Hosting Server Databases

Ensure that you back up your Net.Commerce Hosting Server databases. If you encounter difficulties migrating your databases to the WebSphere Commerce Service Provider 3.2 level, you will have to restore your databases and rerun the database migration script, `v321migrate`. "Preparing to Migrate DB2" on page 120 shows you how to back up your DB2 database. For detailed instructions on how to make a backup copy of a DB2 database, refer to your *DB2 Administration Guide*. For details about the syntax for the backup command, refer to your *DB2 Command Reference*.

Replacing Existing Software for Migration

When you migrate from Net.Commerce Hosting Server 3.1.2, several software components are upgraded for WebSphere Commerce Service Provider 3.2, including Domino Go Webserver and Payment Server.

Domino Go Webserver

The installation program will uninstall your existing version of Domino Go Webserver and install Domino Go Webserver 4.6.2.61. It will save and restore the following necessary configuration files: `httpd.cnf`, `serv1et.cnf` and `admin.pwd`.

Payment Server

Versions of Payment Server earlier than 1.2.20.3 (version 1.2.20.0 plus a FixPak) are not supported for WebSphere Commerce Service Provider 3.2. If you currently have an earlier version, the installation process will uninstall that version if you select Payment Server to be installed. The installation process will then install Payment Server 1.2.20.3. Once you install Payment Server 1.2.20.3, you *cannot* revert to your current version of Payment Server.

During the installation, Payment Server 1.2.20.3 is not selected by default. If you want to install Payment Server 1.2.20.3, you must select it from the drop-down menu on the Component Selection panel during the WebSphere Commerce Service Provider 3.2 installation process. If you want to install it at a later time, you must:

- Uninstall your current version of Payment Server in accordance with the associated Payment Server documentation.
- Insert the WebSphere Commerce Service Provider 3.2 CD.
- From the `\payment_server` directory on the CD, run `setup.exe` to install Payment Server 1.2.20.0.
- From the `\payment_server\payment_server_fixpak` directory on the CD, run `setup.exe` to install the Payment Server FixPak to upgrade it to version 1.2.20.3.

Writing Commands and Overridable Functions

If you have added commands or overridable functions for use with Net.Commerce Hosting Server 3.1.2, you must recompile them before you use them with WebSphere Commerce Service Provider 3.2. Also, if you write overridable functions for use with WebSphere Commerce Service Provider 3.2, ensure that you write them in C++, using the appropriate compiler and release level. All commands and overridable functions should be written using Microsoft Visual C++, version 6.0.

See *Standards for Writing Overridable Functions* in the WebSphere Commerce Service Provider online help for more information on writing overridable functions.

Net.Data Macros

In the WebSphere Commerce Service Provider system, a Net.Data macro is a file that retrieves data from the WebSphere Commerce Service Provider database and displays it as a formatted Web page. It contains functions that usually execute SQL queries, HTML tags (which can also contain Java Script code), and Net.Data statements. The SQL statements search for and retrieve information from the WebSphere Commerce Service Provider database, the HTML defines the layout of the search results, and the Net.Data statements control the flow of the output.

WebSphere Commerce Service Provider 3.2 supports Net.Data 6.1. If you are using Net.Data macros that have loosely-defined variables, ensure that you either rewrite the macros to Net.Data 6.1 level or add the entry `DTW_VARIABLE_SCOPE=GLOBAL` to the Net.Data configuration file, `db2www.ini`, if it does not already exist. By default, the `db2www.ini` contains the `DTW_VARIABLE_SCOPE=GLOBAL` parameter. For example, in Net.Data Version 1, if you define a variable within a block, you can still reference the variable outside of the block. If braces define a block then,

```
{  
xx = 1;  
}  
if (xx==1) write message;
```

was valid in Net.Data Version 1; however in Net.Data 6.1 the `xx` outside of the block becomes undefined.

See *Net.Data Macros* and *Net.Data Configuration File* in the WebSphere Commerce Service Provider online help for more information about the `DTW_VARIABLE_SCOPE=GLOBAL` parameter.

Text Extender

WebSphere Commerce Service Provider supports Text Extender 6.1 plus the FixPak. As Text Extender is an optional component of WebSphere Commerce Service Provider, you are not required to migrate or upgrade to Text Extender 6.1 plus the FixPak. However, if you wish to use Text Extender with WebSphere Commerce Service Provider, you need to upgrade your current version of Text Extender as documented in the next chapter.

Modifying Database Schema Migration Scripts for Custom Table Spaces

Warning!

Use extreme caution when modifying the database schema migration scripts. If there have been changes made to the database schema that you do not know about, it is possible that your modifications may be incorrect. If there are any errors made in attempting to modify these files in the `nc_schema` subdirectory, the migration will not be successful.

By default, the database migration scripts drop and recreate some database tables based on the standard WebSphere Commerce Service Provider database layout. If

you create your own table spaces and balance database tables across them, prior to running the database migration scripts, you must modify the scripts to handle the custom table spaces.

To modify the migration scripts to handle your table spaces, do the following:

1. Locate the database migration scripts which are contained in the following directory:

For DB2:

```
drive:\Ibm\NetCommerce3\nc_schema\db2\migrate
```

2. Within the scripts, search for any occurrences of CREATE TABLE and CREATE INDEX and modify the scripts based on your table space requirements.



You can use the Windows Find File or Folders tool to search for CREATE TABLE and CREATE INDEX.

Once the scripts have been updated, you can run the migration script to migrate your database schema.

What You Need to Tell Your Merchants

Before you migrate from Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, there are several things that you need to communicate to your merchants.

- Unpublished merchant sites will be visible after the migration is completed.
- New 3.2 functionality will be available in merchant stores.
- Custom 3.1.2 stores in which all pages are uploaded (not created using the Home Page Creator) will appear different.
- Attributes of products will display differently for all migrated stores.
- There are also some additional (miscellaneous) items to note.

Details are described in the following sections.

Unpublished Merchant Sites

Unpublished merchant sites will be visible after the migration is completed. During the upgrade from Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, all of the merchant sites will get published at their current state at the time of running the premigration script. This means that any 3.1.2 stores that were created and but never published will now have an entry on the Web server. These stores will not be open, and the store's address will be:

```
http://<ISP_host_name>/merchant<mer_Ref_no>
```

where *<ISP_host_name>* is the root Web location for all of your merchant sites, and *<mer_Ref_no>* is the reference number of that merchant in the WebSphere Commerce Service Provider administrator (ncadmin).

Any Net.Commerce Hosting Server 3.1.2 store that had been published in the past will be republished. So any changes that your merchant has made to the catalog, the contents of the pages, or to any other items will now be fully visible on their web site. Merchants need to be aware of this explicitly in case they are in the middle of modifications or would rather not make any of their new additions visible externally.

If a merchant wants their store to become open and accessible on the Web, they need to contact you, their ISP, to activate their store. You do this by changing the store from the NEW to the CLOSED state. To open the store, the merchant changes the store to the OPEN state. Your merchants must also provide you with some information that gets filled in automatically during migration:

- The new directory from where they want their store to be accessed on the Web site.
- The category under which their store should fit for the mall directory.
- The default E-mail address that shoppers should use to contact the merchant.
- The currency that the store will use, if it is not already specified.
- The description of the store that will appear in the mall directory.

You can update the most of the above fields using `ncadmin` and selecting `Site manager`, and then selecting `Store Records (CHS)`. Select the correct merchant, and then update the information in the fields. Note that the `CURRENCY` and `MERCHANT DIRECTORY` fields are read-only, and so cannot be updated using `ncadmin`.

Updating the Merchant Directory Name

To update the merchant directory name:

1. After a merchant contacts you requesting the change to the directory name for their store, as the ISP, you have to rename the merchant document root directory to the new directory name. For Domino Go WebServer, the merchant directory name is located by default under `drive:\Ibm\Www\Html`). For Netscape Enterprise Server, the merchant directory name is located by default under `drive:Netscape\Suitspot\Docs`). Rename the merchant directory to the new name, for example, change a hypothetical Merchant1008 directory to shoemart.
2. While logged in as your DB2 instance user ID, connect to your WebSphere Commerce Service Provider database and update the `METBASE` field in the `MERCHANT` table to the new directory name by typing the following in a DB2 command window:

```
DB2 CONNECT TO db_name user db_user using db_password
DB2 UPDATE MERCHANT SET METBASE='merchant_directory_name' WHERE MERFNBR=nnnn
```

where *db_name* is your database name (for example, `mser`), *db_user* is your database instance ID, *db_password* is your database instance ID password, and *merchant_directory_name* is the new merchant directory name, (for example, entering `/shoemart/` for *merchant_directory_name* would result in `http://host_name/shoemart` as the link to the store) and *nnnn* is the merchant reference number, (for example, 1008).

3. Have the merchant recreate the `index.html` file in your store directory by running the **Design Store** wizard in the 3.2 Merchant Tool under **Store Style**. The merchant needs to reselect the frame set style and color scheme using the Design Store wizard. They can optionally update any of the other store characteristics, and then click **Finish** to exit the wizard. You should be able to point your browser to `http://host_name/shoemart`.
4. If the `index.html` file does not get recreated in the above step, you will not be able to point your browser to `http://host_name/shoemart`. In this case, manually edit the `index.html` file located in the directory that you renamed in step 1. Search for the merchant number and replace it with the new store name. For example, replace Merchant1008 with shoemart in the `index.html` file.
5. To update the path name displayed in `ncadmin` under **Store Records**, run the following DB2 update command against your database from a DB2 command window, while logged in as your DB2 instance user ID:

```
DB2 UPDATE MCSPINFO SET MPDIRNAME='store_name' WHERE MPMENBR=nnnn
```


where *store_name* is the new store name and *nnnn* is the merchant number. For example:

```
DB2 UPDATE MCSPINFO SET MPDIRNAME='shoemart' WHERE MPMENBR=1008
```

- Restart your WebSphere Commerce Service Provider instance for the changes to take effect.

Updating the Currency

To update the currency:

- After a merchant contacts you requesting the change to the currency for their store, as the ISP, you have to update the MECUR field in the MERCHANT table to the new currency. While logged in as your DB2 instance user ID, and while connected to your WebSphere Commerce Service Provider database, type the following in a DB2 command window:

```
DB2 UPDATE MERCHANT SET MECUR='currency' WHERE MERFNBR=nnnn
```

where *currency* is the ISO code for the currency, for example, CAD for Canadian dollars, and *nnnn* is the merchant reference number, for example, 1008.

- You also have to update the PPCUR field in the PRODPRCS table to the new currency. While logged in as your DB2 instance user ID, and while connected to your WebSphere Commerce Service Provider database, type the following in a DB2 command window:

```
DB2 UPDATE PRODPRCS SET PPCUR='currency' WHERE PPMENBR=nnnn
```

where *currency* is the ISO code for the currency, for example, CAD for Canadian dollars, and *nnnn* is the merchant reference number, for example, 1008.

To list the available ISO currency codes, while logged in as your DB2 instance user ID, and while connected to your WebSphere Commerce Service Provider database, type the following in a DB2 command window:

```
DB2 SELECT CURRSTR FROM CURRFORMAT
```

- Have the merchant update the currency information in the store's include file by running the **Customer Service** wizard in the 3.2 Merchant Tool under **Store Style**. Complete or update any fields as necessary, and click **OK**.

To verify that the directory name and currency are properly updated, check the **Store Records** for the store in ncdadmin.

New Functionality in Merchant Stores

After WebSphere Commerce Service Provider 3.2 is installed, your merchants will have new functionality in their stores that they should know about:

- If a merchant previously used the Home Page Creator Tool, then the presentation of their store will now be different. After upgrading, their store pages will be contained in a frame set with navigation in the bottom frame, and a banner at the top with the store name. For the merchant, this means some modification to the presentation of their store may be necessary. These changes can be carried out using the new Page Editor.
- If a merchant previously used a navigation bar in their pages, then they may want to remove it in favor of the new navigation bar in the bottom frame. This new navigation bar can be edited using the Navigation Bar Editor.
- The title of the merchant's store will now also be presented in a separate banner frame at the top of the page so if they had a large title for their store in the home page, they may want to remove or alter the title.
- The frame set around their stores will be new, and change how their store is presented to the public.

Appearance of Custom 3.1.2 Stores

For custom 3.1.2 stores, where all pages are uploaded (not created using the Home Page Creator), the pages will appear differently after migration.

Without the Plug-in and Without Custom Frame Sets

For custom 3.1.2 Stores without the Plug-in and without custom frame sets:

- For all the dynamic pages links (catalog, search, shop cart, customer service, logon, logoff, and register), the pages will be served within an NCHS frame set. The frames will be banner, content, and navigation bar.
- All static pages that were created by the merchant will probably end up with 2 navigation bars (one in the frame set, and one in their content page). They should probably remove the navigation bar from their content pages, and use the navigation bar editor to add their custom links.

Without the Plug-in and With Custom Frame Sets

For custom 3.1.2 stores without the Plug-in and with custom frame sets:

- If merchants have their own frame set, then the NCHS frame set will be nested within their frame set for all the dynamic pages only (catalog, search, shop cart, customer service, logon, logoff, register).
- If merchants want to continue using their own frame set instead the NCHS frame set, they will have to replace the navigation bar links in their store to call the dynamic pages that do not contain the NCHS frame sets. In the page names below, NF refers to the page without the frame set.

For NCHS 3.1.2 without Plug-in migration, replace the following links:

- catalog.html with NFcatalog.html
- search.html with NFsearch.html
- customer_service.html with NFcustomer_service.html
- logon.html with NFlogon.html
- register.html with NFregister.html
- shop_cart.html with NFshop_cart.html.html

You should ensure that the navigation bar includes the above set of links to the NF*.html pages.

With the Plug-in and Without Custom Frame Sets

For custom 3.1.2 stores with the Plug-in and without custom frame sets:

There are two versions of links that you can incorporate into your store pages as listed below. For example, to add a link to your catalog from an HTML page, copy a catalog URL. If your site uses frames, copy the first catalog link shown. If your site does not use frames copy the second link shown. Note that in the following examples, the links are supposed be on one line. Line breaks are included for formatting purposes only.

- Home:
`http://host_name/idremote/homepage.html`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/idremote/homepage.html"`
- Catalog:
`http://host_name/servlet/Catalog?merchant.refno=nnnn&catalog.refno=rrrrr`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/Catalog?merchant.refno=nnnn"`
- Search:

`http://host_name/servlet/StoreSearch?merchant.refno=nnnn`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/StoreSearch?merchant.refno=nnnn"`

- Shopping Cart:

`http://host_name/servlet/ViewShoppingCart?merchant.refno=nnnn`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/ViewShoppingCart?merchant.refno=nnnn"`

- Customer Service:

`http://host_name/servlet/CustomerService?merchant.refno=nnnn`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/CustomerService?merchant.refno=nnnn"`

- Registration:

`http://host_name/servlet/Register?merchant.refno=nnnn`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/Register?merchant.refno=nnnn"`

- Logon:

`http://host_name/servlet/Logon?merchant.refno=nnnn
&merchant.homeURL=http%3A%2F%2Fhost_name%2Fidremote%2FHomepage.html`

`http://host_name/idremote/frameset.html?
CONTENTS="http://host_name/servlet/Logon?merchant.refno=nnnn
&merchant.homeURL=http%3A%2F%2Fhost_name%2Fidremote%2FHomepage.html"`

where *host_name* is the host name of the WebSphere Commerce Service Provider machine, *nnnn* is the merchant reference number, and *rrrrr* is the catalog reference number.

With the Plug-in and With Custom Frame Sets

For custom 3.1.2 stores with the Plug-in and with custom frame sets:

After migrating to 3.2, the NCHS dynamic pages will no longer contain the shopping links (Catalog, Search, Shop Cart, Customer Service, Logon, Logoff, and Register). To add the links back into your 3.2 store, add them to your custom navigation bar. Refer to the Useful Links component of the Merchant Tool and copy the links to your pages.

Attributes of Products

Attributes of products will display differently for all migrated stores. Thus you will also need to inform your merchants that the attributes of their products will now be displayed differently. At the bottom of the shopping cart page, a shopper will see the products they have selected with a list of possible attributes. For example:

Pants : blue, black, red
Tea : Orange Pekoe, Darjeeling, Lemon

Below this list of attributes will be a comment box as in Net.Commerce Hosting Server 3.1.2, but it will no longer contain a prompt for filling in the attributes of products. So your merchant may want to make some modifications to their store to make it clear to the shopper what the shopper needs to do. Some possibilities are:

- Add a description to the shopping cart page telling the shopper what they should do.
- Using the Catalog Editor, add items to each of their products. Items allow a merchant to have one product, say Pants, and multiple items that have different

attributes but are still the same products, so there would be red pants, blue pants and black pants. These items would show up in a drop down box as separate objects to be ordered.

The merchant will need to reset the color values of their catalog pages to match them more closely with their color schema using the *Design Store* wizard in the Merchant Tool. By default, all merchants will be given a standard colour scheme. If they had uploaded a background image on their catalog pages for their 3.1.2 stores, they should reset it now from the list of gallery images presented to them.

Merchants now have many more options to customize the style of their site. Even if they are remote and thus do not use all of this functionality, such as bypassing the new frame set, they will still want to go through the Design Store wizard and reset their options from the defaults.

Additional Items

Your merchants should consider making the following updates to their stores:

- Use the Page Editor to remove the old navigation bar that will now be redundant. They will likely also want to add any custom links they had to the new framed navigation bar using the Navigation Bar Editor.
- Use the Design Store wizard to edit their store banner.
- To deal with the different way in which product attributes are now treated they will likely want to do one of the following:
 - Edit the Shopping Cart page to include a description of what to enter into the comment box. With 3.2, the shopper will be presented with a comma separated list of product attributes from which they can choose in the comment box.
 - Use the new product or item functionality by recreating items for each of their products.
- Some merchants may find that images they uploaded show up as broken image links in their Page Editor, even though they all appear fine in their store. They should use the Page Editor to reset image links that will appear to be broken in the migrated stores. The images are not broken in the live store pages, only in the Merchant Tool. The Gallery images will still be readily available in the Edit Image dialog.
- The credit cards previously selected in a 3.1.2 store will still be displayed in the active store site viewed by shoppers. However in the Merchant Tool, for migrated stores, all credit cards will be displayed as the previous selections are not preserved. The merchant should reselect the credit card options in the Payment wizard.
- If the merchant had not set their country in the 3.1.2 store information, and instead used the default value, United States, after migrating to 3.2, they would observe that the country field is blank. As there is no longer a default country in 3.2, merchants may want to add the country manually, so that their country shows up on some of the automatically generated pages. For some US stores, the merchants may want to go into *Administration Information* in the Merchant Tool and reset their country to United States if they previously used the default value, United States.
- If merchants used HTML tags in any of the description fields in a catalog, for example in the product description, this may cause formatting problems when using the Catalog Editor. HTML table tags are particularly problematic. The

symptom will be a significant reformatting of the catalog in the Catalog Editor, with perhaps entire rows appearing to be missing or with empty table boxes on one side of the table.

To fix this, have the merchant select the product with HTML in it (such as tables and pictures) and display the item properties. In the description field, remove the HTML contents and save them. Click **OK** on the item and it will reload the product display correctly. Now reopen the same item and add back the HTML into it and click **OK**. The additions will now show up properly.

- For WebSphere Commerce Service Provider 3.2 stores, the following currencies are rounded to the nearest whole unit, as decimals are no longer supported for them:
 - Luxembourg Franc
 - Belgian Franc
 - Portuguese Escudo
- When custom stores are migrated, all customized HTML pages that were created by the merchant will be backed up, the store's dynamic pages will be updated, and the original home page will be restored.
- The home page for custom stores will not be displayed within a frame set unless the merchant had specifically created a frame set of their own. If they created a frame set of their own, the store will continue to display it.

Note: If your site contains stores that were not created using NCHS 3.1.2 Store Creator (for example, perhaps by creating a Net.Commerce store and customizing it to work in NCHS), these stores may not migrate properly to WebSphere Commerce Service Provider 3.2. The files that the migration scripts look for will not be present, and this will result in error messages in the section of log or console output for that store. These stores will need to be migrated manually to the 3.2 format. Ensure that all information regarding these stores is backed up before migration begins. You may also want to consider contacting IBM support for guidance on how to best proceed with migration for your scenario.

Planning to Verify a Successful Migration

In order to ensure that the migration process is a success, you need to perform several steps with Net.Commerce Hosting Server 3.1.2 before you migrate to WebSphere Commerce Service Provider 3.2:

- While you are still running Net.Commerce Hosting Server 3.1.2:
From your Windows machine, open your browser to the following Web address:
`http://host_name/cspsite`

where *host_name* is the fully qualified name of your Net.Commerce Hosting Server machine. (If you have customized your site so that *cspsite* has been renamed, use your equivalent name for *cspsite*.)

View several existing stores, preferably ones with orders that are pending, and that have large catalogs. In addition, you may want to create a test store in order to help you verify that the migration completes successfully.

- After you complete your migration, when you are running WebSphere Commerce Service Provider 3.2:
From your Windows machine, open your browser to the following Web address:
`http://host_name/cspsite`

where *host_name* is the fully qualified name of your Net.Commerce Hosting Server machine. (If you have customized your site so that *cspsite* has been renamed, use your equivalent name for *cspsite*.)

View the same stores as before as well as your test store that you created. Ensure that the features and content in the stores are the same as they were with Net.Commerce Hosting Server, particularly:

- Catalog items
- Orders (any orders that were pending should still be pending)
- Page content will be preserved although they will be displayed differently with WebSphere Commerce Service Provider 3.2
- Verify that you can create new WebSphere Commerce Service Provider 3.2 stores as described in “Chapter 6. Verifying Your Installation and Configuration” on page 41.

Chapter 14. Migrating Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider

This chapter describes how to migrate from Net.Commerce Hosting Server 3.1.2 (or the 3.1.2 Plug-In Enhancement) to WebSphere Commerce Service Provider 3.2. If you currently have Net.Commerce Hosting Server 3.1.1 installed, you must migrate and upgrade your current installation to Net.Commerce Hosting Server 3.1.2 before you follow the steps in this section to migrate to WebSphere Commerce Service Provider 3.2.

To complete the steps in this chapter, you must have the following CDs:

- Your database management system. The IBM DB2 Universal Database 6.1.0.6 CD is provided in the WebSphere Commerce Service Provider product box.
- Your Web server. The Domino Go Webserver 4.6.2.61 CD is provided in the WebSphere Commerce Service Provider product box.
- Net.Data 6.1, provided in the WebSphere Commerce Service Provider product box.
- WebSphere Application Server 2.0.3.1, provided in the WebSphere Commerce Service Provider product box.
- WebSphere Commerce Service Provider 3.2 Upgrade CD. You can obtain this CD from your IBM Service & Support representative.

Important!

Do not attempt to upgrade any software before obtaining the WebSphere Commerce Service Provider 3.2 Upgrade CD. Use the Upgrade CD in place of the WebSphere Commerce Service Provider 3.2 CD provided in the product box.

Pre-Migration Steps

Before you begin your migration, note the following:

- Ensure that you have Windows NT Service Pack 4, as described in “Prerequisite Software” on page 4.
- Ensure that your Windows NT user ID meets the requirements specified in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix.
- If you are running an antivirus program, you must set its start up type to **Manual** in the Services menu and reboot your machine before you begin to migrate to WebSphere Commerce Service Provider 3.2. Once you complete installing WebSphere Commerce Service Provider, remember to set the start up type back to **Automatic**.
- Installing WebSphere Commerce Service Provider replaces all Net.Commerce Hosting Server files. You *cannot* revert to your previously installed version of Net.Commerce Hosting Server. It is strongly recommended that prior to installing WebSphere Commerce Service Provider, you perform a complete system backup, including backing up any customized files, macros, and directories for Net.Commerce Hosting Server and its associated components, including your database, your Web server, Payment Server, WebSphere Application Server, as applicable.

- If you are using Domino Go Webserver, the installation program will uninstall your existing version and install Domino Go Webserver 4.6.2.61. It will save and restore the following necessary configuration files: `httpd.cnf`, `servlet.cnf` and `admin.pwd`.
- Notes on Payment Server:
 1. If you currently have a version of Payment Server earlier than 1.2.20.3, it will be uninstalled if you choose to install Payment Server 1.2.20.3. Once you install Payment Server 1.2.20.3, you *cannot* revert to your version of Payment Server.
 2. If you do not have any version of Payment Server installed, you can select Payment Server 1.2.20.3 during the installation process. If you do not install it during migration, you can install it at a later date by running `\payment_server\setup.exe` from the WebSphere Commerce Service Provider 3.2 CD.
 3. The WebSphere Commerce Service Provider migration utility calls the payment server's database migration utility automatically. Database tables for earlier versions of Payment Server in the Net.Commerce Hosting Server database will be recreated as Payment Server 1.2.20.3 tables, with the data migrated to the new database tables. Before installing WebSphere Commerce Service Provider 3.2 and Payment Server, from the **Services** window in the Control Panel, stop the Net.Commerce – <instance> service. Next, ensure configuration data about acquirers brands, and merchants that was used to create all earlier version orders is still contained in the database. If your database contains records for orders that do not use the current configuration data, you must delete them from the ETSETMESSAGES table before running the migration.

Note: Only orders in the following states will be migrated to the new tables. Orders in other states will be lost.

- Ordered
- Authorized
- Captured
- Credited
- Failed

For important information about migrating from earlier versions of Payment Server, refer to your *IBM Payment Server Administrator's Guide*.

Overview of the Migration Procedures

Migrating from a previous version of Net.Commerce Hosting Server to WebSphere Commerce Service Provider requires several steps. Specific instructions are described in this chapter; however, the following list outlines the high level steps required for migration:

1. Publish all merchant sites in order to ensure that any unpublished stores, catalogs, and other unpublished items are not lost.
2. If you are using Netscape Enterprise Server, upgrade it as necessary.
3. Prepare to migrate to DB2 Universal Database 6.1.0.6.
4. Install Netscape Communicator 4.61.
5. Stop any active Net.Commerce Hosting Server instances, Web servers, databases, and Payment servers according to the starting and stopping

instructions in the appendix of the *Net.Commerce Hosting Server Installation Guide*. Reboot your machine before you begin to install WebSphere Commerce Service Provider 3.2.

6. Install WebSphere Commerce Service Provider 3.2 and follow the on-screen installation instructions which will lead you through the process of installing DB2 Universal Database 6.1.0.6, Net.Data 6.1, Domino Go Webserver 4.6.2.61, JDK 1.1.7 and WebSphere Application Server 2.0.3.1, Payment Server 1.2.20.3, and WebSphere Commerce Service Provider, as applicable.
7. Migrate your DB2 database.
8. Migrate your configuration files.
9. Migrate your database schema.
10. Perform the post-migration instructions.

Publishing Merchant Sites

Before migrating to WebSphere Commerce Service Provider 3.2, you need to publish all merchant sites. This will ensure that no data from unpublished stores will be lost during the migration process. The premigration batch file will publish all sites that merchants have left in the unpublished state. Before running the script, you should warn all merchants that their unpublished changes will be made visible after the migration.

Note:

During the upgrade from Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, all of the merchant sites get published at their current state when you run the premigration script. This means that any merchant stores that were created and never published will now have an entry on the Web server. These stores will not be open, and the address will be:

```
http://<ISP_host_name>/merchant<mer_Ref_no>
```

where <ISP_host_name> is the root Web location for all of your merchant sites, and <mer_Ref_no> is the reference number of that merchant in the WebSphere Commerce Service Provider administrator (ncadmin).

Ensure that Net.Commerce Hosting Server 3.1.2 components such as your Web server, DB2 UDB, Text Extender, WebSphere Application Server, and your Net.Commerce Hosting Server instance are started. For details on starting up these components, refer to the appendices of *Net.Commerce Hosting Server 3.1.2 Installing and Getting Started Guide*.

To publish the merchant sites, perform the following steps:

1. Insert the WebSphere Commerce Service Provider CD.
2. Open a DOS window.
 - **If you are migrating from NCHS 3.1.2 without the Plug-in:**

Switch to the \ppm32\ppm32_312 directory on your CD and run the premigration batch file ppm32_312_NT.bat:

```
cd CD-ROM drive:\ppm32\ppm32_312
ppm32_312_NT nc_admin_user nc_admin_password nc_base_dir nc_ini_file db_path
```

where the variables are defined as follows:

nc_admin_user

The user ID used to log in to the Net.Commerce administrator.

nc_admin_password

The password used to log in to the Net.Commerce administrator.

nc_base_dir

The root directory for Net.Commerce Hosting Server (for example, C:\IBM\NetCommerce3).

nc_ini_file

The full path to the location of ncommerce.ini file for Net.Commerce Hosting Server (for example, C:\IBM\www\html\ncommerce.ini).

db_path

The root directory for DB2 UDB (for example, C:\IBM\sql11ib).

- **If you are migrating from NCHS 3.12 plus the Plug-in:**

Switch to the \ppm32\ppm32_plugin directory on your CD, and run the premigration batch file ppm32_Plugin_NT.bat:

```
cd CD-ROM drive:\ppm32\ppm32_plugin
ppm32_Plugin_NT nc_admin_user nc_admin_passwd nc_base_dir db_path
```

where the variables are defined as follows:

ncadmin_user

The user ID used to log in to the Net.Commerce administrator.

ncadmin_passwd

The password used to log in to the Net.Commerce administrator.

nc_base_dir

The root directory for Net.Commerce Hosting Server (for example, C:\IBM\NetCommerce3).

db_path

The root directory for DB2 UDB (for example, C:\IBM\sql11ib).

3. View the messages on the screen. Once the premigration is complete, you will receive a message indicating that the premigration was successful.

You can optionally look at the contents of the log file and ensure that there were no error messages when you ran the script. The log file name and directory is as follows:

- For Net.Commerce Hosting Server 3.1.2 without Plug-in, look at the content of:

```
drive:\IBM\NetCommerce3\ppm32\premigration.log
```

- For Net.Commerce Hosting Server 3.1.2 with Plug-in, look at the content of:

```
drive:\IBM\NetCommerce3\Tools\logs\tools.log
```

You may wish to back up the

drive:\IBM\NetCommerce3\Tools\logs\tools.log file as it may be overwritten by other migration actions.

Upgrading Netscape Enterprise Server

If you are using Netscape Enterprise Server, read the following sections about upgrading Netscape Enterprise Server.

Uninstalling Netscape Enterprise Server

When you uninstall Netscape Enterprise Server, do the following:

1. Back up the entire document root directory (for example, *drive:\netscape\suitespot\docs*) including all subdirectories. Ensure that the following configuration files are contained in the document root directory:
 - db2www.ini
 - srvrctrl.conf
 - ncommerce.conf
 - pay_back.conf
 - pay_etill.conf
 - pay_cyber.conf
 - scheduler.conf
 - Any other customized Net.Commerce Hosting Server files in the document root directory.
2. Ensure that the secure (port 443) and non-secure (port 80) servers for Netscape Enterprise Server are stopped.
3. If you have created or customized any files in the *drive:\netscape* directory or its subdirectories, and you wish to retain them, back them up to a directory that is not used by Netscape Enterprise Server or any Net.Commerce Hosting Server component.
4. Back up your obj.conf files (one for each of the secure and non-secure servers) and all custom HTML files.
5. Uninstall Netscape Enterprise Server, according to your Netscape documentation. You must uninstall your existing version of Netscape Enterprise Server before you install Netscape Enterprise Server 3.6.1.
6. If the *drive:\netscape* directory exists, remove it.

Installing Netscape Enterprise Server 3.6.1

Once you have uninstalled your existing version of Netscape Enterprise Server, install Netscape Enterprise Server 3.6.1 by following your Netscape documentation. When you have installed Netscape Enterprise Server 3.6.1, do the following:

1. Activate SSL, according to Netscape's instructions
2. Restore the document root directory which you backed up in step 1 above, including all configuration files, and any customized directories and files.
3. Ensure that the server and document root directories are the same as your previous version of Net.Commerce Hosting Server.
4. Ensure that the server certificate has been migrated successfully. Depending on your certificate authority, you may need to install a new certificate.

Preparing to Migrate DB2 Text Extender 5.0 Databases and Instances

WebSphere Commerce Service Provider supports DB2 Text Extender 6.1. As DB2 Text Extender is an optional component of WebSphere Commerce Service Provider, you are not required to migrate to DB2 Text Extender. However, if you wish to use DB2 Text Extender with WebSphere Commerce Service Provider, you need to migrate to DB2 Text Extender 6.1 plus the FixPak.

If wish to migrate DB2 Text Extender 5.0, you must prepare to migrate your DB2 Text Extender databases and instances from DB2 Text Extender 5.0 to DB2 Text Extender 6.1 plus the FixPak, before you install IBM DB2 Universal Database 6.1.0.6 or DB2 Text Extender 6.1.

Note: If you are migrating from DB2 Text Extender 5.2 to DB2 Text Extender 6.1, you do not need to complete the steps in this section. Once you have installed DB2 Text Extender 6.1 plus FixPak, refer to “Migrating from DB2 Text Extender 5.2” on page 136 to migrate to DB2 Text Extender 6.1.

To prepare to migrate the DB2 Text Extender 5.0 databases and instances, do the following:

1. From a DOS window type, start DB2 Text Extender:
`txstart`
2. From a DB2 command window, start a DB2 Text Extender command window by typing the following:
`db2tx`
3. From the DB2 Text Extender command line window, connect to the existing DB2 Text Extender 5.0 enabled database by running the following command:
`connect to database_name`

where *database_name* is the name of the DB2 Text Extender 5.0 enabled database.

4. Disable the existing DB2 Text Extender 5.0 enabled database by running the following command:
`disable database`
5. Exit the DB2 Text Extender command window by typing:
`quit`
6. Stop DB2 Text Extender 5.0 by running the following command:
`txstop`
7. Drop the Extender and Text Extender instance by running the following command:
`dmbidrop instance_name`

where *instance_name* is the name of the DB2 Text Extender 5.0 instance. Type **yes** when you are prompted to drop the V5.0 Audio, Image, and Video Extenders instance.

Preparing to Migrate DB2

If you are using DB2 Universal Database with Net.Commerce Hosting Server 3.1.2, follow the instructions in the sections below to prepare to migrate from an existing version of DB2 Universal Database to DB2 Universal Database 6.1.0.6.

When you have installed WebSphere Commerce Service Provider, you can continue to migrate the DB2 database, as described in “Migrating the DB2 Database” on page 125.

DB2 Premigration Steps

Note: Before proceeding with the following steps, ensure you stop the Net.Commerce – *<instance>* service.

To ensure that all databases on your system can be migrated to DB2 Universal Database 6.1, complete the following steps on your DB2 server machine in a 2-tier installation, or on your standalone machine in a 1-tier installation:

1. Complete all database transactions.

2. Start a DB2 command window, by typing the following command at a DOS window:
`db2cmd`
3. Ensure that all applications disconnect from each database. To view a list of all the applications that are connected to a database, run the following command:
`db2 list applications`

If all applications are disconnected, the following message appears:
SQL1611W No data was returned by the Database System Monitor.

To force all applications to disconnect, run the following command:
`db2 force applications all`

4. Ensure that all applications are stopped by reissuing the following command:
`db2 list applications`

If all applications are stopped, the following message appears:
SQL1611W No data was returned by the Database System Monitor.

5. Ensure that all databases are cataloged. To view a list of all the cataloged databases in the current instance, type the following command:
`db2 list database directory`

Note: The `db2ckmig` database migration verification command does not verify uncataloged databases. You will run the `db2ckmig` command in “Verifying that the Database Can Be Migrated” on page 121

6. Back up all databases by typing the following command:
`db2 backup database db_name to backup_directory`

where *db_name* is the name of the database, and *backup_directory* is the full path to where you wish to back up the database. If you have more than one database, repeat the command for each database.

7. Stop the database manager by typing the following command:
`db2stop`
8. Stop all command line processor sessions by typing the following command against each session that is running:
`db2 terminate`

If all sessions are stopped, the following message appears:
DB20000I The TERMINATE command completed successfully.

Verifying that the Database Can Be Migrated

To ensure that all databases on your system can be migrated to DB2 Universal Database 6.1, complete the following steps on your DB2 server machine in a 2-tier installation, or on your stand-alone machine in a 1-tier installation:

To ensure that your DB2 database can be migrated to the DB2 Universal Database 6.1.0.6 format, do the following:

1. Insert the DB2 Universal Database 6.1.0.6 CD into your CD-ROM drive.
2. Next, in a DOS window, switch to the `\db2\common` directory on the CD.
3. Verify *all* databases that were created by the database instance ID specified by typing the following:

```
db2ckmig -e -L log_file -U db_user -P db_password
```

Note

If the command completes with only *warning* messages and no *error* messages, you can continue.

The variable information is defined as follows:

log_file The fully qualified path and name of a file to which you want the command to write its log records.

db_user

The user ID under which you created the database.

db_password

The password of the user ID you specified above.

4. When the command has completed, check the log file for errors. Note that if the command completes without errors, the file will exist, but it may contain no records. For details about db2ckmig error messages, refer to your *DB2 Quick Beginnings* documentation. Save the log file for future reference.

Installing Netscape Communicator 4.61

To access WebSphere Commerce Service Provider Administrator and Configuration Manager, you require Netscape Communicator 4.61. To install Netscape Communicator 4.61, do the following:

1. Insert the WebSphere Commerce Service Provider CD into your CD-ROM drive.
2. Switch to the \netscape directory on the CD-ROM drive.
3. Run cc32e461.exe and follow the instructions to perform the installation.
4. When installation is complete you are prompted to reboot. If you are continuing with the migration, you can defer the reboot until after the following section.

Stopping Active Services

Stop any active Net.Commerce Hosting Server instances, Web servers, databases, and payment servers according to the instructions in “Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components” on page 143.

Notes:

1. Open the Windows Task Manager to confirm that no processes associated with Net.Commerce Hosting Server, your database, or your Web server are running. If you are using DB2 Universal Database, from the Windows Task Manager, ensure that the following services are stopped:
 - Net.Commerce – [instance_name]
 - Lotus Domino Go Webserver
 - DB2–DB2
 - DB2–DB2DAS00
 - DB2 Governor
 - DB2JDBC Applet Server
 - DB2 Security Server

Also ensure that the startup type for each service is set to **Manual** under your Windows NT Services menu. From the Windows NT Control Panel, click on the **Services** icon. Highlight the service of interest, and click on the **Startup** button. In the Service pop-up window, under **Startup Type**, select **Manual** and click **OK**.

Reboot your machine before you begin to install WebSphere Commerce Service Provider 3.2.

2. If you are using Domino Go Web Server, ensure that the Web server is stopped. If it is not, the installation program will not be able to run.

Installing WebSphere Commerce Service Provider 3.2

To install WebSphere Commerce Service Provider 3.2, do the following:

1. Log on to a Windows NT user ID that has Administrator authority and is 8 characters or less. Your Windows NT user ID must adhere to the criteria outlined in **Windows NT user ID** in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix.
2. If you are using your NT machine as a backup Domain Controller, you must install DB2 before installing WebSphere Commerce Service Provider. Install IBM DB2 Universal Database 6.1.0.6 based on the components listed in “Quick Reference to the Components Installed During a Typical Install” on page xii.
3. If you are running an antivirus program, you must set its startup type to Manual in the Services menu and reboot your machine before you begin to install Net.Commerce. After you finish installing Net.Commerce, remember to set the startup type back to Automatic.
4. Insert the WebSphere Commerce Service Provider CD into your CD drive.
5. From the root directory of the WebSphere Commerce Service Provider CD, run `setup.exe`.

If your system does not meet the preinstallation requirements, a dialog box will appear detailing the requirements which have not been met. Click **Cancel** and then **Exit Setup** to exit the installation program. Take the appropriate steps to meet the preinstallation requirements and begin the installation again.

6. A Welcome window appears. Click **Next** to continue.
7. A License Agreement window appears. After reviewing and accepting the licensing conditions, click **Accept** to continue.
8. A window appears allowing you to select the components that you want to install. Refer to “A Custom Install” on page 19 for more information. To install the DB2 Administration Client component on your WebSphere Commerce Service Provider machine for a 2-tier installation, ensure that you enable the **Remote Database** check box when you install DB2 in a Custom install.
9. If all the standard product components of Net.Commerce Hosting Server 3.1.2 are missing (such as WebSphere Application Server or DB2) the installation program displays a window to allow you to override the default install path. All WebSphere Commerce Service Provider components will be installed in this directory. If all the standard Net.Commerce Hosting Server 3.1.2 components are present, you will not see this prompt.

When you have chosen your installation path, click **Next**.



By default, the installation program uses the drive that contains the most free space.

10. On the next window, either accept the default folder name or enter the name of the folder which will be created for WebSphere Commerce Service Provider in the Program folder. Click **Next** to continue.
11. The Summary window displays a summary of the selections you have made. This window lists the setup type, the components which will be installed, and the drives on which they will be installed. Click **Next** to continue.
12. If you are upgrading to IBM DB2 Universal Database 6.1.0.6, the installation program prompts you to insert the DB2 Universal Database 6.1.0.6 CD. Insert the CD and click **OK** to begin the installation. Note that if the installation takes a very short amount of time, then DB2 was not properly upgraded, despite the message that indicates the installation completed successfully. Check the DB2 log file for errors. The default location for the log file is *drive:\DB2log\db2.log*. If you have successfully upgraded to DB2 Universal Database 6.1.0.6, the db2.log file should be approximately 4 KB.

Note: If your DB2 upgrade was not successful, verify that all DB2 services (including DB2-DB2AS00) are stopped before you attempt the upgrade again.

13. After DB2 Universal Database 6.1.0.6 has been installed, you are prompted to insert the Net.Data 6.1 CD. Insert the CD and click **OK** to continue.
14. After Net.Data 6.1 has been installed, you are prompted to insert the Domino Go Webserver 4.6.2.61 CD. Insert the CD and click **OK** to continue.
15. After Domino Go Webserver has been installed, you are prompted to insert the WebSphere Application Server 2.0.3.1 CD. Insert the CD and click **OK** to continue.
16. After WebSphere Application Server has been installed, you are prompted to insert the WebSphere Commerce Service Provider CD. Insert the CD and click **OK** to continue. WebSphere Commerce Service Provider 3.2 and, if you selected to install it, Payment Server 1.2.20.3 are installed.
17. After WebSphere Commerce Service Provider has been installed, you are prompted to complete an IBM Product Registration form. After completing the panels that make up this form, click **Submit** to continue. If you have not completed any of the mandatory fields on the form, the product registration process prompts you to complete these fields.
18. After submitting the Registration form, you are prompted to reboot. Remove the WebSphere Commerce Service Provider CD and click **Finish** to reboot the machine.
19. After your system reboots, log on to the same NT user ID that you used to begin the installation.

For a 1-tier installation, you can proceed to “Migrating the DB2 Database” on page 125.

Additional Steps for a 2-tier Installation

Install the DB2 server on your remote DB2 server machine. To set up your DB2 database on the remote DB2 server machine, perform the following steps to install DB2 and the Text Extender on that machine:

- On your remote DB2 server machine, stop all DB2 services. Set the services to Manual and reboot your machine and logon as your DB2 Database Administrator ID.
- Uninstall the previous version of DB2 using the **Add/Remove Programs** facility of Windows NT.

- Install DB2 Universal Database Enterprise Edition from the IBM DB2 Universal Database 6.1.0.6 CD. On the window displaying the installation path, ensure the path is set to to:

drive:\IBM\sql11ib

Reboot your WebSphere Commerce Service Provider machine before cataloging the remote database.

Catalog the remote database. From your WebSphere Commerce Service Provider machine, launch a DB2 command window and type the following commands:

```
db2 catalog tcpip node node_name remote host_name server port_num
db2 catalog db db_name at node node_name
```

where the variable information is defined as follows:

node_name

A unique name of your choice that DB2 will use to identify the TCP/IP node. To ensure that your name is unique, you can enter the following command using your DB2 database logon ID and look for the name in the response:

```
db2 list node directory
```

If the name does not appear in the list, you can use it as the node name.

host_name

The host name of the machine on which the WebSphere Commerce Service Provider database resides.

port_num

The DB2 connection port number. The default is 50000.

db_name

The name of your remote WebSphere Commerce Service Provider database.

Migrate your DB2 databases and the database schema as described in the following sections.

Migrating the DB2 Database

Run these steps on your DB2 server machine in a 2-tier installation, or on your standalone machine in a 1-tier installation.

To migrate databases owned by an instance, do the following:

1. If you did not reboot your machine when you completed the migration steps, reboot now.
2. In the Windows NT Services window, ensure that the following DB2 services are started and have a startup type of Automatic:
 - DB2-DB2
 - DB2-DB2DAS00
 - DB2 JDBC Applet Server
 - DB2 JDBC Applet Server — Control Center
 - DB2 Security Server

To set the startup type for each service to **Automatic** under your Windows NT Services menu, from the Windows NT Control Panel, click on the **Services** icon.

Highlight the service of interest, and click on the **Startup** button. In the Service pop-up window, under **Startup Type**, select **Automatic** and click **OK**.

3. Open a DB2 command window by typing the following in a DOS window:

```
db2cmd
```

4. To ensure DB2 is started, type the following command:

```
db2start
```

5. Check whether your database is cataloged by typing the following command:

```
db2 list database directory
```

6. If your DB2 database is not already cataloged, catalog it by running the following command:

```
db2 catalog database db_name
```

where *db_name* is the name of your database. If you have more than one database, repeat the command for *each* database.

7. Migrate your databases to the DB2 6.1 format by typing the following:

```
db2 migrate database db_name
```

where *db_name* is the name of your database. If you have more than one database, repeat the command for *each* database.

On successful completion, you should receive the following message:

```
The MIGRATE DATABASE command completed successfully
```

If you receive the following message, your DB2 log file is full:

```
Database migration failed. Reason Code "3".
```

You can find the current size of your DB2 log file in pages (4 KB per page) using the following command:

```
db2 get db cfg for db_name
```

Look at the value set for LOGFILSIZ. A reasonable target increase for your log file size is double that of your current size. For example, if your current log file size is 250, increase it to 500. To increase the size of your log file, update your database configuration by typing the following command:

```
db2 update db cfg for db_name using LOGFILSIZ n
```

where *db_name* is the name of the database you wish to migrate, and *n* is the size of the log file in pages. Once you have updated the log file size, rerun the migrate database command:

```
db2 migrate database db_name
```

8. List the applications that are connected to your database by typing the following:

```
db2 list applications
```

If there are applications connected to the database, stop any connections to your database by typing the following:

```
db2 force applications all  
db2 restart database db_name
```

where *db_name* is the name of your database. If you have more than one database, repeat the last command for *each* database.

9. Because you are going to be making further migration changes, you should back up your migrated database by typing the following:

```
db2 connect to db_name  
db2 backup database db_name to backup_path  
db2stop
```

where *db_name* is the name of your WebSphere Commerce Service Provider database, and *backup_path* is a path that is not used by any WebSphere Commerce Service Provider component. If you have more than one database, run `db2start` and repeat the last three commands for *each* database.

Once you run the DB2 connect command, you should receive a return message indicating the appropriate DB2 specifications. The following is a sample return message:

```
Database server = DB2/NT 6.1.0  
SQL authorization ID = DB2INST1  
Local database alias = MSER
```

Ensure that the version of DB2 specified is the version of DB2 to which you wish to migrate. For example, in the sample return message, the reference to 6.1.0 indicates that you have successfully migrated to IBM DB2 Universal Database 6.1.0.6.

Migrating Your Configuration Files

If you did not enable Web server caching, you do not need to perform any manual steps to migrate your Net.Commerce Hosting Server configuration files to the WebSphere Commerce Service Provider 3.2 format. If you used Web server caching with Net.Commerce Hosting Server 3.1.2 to avoid performance degradation, you need to specify Web server caching by editing the `ncommerce.ini` file. To edit the `ncommerce.ini` file, do the following:

1. Locate the `ncommerce.ini` file. The default location for the files is in the *drive:\Ibm\NetCommerce3\instance\instance_name\config* directory, where *instance_name* is the name of your Net.Commerce Hosting Server instance.
2. Open the `ncommerce.ini` file and search for the **CACHE_ENABLED** string.
3. Change the value from ON to WS.

For a 2-tier installation, you also need to install the correct version of the `netcpswd.dll` file on your remote database server machine:

1. On the remote database server machine, locate the `netcpswd.dll` file in *drive:\Ibm\sqllib\bin*. Rename the file to back it up, say `netcpswd.dll.bak`.
2. Copy the *drive:\Ibm\NetCommerce3\bin\netcpswd.dll* file on the WebSphere Commerce Service Provider machine to the *drive:\Ibm\sqllib\function* directory on the remote database server machine.

Migrating Your Database Schema

After installing WebSphere Commerce Service Provider 3.2, you must migrate your Net.Commerce Hosting Server database schema. To migrate the schema, follow the appropriate instructions below. The migration utility will migrate your databases and automatically call the eTill migration utility if you are using Payment Server 1.2.20.3.

Migrating a DB2 Database

Ensure that you have backed up all your databases as described in step 6 on page 121 before proceeding.

For a 2-tier installation, migrate your database schema by doing the following on your WebSphere Commerce Service Provider machine except as indicated. For a 1-tier installation, perform these steps on your stand-alone machine:

1. From the Services menu within Control Panel, verify that the following services have been started:
 - DB2 JDBC Applet Server
 - DB2 JDBC Applet Server — Control Center

If the services are not started, manually switch the start-up type from **Manual** to **Automatic** and start them.

2. In a DB2 command window, switch to the following directory:
drive:\Ibm\NetCommerce3\nc_schema\db2\migrate
3. On your DB2 server machine, type the following from a DB2 command window:
db2start
4. Run the following command:
v321migrate.cmd db_name logfile db_user db_password [node_name]

where the variables are defined as follows:

db_name

The name of the local or remote database.

logfile The path and file name for the log file. For example, *db_name.log* or *my_path\db_name.log*.

db_user

The database instance ID.

db_password

The password for the database instance ID you specified

node_name

The node name for the remote DB2 server machine. The node name is a unique name of your choice that DB2 will use to identify the TCP/IP node. This parameter is optional and is only required for a 2-tier installation.

If you have more than one database, repeat the command for each database.

5. To verify that the database schema has been successfully migrated, do the following:
 - a. Open the migration log file that you specified when you ran the *v321migrate* script.
 - b. Search the migration log file for occurrences of the string:
Error running script

If the log file contains the following message after the error string, you can ignore the error message:

Please ignore error message from *script_name*

You can ignore the following error messages if you see them in your log file:

```
insert into keys ( keyrfnbr, keytable, keycolumn, keymaxid )
select max(keys.keyrfnbr) + 1, 'cmds', 'refnum', max(cmds.refnum)
from keys, cmds
```

DB21034E The command was processed as an SQL statement because it was not a valid Command Line Processor command. During SQL processing it returned:

```
SQL0803N One or more values in the INSERT statement, UPDATE statement,
or foreign key update caused by a DELETE statement are not valid because
they would produce duplicate rows for a table with a primary key, unique
constraint, or unique index.  SQLSTATE=23505
```

Error running script 'C:\IBM\NetCommerce3\nc_schema\common\cmds_ofs.v32.sql'

```
...
...
...

```

```
delete from prodatr where paname = 'dummy'
```

DB20000I The SQL command completed successfully.

Error running script

```
'C:\IBM\NetCommerce3\nc_schema\db2\migrate\misc_chsdata_fixes2.v32.db2.sql'
```

DB20000I The UPDATE DATABASE CONFIGURATION command completed successfully.

DB21026I For most configuration parameters, all applications must disconnect from this database before the changes become effective.

You can also ignore the error messages from the following delete and subsequent insert statements if you see them in your log file:

```
delete from statcode where stacntry='Japan'
SQL0100W No row was found for FETCH, UPDATE or DELETE; or the result of a
query is an empty table.  SQLSTATE=02000
```

```
insert into statcode values ('j23', 'Aichi', 'Aichi', 'JAPAN')
```

DB21034E The command was processed as an SQL statement because it was not a valid Command Line Processor command. During SQL processing it returned:

```
SQL0803N One or more values in the INSERT statement, UPDATE statement, or
foreign key update caused by a DELETE statement are not valid because they
would produce duplicate rows for a table with a primary key, unique constraint,
or unique index.  SQLSTATE=23505
```

```
...
...

```

Errors other than the ones listed above should be considered to be valid, and your schema migration considered unsuccessful.

Also, if the database schema migration was successful, a confirmation message appears at the end of the migration log. The following is a sample confirmation:

```
update mall set mhdbversion = 'V3.2; DB2'
```

DB20000I The SQL command completed successfully

Note: If running the schema migration script is unsuccessful, be sure to refresh the database to the previous step before running the script again. This script should not be run twice in a row in one migration cycle.

Post-Migration Procedures

Complete the post-migration step immediately after completing your database schema migration.

Starting the WebSphere Commerce Service Provider Instance

If you are using Payment Server, prior to starting the WebSphere Commerce Service Provider instance, you need to copy the file `userexit.dll` from the `drive:\Ibm\NetCommerce3\bin` directory to the `drive:\Ibm\PayServer` directory (or

the\IBM\Till directory, if you migrated from V1.1.9.x). This file was removed by the uninstall of Payment Server performed earlier, and so needs to be replaced. After starting up the WebSphere Commerce Service Provider and associated Payment Server instance, you should also check that the information in the Payment tab are set to the previous settings (that is, verify the payment settings were preserved). If not, you may have to manually update these settings.

Note: Before starting the WebSphere Commerce Service Provider instance, ensure that you clear your browser cache. Otherwise, when your browser launches Configuration Manager at `http://host_name:4444`, it may attempt to launch the 3.1.2 instance of Configuration Manager. When you attempt to start the WebSphere Commerce Service Provider instance, the configuration files for the old 3.1.2 instance will not be found since they have been removed, and you will not be able to start the instance.

To start your WebSphere Commerce Service Provider 3.2 instance:

1. On your WebSphere Commerce Service Provider machine, click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Configuration**. The Web server starts and a Web browser window appears, launching the URL, `http://host_name:4444`, where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, *www.ibm.com* is fully qualified).
2. When prompted, enter your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin` and your password is `webibm`.
3. On the Configuration Manager main window, highlight the instance and click **Start**. You should see that your instance has started successfully.

Note: If you installed Payment Server 1.2.20.3, you will see an additional Payment Server instance below your WebSphere Commerce Service Provider instance in the Configuration Manager window. This Payment Server instance is automatically started when you start your WebSphere Commerce Service Provider instance.

Increase Your Log Level

To capture more useful information in the event any errors occur, you should increase the log level for the duration of the migration process. You can increase the log level as follows:

- At a DOS prompt, traverse to the `drive:\IBM\NetCommerce3\Tools\config` directory.
- Edit the file `config.xml`.
- Replace the line, `<logConfig level="3"` with `<logConfig level="31"`
- Save the file.
- Restart your Web server, WebSphere Application Server, and the WebSphere Commerce Service Provider instance as described in "Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components" on page 143.

Migrating the Publishing Format

You must run the postmigration batch file to convert the Net.Commerce Hosting Server 3.1.2 format for saving the merchants' edited pages into the new XML format. The batch file also migrates some customization changes, and republishes all merchant sites with the new publishing methodology.

Prior to running the batch file, you need to refresh the `timeStamps.xml` file by stopping and restarting certain services:

1. Search for the file `timeStamps.xml` in the `drive:\IBM\NetCommerce3\Tools\config` directory. If it exists, rename it to a different name, for example, `timeStamps.xml.bak`.
2. Stop the following services from the Windows NT Services window.
From the Windows NT Start menu, highlight **Settings**, and click on **Control Panel**. From the Control Panel, click on the **Services** icon. From the Services window, highlight the following services and click the **Stop** button to stop the service from running:
 - a. WebSphere Commerce Suite - *<instance>*
 - b. WebSphere Servlet Service
 - c. Your Web server, either Lotus Domino Go Webserver or Netscape Enterprise Server
3. From the Services window, highlight the following services and click the **Start** button to start them:
 - a. Your Web server, either Lotus Domino Go Webserver or Netscape Enterprise Server
 - b. WebSphere Commerce Suite - *<instance>*

Note that the WebSphere Servlet Service starts by default when you start your Web server.

You should delay running the postmigration batch file in the next step by up to a minute or so, in order to allow proper loading of the above services. If you receive a log on error while running the postmigration batch file, it is likely because WebSphere Application Server and your Web server have not completed their startup. To check that they are properly started, point your browser to `http://host_name/csp/site` and click on *Create Store*. If the Create Store page loads correctly, both WebSphere Application Server and your Web server have started up correctly, and you can retry running the postmigration batch file.

To run the postmigration batch file, switch to the `drive:\Ibm\NetCommerce3\ppm32\PostMigration` directory from a DOS command line and type:

```
postmigration_NT.bat nc_admin_user nc_admin_password install_path
```

where the variables are defined as follows:

nc_admin_user

The user ID used to log in to the WebSphere Commerce Service Provider administrator.

nc_admin_password

The password used to log in to the WebSphere Commerce Service Provider administrator.

install_path

The installation path for WebSphere Commerce Service Provider, the default is `drive:\IBM\NetCommerce3`

In order to pick up the changes introduced by the postmigration batch file, stop and restart the following services from the Windows NT Services window, as before:

1. WebSphere Commerce Suite - *<instance>*

2. WebSphere Servlet Service
3. Your Web server, either Lotus Domino Go Webserver or Netscape Enterprise Server

You should also backup the *drive:\IBM\NetCommerce3\Tools\logs\tools.log* file immediately after running the postmigration script so that the file is not overwritten by other migration actions.

Note: Do not run the postmigration script more than once when you are attempting to migrate to WebSphere Commerce Service Provider 3.2. If you encounter problems in the postmigration step, it is recommended that you fully restore your Net.Commerce Hosting Server 3.1.2 backups and restart the migration process from the beginning. Running the postmigration script more than once could lead to database errors in the log files resulting from the additional postmigration step, and could also lead to improper file names on the resulting HTML directories.

Enabling SSL with Domino Go Webserver 4.6.2.61

If you are using Domino Go Webserver 4.6.2.61, complete one of the following:

- Request a new certificate from a certifying authority and use it to create a new key ring. To do this, follow the instructions in “Chapter 10. Enabling SSL for Production on Domino Go Webserver” on page 73.
- Import your existing certificate to Domino Go Webserver for use with WebSphere Commerce Service Provider. For more information, refer to your Domino Go Webserver documentation.
- Use your existing security ring for testing purposes. As this is for testing purposes only, do not use the ring for your production system. To create a security key ring for testing, follow the instructions in “Appendix C. Enabling SSL on Domino Go Webserver for Testing” on page 147.

Preparing the Database for the Mass Import Utility

Once you have completed the procedures for migrating from Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, you must complete the following actions using the Mass Import utility included with WebSphere Commerce Service Provider 3.2. This will enable your merchants to use the new Catalog Import facility to upload mass amounts of data:

1. Ensure that the database schema has been migrated, as described in “Migrating Your Database Schema” on page 127 above.
2. Prepare your database by running the *popcgnbr* program, supplied with WebSphere Commerce Service Provider, as described below.

To use the Mass Import utility for this version of WebSphere Commerce Service Provider, a new column, called *CGNBR* in the database table *CATEGORY*, must be populated with a unique value within each merchant store. The *popcgnbr* program populates the column *CGNBR* using the reference number specified in column *CGRFNBR* and creates a unique index, *ui_category*, based on columns *CGMENBR* and *CGNBR*. This process ensures that the value of *CGNBR* is unique within each merchant. This value must not exceed 245 characters.

Notes:

1. If you write your own script to insert data into the *CATEGORY* table, and have run *popcgnbr* to create the *ui_category* unique index, you must modify your script to include the new column, *CGNBR*. The combination of *CGNBR* and *CGMENBR* make up a unique index in the table *CATEGORY*.

2. Once you run the `popcgnbr` program, you will be able to use the WebSphere Commerce Service Provider version of the Mass Import utility. It is not recommended that you go back and use the previous versions of the Mass Import utility, which uses the old input file. The old input file will drop the index `ui_category`. If you use a previous version, you will need to run `popcgnbr` again anytime before you switch to the WebSphere Commerce Service Provider version of the Mass Import utility, in which case, the `popcgnbr` may fail. If the program fails, you must manually populate column `CGBNBR` for each category entry.

For a 2-tier configuration, open a DOS window and type `db2cmd` to launch a DB2 command window on your WebSphere Commerce Service Provider machine. Attach to the remote database using the following command:

```
db2 attach to node_name user db_user using db_password
```

where *node_name* is the unique TCP/IP node name for your remote DB2 server machine, *db_user* is your DB2 database logon ID, and *db_password* is the corresponding password for the DB2 logon ID.

For either a 1-tier or 2-tier configuration, populate the `CGNBR` column with a unique value. Type the following command in a DB2 command window on your WebSphere Commerce Service Provider machine:

```
popcgnbr db_name [db_user] [db_password] [logfile]
```

where *db_name* is the name of your database (for example, `mser`), *db_user* is your DB2 logon ID, *db_password* is the corresponding password for the DB2 logon ID, and *logfile* is the name of your logfile (by default, it is stored in the directory from where you run the command).

You will see the following message if the command completes successfully:
Populating column `cgnbr` of table `category` completed.

You should also check the log file to ensure that there were no errors.

If you have more than one database, repeat the command for each database.

If the program runs successfully, then the `CGNBR` column is populated with a reference number which is also part of the unique index `ui_category` for the `CATEGORY` table. However, if, after migration and prior to running `popcgnbr`, you have already inserted category entries where the value of column `CGNBR` is the same as the value assigned by running `popcgnbr`, the program will fail. To fix the problem, do the following:

1. Manually populate the `CGNBR` column, within the database table `CATEGORY`, with a unique value that does not exceed 245 characters. It is recommended that you specify a logical value (for example, use a combination of the category name, the partially qualified category name, and the fully qualified category name). You will need to provide this value as an identifier to the category in the Mass Import input file.
2. Create a unique index based on column `CGMENBR` and `CGNBR`, by typing the following command:

```
create unique index ui_category(cgmenbr, cgnbr)
```
3. Commit the database.

Migrating DB2 Text Extender to DB2 Text Extender 6.1 plus FixPak

If you used DB2 Text Extender 5.0 or DB2 Text Extender 5.2 with your previous version of Net.Commerce Hosting Server, you can optionally migrate to DB2 Text Extender 6.1 plus the FixPak. Before migrating your instances to DB2 Text Extender 6.1, you need to install DB2 Text Extender 6.1 plus FixPak, and then proceed to either “Migrating from DB2 Text Extender 5.0” on page 135 or “Migrating from DB2 Text Extender 5.2” on page 136 depending on the level of Text Extender you were using.

Installing DB2 Text Extender 6.1 plus FixPak

If you wish to install DB2 Text Extender 6.1 and the FixPak, you need to install the Text Extender server component and then apply the Fixpak to your stand-alone machine in a 1-tier installation, or to your DB2 server machine in a 2-tier installation. For a 2-tier installation, you additionally need to install the Text Extender client component and also apply the Fixpak on your WebSphere Commerce Service Provider (DB2 client) machine. To install DB2 Text Extender 6.1:

1. Insert the DB2 Text Extender 6.1 CD-ROM.
2. Run `setup.exe` from the `\db2ext\Winnt95` directory on the CD-ROM.
3. When you are prompted for the directory in which to install DB2 Text Extender, specify the directory where you had installed your previous version of Text Extender.
4. For a machine in a 1-tier configuration or for the DB2 server machine in a 2-tier configuration, accept all defaults and click **Next** to begin the installation of the Text Extender server.
5. On the DB2 client (WebSphere Commerce Service Provider) machine in a 2-tier configuration, deselect all server components and ensure the **DB2 Extenders Client** component is selected. Click **Next** to begin the installation of the Text Extender client and accept all defaults.
6. When prompted, reboot your machine.

Before installing the Text Extender FixPak, ensure that DB2 is stopped. From a DB2 command window on your DB2 server machine, type:

```
db2stop
```

If you have applications running and are unable to stop the database manager, stop the applications by typing the following commands in a DB2 command window, and reissuing the `db2stop` command:

```
db2 list applications
db2 force applications all
db2stop
```

To install the Text Extender FixPak:

1. Insert the WebSphere Commerce Service Provider 3.2 CD-ROM.
2. Copy the directory `DB2_EXT_wr20053` on the CD-ROM to your hard drive.
3. In a DOS window, from the `DB2_EXT_wr20053` directory on your hard drive, type:

```
service -lang language [-client]
```

where *language* is your preferred language (for example, `en_us` for U.S. English). For a 2-tier installation, you need to specify the `-client` option when applying the FixPak to the DB2 client (WebSphere Commerce Service Provider) machine.

4. You can now delete the `DB2_EXT_wr20053` directory on your hard drive.

Migrating from DB2 Text Extender 5.0

To migrate DB2 Text Extender 5.0 to DB2 Text Extender 6.1 plus FixPak, do the following:

1. Ensure that you have completed the steps in “Preparing to Migrate DB2 Text Extender 5.0 Databases and Instances” on page 119.
2. Ensure that you have installed DB2 Text Extender 6.1 plus FixPak as described above.
3. Change the settings for your DB2 service by doing the following:
 - a. From the Control Panel, select **Services**.
 - b. From the Services window, highlight **DB2–DB2** and click **Startup**.
 - c. From the Service window, under **Log On As**, select **This Account** and type in a valid administrator user ID, password, and password confirmation.
4. From a DB2 command window, start your database manager (on your DB2 server machine):

```
db2start
```

5. Create the DB2 Text Extender 6.1 instance by running the following command from a DB2 command line window:

```
txicrt instance_name
```

where *instance_name* is the name of the DB2 Text Extender 6.1 instance.

6. Start DB2 Text Extender by running the following command:

```
txstart
```

7. Set the default database for DB2 Text Extender by running the following command:

```
set DB2DBDFT=database_name
```

where *database_name* is the name of the database you are migrating (for example, MSER).

8. Enable the database for DB2 Text Extender by running the following command from where the:

```
db2tx enable database
```

9. Switch to the samples subdirectory where you installed the DB2 Extenders (by default, *drive:\IBM\Dmb\samples*). Verify the migration by running the following command:

```
txsample database_name [user_ID] [password]
```

where the parameters are defined as follows:

database_name

The database to which you want to connect, as specified in step 7.

user_ID

Your database user ID. This is an optional parameter and is only required if the command is run from the client.

password

Your password for the database. This is an optional parameter and is only required if the command is run from the client.

The txsample command writes to a txsample.log file. If the migration completed successfully, no errors should be reported in the log file.

10. Verify that the indexing steps ran successfully for all index types by running the following commands:

```
db2tx get index status db2tx.sample handle h_p
db2tx get index status db2tx.sample handle h_pn
db2tx get index status db2tx.sample handle h_l
db2tx get index status db2tx.sample handle h_d
db2tx get index status db2tx.sample handle h_n
db2tx get index status db2tx.sample handle h_nce
```

If the indexing ran successfully, all of the above commands should return with a status message indicating that all 100 documents have been indexed. (Indexed documents=100)

11. Verify that search is working by running the following command:
db2 -tvf txsample.udf

The txsample.udf file is a DB2 command line processor input file. If search is working, the output should show documents returned from the various searches.

Migrating from DB2 Text Extender 5.2

To migrate DB2 Text Extender 5.2 to DB2 Text Extender 6.1 plus FixPak, do the following:

1. Ensure that you have installed DB2 Text Extender 6.1 plus FixPak, as described in step “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15.
2. Change the settings for your DB2 service by doing the following:
 - a. From the Control Panel, select **Services**.
 - b. From the Services window, highlight **DB2-DB2** and click **Startup**.
 - c. From the Service window, under **Log On As**, select **This Account** and type in a valid administrator user ID, password, and password confirmation.
3. Stop DB2 Text Extender and DB2 by running the following commands from a DB2 command line window:

```
txstop
db2stop
```
4. Migrate the instance by running the following command:

```
txiupdt text_extender_path source_instance target_instance
```

where the variables are defined as follows:

text_extender_path

The installation path to your DB2 Text Extender 5.2 installation.

source_instance

The name of your DB2 Text Extender 5.2 instance (for example, mser).

target_instance

The name of your DB2 Text Extender 6.1 instance (for example, mser).

Note: Both the DB2 Text Extender 5.2 instance and the DB2 Text Extender 6.1 instance can have the same name. When you migrate your DB2 Text Extender instance, the desmastr.dat file is copied from an existing 5.2 instance to the new 6.1 instance and any existing desmastr.dat file is renamed to desmastr.v61. However, if you have already worked with this new 6.1 instance and created indexes prior to migrating to DB2 Text Extender 6.1, you will not be able to work with these indexes after you have migrated the DB2 Text Extender instance since the desmastr.dat file is replaced after migration.

5. Start DB2 and DB2 Text Extender by running the following commands:

```
txstart  
db2start
```

6. Migrate every DB2 Text Extender 5.2 enabled database by running the following command:

```
txdbupdt database_name
```

where *database_name* is the name of your DB2 Text Extender 5.2 enabled database.

Uninstalling WebSphere Commerce Service Provider 3.2 After Migration

Once WebSphere Commerce Service Provider 3.2 has been installed, you *cannot* uninstall it and revert back to your previous level of Net.Commerce Hosting Server. You must completely uninstall WebSphere Commerce Service Provider 3.2 and its bundled products by following the procedures in “Uninstalling WebSphere Commerce Service Provider” on page 152. You can then restore your previous level of Net.Commerce Hosting Server using the backups you performed prior to installing WebSphere Commerce Service Provider 3.2.

If you did not perform a complete system backup prior to installing WebSphere Commerce Service Provider 3.2, you must completely uninstall WebSphere Commerce Service Provider and its bundled products as described in “Appendix D. Uninstalling WebSphere Commerce Service Provider Components” on page 151 and follow the installation instructions for new customers as described in “Chapter 3. Installing WebSphere Commerce Service Provider” on page 15.

Completing the Migration

Now that you have essentially completed the migration process, complete the steps to verify your migration as discussed in “Planning to Verify a Successful Migration” on page 112.

If you have migrated any unpublished Net.Commerce Hosting Server 3.1.2 stores, see the procedures described in “What You Need to Tell Your Merchants” on page 106.

Restore any customized files. These include:

- Custom overridable functions which need to be recompiled.
- Custom Net.Data macros. Some syntax changes need to be made to support the new Net.Data version.
- If you used the packaged sample mall directory (`cspmall`) as the root for your mall, you need to restore the data contained there, or redirect the Web server to its new location in order not to overwrite the new sample mall.
- Inform your merchants when they can make modifications to their stores.
- Manually migrate any non-standard (non-NCHS) stores

You can also consider:

- Adding customized branding to fit the new layout of the product and the new banners

- Creating a new store model based on the new 3.2 store model but with a layout similar to the 3.1.2 model, in order to preserve more of the 3.1.2 look and feel. Some stores that were created in 3.1.2 and migrated over to the 3.2 format may have a different look and feel to them. This is due to the store model that customizable stores in 3.1.2 used. Some differences include the product display of items within a catalog that may have been in a column. In the new format for 3.2, the formatting for the links is not preserved. In addition, the order in which entries appear in the shipping tables has changed.

The Shipping table changes are simply columns now appear in a different order. The formatting changes are a result of the different store model that is used in 3.2. Many of the formatting problems can be handled by modifying the layout of the new store model. The store model is called `ClassicStoreModel`. Note that there are changes to the number of steps in the shopping flow, and some information, such as the product description, now shows up on a different page.

- Alter the service level of some stores to be remote since all stores are being migrated to advanced.

All 3.1.2 stores, and in particular, stores with remotely hosted home pages will become *Advanced* service level stores after migration. This ensures that they do not lose functionality in the Merchant Tool that they may have used previously with Net.Commerce Hosting Server 3.1.2, and allows them to access all of the new tools if they wish. Note that merchants with remote stores may experience some problems after the migration to WebSphere Commerce Service Provider 3.2. The *Page Editor* option in the Store Design section of the Merchant Tool may incorrectly attempt to edit their remote pages. This is not supported. However, if they did have any local (to the Net.Commerce Hosting Server 3.1.2 server) pages that they edited using the Home Page Creator tool, they can still edit these pages. Also, the *View Store* link at the top of their Merchant Tool navigation may not function correctly as it will attempt to view the remote home page as an ordinary generated one.

You may want to alter some of these stores after the migration to be remote stores if you are sure you do not need to use Page Editor. To do this:

- Alter the `melevel` field for that merchant in the merchant table to be remote.
- Alter the Home link in the Navigation bar editor. This will also update the link to the store in the new mall.

- Perform any of the merchant's tasks related to the migration for them.

Once you have verified a successful migration of Net.Commerce Hosting Server 3.1.2 to WebSphere Commerce Service Provider 3.2, you can uninstall any of the older versions of components such as DB2 V5.0 that were installed with Net.Commerce Hosting Server 3.1.2. See the appendix of the *Net.Commerce Hosting Server 3.1.2 Installing and Getting Started Guide* on how to uninstall these components.

Part 5. Appendixes

Appendix A. Configuring Product Advisor

This chapter describes how to configure Product Advisor with WebSphere Application Server 2.0.3.1.

Important

Once created as a *Custom Store*, WebSphere Commerce Service Provider stores can be further customized by Internet Service Providers (ISP) as required. Please ensure that proper software licensing is arranged through your ISP Marketing/Sales Contact prior to integrating advanced functions into WebSphere Commerce Service Provider stores.

For example, Product Advisor function could be added to a WebSphere Commerce Service Provider site by anyone with direct access to the server (inside the fire wall) or store functions could be linked to back end systems such as for order management or tax calculations. Note that customization of this nature is not recommended on shared servers, as direct access to the site and the additional function introduces site security and system stability exposures that need to be addressed. In particular, careful consideration of the tools needed to maintain these extensions is required, as such custom tools may be operating outside of the security mechanisms in place for the multi-merchants WebSphere Commerce Service Provider tools.

Product Advisor administration tools must be used on a local area network. They do not work through a fire wall because the JDBC communication requires a socket connection.

Enabling JDBC to Start Automatically for Product Advisor

Product Advisor depends on the JDBC server to start and stop. The JDBC server is an NT service, and therefore can be started automatically with the machine. If you want to enable JDBC to start automatically for Product Advisor, and you are using DB2 Universal Database, do the following:

1. Add the db2jstrt 16560 shortcut to your Windows startup folder.
2. Click **Start**, point to **Settings**, click **Control Panel**, and double-click the **Services** icon and do the following:
 - a. Stop the Web server.
 - b. Stop WebSphere Services.
 - c. Restart the Web server.

Alternatively, you can start JDBC by typing the following from a DB2 command window:

```
db2jstrt 16560
```

Configuring Product Advisor with WebSphere for Oracle

If you are using Domino Go Webserver or Netscape Enterprise Server as your Web server, and Oracle as your database, follow the instructions in this section to configure Product Advisor.

If you are using DB2 Universal Database as your database, you do not need to complete the steps within this section.

To configure Product Advisor with IBM WebSphere Application Server 2.0.3.1 Standard Edition:

1. Download the `classes111.zip` file from Oracle's Web site at <http://www.oracle.com>.
2. Copy the `classes111.zip` file to the `drive:\Ibm\NetCommerce3\html\locale\ncadmin\ictmgr` directory.
3. Open the WebSphere Application Server Administration page (using port number 9527), and log in using the administration user ID and password.
4. Highlight **Setup** and click **Java Engine**. The Java Engine form appears.
5. Click the **Paths** tab. In the **Application Server Classpath** field, type the following, if the information does not already exist:
`drive:\Ibm\NetCommerce3\html\locale\ncadmin\ictmgr\classes111.zip`
6. Click **Save**.
7. Click **Start**, point to **Settings**, click **Control Panel**, and double-click the **Services** icon and do the following:
 - a. Stop the Web server. Refer to "Starting and Stopping Domino Go Webserver" on page 143.
 - b. Stop WebSphere Services.
 - c. Restart the Web server.
8. Specify the maximum number of cursors:
 - a. Open the file `Initorc1.ora`, which is located in the `/orant/database` directory.
 - b. Go to the end of the file and add the following line:
`open_cursors = 1000`
 - c. Save the file.
 - d. Restart the Oracle instance from the Services window within Control Panel.

Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components

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

Starting and Stopping WebSphere Commerce Service Provider

- To **start** WebSphere Commerce Service Provider, do the following:
 1. Ensure that your database management system is started. If you are using DB2, refer to “Starting and Stopping DB2” on page 145. If you are using Oracle, refer to Oracle’s documentation.
 2. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 3. On the Control Panel window, double-click the **Services** icon.
 4. For each WebSphere Commerce Service Provider instance that you wish to start, do the following:
 - a. From the **Service** list, select **WebSphere Commerce Suite – instance_name**, where *instance_name* is the name of the instance that you wish to start. By default, the instance name is **mser**.
 - b. Click **Start** to start the instance. (By default, Payment Server also starts automatically if it is not already started, unless it is a remote Payment Server .)
- To **stop** WebSphere Commerce Service Provider, do the following:
 1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 2. On the Control Panel window, double-click the **Services** icon.
 3. For each WebSphere Commerce Service Provider instance that you wish to stop, do the following:
 - a. From the **Service** list, select **WebSphere Commerce Suite, Service Provider Edition – instance_name**, where *instance_name* is the name of the instance that you wish to stop. By default, the instance name is **mser**.
 - b. Click **Stop** to stop the instance. (By default, Payment Server also stops automatically if it is started, unless it is a remote Payment Server.) When asked to confirm that you wish to stop the service, click **Yes**.

You can also start and stop WebSphere Commerce Service Provider using the Configuration Manager interface. On the first Configuration Manager window, select the name of the instance you wish to start or stop, and click either **Start** or **Stop**.

Starting and Stopping Domino Go Webserver

- To **start** Domino Go Webserver, do the following:
 1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 2. On the Control Panel window, double-click the **Services** icon.
 3. From the **Service** list, select **Lotus Domino Go Webserver**.

4. Click **Start**.

Note that starting Domino Go Webserver automatically starts WebSphere Application Server.

- To **stop** Domino Go Webserver, do the following:
 1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 2. On the Control Panel window, double-click the **Services** icon.
 3. From the **Service** list, select **Lotus Domino Go Webserver**.
 4. Click **Stop**. When asked to confirm that you wish to stop the service, click **Yes**.

Starting and Stopping WebSphere Application Server

The WebSphere Application Server starts automatically when you start your Web server (Domino Go Webserver or Netscape Enterprise Server). When using WebSphere Commerce Service Provider, it is recommended that you start WebSphere Application Server by starting your Web server.

If you need to start WebSphere Application Server manually, or in stand-alone mode, do the following:

1. On a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
2. On the Control Panel window, double-click the **Services** icon.
3. From the **Service** list, select **WebSphere Servlet Service**.
4. Click **Start**.

To stop WebSphere Application Server manually or in stand-alone mode, do the following:

1. Shut down the Web server.
2. Shut down the WebSphere Servlet Service to stop the Application Server. To shut down the WebSphere Servlet Service, do the following:
 - a. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. From the **Service** list, select **WebSphere Servlet**.
 - d. Click **Stop**. When asked to confirm that you wish to stop the service, click **Yes**.

Note: If you are running WebSphere Application Server with either Domino Go Webserver or Netscape Enterprise Server, WebSphere Application Server does not stop automatically when you shut down your Web server.

Notes:

1. If you are running WebSphere Application Server with Lotus Domino Go Webserver, WebSphere Application Server stops automatically when you shut down your Web server.
2. If you are running WebSphere Application Server with Netscape Enterprise Server, WebSphere Application Server does not stop automatically when you shut down your Web server.

Starting and Stopping DB2

- To **start** DB2, do the following:
 1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 2. On the Control Panel window, double-click the **Services** icon.
 3. For each service in the **Service** list that begins with **DB2 –**, select the service and click **Start**.
 4. Select **DB2 Security Server**.
 5. Click **Start**.

Alternately, you can launch a DB2 Command window from the DB2 folder and enter **db2start**.

- To **stop** DB2, do the following:
 1. Stop WebSphere Commerce Service Provider according to the instructions in “Starting and Stopping WebSphere Commerce Service Provider” on page 143.
 2. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 3. On the Control Panel window, double-click the **Services** icon.
 4. For each *started* service in the **Service** list that begins with **DB2 –**, select the service and click **Stop**. When asked to confirm that you wish to stop the service, click **Yes**.
 5. Select **DB2 Security Server**.
 6. Click **Stop**.

Alternately, you can launch a DB2 Command window from the DB2 folder and enter **db2stop**

Starting and Stopping Payment Server

By default, if WebSphere Commerce Service Provider and Payment Server 1.2.20.3 are installed on the same machine, Payment Server starts automatically when you start WebSphere Commerce Service Provider, and it stops automatically when you stop WebSphere Commerce Service Provider. If Payment Server and WebSphere Commerce Service Provider are installed on separate machines, Payment Server does not start automatically when you start WebSphere Commerce Service Provider, but it does stop automatically when WebSphere Commerce Service Provider is shut down.

If you do not want Payment Server to start automatically, open file *drive:\Ibm\NetCommerce3\instance\instance_name\config\svrctrl.ini* (where *instance_name* is the name of your WebSphere Commerce Service Provider instance) and remove *pay_etill* from the list of names on the **CONTROL_POOL_CONFIG** directive, along with its path name and the preceding comma. Then, to start Payment Server manually, do the following:

1. On a Windows NT user ID with Administrator authority, open a DOS window and switch to the *drive:\Ibm\NetCommerce3\instance\instance_name\bin* directory.
2. Type the following:

```
start "eTill" etill.cmd db_password
```

where *db_password* is the password you entered on the Database tab when you configured WebSphere Commerce Service Provider. (If you installed WebSphere

Commerce Service Provider using the typical install, the *db_password* is set initially to the password you entered on the configuration window.)

To stop Payment Server manually, whether it is running on the same machine as WebSphere Commerce Service Provider or on a separate machine, do one of the following:

- If Payment Server is running in a window, bring the window into focus and press **Ctrl+C**.
- If Payment Server is running as a service, do the following:
 1. Open the Windows NT Task Manager by right-clicking on the task bar.
 2. Click the **Processes** tab.
 3. Select the image name **jre.exe** and click **End Process**.
 4. When prompted to confirm that you want to terminate the process, click **Yes**.

You can also start and stop Payment Server using the Configuration Manager interface, if Payment Server is running on the same machine as the WebSphere Commerce Service Provider server. On the first Configuration Manager window, select the name of the Payment Server instance you wish to start or stop, and click either **Start** or **Stop**. Each Payment Server instance is associated with each WebSphere Commerce Service Provider instance.

Starting and Stopping DB2 Extenders

To start DB2 Extenders, log on to a Windows NT user ID with Administrator authority and type `txstart` on the DB2 command line.

To stop DB2 Extenders, log on a Windows NT user ID with Administrator authority and type `txstop` on the DB2 command line.

Starting and Stopping the Synchronization Daemon

If you have enabled caching using either the Basic or Advanced Caching option in Configuration Manager, you have to enable the Synchronization Daemon. Please refer to the online help for information about enabling and configuring the Synchronization Daemon.

Before you start the Synchronization Daemon, you must enable caching using either the Basic or Advanced Caching option in Configuration Manager.

To start the Synchronization Daemon, from a DOS prompt, type:

```
ms_synchd -i server-config-file
```

where *server-config-file* includes the full path name to the `ncommerce.ini` file of your instance.

To stop the Synchronization Daemon:

1. Start Task Manager (press the **CTRL/ALT/DEL** keys simultaneously and then click on the **Task Manager** button).
2. In the **Applications** view of Task Manager, highlight the `ms_synchd` task and click on the **End Task** button.

Appendix C. Enabling SSL on Domino Go Webserver for Testing

When you install WebSphere Commerce Service Provider with Domino Go Webserver, the install program automatically enables SSL for testing. If you wish to enable it at other times, follow the steps in this appendix.

Note: The security key ring that you build in this chapter will *not* prevent shopper transactions from being viewed by unauthorized individuals. Before you open your store to shoppers, follow the instructions in “Chapter 10. Enabling SSL for Production on Domino Go Webserver” on page 73.

As you perform these steps, your browser may display security messages. Review the information in each message carefully and decide how to proceed.

Creating a Security Key Ring for Testing

To create a security key ring for testing, do the following:

1. Ensure that the Web server is running by doing the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. In the Control Panel window, double-click the **Services** icon.
 - c. In the **Service** menu, look for the name **Lotus Domino Go Webserver**, and ensure that the status of the Web server is **Started**. If it is not, select the Web server and click **Start**.
2. Start your Web browser, disable and clear all disk and memory caching, and disable all proxy servers. (In some browsers, proxy servers are known as *socks servers*.)

Note: Record these settings as you will be replacing them later in this procedure.

3. To access the Web server’s front page, type the following on your browser:
`http://host_name/path`
where *path* is the name of your Web server’s front page, if required on your system. If you have not performed any customization on the Web server, *path* is not required.
4. Click **CONFIGURATION AND ADMINISTRATION FORMS**.
5. When prompted, type your Web server administration user ID and password, and click **OK**. The default administration user ID is `webadmin`, and the default password is `webibm`.
6. On the Configuration and Administration Forms page under **Security**, click **Create Keys**.
7. On the Create Key and Request Certificate form, select certificate type **Other**, and click **Apply**.
8. On the Other Certificate form, in the **Key name** field, type `testnetc`. In the **Key ring** field, type `drive:\Ibm\www\bin\testnetc.kyr`.
9. Change the **Size** field to the highest setting that is available.
10. Under **Key Ring Password**, in both **Password** fields, type a key ring password of your choice. You will need this password later to change the default key in the key ring and to receive certificates into that key ring.

11. Check the **Automatic login** box.
12. Complete the fields under **Distinguished Name**. For **Server name**, use the fully qualified name of your WebSphere Commerce Service Provider server.

Notes:

- a. You must complete all of the required fields.
 - b. Do not type the same information that you intend to use when you enable SSL for production.
 - c. In the **State/Province** field, you must enter at least 3 characters.
13. Under **Mail To**, select **Don't mail**.
 14. Under **Save Copy**, in the **Save certificate request to file** field, type *drive:\Ibm\Www\Bin\testnetc.txt* and click **Apply**.
You should see a confirmation page indicating that you have successfully created your public-private key pair and certificate request. If you get a message indicating an error instead, try these steps again. The error message should indicate the problem that was encountered.
 15. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.

Setting Your Test Key Ring as the Current Key Ring

To make the Web server use your test key ring, do the following:

1. On the Configuration and Administration Forms page under **Security**, click **Security Configuration**.
2. On the Security Configuration form under **Default Key rings**, select *drive:\Ibm\Www\Bin\testnetc.kyr*.
3. Select **Set selected key ring as current key ring**.
4. Click **Apply**. You should see a page that confirms that the security configuration changes have been made.
5. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.

Receiving and Testing the Test Key Ring Certificate

To receive and test your test key ring certificate, do the following:

1. On the Configuration and Administration Forms page under **Security**, click **Receive Certificate**.
2. On the Receive Certificate form in the **Name of file containing certificate** field, type *drive:Ibm\Www\Bin\testnetc.txt*.
3. In the **Key ring** field, type: *drive:\Ibm\Www\Bin\testnetc.kyr*.
4. In the **Key ring password** field, type the password that you used to create the key ring in step 10 on page 147 in the section "Creating a Security Key Ring for Testing".
5. Click **Apply**. You should see a confirmation page that indicates that the certificate was successfully received.
6. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.
7. Under **Security**, click **Key Management**.
8. On the Key Management form in the **Key Ring Password** field, type the password that you used to create the key ring in step 10 on page 147 in the section "Creating a Security Key Ring for Testing".

9. Select **Designate Trusted Root Keys**, and click **Apply**.
10. On the Designate Trusted Root Keys form under **Keys**, select `testnetc.kyr` from the list.
11. Click **Apply**. You should see a confirmation page that indicates that the operation was successful.
12. Stop and start the Web server by doing the following:
 - a. Open the Service menu and select your Web server as explained in step 1 on page 147 in the section Creating a Security Key Ring for Testing.
 - b. Click **Stop**.
 - c. When the Web server stops, click **Start**.
13. To test the key, type the following on your browser:

`https://host_name/path`

where *path* is the name of your Web server's front page, if required on your system.

Note: Be sure to type `https`, not `http`.

If your key is defined correctly, you will see several messages concerning your secure connection. If you are asked whether you want to accept the certificate, respond affirmatively.

14. Restore your caching and proxy (or socks) server settings to their original states that you recorded on step 2 on page 147.

Appendix D. Uninstalling WebSphere Commerce Service Provider Components

If you encounter problems installing WebSphere Commerce Service Provider, you may want to uninstall one or more components and start again. This appendix explains how to uninstall each component of WebSphere Commerce Service Provider.

Before uninstalling WebSphere Commerce Service Provider components, you should stop all the active services (processes) for those components, or you may receive an error or warning message when you attempt to uninstall a component:

1. From the **Control Panel**, click **Services**
2. From the **Services** list, stop the following services if they are running by highlighting the service and clicking the **Stop** button:
 - WebSphere Commerce Suite - *instance_name*
 - Web Server (either Lotus Domino Go Webserver or Netscape Enterprise Server)
 - WebSphere Servlet Service
 - All your database-related processes (processes that contain either DB2 or Oracle depending on which database you are using)

Important Note on Back Ups

Prior to uninstalling WebSphere Commerce Service Provider components, you should review the information contained in this section. In particular, back up any files for all the components that you want to uninstall before you actually begin uninstalling.

Uninstalling Net.Data

To uninstall Net.Data, do the following:

1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **Net.Data**, and click **Uninstall Net.Data**
2. When asked whether you are sure that you want to uninstall Net.Data and its components, click **Yes**.
3. When asked whether you want to remove shared files, click **Yes**.
4. On the **Remove Programs From Your Computer** window that appears, click **OK** once you have verified the list of files to be removed.
5. A pop-up Window appears indicating that Net.Data has been removed from your system and that you should restart your system to remove files that were in use during the uninstall process. Click **OK** and reboot your machine.
6. After rebooting your machine, you may see a message indicating that some elements could not be removed and you should manually remove them. If you click on **details** you see that the uninstall program was unable to delete the *drive:\Ibm* folder. This is expected since other products under that directory have not been uninstalled yet.
7. Click **Start**, point to **Settings**, and click **Control Panel**.

8. On the Control Panel window, double-click the **System** icon. The System Properties window appears.
9. Click the **Environment** tab.
10. Under System Variables, highlight the following variables and delete the Net.Data references associated with each variable by editing the Value field:
 - a. CLASSPATH
 - b. DTW_HOME
 - c. DTW_INI
 - d. DTWINI
 - e. NLSPATH
11. From the System Properties window, click **Set** after deleting the Net.Data references from each variable.
12. When you are finished, click on **Apply** then click on **OK** to close the System Properties window.

Note: If you plan on reinstalling WebSphere Commerce Service Provider at some later point, you will also have to reinstall Net.Data. Ensure that you reinstall Net.Data into the *drive:\Ibm\netdata* directory. Before reinstalling Net.Data, but after installing WebSphere Commerce Service Provider, ensure that you back up your *db2www.ini* file which is located in *drive:\IBM\WWW\HTML*. (Net.Data installs its own version of this file.) Once you have completed reinstalling Net.Data, you can replace the Net.Data version of the *db2www.ini* file with your backup version of the file.

Uninstalling WebSphere Commerce Service Provider

To uninstall WebSphere Commerce Service Provider, do the following:

1. Stop WebSphere Commerce Service Provider, as described in “Starting and Stopping WebSphere Commerce Service Provider” on page 143.
2. If you plan to reinstall WebSphere Commerce Service Provider once you have uninstalled it, ensure that you back up the *drive:\Ibm\NetCommerce3\macro\locale* and the *drive:\Ibm\NetCommerce3\CHS\source* directories, which contains macros for stores that you have previously created.
3. If you have created or customized any files in the *drive:\Ibm\NetCommerce3* directory or its subdirectories, and you wish to retain them, back them up to a different directory.
4. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **Uninstall**.
5. When asked whether you are sure that you want to uninstall WebSphere Commerce Service Provider, click **Yes**.
6. When the uninstall program has completed, reboot your machine.
7. Delete the *drive:\Ibm\NetCommerce3* directory, along with all its subdirectories and files.
8. If the *drive:\Ibm* directory contains no subdirectories, delete it. Otherwise, do not delete this directory as other products may not be uninstalled yet. (Note that the *drive:\Ibm\Ifor* directory, if it exists, may contain license information needed to run other applications, and should not be deleted.)
If the operating system does not allow you to delete the *drive:\Ibm* directory, do the following:

- a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each WebSphere Commerce Service Provider component (identified in the list that follows these steps) that is designated with a Start-up of **Automatic**, do the following:
 - 1) On the Services window, select the component and click **Startup**.
 - 2) On the Service window, select a Startup Type of **Manual** and click **OK**.

Depending on the version and configuration of WebSphere Commerce Service Provider that you are using, your components may include any of the following:

 - One or more DB2 databases and other DB2 services, which are identified by the name DB2 in their service names, and by the service name DHCP client.
 - Domino Go Webserver, which is identified by the service name Lotus Domino Go Webserver.
 - One or more Oracle databases and other Oracle services. Refer to Oracle's documentation for more information.
 - Domino Web Server. Refer to your Domino Web Server documentation for more information.
 - One or more instances of Netscape Enterprise Server. Refer to Netscape's documentation for more information.
 - d. Reboot your machine, and attempt to delete the directory again.
9. Switch to the \Winnt directory and delete any WebSphere Commerce Service Provider related files, including the following (if they exist):
 - ncnlspathlog.dat
 - ncpathlog.dat
 10. In the \Winnt\system32\drivers\etc directory, modify the services file, removing all WebSphere Commerce Service Provider entries. The names of the entries begin with nc and the names are accompanied by a comment indicating that they are related to WebSphere Commerce Service Provider.
 11. Click **Start**, point to **Settings**, **Control Panel** and double click the **System** icon. Do the following:
 - a. Select the **Environment** tab.
 - b. Ensure that for each entry, all references to WebSphere Commerce Service Provider are deleted. This includes removing all references to WebSphere Commerce Service Provider directories from the **PATH**, **Bookshelp**, **Help**, and **NLSPATH** entries, as necessary.
 12. Edit the Registry to remove all WebSphere Commerce Service Provider entries. You may wish to back up your Registry prior to editing it. To edit your Registry, do the following:
 - a. To invoke regedit, click **Start** and select **Run**. Type regedit and click **OK**. The Registry Editor opens.
 - b. Expand the HKEY_LOCAL_MACHINE folder and its Software subfolder. In the IBM subdirectory, delete the WebSphere Commerce Service Provider entry, if it exists.
 - c. Expand the HKEY_LOCAL_MACHINE folder and the System\CurrentControlSet\Services subfolder. If there are any WebSphere Commerce Service Provider server entries, delete them.
 13. Remove the WebSphere Commerce Service Provider entry from the task bar if it still exists.

14. Empty the Recycle Bin.
15. Reboot your machine.
16. If you intend on reinstalling WebSphere Commerce Service Provider, you will also have to reinstall Net.Data. If you plan to reinstall WebSphere Commerce Service Provider, ensure that you reinstall Net.Data into the *drive:\Ibm\netdata* directory. When you run the WebSphere Commerce Service Provider installation program, it will prompt you for the Net.Data 6.1 CD.
17. Delete and recreate your instance.

Uninstalling Domino Go Webserver

Important: If you uninstall Domino Go Webserver, you must also uninstall WebSphere Application Server. If you reinstall Domino Go Webserver and WebSphere Application Server, you must install Domino Go Webserver *before* reinstalling WebSphere Application Server since WebSphere modifies your Web server's configuration file. If you install Domino Go Webserver after installing WebSphere Application Server, your instance will not be configured properly.

Also, if you reinstall Domino Go Webserver and WebSphere Application Server, you will need to recreate your WebSphere Commerce Service Provider instance before you can access WebSphere Commerce Service Provider Administrator.

If you have created stores with the Store Creator, ensure that you back up the *index.html* file from your Web server Document root directory for any stores created with Store Creator *before* you uninstall Domino Go Webserver.

To uninstall Domino Go Webserver, do the following:

1. If you are planning to uninstall WebSphere Commerce Service Provider, uninstall WebSphere Commerce Service Provider first by following the steps in "Uninstalling WebSphere Commerce Service Provider" on page 152.
2. If you have created stores using the *Create Store* wizard, and you would like to access them after uninstalling and reinstalling Domino Go Webserver, back up the store files in the *drive:\document_root\store_name* directory.
3. If you are uninstalling your Web server, but intend on reinstalling it, you should back up the *db2www.ini* file from the document root directory before uninstalling the Web server. You will then need to restore the file to the new document root location after you have reinstalled the Web server. This will prevent instance recreation problems.
4. Stop Domino Go Webserver, by doing the following:
 - a. On a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. From the **Service** list, select **Lotus Domino Go Webserver**.
 - d. Click **Stop**. When asked to confirm that you wish to stop the service, click **Yes**.
5. If you have created or customized any files in the *drive:\Ibm\www* directory or its subdirectories, and you wish to retain them, back them up to a different directory.

6. If any Lotus Domino Go windows are open, ensure that you close them before attempting to uninstall the Web server.
7. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **Lotus Domino Go Webserver**, and click **Uninstall Lotus Domino Go Webserver**.
8. On the Select Components window, select all the components, and click **Next** to begin the uninstall.
9. As each component is uninstalled, click **OK** to continue.
10. When uninstall of all components is complete, click **OK** to close the pop-up window. Delete the *drive:\IBM\Www* directory, along with all its subdirectories and files (if not done for you during the uninstall process).
11. If the *drive:\Ibm* directory has no subdirectories, delete it. (Note that the *drive:\Ibm\Ifor* directory, if it exists, may contain license information needed to run other applications, and should not be deleted.) If the operating system does not allow you to delete the directory, do the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each WebSphere Commerce Service Provider component, identified in the list that follows these steps, that is designated with a Start-up of **Automatic**, do the following:
 - 1) On the Services window, select the component and click **Startup**.
 - 2) On the Service window, select a Start-up Type of **Manual** and click **OK**.

Depending on the version and configuration of WebSphere Commerce Service Provider that you are using, your components may include any of the following:

 - One or more instances of WebSphere Commerce Service Provider, which are identified by the name WebSphere Commerce Service Provider in their service names.
 - One or more DB2 databases and other DB2 services, which are identified by the name DB2 in their service names, and by the service name DHCP client.
 - One or more Oracle databases and other Oracle services. Refer to Oracle's documentation for more information.
 - d. Reboot your machine, and attempt to delete the directory again.
12. Switch to the *\Winnt* directory and delete any Domino Go Webserver-related files, including the following:
 - admin*.*
 - httpd.cnf
 - httpd.cnf.old
13. From the **Start** menu, point to **Settings**, then **Taskbar**. Click the **Start Menu Programs** tab. Remove the entry for Domino Go Webserver.
14. Edit the Registry to remove all Domino Go Webserver entries. You may wish to back up your Registry prior to editing it. To edit your Registry, do the following:
 - a. To invoke regedit, click **Start** and select **Run**. Type regedit and click **OK**. The Registry Editor opens.
 - b. Expand the HKEY_LOCAL_MACHINE folder and its SOFTWARE subfolder. In the Lotus subdirectory, delete the Domino Go Webserver entry, if it exists.
15. Empty the Recycle Bin.

16. Reboot your machine.
17. If DB2 is not installed on your system, you may wish to uninstall NetQuestion. See “Uninstalling NetQuestion” on page 161 for more information.

Reinstalling Domino Go Webserver

To reinstall Domino Go Webserver, do the following:

1. Reinstall Domino Go Webserver from the Domino Go Webserver 4.6.2.61 CD, *not* the WebSphere Commerce Service Provider CD. For a list of the components that you should install, see “Quick Reference to the Components Installed During a Typical Install” on page xii. Ensure that you also restore the files which you backed up in steps 2 on page 154 and 3 on page 154.
2. Uninstall WebSphere Application Server, as described in “Uninstalling WebSphere Application Server 2.0.3.1”.
3. Reinstall WebSphere Application Server from the WebSphere Application Server 2.0.3.1 CD. For a list of the components that you should install, see “Quick Reference to the Components Installed During a Typical Install” on page xii.
4. Ensure the Domino Go Webserver and Servlet services are started.
5. Follow the steps in “Appendix C. Enabling SSL on Domino Go Webserver for Testing” on page 147.
6. Access Configuration Manager by clicking **Start**, pointing to **Programs**, then **IBM WebSphere Commerce Service Provider**, and **WebSphere Commerce Service Provider Configuration**. This process starts the Web server and opens a Web browser window to the following Web address:

`http://host_name:4444`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine.

If an instance is listed on the main Configuration Manager window, delete the instance and recreate it.

Uninstalling WebSphere Application Server 2.0.3.1

Important!

If you uninstall your Web server, you must also uninstall WebSphere Application Server. Also, when you reinstall your Web server and WebSphere Application Server, you must install your Web server before reinstalling WebSphere Application Server, since WebSphere modifies your Web server’s configuration file (port 80 only on NES). If you install your Web server after installing WebSphere Application Server, your instance will not be configured properly.

Also, if you reinstall your Web server and WebSphere Application Server, you will need to recreate their instance before you can access NCAdmin.

To uninstall WebSphere Application Server, do the following:

1. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **IBM WebSphere**, point to **Application Server V2.0**, and click **Uninstall WebSphere Application Server**.

2. When prompted to confirm that you want to uninstall WebSphere Application Server, click **Yes**.
3. You receive the following prompt:
Uninstall will delete all the files in the directory where WebSphere is installed. Do you want to back up the configuration, logs, and user files?

Click **No**.
4. The uninstall program starts and removes WebSphere Application Server. When it has completed, click **OK**.
5. When prompted to reboot the machine, click **OK**.
6. Remove the \IBM\WAServer directory and if you are using Netscape Enterprise Server, the \IBM\WAServer-443 directory as well.
7. Reboot your machine.

Note: When a version of Application Server is installed, it copies your Web server configuration file as a backup file and then modifies the original configuration file. The modified file becomes the active configuration file when you use your Web server. When you uninstall Application Server, it does not restore your previous configuration file, which remains the back up file. Therefore, any changes and customizations you made to your Web server configuration file before installing Application Server (whether this is your first installation of Application Server or a subsequent installation of Application Server) reside in the back up configuration file. To make these settings active again, you must transfer them from the back up file into the active Web server configuration file.

Uninstalling DB2 Text Extenders

To uninstall the DB2 Text Extenders, perform the following steps:

1. On a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **DB2 Extenders**, and click **Uninstall DB2 Extenders**.
2. Confirm File Deletion pop-up appears. Click **Yes**.
3. The Uninstall Shield is invoked which uninstalls the DB2 Text Extenders. When it is complete, click **OK**.
4. In the *drive:\winnt* directory, remove all files that begin with *dmb*, for example, *dmb.iss* and *dmb.log*.
5. Click **Start**, point to **Settings**, and click **Control Panel**.
 - a. Click on **System**.
 - b. Click on **Environment** tab.
 - c. Edit the values of any environment variables that reference the *dmb* directory and remove that portion from the value of the string.
 - d. Reboot the machine.

Note: If you plan to reinstall DB2 Text Extenders, ensure that you install DB2 first and that the Text Extenders get installed from the DB2 Text Extenders CD, *not* the WebSphere Commerce Service Provider CD.

Uninstalling DB2 Universal Database

Important

When you uninstall DB2, you are deleting all the information in the database.

Note: You do not usually need to uninstall DB2 before upgrading your level of DB2.

To uninstall DB2, do the following:

1. If you wish to save your database, back it up as described in the DB2 online information. (See “DB2 Information” on page 174 for instructions on accessing the DB2 online information.) After you have completed the back up, move the back up database to a directory that is not used by WebSphere Commerce Service Provider component.
2. Drop all WebSphere Commerce Service Provider databases, by doing the following:
 - a. From a DB2 command window, list all databases by typing:

```
db2 list db directory
```
 - b. For each WebSphere Commerce Service Provider database listed, type the following command:

```
db2 drop db db_name
```

where *db_name* is the name of the WebSphere Commerce Service Provider database.
 - c. Close the DB2 command window.
3. Stop DB2 by doing the following:
 - a. On a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each *started* service in the **Service** list that begins with DB2, select the service and click **Stop**. When asked to confirm that you wish to stop the service, click **Yes**.
 - d. Select **DB2 Security Server**.
 - e. Click **Stop**.
 - f. Click **Close**.
4. If you have created or customized any files in the *drive:\Ibm\Sqllib* or *drive:\Db2* directories or their subdirectories, and you wish to retain them, back them up to different directories.
5. On a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, then **DB2 for Windows NT**, and click **Uninstall**.
6. When asked to confirm that you want to remove DB2 and its components, click **Yes**.
7. When the uninstall program completes, the progress indicator bar is full and the **OK** button is enabled. Click **OK**.
8. If you want to delete your database, delete the *drive:\Db2* directory, along with all of its subdirectories and files. You can also delete the *drive:\Ibm\Sqllib* directory, along with all of its subdirectories and files, if it does not contain any files that you want to keep. If the operating system does not allow you to delete the directories, do the following:

- a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each WebSphere Commerce Service Provider component (identified in the list that follows these steps) that is designated with a Start-up of **Automatic**, do the following:
 - 1) On the Services window, select the component and click **Startup**.
 - 2) On the Service window, select a Start-up Type of **Manual** and click **OK**.

Depending on the version and configuration of WebSphere Commerce Service Provider that you are using, your components may include any of the following:

 - One or more instances of WebSphere Commerce Service Provider, which are identified by the name `Net.Commerce` in their service names.
 - Domino Go Webserver, which is identified by the service name `Lotus Domino Go Webserver`.
 - One or more instances of Netscape Enterprise Server. Refer to Netscape's documentation for more information.
 - d. Reboot your machine, and attempt to delete the directory again.
9. If the `drive:\Ibm` directory is empty (that is, contains no subdirectories) you may delete it. However, if it contains an `Ifor` subdirectory, do not delete it. The `Ifor` subdirectory, if it exists, may contain license information needed to run other applications, and should not be deleted.) If the operating system does not allow you to delete the directory, stop every WebSphere Commerce Service Provider component and try again.
 10. Determine whether the DB2 instance variable exists in the system environment, and if so, delete it, by doing the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. Double-click the **System** icon.
 - c. In the System Properties window, select the **Environment** tab.
 - d. If `DB2INSTANCE` appears in the **System Variables** list, select it and click **Delete**.
 - e. Click **OK**.
 11. Switch to the `\Winnt` directory and delete any DB2-related files; these are any files that begin with `DB2`:


```
db2*.*
```
 12. In the `\Winnt\system32\drivers\etc` directory, modify the `services` file, removing all DB2 entries (for example, `db2cDB2DAS00`).
 13. Delete the user ID `DB2ADMIN` from the Windows NT User Manager.
 - a. Click **Start**, point to **Programs**, then point to **Administrative Tools (Common)**, then click on **User Manager for Domains**.
 - b. Select **db2admin**.
 - c. Press the **delete** key on your keyboard.
 - d. Click **OK**.
 - e. Click **Yes**.
 - f. Close User Manager.
 14. Empty the Recycle Bin.
 15. Reboot your machine.
 16. If Domino Go Webserver is not installed on your system, you may wish to uninstall NetQuestion. See "Uninstalling NetQuestion" on page 161 for more information.

Notes:

- a. If you plan to reinstall DB2 Universal Database 6.1, ensure that you install DB2 from the DB2 Universal Database 6.1 CD, *not* the WebSphere Commerce Service Provider CD.
- b. If you created a WebSphere Commerce Service Provider instance, you must delete it and create a new one after a DB2 reinstallation.

Uninstalling Payment Server

To uninstall Payment Server, do the following:

1. Stop Payment Server, as described in “Starting and Stopping Payment Server” on page 145
2. If you have created or customized any files in the *drive:\IBM\PayServer* directory or its subdirectories, and you wish to retain them, back them up to a different directory.
3. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Settings**, and click **Control Panel**.
4. On the Control Panel window, double-click the **Add/Remove Programs** icon.
5. On the Add/Remove Programs Properties window, click the **Install/Uninstall** tab.
6. From the software list, select IBM Payment Server and click **Add/Remove**.
7. When prompted to confirm your deletion request, click **Yes**. The uninstall program starts, and removes Payment Server. When the uninstall has completed, click **OK**.
8. If it exists, delete the *drive:\IBM\PayServer* directory, along with all its subdirectories and files.
9. If the *drive:\Ibm* directory has no subdirectories, delete it. (Note that the *drive:\Ibm\Ifor* directory, if it exists, may contain license information needed to run other applications, and should not be deleted.) If the operating system does not allow you to delete the directory, do the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each WebSphere Commerce Service Provider component identified in the list that follows these steps that is designated with a Start-up of **Automatic**, do the following:
 - 1) On the Services window, select the component and click **Startup**.
 - 2) On the Service window, select a Start-up type of **Manual** and click **OK**.

Depending on the version and configuration of WebSphere Commerce Service Provider that you are using, your components may include any of the following:

- One or more instances of WebSphere Commerce Service Provider, which are identified by the name *Net.Commerce* in their service names.
- One or more DB2 databases and other DB2 services, which are identified by the name *DB2* in their service names, and by the service name *DHCP client*.
- Domino Go Webserver, which is identified by the service name *Lotus Domino Go Webserver*.
- One or more Oracle databases and other Oracle services. Refer to Oracle’s documentation for more information.

- Domino Web Server. Refer to your Domino Web Server documentation for more information.
 - One or more instances of Netscape Enterprise Server. Refer to Netscape's documentation for more information.
- d. Reboot your machine, and attempt to delete the directory again.
10. Switch to the \Winnt directory and delete etill*.*.
 11. Edit the Registry to remove all Payment Server entries. You may wish to back up your Registry prior to editing it. To edit your Registry, do the following:
 - a. To invoke regedit, click **Start** and select **Run**. Type regedit and click **OK**. The Registry Editor opens.
 - b. Expand the HKEY_LOCAL_MACHINE folder and its Software subfolder. In the IBM subdirectory, delete the Payment Server entry, if it exists.
 12. Empty the Recycle Bin.
 13. Reboot your machine.

Uninstalling NetQuestion

NetQuestion is used by both DB2 and Domino Go Webserver, and it is automatically installed if you install either or both of those products. If you no longer have DB2 or Domino Go Webserver installed on your system, and you are not using NetQuestion for any other purpose, you can uninstall it.

To uninstall NetQuestion, do the following:

1. If you have created or customized any files in the *drive:\Ibm\Net_Q* directory or its subdirectories, and you wish to retain them, back them up to a different directory.
2. On a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, then **NetQuestion**, and click **Uninstall NetQuestion**.
3. When asked to confirm that you want to remove NetQuestion, click **Yes**.
4. When the uninstall program has completed, delete the *drive:\Ibm\Net_Q* directory if it still exists, along with all its subdirectories and files. If the operating system does not allow you to delete the directory, do the following:
 - a. Click **Start**, point to **Settings**, and click **Control Panel**.
 - b. On the Control Panel window, double-click the **Services** icon.
 - c. For each WebSphere Commerce Service Provider component, identified in the list that follows these steps, that is designated with a Start-up of **Automatic**, do the following:
 - 1) On the Services window, select the component and click **Startup**.
 - 2) On the Service window, select a Start-up Type of **Manual** and click **OK**.

Depending on the version and configuration of WebSphere Commerce Service Provider that you are using, your components may include any of the following:

- One or more instances of WebSphere Commerce Service Provider, which are identified by the name WebSphere Commerce Service Provider in their service names.
- One or more DB2 databases and other DB2 services, which are identified by the name DB2 in their service names, and by the service name DHCP client.
- Domino Go Web Server, which is identified by the service name Lotus Domino Go Webserver.

- One or more Oracle databases and other Oracle services. Refer to Oracle's documentation for more information.
 - Domino Web Server. Refer to your Domino Web Server documentation for more information.
 - One or more instances of Netscape Enterprise Server. Refer to Netscape's documentation for more information.
- d. Reboot your machine, and attempt to delete the directory again.
5. If the *drive:\Ibm* directory has no subdirectories, delete it. (Note that the *drive:\Ibm\Ifor* directory, if it exists, may contain license information needed to run other applications, and should not be deleted.)
 6. Reboot your machine.

Uninstalling Netscape Enterprise Server

Important: If you uninstall Netscape Enterprise Server, you must also uninstall WebSphere Application Server. If you reinstall Netscape Enterprise Server and WebSphere Application Server, you must install Netscape Enterprise Server *before* reinstalling WebSphere Application Server, since WebSphere modifies your Web server's configuration file (port 80 only). If you install Netscape Enterprise Server after installing WebSphere Application Server, your instance will not be configured properly.

Also, if you reinstall Netscape Enterprise Server and WebSphere Application Server, you will need to recreate your WebSphere Commerce Service Provider instance before you can access WebSphere Commerce Service Provider Administrator.

If you have created stores with the Store Creator, ensure that you back up the `index.html` file in your document root directory for any stores created with Store Creator *before* you uninstall Netscape Enterprise Server.

To uninstall Netscape Enterprise Server, do the following:

1. From the **Services** window, stop all Netscape Enterprise Server servers (ports 80 and 443).
2. From the **Services** window, stop the Netscape Enterprise Server Administration server.
3. If you have created stores using Store Creator, and you would like to access them after uninstalling or reinstalling Netscape Enterprise Server, back up the store files in the `/document_root/store_name` directory.
4. If you plan to reinstall Netscape Enterprise Server, back up the `d2www.ini` file from the document root. Ensure that you restore the file to the document root after you reinstall Netscape Enterprise Server.
5. Uninstall Netscape Enterprise Server according to Netscape's instructions.
6. Reinstall Netscape Enterprise Server according to Netscape's instructions and restore the backed up files from step 3 and 4 above.
7. Uninstall WebSphere Application Server, as described in "Uninstalling WebSphere Application Server 2.0.3.1" on page 156.
8. Reinstall WebSphere Application Server from the WebSphere Application Server 2.0.3.1 CD. Ensure that you select the port 80 `obj.conf` file. For a list of

the components that you should install, see “Quick Reference to the Components Installed During a Typical Install” on page xii.

9. After reinstalling WebSphere Application Server, create the *drive:IBM\WAServer-443* directory for the secure port. Copy all the files under the *drive:IBM\WAServer* directory to the new directory. Edit the file *drive:IBM\WAServer-443\properties\bootstrap.properties*, and change all references to *IBM\WAServer* in the file to *IBM\WAServer-443*.
10. Apply the configuration file changes to the port 80 server on the Netscape Enterprise Server Administration page.
11. Access Configuration Manager by clicking **Start**, pointing to **Programs**, then **WebSphere Commerce Suite, Service Provider Edition**, and **WebSphere Commerce Suite Configuration**. This process starts the Web server and opens a Web browser window to the following Web address:
`http://host_name:4444`

where *host_name* is the fully qualified host name of your WebSphere Commerce Service Provider machine.

If an instance is listed on the main Configuration Manager window, delete the instance and recreate it.

Appendix E. Troubleshooting

This appendix lists some of the problems you may encounter while installing and configuring WebSphere Commerce Service Provider, and provides possible causes and solutions.

Note: If you need to examine a log file that is very large and difficult to find information in, you should start your search for the error from the bottom of the file. You can also delete the log file, and then reproduce the error so that it is easier to find in the log.

Configuration Manager

This section describes problems that involve Configuration Manager.

1. Configuration Manager error message for new customers: *Cannot create database*. One or more of the DB2 services are not running. The possible causes are:
 - a. In step 6 on page 18 (if you performed a Typical install), or in step 7 on page 22 (if you performed a Custom install), your machine was only logged off instead of performing a complete reboot.

Reboot the machine and recreate the WebSphere Commerce Service Provider instance using the Configuration Manager. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager.
 - b. The DB2 install failed and the services are not able to start. To install DB2, do the following:
 - 1) Uninstall DB2 by following the instructions in “Uninstalling DB2 Universal Database” on page 158. Ensure the \Db2 and Ibm\Sqllib directories have been deleted from the drive you are installing on.
 - 2) Manually install DB2 from the DB2 Universal Database 6.1 CD. To install DB2, run setup.exe.
 - 3) Delete and recreate the WebSphere Commerce Service Provider instance using the Configuration Manager. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager.
2. Configuration Manager error message for existing customers: Cannot start DB2 service. Please try starting from the Service Manager

One or more of the DB2 services are not running. The possible cause is that in step 6 on page 18 (if you performed a Typical install), or in step 7 on page 22 (if you performed a Custom install), your machine was only logged off instead of performing a complete reboot. Reboot the machine and ensure that DB2 services are started. Manually perform the database migration as described in the Migration section of an updated version of this book. It is available in PDF format from the *Library* section of our product Web site. To access it, type the following Web address on your browser:

<http://www.ibm.com/software/websphere/commerce/servers>

Then start the WebSphere Commerce Service Provider server from the NT Services Manager. If the DB2 services still do not start, reinstall DB2 as indicated in step 1b on page 165 for problem 1.

3. The Configuration Manager hangs after creating an instance and fails to return to the main Configuration Manager window.

This problem occurs after you click **OK** at the prompt which indicates the instance has been created. The database for this instance may be at a back-level of WebSphere Commerce Service Provider.

To check the database level, from a DB2 command window, type the following:

```
db2 connect to db_name
db2 select mhdversion from mall
```

where *db_name* is the name of the database. This should return the version number of the database. The response should reference v3.2;DB2. If the response references a back-level of the database, do the following:

- a. Use Configuration Manager to delete the instance.
- b. From a DB2 command window, drop the database by typing the following:

```
db2 drop db_name
```

where *db_name* is the name of the database.

Note: You will lose all information stored in the database if you drop it.

- c. Use Configuration Manager to recreate the instance.
- d. Check the database level on the new instance to confirm it is at the 3.2 level.

WebSphere Commerce Service Provider Server

WebSphere Commerce Service Provider server fails to start after configuration has completed. The possible causes are:

1. The WebSphere Commerce Service Provider server cannot connect to the database as indicated in the control log located in the *drive:\Ibm\NetCommerce3\instance\instance-name\logs* directory, where *instance_name* is the name of your WebSphere Commerce Service Provider instance. The possible causes for not connecting to the database are:
 - The database user logon ID and password are incorrect or contain invalid characters. The invalid characters are specified in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix under the **Windows NT User ID** heading. To check the database user logon or password, run the Configuration Manager. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager. Ensure that the database user ID specified in the Configuration Manager has Administrator authority on the NT machine.
 - The DB2 database for your WebSphere Commerce Service Provider instance does not exist. Use the Configuration Manager to create a new instance. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager.
 - The DB2 database for your WebSphere Commerce Service Provider instance is not cataloged. This may have been caused by uninstalling and then reinstalling DB2. Catalog the instance using the following command in a DB2 command window:

```
db2 catalog db dbname
```

where *dbname* is the name of your database.

- DB2 services are not running. See problem 2 on page 165 for possible solutions.
- 2. The WebSphere Commerce Service Provider server has detected a back level database. The following error message will be found in the log file located in the *drive:\Ibm\NetCommerce3\instance\instance_name\logs* directory (where *instance_name* is the name of your WebSphere Commerce Service Provider instance):

```
The database has not been migrated to version 3.2  
of WebSphere Commerce Service Provider
```

This problem occurs for existing Net.Commerce Hosting Server customers or new WebSphere Commerce Service Provider customers with existing databases. The possible causes for the database not being migrated are:

- You uninstalled Net.Commerce Hosting Server prior to installing WebSphere Commerce Service Provider 3.2. Manually perform the database migration depending on which DBMS you are using and start the WebSphere Commerce Service Provider server from NT Services Manager.
- The database user logon ID or password contains invalid characters. To correct this, do the following:
 - a. Change the logon ID and password to one complying to the rules specified in “Quick Reference to User IDs, Passwords, and Web Addresses” on page ix. Run the Configuration Manager and select **Settings** to correct the user ID and password on the Database page. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager. Ensure that the database user logon ID specified in the Configuration Manager has Administrator authority on the NT machine.
 - b. Manually perform the database migration depending on which DBMS you are using.
 - c. Start the WebSphere Commerce Service Provider server from NT Services Manager.
- The WebSphere Commerce Service Provider server detected a communication error as indicated in the log file located in the *NetCommerce3\instance\instance_name\logs* directory, where *instance_name* is the name of your WebSphere Commerce Service Provider instance. This error occurs for new WebSphere Commerce Service Provider customers. The probable cause is an improper TCP/IP configuration for the machine. Configure TCP/IP within the NT Network service, and then delete and create the WebSphere Commerce Service Provider instance using the Configuration Manager. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager.

WebSphere Commerce Service Provider Administrator

This section describes problems that involve the Administrator.

- Opening the Administrator results in the Netscape browser error: There was no response. The server could be down or is not responding.

Your Lotus Domino Go Webserver or the Web server you are using has not been started. Use the NT Services Manager to start the Web server.

- Opening the Administrator fails with error CMN0302E

The WebSphere Commerce Service Provider server is not responding. Stop and restart the server. If the server does not start, see problem “WebSphere Commerce Service Provider Server” on page 166 above.

Also try closing all open browsers, and launching the Administrator again as the problem may have occurred due to an invalid cookie. Only one browser is allowed to be logged into the Administrator at a time.

- When the configuration process tries to open the Administrator, it fails with the error:

The hostname specified xxxx does not have a valid IP address.
Netscape is unable to locate the server xxxx. Please check the server name again and try again.

Check Configuration Manager to ensure the host name is correct and fully qualified with the domain. For example, `www.ibm.com` is fully qualified. The host name entered on the Web Server page of the Configuration Manager may be incorrect. Use the Configuration Manager to correct the host name. See “Accessing the Configuration Manager” on page 45 and “Updating a WebSphere Commerce Service Provider Instance” on page 46 for information on starting and using the Configuration Manager.

- Unable to access the Administrator.

The possible causes are:

1. If you are using Domino Go Webserver or Domino Web Server as your Web server, you may not have enabled SSL for testing purposes. To check if SSL for testing is enabled, do the following:

- a. On your Windows machine, open your Web browser.
- b. Enter the following Web address:

`https://host_name`

where *host_name* is your fully-qualified WebSphere Commerce Service Provider machine name.

Notes:

- 1) Ensure that you enter `https` and *not* `http`.
- 2) If you have modified your Web server, you may need to type the name of your Web server’s front page after the host name.
- c. If you are able to view your Web server’s home page, SSL for testing is properly enabled. Review the remaining possible causes listed below to determine a cause for not being able to access the Administrator.
- d. If you are unable to view your Web server’s home page, enable SSL for testing by doing the following:
 - 1) If you are using Domino Go Webserver, follow the instructions in “Chapter 10. Enabling SSL for Production on Domino Go Webserver” on page 73.
- e. After enabling SSL for testing, attempt to access the Administrator again. If you are still unable to access the Administrator, review the remaining possible causes listed below to determine a cause for not being able to access the Administrator.

2. If you are using Netscape Enterprise Server as your Web server, you may receive the following error message when attempting to access the Administrator:

The requested object does not exist on this server.
The link you followed is either outdated, inaccurate or
the server has been instructed not to let you have access.

You may not have applied recent changes to your Netscape Enterprise Server configuration files, `obj.conf`. To determine if changes to the configuration files have not been applied, and to apply the changes:

- a. On your Windows machine, open your Web browser.
 - b. Enter the Web address for your Netscape Enterprise Server Administration port. (For example, `http://host_name:11111`.)
 - c. Click your secure server port (port 443). If changes have not been made to the configuration file for this server, a dialog box appears, prompting you to apply the changes to the configuration file. Follow instructions on the dialog box to apply the changes to the file, and stop and restart the server.
 - d. Repeat step 2c for your non-secure server port.
 - e. Attempt to access the Administrator again. If you are still unable to access the Administrator, review the remaining possible causes listed below to determine a cause for not being able to access the Administrator.
3. If you receive the following error when trying to access the Administrator:

The Mall/Store is currently experiencing problems. Please try again later.
Server not responding (CMN0302E)
A server could not be reached to server this request. Please try again.

Your WebSphere Commerce Service Provider instance may not be started. To start your instance, do the following:

- a. Access the Configuration Manager by doing the following:
 - 1) Click **Start**, point to **Programs**, point to **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Configuration**. The secure Web server starts and a Web browser window appears, launching the Web address, `http://host_name:4444`, where `host_name` is the fully qualified host name of your WebSphere Commerce Service Provider machine (for example, `www.ibm.com` is fully qualified).
 - 2) When prompted, enter your Configuration Manager user ID and password. If you have not yet changed them, your user ID is `webadmin` and your password is `webibm`.
- b. If there is an instance listed on the main Configuration Manager window, highlight the instance and click **Start**.
- c. If there are no instances listed on the main Configuration Manager window, you must create an instance by following the steps in “Chapter 4. Configuring a WebSphere Commerce Service Provider Instance” on page 25.
- d. If you are able to access the Administrator login page, but you are unable to log on with the default user ID and password (which are both `ncadmin`), you may have to recreate the default user ID and password. To recreate the Administrator ID and password, refer to “Determining the Encrypted WebSphere Commerce Service Provider Administrator Password” on page 48 and “Changing the WebSphere Commerce Service Provider Administrator Password” on page 49.

- Unable to log into Administrator.

If the database creation scripts are used from a command line, the administrator will not be able to login with the NCAdmin password if the NCAdmin_password was not included in double quotes. These scripts are: schema.cmd, demomall.cmd, grocery.cmd, bus2bus.cmd, tutorial.cmd and remote_schema.cmd.

If an NCAdmin password login fails, do the following to correct the problem:

1. From a DB2 command window, connect to the database by typing db2 connect to *db_name*.
2. Verify that the SHOPPER table NCAdmin password matches the nc3_crypt Encrypted string (HEX) by typing the following command:
db2 select shlpswd from shopper where shlogid='ncadmin'
3. Type the following command:
nc3_crypt -e ncadmin (Encrypted string (ASCII))

Output from command:

```
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* Trademark of International Business Machines Corp.
Encrypted string (ASCII): KDRiGCv9hAM=
Encrypted string (hex): 4B4452694743763968414D3D
```

This procedure should produce the same results as above except for the padding. If this is not the case, perform a DB2 update to correct the problem. For example, type the following on one line:

```
DB2 update SHOPPER set SHLPSWD=x'4B4452694743763968414D3D'
where SHLOGID='ncadmin'
```

Please note that the value of SHLPSWD should be the Encrypted string (ASCII).

- Receiving Authorization Failure (CMN0962E) when accessing the Administrator. When accessing the Administrator, the fully qualified Web address should be specified including the domain. For example, *www.ibm.com* is fully qualified.
- When accessing an Administrator page that contains Java, the Netscape browser crashes with a Dr. Watson error.

This error usually occurs when the video mode is set to VGA with 16 colors. Increase the video mode setting to SVGA and retry.

Product Advisor

If you are experiencing problems using Product Advisor and WebSphere, there are tests that you can run to help determine the error. Refer to the *Configuration Checklist for the Product Advisor* section of the WebSphere Commerce Service Provider online help for more information about troubleshooting Product Advisor problems.

- If you receive a Cannot read configuration file error when you try to load Product Advisor.

After restarting the Web server, close your browser and try again after a short time. When a Web server is restarted, it takes a couple of minutes for WebSphere to load.

Miscellaneous

This section describes miscellaneous problems.

- If you are using DB2 with WebSphere Commerce Service Provider, and you receive the following DB2 error message:
Database migration failed. Reason code 3.

you need to increase your database log space. To increase the log space, run the following command from a DB2 command window:

```
db2 update db cfg for db_name using primary logprimary 9
```

where *db_name* is the name of the database. If the command does not return successfully, increase 9 by a higher number. Readjust the number until the command is successful.

- SSL key verification fails after a Net.Commerce Hosting Server 3.1.2 migration
If you SSL key verification fails and your browser times out while you are trying to log into the Administrator, do the following:
 - Ensure that you perform all Net.Commerce Hosting Server 3.1.2 migrations steps.
 - Ensure that you have created an SSL key.
 - Ensure that your WebSphere Commerce Service Provider instance is using the correct database.

If all of the above tasks are complete and successful, then delete your WebSphere Commerce Service Provider instance and recreate it. The new instance should use the existing migrated database.

- If you are using Oracle, and you have completed your installation and configuration of WebSphere Commerce Service Provider, including the creation of an instance, and you receive a Check Access Failed error message when you attempt to create a store, stop and then restart your Web server (either Domino Go Webserver or Netscape Enterprise Server) and WebSphere Application Server. For information on starting and stopping WebSphere Commerce Service Provider components, refer to “Appendix B. Starting and Stopping WebSphere Commerce Service Provider Components” on page 143.

Appendix F. Where to Find More Information

More information about the WebSphere Commerce Service Provider 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 Service Provider Information

The following are the sources of WebSphere Commerce Service Provider information:

- WebSphere Commerce Service Provider online help
- WebSphere Commerce Service Provider printable document files
- Net.Commerce Web site

Using the Online Help

The WebSphere Commerce Service Provider online information is your primary source of information for customizing, administering, and reconfiguring WebSphere Commerce Service Provider. After you have installed WebSphere Commerce Service Provider, you can access the information in either of the following ways:

- Click **Start**, point to **Programs**, then **WebSphere Commerce Suite, Service Provider Edition**, and click **WebSphere Commerce Suite Documentation**.
- Type the following on your browser:
`http://host_name/nchshelp/index.htm`

Locating the Printable Documentation

Some of the online information is also available on your system in printable formats in the `drive:\Ibm\NetCommerce3\books\locale` directory.

Viewing the WebSphere Commerce Service Provider Web site

WebSphere Commerce Service Provider product information is available at our product Web site. To access it, type the following Web address on your browser:
`http://www.ibm.com/software/webservers/commerce/servers`

New and updated documentation may also be available from the *Library* section of this site.

Domino Go Webserver Information

Domino Go Webserver information is available at `http://www.software.ibm.com/webservers/dgw/`. The documents are in HTML format, PDF format, or both. This site also has a link to download Adobe Acrobat Reader, which you can use to view and print the PDF files.

Net.Data Information

Net.Data documentation is available in HTML, PDF, and Postscript format from the Net.Data Web site. To access it, type the following on your browser:
`http://www.ibm.com/software/data/net.data/library.html`

Payment Server Information

IBM Payment Server documents will be available on your system, in PDF format, after you install Payment Server. You can find eTillAdmin.pdf, *IBM Payment Server for AIX, Windows NT and Solaris - Administrator's Guide, Version 1.2*, and eTillProg.pdf, *IBM Payment Server for AIX, Windows NT and Solaris - Programmer's Guide and Reference, Version 1.2*, under the eTillPayment Server root directory. By default, this directory is *drive:\Ibm\eTill*. Payment Server information is also available from the WebSphere site:

<http://www.ibm.com/software/webservers/>

WebSphere Application Server

WebSphere Application Server information is available at the WebSphere Application Server Web site. To access this page, type the following on your browser:

<http://www.ibm.com/software/webservers/>

DB2 Information

DB2 information is available on your system after you install DB2. To access it, click **Start**, point to **Programs**, point to **DB2 for Windows NT**, and click **Information Center**.

For the most recent information, refer to the RELEASE.TXT file. This file is located in the directory where the product is installed.

Additional DB2 information is available at:

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

Other IBM Publications

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

Appendix G. Program Specifications and Specified Operating Environment

This version of WebSphere Commerce Service Provider supports the following operating environment:

- Windows NT 4.0 with Service Pack 4

WebSphere Commerce Service Provider 3.2 includes the following components:

WebSphere Commerce Service Provider Administrator

The Administrator consists of tools for creating and maintaining an electronic commerce site or store. This includes the Site Manager tool described below.

Site Manager

A collection of easy-to-use online forms that help define and manage high-level functions related to Internet malls and stores.

Sample Site, Mall, and Stores

Sample stores included with the product have end-to-end shopping flows with predefined catalog templates, registration, shopping carts, order forms, checkout, and payment components. The sample stores can be customized to meet individual needs. See "Part 3. Getting Started" on page 79 for more information.

Product Advisor

A catalog tool provided with WebSphere Commerce Service Provider that helps sellers create intelligent catalog searches to guide their customers' product selection. You can also create customized catalogs catering to certain shopping preferences and buying styles. Support is provided for parametric searching of the catalog, sales assistance, or product comparison, to assist shoppers in making product selections.

Tutorials

WebSphere Commerce Service Provider includes two tutorials to help you understand the way in which various Net.Commerce components work together. You can walk through the process of using the base Net.Commerce product to set up a mall step by step, with hands-on guidance and detailed explanation of each step. Note that these tutorials apply specifically to Net.Commerce rather than to WebSphere Commerce Service Provider itself.

The following products are bundled with, and supported by, WebSphere Commerce Service Provider 3.2:

DB2 Universal Database 6.1

DB2 Universal Database is a full-featured relational database used by WebSphere Commerce Service Provider 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 Text Extender 6.1.1

DB2 Text Extender is an optional component for DB2 that provides additional search capabilities to your site. Using Text Extenders 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 wild card searches.

Domino Go Webserver 4.6.2.61

Domino Go Webserver is a 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.

Payment Server 1.2.20.3

IBM Payment Server provides real-time Internet payment processing for merchants who are using a variety of methods, including SET (Secure Electronic Transactions), and Merchant Originated Payment.

WebSphere Application Server 2.0.3.1

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

Net.Data 6.1

A DB2 scripting language used to access data in a relational database.

Netscape Communicator 4.61

A popular Web browser.

WebSphere Commerce Service Provider 3.2 also supports the following:

- Oracle 8.05 or 8.06 (requires Merant ODBC 3.5)
- Netscape Enterprise Server 3.6.1
- JDK/JRE 1.1.7

Glossary

A

acquiring institution. The financial institution that receives payment from the customer's financial institution and forwards it to the merchant.

Administrator. A series of interfaces that enables merchants to create and manage malls and stores.

applet. A small program that is embedded in Web pages to produce animation and other special effects.

C

cache. A special-purpose buffer storage that is used to hold a copy of data that may be frequently accessed. Use of a cache reduces access time, but may increase memory requirements.

Caching utility. A utility that enables the user to cache certain frequently used pages.

catalog. A collection of Web pages that contains information about goods or services that are offered for sale by a single store.

category. A division that groups objects with similar properties. Categories are used to organize products or services offered by an online store. For example, a clothing store might include categories arranged by life-style (casual or formal), gender (men or women) or age (children or adults). Categories can be further divided into subcategories.

certificate. In secure communications, a digital document that binds an encryption key to the identity of the certificate owner, so that the certificate owner can be authenticated. A certificate is issued by a certifying authority (CA). See also *certifying authority (CA)*.

certifying authority (CA). In secure communications, a trusted third party (such as VeriSign, Inc.), or a designated internal authority who issues certificates. See also *certificate*.

CGI. See *Common Gateway Interface*.

Common Gateway Interface (CGI). A program that enables two-way communication between a Web server and a daemon.

Configuration Manager. The program used to manage the configuration of a WebSphere Commerce Service Provider system.

D

DATABASE 2™. An IBM relational database management system.

DB2. See *DATABASE 2*.

DB2 Universal Database. See *DATABASE 2*.

DB2 Text Extender. A product that enhances the search capabilities of DB2 by providing extensions to SQL. These extensions work with a search engine to retrieve information from the DB2 database.

Distinguished Name. In secure communications, the name and address of the person and organization to whom a certificate has been issued. See also *certificate*.

Domino Go Webserver. The Web server provided with WebSphere Commerce Service Provider.

H

HTML. See *Hypertext Markup Language*.

Hypertext Markup Language (HTML). A notation for identifying the components of a document to format it for display on the Web. HTML formats the text, determines input areas on forms, and creates navigational links.

I

IP address. The unique 32-bit address that specifies the location of each device or workstation in the Internet. For example, 9.41.41.103 is an IP address.

K

key. In secure communications, an algorithmic pattern that is used by a sender to encrypt messages and by a recipient to decrypt messages. See also *key pair* and *key ring*.

key pair. In secure communications, a key pair consists of a public key and a private key. The sender uses the public key to encrypt the message, and the recipient uses the private key to decrypt the message. See also *private key* and *public key*.

key ring. In secure communications, a file that contains public keys, private keys, trusted roots, and certificates. See also *certificate*, *public key*, *private key*.

M

mall. A collection of electronic stores that are jointly managed by the same administrator.

Mass Import utility. A utility that lets a user quickly import product information from a text file into the WebSphere Commerce Service Provider database, rather than completing forms in WebSphere Commerce Service Provider Administrator one by one.

merchant. An individual or company that uses WebSphere Commerce Service Provider to sell goods or services over the Web.

merchant key. A 16-digit hexadecimal number that the Configuration Manager uses to encrypt passwords.

N

Net.Data. The language used in WebSphere Commerce Service Provider macros.

Netscape Enterprise Server. A Web server that can be used with WebSphere Commerce Service Provider instead of Domino Go Webserver.

O

Oracle. A relational database management system. Oracle can be used with WebSphere Commerce Service Provider instead of DB2.

overridable function. Program code that implements a task.

P

private key. In secure communications, an algorithmic pattern used to decrypt messages that were encrypted by the corresponding public key. You keep your private key on your own system in a key ring, protected by a password. See also *key ring* and *public key*.

Product Advisor. A component of the WebSphere Commerce Service Provider, used to create intelligent catalogs.

production server. The server on which you make your WebSphere Commerce Service Provider site available to shoppers. See also *staging server*.

public key. In secure communications, an algorithmic pattern used to encrypt messages that the corresponding private key can decrypt. You make your public key available to everyone that needs it. See also *key ring* and *private key*.

S

Secure Electronic Transaction (SET). SET is a protocol that ensures secure transmission of sensitive information such as data about shoppers, orders, and payment methods.

secure server. A server that uses secure protocols to protect the confidentiality of information that is transmitted and received over the Web. Domino Go Webserver is an example of a secure server.

Secure Sockets Layer (SSL). Secure Sockets Layer allows the client to authenticate the server and all data and requests to be encrypted. The Web address of a secure server that is protected by SSL begins with `https` (rather than `http`). See also *authentication*.

server. A computer that provides shared services to other computers over a network. For example, a file server, a print server, or a mail server.

SET. See *Secure Electronic Transaction*.

shopper. An individual who accesses an electronic store to browse catalogs and make purchases.

shopping cart. A collection of goods or services that a shopper selects from an electronic catalog.

site. A virtual location manifested by the existence of a single instance of WebSphere Commerce Service Provider.

site administrator. An individual with the authority to update the information that is associated with a site.

Site Manager. A collection of data entry forms used to populate the WebSphere Commerce Service Provider database with mall and site information and to maintain this information. Site Manager is a component of WebSphere Commerce Service Provider Administrator.

SKU number. Stock keeping Unit number. An alphanumeric identifier for each item of merchandise. It can include variables for department, class, vendor, style, color, size, and location.

SSL. See *Secure Sockets Layer*.

store. A set of Web pages and macros that allow shoppers to purchase goods and services over the Web. A store may be part of a mall or may exist independently of any other online store.

store administrator. An individual with the authority to update the information that is associated with a store.

Structured Query Language (SQL). A computer language that is used to manipulate relational databases.

T

TCP/IP. See *Transmission Control Protocol/Internet Protocol*.

Transmission Control Protocol/Internet Protocol (TCP/IP). A set of communication protocols that supports peer-to-peer connectivity functions for both local and wide area networks.

V

VeriSign. A certifying authority (trusted third party) that can provide a secure certificate.

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