



IBM Net.Commerce for Windows NT[®]

Installing and Getting Started Guide

Version 3.2

GC09-2904-00



IBM Net.Commerce for Windows NT[®]

Installing and Getting Started Guide

Version 3.2

GC09-2904-00

Note!

Before using this information and the product it supports, be sure to read the general information under "Appendix F. Notices" on page 173.

First Edition (August 1999)

This edition applies to Version 3.2 of IBM Net.Commerce for Windows NT (Program 5697-D24) 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.

Order publications through your IBM representative or the IBM branch office serving your locality. Publications are not stocked at the address given below.

IBM welcomes your comments. You can send your comments by any one of the following methods:

1. Electronically to either of the network IDs listed below. Be sure to include your entire network address if you wish a reply.

Internet: torrcf@ca.ibm.com

IBMLink: [toribm\(torrcf\)](#)

2. By FAX, use the following numbers:

United States and Canada: 416-448-6161

Other countries: (+1)-416-448-6161

3. By mail to the following address:

IBM Canada Ltd. Laboratory

Information Development

2G/KB7/1150/TOR

1150 Eglinton Avenue East

North York, Ontario, Canada M3C 1H7

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© Copyright International Business Machines Corporation 1996, 1999. All rights reserved.

US Government Users Restricted Rights – Use duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Welcome to Net.Commerce	vii	Accessing Configuration Manager	33
Conventions Used in This Book	vii	Updating A Net.Commerce Instance	34
Products Included With Net.Commerce	viii	Changing your Configuration Manager Password	34
Alternative Web Servers	viii	Opening Net.Commerce Administrator	35
Alternative Databases	ix	Determining the Encrypted Net.Commerce Administrator Password	36
Supported Web Browsers	ix	Updating the Net.Commerce Administrator Password	36
Quick Reference to User IDs, Passwords and URLs	ix	Changing the Net.Commerce Administrator Password	37
Quick Reference to the Components Installed During a Typical Install	xii	Connecting to the Domino Go Webserver Home Page	38
How This Book is Organized.	xiii	Changing Your Domino Go Webserver Password	38
Part 1. Installing Net.Commerce	1	Setting Up IBM Payment Server.	39
Chapter 1. Pre-Installation Requirements	3	Changing the SET Certificate File Password	39
Knowledge Requirements	3	Running the eecertreq Utility.	40
Pre-installation Requirements	3	Requesting a Production Key Ring Certificate	40
Prerequisite Hardware	3	Chapter 5. Configuring Product Advisor	41
Prerequisite Software	4	Enabling JDBC to Start Automatically for Product Advisor	41
Using Supported Software Not Bundled with Net.Commerce.	5	Configuring Product Advisor with Domino Web Server.	41
Other Requirements.	5	Configuring Product Advisor with WebSphere for Oracle	42
Recommended Production System Hardware	6	Chapter 6. Verifying Your Installation	45
The Next Step.	8	Verifying that All Net.Commerce Components are Running	45
Chapter 2. Installing Net.Commerce	9	Verifying Product Advisor Configuration	46
Chapter Checklist	10	Verifying Net.Commerce Functionality	47
Installation Procedures	10	Chapter 7. Installing Your DB2 Database on a Separate Machine	49
A Typical Install	11	Creating the Remote DB2 Database.	49
A Custom Install	13	Chapter 8. Configuring ODBC and Creating a Schema Using Oracle.	53
The Next Step.	16	Chapter Checklist	53
Part 2. Configuring Net.Commerce Components	17	Configuring ODBC	54
Chapter 3. Configuring a Net.Commerce Instance	19	Verifying Connectivity	55
Configuration Procedures	19		
The Next Step.	31		
Chapter 4. Administrative Tasks	33		
Changing the DB2 Administrator Password	33		

Creating a Net.Commerce Database Schema	55
Using Oracle with Product Advisor	56
Chapter 9. Configuring Domino Web Server	57
Chapter 10. Installing Payment Server on a Separate Machine	61
Installation Procedure	61
Configuring Your Remote Payment Server Machine.	62
Configuring Your Net.Commerce Machine	64
Chapter 11. Configuring eNetwork Dispatcher.	67
Configuring TCP/IP for eNetwork Dispatcher	67
Configuring the eNetwork Dispatcher Server	68
Configuring the Net.Commerce Machines	69
Configuring Payment Server for eNetwork Dispatcher	71
Chapter 12. Enabling SSL for Production on Domino Go Webserver	73
About Security	73
Creating a Security Key Ring for Production	74
Requesting a Secure Certificate from a Certifying Authority	76
Equifax Users	76
VeriSign Users	76
Setting Your Production Key Ring as the Current Key Ring	76
Receiving the Certificate and Testing the Production Key Ring	77
Part 3. Getting Started.	79
Chapter 13. Methods of Creating a Store or Mall	81
Creating a Store Using the Store Creator	81
Creating a Store Using the Samples	82
About the Samples	83
Creating a Store Using the Site Manager and Store Manager	85
Creating a Mall Using the Site Manager and Store Manager	85
Creating a Mall Using the Samples.	86
After You Create Your Mall or Store	86

Chapter 14. Setting Up Your Store	89
About Site Manager.	89
Accessing the Site Manager	90
Defining Your Store	90
Creating the Store Front	91
Creating a Home Page, Header and Footer	92
Assigning a Home Page	92
Assigning Headers and Footers	92
Specifying Shipping Providers	93

Chapter 15. Building Your Store	95
About Store Manager	95
Accessing the Store Manager.	96
Specifying Store Contact, Currency and Tax Rate Information.	96
Specifying Shipping Services for the Store	97
Select Shipping Services	97
Create Shipping Codes.	98
Define Shipping Code Details	99
Creating Product Categories	100
Entering Product Information	102
Entering Basic Product Information	103
Specifying Prices for Products	104
Entering Product Attributes	105
Entering Items and Attributes	107

Part 4. Migrating to Net.Commerce 3.2 109

Chapter 16. Guidance for Migrating to Net.Commerce 3.2	111
Migrating From a Previous Version of Net.Commerce 3 to Net.Commerce 3.2	111
Replacing Net.Commerce Files	111
Backing up Net.Commerce Databases	111
Replacing Existing Software for Migration	112
Writing Commands and Overridable Functions	112
Net.Data Macros	112
Modifying Database Schema Migration Scripts for Custom Table Spaces.	113
Minimizing Downtime During Migration	114
Migrating a Remote Database Configuration	115

Chapter 17. Migrating from Net.Commerce 3 to Net.Commerce 3.2	119
--	------------

Pre-Migration Steps	119
Overview of the Migration Procedures . . .	120
Migrating Oracle	121
Upgrading Netscape Enterprise Server . . .	122
Uninstalling Netscape Enterprise Server	122
Installing Netscape Enterprise Server 3.61	123
Upgrading Domino Web Server	124
Preparing to Migrate DB2	124
DB2 Pre-Migration Steps	124
Preparing the DB2 Instance for Migration	125
Verifying that the Database Can Be	
Migrated	125
Installing Netscape Communicator 4.61	126
Stop Active Services.	126
Installing Net.Commerce 3.2	126
Migrating the DB2 Database	128
Migrating Your Configuration Files. . . .	129
Migrating Your Database Schema	129
Migrating a DB2 Database	129
Migrating an Oracle Database	130
Post-Migration Procedures	131
Starting the Net.Commerce Instance	131
Enabling SSL with Domino Go	
Webserver 4.6.2.61	131
Preparing the Database for the Mass	
Import Utility	132
Uninstalling Net.Commerce 3.2 After	
Migration	133

Part 5. Appendixes 135

Appendix A. Starting and Stopping	
Net.Commerce Components	137
Starting and Stopping Net.Commerce . . .	137
Starting and Stopping Domino Go	
Webserver	138
Starting and Stopping WebSphere	
Application Server	138
Starting and Stopping DB2	139
Starting and Stopping Payment Server . .	139
Starting and Stopping Domino Web Server	140

Appendix B. Enabling SSL on Domino Go	
Webserver for Testing	143

Creating a Security Key Ring for Testing	143
Setting Your Test Key Ring as the Current	
Key Ring	144
Receiving and Testing the Test Key Ring	
Certificate	145

Appendix C. Uninstalling Net.Commerce	
Components	147
Uninstalling Net.Data	147
Uninstalling Net.Commerce	148
Uninstalling Domino Go Webserver . . .	150
Uninstalling WebSphere Application Server	
2.02	153
Uninstalling DB2 Universal Database . . .	154
Uninstalling Payment Server	156
Uninstalling NetQuestion	158
Uninstalling Netscape Enterprise Server	159

Appendix D. Troubleshooting	161
--	------------

Appendix E. Where to Find More	
Information	169
Net.Commerce Information	169
Using the On-line Help	169
Locating the Printable Documentation	170
Viewing the Net.Commerce Web site	170
Domino Go Webserver Information . . .	170
Net.Data Information	170
Payment Server Information	170
WebSphere Application Server	171
DB2 Information	171
Other IBM Publications	171

Appendix F. Notices	173
Trademarks and Service Marks	174
License Information	174

Appendix G. Program Specifications and	
Specified Operating Environment	177

Glossary	181
---------------------------	------------

Index	185
------------------------	------------

Welcome to Net.Commerce

This book describes how to install and configure Net.Commerce for Windows NTTM, and gives guidance on creating and customizing your store or mall. It is intended for system administrators or for anyone else responsible for performing the above tasks.

Attention:

To learn about last-minute changes to the product, see the README file in the root directory of the Net.Commerce CD.

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 Net.Commerce 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 marks 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:

`\Ibm\NetCommerce3`

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

`\Ibm\db2`

The DB2 installation path. You can override this path in the **IBM DB2 Universal Database** field of the Confirm New Directories window during installation.

`\Ibm\www`

The Domino Go Webserver installation path. You can override this path in the **Domino Go Webserver** field of the Confirm New Directories 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.

`\Ibm\payment_server`

The Payment Server installation path. You can override this path in the Confirm New Directories window during installation.

`\Ibm\WAServer`

The WebSphere Application Server installation path. You can override this path in the Confirm New Directories window during installation.

`\Ibm\NetCommerce3\netdata`

The Net.Data installation path. You can override this path in the Confirm New Directories window during installation.

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 Net.Commerce

The following products are packaged with Net.Commerce:

- Net.Commerce 3.2
- IBM DB2 Universal Database 6.1 and DB2 Text Extenders
- IBM Net.Data 6.1
- Lotus Domino Go Webserver 4.6.2.61
- IBM Payment Server 1.2.20.0
- Netscape Communicator 4.61 for Windows
- IBM WebSphere Application Server 2.02 and JDK 1.1.7— Net.Commerce PRO only

Alternative Web Servers

Although Domino Go Webserver 4.6.2.61 is the Web server provided with Net.Commerce, you can use Netscape Enterprise Server 3.61 or Domino Web Server 5.

If you are using Netscape Enterprise Server 3.61 or Domino Web Server, you will need to perform a *Custom* installation when prompted in step 7 on page 11 in Chapter 2. Installing Net.Commerce.

Alternative Databases

Although IBM DB2 Universal Database 6.1 is the database provided with Net.Commerce, you can use IBM DB2 Universal Database 5.2 (with FixPak 8 or higher), Oracle 8.0.4, or Oracle 8.0.5.

If you are using DB2 Universal Database 5.2, Oracle 8.0.4, or Oracle 8.0.5, you will need to perform a *Custom* installation when prompted in step 7 on page 11 in Chapter 2. Installing Net.Commerce.

If you are currently using DB2 Universal Database 5.0, you will be required to upgrade it to DB2 Universal Database 5.2. If you have a previous version of Net.Commerce installed, follow the migration steps in “Part 4. Migrating to Net.Commerce 3.2” on page 109.

If you have DB2 Universal Database 5.2 currently installed, and you wish to upgrade it to DB2 Universal Database 6.1, you must migrate your database. After you install Net.Commerce 3.2, follow the DB2 migration instructions in “Preparing to Migrate DB2” on page 124.

Supported Web Browsers

You can only access Net.Commerce Administrator using Netscape Communicator 4.61 from any Windows NT machine on the same network as your Net.Commerce machine.

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

- Any version of Netscape Navigator supported with Netscape Communicator 4.61, including Netscape Navigator 4.04, 4.06, and 4.08
- Netscape Navigator 4.0 for MacIntosh
- Internet Explorer 3, 4, and 5

Quick Reference to User IDs, Passwords and URLs

Administration in the Net.Commerce environment requires a variety of user IDs. These user IDs along with their requisite authorities are described in the list below. For the Net.Commerce 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 used 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 Net.Commerce; it is a default user ID created by DB2. Although it is not used by Net.Commerce, you should change the db2admin password immediately after installing all the Net.Commerce components to prevent unauthorized access to your database. Refer to "Changing the DB2 Administrator Password" on page 33 for more information.

Configuration Manager User ID

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

To access Configuration Manager, on your Windows machine, click **Start**, point to **Programs**, then **IBM Net.Commerce**, and **Net.Commerce Configuration**. This process starts the Web server and opens a Web browser window to the following URL:

`http://host_name:4444`

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

For more information, see “Accessing Configuration Manager” on page 33. The Configuration Manager user ID is `webadmin` and the default password is `webibm`.

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 34 for more information.

Web Server User ID

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

`http://host_name`

If you have customized your Web server, you may be required to type the name of your Web server’s front page after the host name. Your Web server 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 38.

The user ID `webadmin` is used for the Configuration Manager and the Web server. Using the different methods described in “Changing your Configuration Manager Password” on page 34 and “Changing Your Domino Go Webserver Password” on page 38, you can set different passwords for the `webadmin` user ID; one password for the Configuration Manager and a different password for your Web server.

Net.Commerce Administrator User ID

The Net.Commerce Administrator (NCAdmin) allows you to maintain

your store or mall. You must have an instance created and SSL enabled before you will be able to access the Net.Commerce Administrator.

To access the Net.Commerce Administrator, open your Web browser and type the following URL: `http://host_name/ncadmin`. The Net.Commerce Administrator user ID is `ncadmin` and the default password is `ncadmin`. For information on changing the Net.Commerce Administrator password, see “Changing the Net.Commerce Administrator Password” on page 37.

Certificate File Password

If you are using Payment Server 1.2.20.0, you must use a password to protect your certificate file.

If you select a **Typical** installation when installing Net.Commerce (step 7 on page 11 in Chapter 2. Installing Net.Commerce), 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.

Quick Reference to the Components Installed During a Typical Install

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

DB2 UDB Workgroup Edition

- 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

Note: If you are using the PRO version of Net.Commerce, the servlet component will not be installed.

Payment Server 1.2.20.0

all components

Net.Data 6.1

all components

WebSphere Application Server 2.02

- Core component
- Java servlet page (JSP) component
- Admin GUI component
- The plug-in which corresponds to the Web server that you are using. These plugins are required for Netscape Enterprise Server 3.61 and Domino Go Webserver 4.6.2.61 despite the back-level version numbers included in their names.

How This Book is Organized

Use the following table to quickly find the information you need.

If you want to . . .	Refer to . . .
Review what user IDs, passwords and URLs are used by the Net.Commerce,	“Quick Reference to User IDs, Passwords and URLs” on page ix.
Confirm that your system meets the Net.Commerce hardware and software prerequisites,	“Chapter 1. Pre-Installation Requirements” on page 3.
Install Net.Commerce,	“Chapter 2. Installing Net.Commerce” on page 9.
Migrate an existing version of Net.Commerce to Net.Commerce 3.2,	“Part 4. Migrating to Net.Commerce 3.2” on page 109.
Install and configure a remote DB2 database,	“Chapter 7. Installing Your DB2 Database on a Separate Machine” on page 49.

Create and customize your Net.Commerce site,	“Part 3. Getting Started” on page 79.
Start and stop Net.Commerce components,	“Appendix A. Starting and Stopping Net.Commerce Components” on page 137.
Uninstall Net.Commerce components,	“Appendix C. Uninstalling Net.Commerce Components” on page 147.
Troubleshoot your Net.Commerce installation,	“Appendix D. Troubleshooting” on page 161.
Print or review online documentation,	“Appendix E. Where to Find More Information” on page 169.

Part 1. Installing Net.Commerce

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

- “Chapter 1. Pre-Installation Requirements” on page 3
- “Chapter 2. Installing Net.Commerce” on page 9

Migration

If you are migrating from an existing version of Net.Commerce, refer to “Part 4. Migrating to Net.Commerce 3.2” on page 109 for detailed migration instructions. Do not follow the instructions in this section, “Part 1. Installing Net.Commerce”, as you may overwrite your existing files causing you to lose any customization you have performed.

Chapter 1. Pre-Installation Requirements

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

Important

You *must* complete these pre-installation steps to ensure that installation is successful.

Knowledge Requirements

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

- Personal computers and your operating system
- The Internet
- Web server operation and maintenance

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

- IBM DB2® Universal Database
- IBM Net.Data®
- HTML
- Structured Query Language (SQL)
- C++ programming
- Java programming

If you intend to use Netscape Enterprise Server 3.61, Oracle 8.0.4 or 8.05, or Domino Web Server, you should have a good understanding of those products as well.

Pre-installation Requirements

Prerequisite Hardware

You must ensure that you meet the following minimum hardware requirements before installing Net.Commerce 3.2:

- You require a dedicated Pentium® 166 MHz (or higher) IBM-compatible personal computer with:

- A minimum of 128 MB of random access memory (RAM).
- A minimum of 500 MB of free disk space for Net.Commerce START and 520 MB for Net.Commerce PRO on your target install drive. You will also need an additional 15 MB on the C: drive. If your machine is formatted with FAT partitioning and the partition is over 1.024GB, you will need twice as much free disk space. The installation will check for adequate 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.

Prerequisite Software

You must ensure that you meet the following minimum software requirements before installing Net.Commerce 3.2:

- Ensure that you have Windows NT Server Version 4.0 with Service Pack 4 installed on your Net.Commerce server. You can obtain the service pack at the following URL:

<http://www.microsoft.com>

Important

If you do not apply Service Pack 4 *before* installing Net.Commerce 3.2, you will not be allowed to install Net.Commerce 3.2.



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 Net.Commerce Administrator. A copy of Netscape Communicator 4.61 is provided on the Net.Commerce CD.



To install Netscape Communicator 4.61 from the Net.Commerce CD, do the following:

1. Insert the Net.Commerce 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 Net.Commerce

Oracle If you want to use Oracle instead of DB2, see the Chapter Checklist section in “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53 for a list of the Oracle products that you must install and the items that you must create before you install and configure Net.Commerce. This chapter provides information on obtaining and configuring the ODBC driver, verifying database connectivity, and creating a Net.Commerce database schema. 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 7 on page 11 in Chapter 2. Installing Net.Commerce.

Domino Web Server

If you want to use Domino Web Server instead of Domino Go Webserver, install it according to the instructions provided by Lotus. You will need to perform a *Custom* install when prompted in step 7 on page 11 in Chapter 2. Installing Net.Commerce. You will configure Domino Web Server for Net.Commerce in a later step.

Netscape Enterprise Server

If you are using Netscape Enterprise Server instead of Domino Go Webserver, it must be at version 3.6.1. Install it according to the instructions provided by Netscape. Netscape Enterprise Server will be configured later, when the Net.Commerce instance is created. You will need to perform a *Custom* install when prompted in step 7 on page 11 in Chapter 2. Installing Net.Commerce.

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.

Other Requirements

You must also do the following:

1. Ensure that you have 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 URLs” on page ix. Later, you will use this user ID as the DB2 database user name (database user logon ID).

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.

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. 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 Net.Commerce and to develop your store, they are not adequate for a full-time production setting. The following table outlines the 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">• 4-way Netfinity 5500 (450 MHz Pentium II)• 2 GB RAM• 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 Net.Commerce logs
---	--

Table 1. Recommended Production System Configuration Requirements (continued)

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 5000 (400 MHz Pentium II) • 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 Net.Commerce logs
	<p>For the Database Server:</p> <ul style="list-style-type: none"> • 4-way Netfinity 5500 (450 MHz Pentium II) • 2 GB RAM • 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
3 -Tier System (Multiple, Load-Balanced Web Servers Connected to a Remote Database Server)	<p>For each Web Server:</p> <ul style="list-style-type: none"> • n times 2-way Netfinity 5000 (400 MHz Pentium II) • 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 Net.Commerce logs
	<p>For the Database Server:</p> <ul style="list-style-type: none"> • 4-way Netfinity 5500 (450 MHz Pentium II) • 2 GB RAM • 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

Notes:

1. You may want to consider the following guidelines for determining the number of tiers in your system configuration:
 - If you expect to start a maximum of 8 server processes and you expect your Web server to receive about 9 hits per second, use a 1-tier configuration.

- If you expect to start a maximum of 16 server processes and you expect your Web server to receive about 9 hits per second, use a 2-tier configuration.
 - If you have higher requirements than a 2-tier configuration can accommodate, use a 3-tier configuration. Add Web servers until your maximum load is accommodated or until you maximize the load on your database server.
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

The Next Step

Once you have completed the steps in this chapter, turn to “Chapter 2. Installing Net.Commerce” on page 9 to continue.

Chapter 2. Installing Net.Commerce

This chapter describes how to install Net.Commerce. Some of the steps in this chapter apply only if you are installing the PRO version of Net.Commerce.

Note: This chapter describes how to install Net.Commerce using the CDs provided with the product box. If you copy one or more of the CDs to a network for the purposes 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:

- Net.Commerce 3.2
- Domino Go Webserver 4.6.2.61
- DB2 Universal Database 6.1
- WebSphere Application Server 2.02 (included only with the PRO version of Net.Commerce)
- Net.Data 6.1

The Net.Commerce installation program will prompt you for these CDs during the installation process.

Notes:

1. The Net.Commerce 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 srvcrd.dll. Both are located in the \windows\system32 folder on your windows drive.

Important

The instructions in this chapter only apply if you are installing Net.Commerce for the first time and you do not have an existing version of Net.Commerce installed. If you have an existing version of Net.Commerce installed, you *must* follow the migration instructions in “Part 4. Migrating to Net.Commerce 3.2” on page 109. If you do not follow the migration instructions, any files you may have customized will be overwritten.

Chapter Checklist

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 3.61 or Domino Web Server 5, it has already been installed as described in “Chapter 1. Pre-Installation Requirements” on page 3.
- ___ 4. If you are using Oracle 8.0.4 or 8.05, it has already been installed as described in “Chapter 1. Pre-Installation Requirements” on page 3.
- ___ 5. If you are using CyberCash to process payments, it has already been installed.
- ___ 6. Your system meets the pre-installation requirements outlined in “Chapter 1. Pre-Installation Requirements” on page 3.

Installation Procedures

To install Net.Commerce, 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 URLs” on page ix.
2. If you are using your NT machine as a backup Domain Controller, you must install DB2 before installing Net.Commerce. Install DB2 Universal Database 6.1 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 Net.Commerce 3.2 CD into your CD drive.
5. From the root directory of the Net.Commerce 3.2 CD, run setup.exe.
If your system does not meet the pre-installation 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 pre-installation requirements which were listed and begin the installation again.
6. A Welcome window appears. Click **Next** to continue.
7. The Install Type window appears. 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 Net.Commerce. The following components will be installed:</p> <ul style="list-style-type: none"> • Net.Commerce 3.2 • Domino Go Webserver 4.6.2.61 • DB2 Universal Database 6.1 • Payment Server 1.2.20.0 • WebSphere Application Server 2.02 and JDK 1.1.7 (Net.Commerce PRO only) • Net.Data 6.1 <p>You can change the location in which the Net.Commerce components are installed.</p>
Custom Install	<p>Select a Custom install if:</p> <ul style="list-style-type: none"> • You are using Netscape Enterprise Server, Domino Web Server, or Oracle 8.0.4 or 8.05 with your Net.Commerce system • You want to select which components are installed

8. 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 13.

A Typical Install

If you selected a Typical install in step 7 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. All Net.Commerce components will be installed in 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 or enter the name of the folder which will be created for Net.Commerce in the Program folder. 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 to insert the DB2 Universal Database 6.1 CD. Insert the CD. If your system is set up to autorun from the CD-ROM, the installation begins immediately; otherwise, click **OK** to begin the installation.
5. When DB2 Universal Database 6.1 has been installed, you are prompted to insert the Net.Data 6.1 CD. Insert the CD and click **OK** to continue.
6. When 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.
7. When Domino Go Webserver has been installed, you are prompted to insert one of the following CDs, depending on whether you are installing Net.Commerce **START** or **PRO**:
 - If you are installing Net.Commerce **START**, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Payment Server 1.2.20.0 and Net.Commerce 3.2 are installed.
 - If you are installing Net.Commerce **PRO**, you are prompted to insert the WebSphere Application Server CD. Insert the CD and click **OK** to continue. After WebSphere Application Server has been installed, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Payment Server 1.2.20.0 and Net.Commerce 3.2 are installed.
8. After Net.Commerce has been installed, you are prompted to reboot. Click **OK** and reboot the machine.
9. After your system reboots, log on to the same NT user ID that you used to begin the installation.
10. After you log in, the Net.Commerce Configuration Manager window appears. Your database logon ID should be entered for you. If it is not, enter your Windows NT logon ID in the **Database User Logon** field. In

the **Database Logon Password** field, enter the password for the ID entered in the **Database User Logon** field. Click **OK**. A default Net.Commerce instance is created for you. A progress indicator will appear to indicate the progress of the instance creation.

A Custom Install

If you selected a Custom install in step 7 on page 11, 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 Net.Commerce. Use the following points for guidance:

Net.Commerce	This is the electronic commerce server.
Database	<p>Use the drop-down menu to indicate one of the following:</p> <p>DB2 Universal Database 6.1 This is the database management system provided with Net.Commerce.</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 Net.Commerce server requires the client component of DB2 in this configuration.</p> <p>Select this option if you have DB2 Universal Database 5.0 already installed, as you must upgrade to DB2 Universal Database 6.1.</p> <p>Select this option if you have DDB2 Universal Database 5.2 already installed, and you wish to upgrade to DB2 UDB version 6.1.</p> <p>DB2 Universal Database 5.2 Net.Commerce 3.2 also supports DB2 Universal Database 5.2 with Fixpack 8 or higher. Select this option if you already have DB2 Universal Database 5.2 installed and you do not wish to upgrade to DB2 Universal Database 6.1.</p> <p>Oracle 8.04 and 8.05 Select this option if you intend to use Oracle 8.0.4 or Oracle 8.05 with Net.Commerce. You must install Oracle 8.0.4 or Oracle 8.05 separately, and prior to Net.Commerce, as described in “Chapter 1. Pre-Installation Requirements” on page 3.</p>

Web Server	<p>Use the drop-down menu to indicate one of the following:</p> <p>Domino Go Webserver 4.6.2.61 This is the Web server provided with Net.Commerce. If you select Domino Go Webserver 4.6.2.61 from the list, it will be installed.</p> <p>Netscape Enterprise Server 3.61 Select this option from the list to indicate that you will be using Netscape Enterprise Server with Net.Commerce. Netscape Enterprise Server must already be installed, as described in “Chapter 1. Pre-Installation Requirements” on page 3.</p> <p>Domino Web Server 5 Select this option from the list to indicate that you will be using Domino Web Server with Net.Commerce. Domino Web Server must already be installed, as described in “Chapter 1. Pre-Installation Requirements” on page 3.</p>
Payment	<p>Use the drop-down menu to indicate one of the following:</p> <p>Payment Server 1.2.20.0 This is the secure payment server provided with Net.Commerce. Select Payment Server if you intend to enable Secure Electronic Transactions (SET). If you intend to install Payment Server on a separate machine, and you want the Net.Commerce server to control your Payment Server machine, ensure that this component <i>is</i> selected, as Net.Commerce requires several Payment Server files to be available on the Net.Commerce server machine in this configuration.</p> <p>None Select this option if you do not intend to use a payment server with Net.Commerce.</p> <p>CyberCash Select this option to indicate that you are using CyberCash for payment processing.</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
 - DB2 Universal Database
 - Domino Go Webserver
 - 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
 - Domino Web Server
 - CyberCash

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 Net.Commerce installation process again.

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

3. The Upgrades window appears. Click **Next** to continue.
4. 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.

Note: 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.

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



By default, the Net.Commerce 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.

5. On the Select Program Folder window, either accept the default folder name or enter the name of the folder which will be created for Net.Commerce in the Program folder. Click **Next** to continue.
6. 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.
7. Depending on which applications you indicated on the Select Net.Commerce Components window, one or more of the following will occur:
 - The installation program prompts you to insert the DB2 Universal Database 6.1 CD. Insert the CD and click **OK** to continue.
 - 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 one of the following CDs, depending on whether you are installing Net.Commerce START or PRO:
 - If you are installing Net.Commerce START, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Payment Server 1.2.20.0 and Net.Commerce 3.2 are installed.
 - If you are installing Net.Commerce PRO, you are prompted 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 location and file name for the `obj.conf` file for your non-secure server port (port 80). The secure server port (port 443) does not require servlet support. You can either enter the path, or click **Browse**, to select it.

After WebSphere Application Server has been installed, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Net.Commerce 3.2 is installed, as well as Payment Server 1.2.20.0 (if you selected it).

8. After Net.Commerce has been installed, you are prompted to reboot. Click **Finish** and reboot the machine.

You *must* reboot in order to begin configuring Net.Commerce.

The Next Step

After your system reboots, log on to the same user ID that you used to begin the installation. A browser window will appear which loads the Net.Commerce Configuration Manager. Turn to step 2 on page 19 to continue.

Part 2. Configuring Net.Commerce Components

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

- “Chapter 3. Configuring a Net.Commerce Instance” on page 19
- “Chapter 4. Administrative Tasks” on page 33
- “Chapter 5. Configuring Product Advisor” on page 41
- “Chapter 6. Verifying Your Installation” on page 45
-
- “Chapter 7. Installing Your DB2 Database on a Separate Machine” on page 49
- “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53
- “Chapter 9. Configuring Domino Web Server” on page 57
- “Chapter 10. Installing Payment Server on a Separate Machine” on page 61
- “Chapter 11. Configuring eNetwork Dispatcher” on page 67
- “Chapter 12. Enabling SSL for Production on Domino Go Webserver” on page 73

Chapter 3. Configuring a Net.Commerce Instance

This chapter describes how to create a new Net.Commerce 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.

Net.Commerce instance creation will configure Domino Go Webserver and Netscape Enterprise Server. If you are using Domino Web Server, you will need to perform some additional Web server configuration. Please refer to “Chapter 9. Configuring Domino Web Server” on page 57.

Configuration Procedures

If you have just completed the installation process, the Net.Commerce configuration window will automatically appear starting with the **Database** tab. Proceed to step 2.

To create and configure a Net.Commerce instance, do the following:

1. Access Configuration Manager by doing the following:
 - a. Click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce Configuration**. The Web browser window appears, launching the URL, `http://host_name:4444`, where *host_name* is the fully qualified host name of your Net.Commerce 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. On the Configuration Manager main window, click **New** to create a new instance. (If you are updating an existing instance, highlight the instance and click **Settings**.)
2. The following window displays:

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

Net.Commerce	Instance Data	Web Server	Database	Payment
--------------	---------------	------------	----------	---------

Database Name:

DBMS:

Instance Owner ID:

Database User Logon:

Database Logon Password:

Database Option: ☐ Use Staging Server

This window includes five tabs that allow you to review and update a variety of configuration settings for your Net.Commerce 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 eight characters in length or less. For Oracle, enter the ODBC data source name that you defined in the `.odbc.ini` file. For more information, refer to “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53.

DBMS

From the drop-down list, select the name of the database management system you intend to use. If you select Oracle, you will have to create the database manually. For more information, refer to “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53.

Instance Owner ID

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

Accept the default, or type the user ID of the Oracle instance owner for your Oracle server. 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 install. You will use this user ID as the DB2 database logon ID for accessing the database.

Database Logon Password

Type the password of the user ID that you specified in the **Database User Logon** field.

Database Option

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

Leave this box unchecked when you are installing your first instance of Net.Commerce.



If the **Use Staging Server** checkbox is selected, the Configuration Manager defines this database as being for use by a staging server. For more information, see *How do I Test the Site on a Staging Server* in the Net.Commerce online information. (See “Using the On-line Help” on page 169 for guidance on accessing this information.)

3. Click the **Net.Commerce** tab to review and update the settings for the Net.Commerce server. The following window is displayed:

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

Net.Commerce	Instance Data	Web Server	Database	Payment
<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 type="radio"/> Enable Basic Caching</p> <p><input type="radio"/> Enable Advanced Caching</p> <p><input checked="" type="radio"/> No Caching</p> <p><input checked="" type="checkbox"/> Use Default Merchant Key</p> <p>Merchant Key: <input type="text"/></p>				

Complete the fields as follows:

Instance Name

Accept the default, or type an alphanumeric name for the Net.Commerce instance that you want to create.



If you wish to create multiple instances of Net.Commerce, you can do so after you have completed the procedures in this book. Refer to *Configuration Manager* in the Net.Commerce online information for details. (See “Using the On-line Help” on page 169 for guidance on accessing this information.)

Communication Port Base

Accept the default, or type the base port address that you want the Net.Commerce 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, you must ensure that there are a sufficient number of 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.

Do not use a Communication Port Base that will cause your range of ports to include port 16560. Product Advisor uses that port by default.

Number of Server Processes

Accept the default, or type the number of processes that you want started for this Net.Commerce instance. The minimum number of processes is 2. A higher number will allow Net.Commerce to process more transactions simultaneously, but the load on the machine will be increased.

Server Options

Select one of the following options:

Enable Basic Caching

If you intend to use Lotus Domino Go Webserver or Netscape Enterprise Server as your Web server, ensure that you select the **Enable Basic Caching** radio button to enable caching for this Net.Commerce instance. Caching reduces the time it takes for Net.Commerce to display frequently used dynamic pages.

If you selected Domino Web Server, the **Enable Basic Caching** radio button is grayed out automatically.

Basic caching uses Web server extensions. It is recommended that if you do not require the extra features provided in the advanced caching option below, select basic caching since basic caching runs far faster than advanced 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 or category reference number.
- Product number or category number.
- Merchant reference number.
- Price expiry date.
- Any significances you create to cached pages that are based on custom parameters. Details are provided in **Customize caching by setting significances** in the on-line help.

Enable Advanced Caching

Select this radio button if you want to enable advanced caching for this Net.Commerce instance. Advanced caching allows you to cache different pages for different shopper groups without creating significances.

This method is more efficient and secure for caching pages that can differ for shopper groups. This method stores pages in the cache that are based on the following parameters:

- Product reference number or category reference number.
- Product number or category number.
- Merchant reference number.
- Shopper group reference number
- Shopping currency.
- Price expiry date.
- Any identified significances.

Notes:

- a. You must use advanced caching if you are creating a Euro Mall instance or if you plan to enable your store or mall for euro currency support.

- b. If you select advanced caching, you will have to enable the Synchronization Daemon. For information on how to do this, refer to the on-line help. For information on starting and stopping the Synchronization Daemon, refer to .

No Caching

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

Use Default Merchant Key

If you want the Configuration Manager to generate the merchant key automatically, ensure that this box *is* selected. If you want the Configuration Manager to prompt you for a key to encrypt the shopper and administrator passwords in the Net.Commerce 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 Net.Commerce.

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

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

Net.Commerce Instance Data Web Server Database Payment

Root Path: E:\IBM\NetCommerce3\instance \mser

Configuration File Path: E:\IBM\NetCommerce3\instance \mserconfig

Log File Path: E:\IBM\NetCommerce3\instance \mserlogs

Cache File Path: E:\IBM\NetCommerce3\instance \msercache

Shared Configuration Path: |

☐ Use Default Parameters

OK Cancel Help

Complete the fields as follows:

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 **Net.Commerce** 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 those paths first and then enter the directory path for the **Root Path** field.

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 **Net.Commerce** 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 **Net.Commerce** 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 **Net.Commerce** tab.

Shared Configuration Path

If a previous Net.Commerce 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 Net.Commerce 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 unselected, the shared configuration files will not be used. The shared configuration files are also referred to as global configuration files.

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

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

Net.Commerce	Instance Data	Web Server	Database	Payment
--------------	---------------	------------	----------	---------

Host Name:

Web Server:

Document Root:

CGI Path:

Macro Path:

Number of Cached Files:

Secure Server Configuration Path:

Non-secure Server Configuration Path:

Complete the fields as follows:

Host Name

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

Web Server

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

Document Root

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

If you intend to use Domino Web Server and you used the default path when you installed it, type *drive:\Domino_install_path\domino\data*, where *Domino_install_path* is the directory where Domino was installed, or type the name of your Web server document root directory.

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. If Netscape Enterprise Server is not the only Web server installed but you wish to use it, you must type this path name manually.

CGI Path

Accept the default, or type the path in which you intend to store the Net.Commerce CGI programs. The path you type must already exist.

If you intend to use Domino Web Server and you used the default path when you installed it, type the name of the path that you use for other cgi-bin executables for Domino. If you only use Domino Web Server for Net.Commerce, then type *drive:\NC_install_dir\cgi-bin*, where *NC_install_dir* is the path you used for installing Net.Commerce.

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 Net.Commerce CGI programs.

Macro Path

Accept the default, or type the path in which you intend to store your Net.Data macros.

Number of Cached Files

Accept the default, 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 **Net.Commerce** tab.

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 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.

6. Click the **Payment** tab to configure the Payment Server settings. This tab is only enabled if you have installed the Payment Server. The following window is displayed:

The screenshot shows the Netscape Configuration Manager window with the 'Payment' tab selected. The window has a title bar and a header area with instructions: 'Use Configuration Manager to change the settings for Net.Commerce components. You can accept the defaults or make changes to all enabled fields. Click the tabs to switch components.' Below the header are five tabs: 'Net.Commerce', 'Instance Data', 'Web Server', 'Database', and 'Payment'. The 'Payment' tab is active, displaying several configuration fields: 'Server Cycle Time (seconds):' with a text box containing '30', 'Processing Interval (seconds):' with a text box containing '30', 'Transaction Timeout (minutes):' with a text box containing '60', 'Certificate Password:' with a text box, 'Confirm Password:' with a text box, and 'Payment Option:' with a checkbox labeled 'Enable Message Trace'. At the bottom of the window 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 Net.Commerce background server to wait between polls for work.

Processing Interval

Accept the default, or type the number of seconds you want the Net.Commerce 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 commerce server checks the database for data that has not been received directly from the Payment Server machine.

Certificate Password

Type the password that you want the payment server to use to access your SET certificate files (which are also known as key files). A blank password will be created if this field is left blank. Refer to “Setting Up IBM Payment Server” on page 39 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.

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

Note: 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.

8. If you are using Netscape Enterprise Server, you must do the following before you start your instance:
 - a. If you are using Netscape Enterprise Server, 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. If you are using Netscape Enterprise Server, you will have to manually start the instance after you restart the servers.
9. From the main Configuration Manager window, highlight your Net.Commerce instance, and click **Start**.
10. Close the Domino Go Webserver window that is minimized on your Windows Task Bar. This is a webserver process that is required to run Configuration Manager in your browser.

Note: If you do not close the Domino Go Webserver window, you will not be able to 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 Net.Commerce is installed and you have configured an instance, you are ready to configure the other supported applications. Refer to any of the following chapters:

- “Chapter 4. Administrative Tasks” on page 33 provides information on changing the default passwords for various user IDs.
- “Chapter 5. Configuring Product Advisor” on page 41 provides information on configuring Product Advisor (Net.Commerce PRO version only).
- “Chapter 6. Verifying Your Installation” on page 45 provides information on verifying your Net.Commerce installation.
- “Chapter 7. Installing Your DB2 Database on a Separate Machine” on page 49 provides information on setting up a remote database.
- “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53 provides information on configuring Oracle for Net.Commerce.
- “Chapter 9. Configuring Domino Web Server” on page 57 provides information on configuring Domino Web Server.
- “Chapter 10. Installing Payment Server on a Separate Machine” on page 61 provides information on setting up a remote payment server machine.
- “Chapter 11. Configuring eNetwork Dispatcher” on page 67 provides information on setting up eNetwork Dispatcher.

Chapter 4. Administrative Tasks

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

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 Net.Commerce; it is a default user ID created by DB2. Although it is not used by Net.Commerce, you should change the db2admin password immediately after installing all the Net.Commerce 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 Configuration Manager

To access the Configuration Manager from your Net.Commerce machine, do the following:

1. Click **Start**, point to **Programs**, point to **IBM Net.Commerce**, and click **Net.Commerce Configuration**. A Web browser window appears, launching the URL, `http://host_name:4444`, where *host_name* is the fully qualified host name of your Net.Commerce 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.

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 Net.Commerce is installed, do the following:

1. Open your browser and enter the following URL:

`http://host_name:4444`

where `host_name` is the host name of your Net.Commerce machine.

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`.

Updating A Net.Commerce Instance

If you wish to change any of the configuration settings for your Net.Commerce instance, you can do so from the Configuration Manager.

To update a Net.Commerce instance using the Configuration Manager, do the following:

1. Open Configuration Manager as described in the section above.
2. From the list of instances, select the instance you want to configure and click **Settings**. You can then select one of the five tabs: **Net.Commerce**; **Instance Data**; **Webserver**; **Database**; or **Payment**, to update your instance configuration. For more information on the fields on each of these tabs, you can refer to one of the following:
 - “Chapter 3. Configuring a Net.Commerce Instance” on page 19
 - The Net.Commerce on-line help
 - The **Help** button on each tab
3. After you update your instance, click **Finish** 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 Net.Commerce menu on your Net.Commerce machine.

Changing your Configuration Manager Password

To protect the configuration settings that you defined during installation, 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\admin\admin.pwd webadmin
htadm.exe -adduser drive:\Ibm\NetCommerce3\server\admin\admin.pwd
userid new_passwd real_name
```

Note: The htadm -adduser command should be entered 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 Net.Commerce Administrator

To launch the Net.Commerce Administrator, do the following:

1. Ensure that the Net.Commerce 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 Net.Commerce Administrator by clicking **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce Administrator**.
3. Make the following changes to your browser settings:
 - Ensure that the **Memory Cache** and **Disk Cache** settings are greater than zero.
 - Enable the **Java** and **JavaScript** languages.
 - For variable width fonts, select **Times New Roman 12** point. For fixed fonts, select **Courier 10** point. (Other fonts and font sizes may affect the layout of the Net.Commerce 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, then **Settings**, then **Control Panel**, then **Display**, then 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**
 - Font Size: Select **Small Fonts**.
5. Maximize your browser window.
6. From your Windows machine, type the following URL on your browser's command line: `http://host_name/ncadmin`.

7. You will see a series of warnings from the browser about the secure connection that is being established. These should be accepted.
8. When the Net.Commerce Administrator logon screen appears, enter the user ID and default password. Initially, the user ID and password are both set to ncadmin. The Net.Commerce Administrator home page appears.

Note: Do not use the **Reload** button. If you use the **Reload** button after you have entered data on an Administrator form, the data is lost.

Determining the Encrypted Net.Commerce Administrator Password

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

1. From a command prompt on the machine where you installed Net.Commerce, switch to the drive on which you installed Net.Commerce.
2. Type the following:

```
cd \Ibm\NetCommerce3\bin
nc3_crypt -e ncadmin [merchant_key]
```

where merchant_key is the merchant key you used when you configured Net.Commerce. 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.

Updating the Net.Commerce Administrator Password

If the database creation scripts are used from a command line, the administrator will not be able to log in with the Net.Commerce Administrator 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 you encounter a password problem while logging into Net.Commerce Administrator, do the following 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 Net.Commerce Administrator password matches the nc3_crypt encrypted string (ASCII) by typing the following command:

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

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

The output from the command should be the following:

```
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
```

These two commands should produce the same results except for the padding. If this is not the case, perform a DB2 update to correct the problem. For example, type the following:

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

Please note that the value of SHLPSWD should be the encrypted string (ASCII).

Changing the Net.Commerce Administrator Password

After you open Net.Commerce 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 Net.Commerce 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, enter 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, re-enter the new password.
7. In the appropriate fields, enter your last name and your first name. You can also fill in other fields.
8. Click **Save**.
9. Click **OK** in the confirmation window.

Connecting to the Domino Go Webserver Home Page

If you are using Domino Go Webserver, follow the steps below to connect to the Web server 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 front page, type the following on your browser:
`http://host_name`

If you have customized your Web server, you may be required to type the name of your Web server's front 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 Web server front page by typing the following on your browser:
`http://host_name`
If you have customized your Web server, you may be required to type the name of your Web server's front page after the host name (for example, `http://hostname/myfrontpage`).
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 SET functions, you can use Payment Server 1.2.20.0. 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 on-line information. For information about using the `eecertreq` utility, refer to the *IBM Payment Server Administrator's Guide*. A copy is provided in the directory where the IBM Payment Server is installed; the file is named `eTillAdmin.pdf`.

To set up IBM Payment Server, you need to do the following:

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/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.
4. When you create your home page, include information that your shoppers need in order to obtain a wallet. The acquiring institution should provide this information.

Changing the SET Certificate File Password

You will have to use a password to protect your SET certificate file. If you performed a Net.Commerce custom install, you are asked to specify a password for the SET certificate file during installation of Net.Commerce. If you performed a typical Net.Commerce 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, your password is null.

If you want 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 both the eecertreq utility and in the Net.Commerce 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 program according to the instructions provided in the Payment Server documentation, the files bci.db, crl.db, key.db, and keypair.db will be 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 Net.Commerce 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 76 for instructions.

Chapter 5. Configuring Product Advisor

This chapter describes how to configure Product Advisor with WebSphere Application Server 2.02. Product Advisor is only available with the PRO version of Net.Commerce.

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 Domino Web Server

If you are using Domino Web Server as your Web server, follow the instructions in this section to configure Product Advisor.

To configure Product Advisor with Domino Web Server 5, do the following:

1. Open the Net.Commerce Configuration Manager by doing the following:
 - a. Click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce 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 Net.Commerce 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. Click **Settings**.

3. Select the **Web Server** tab and do the following:
 - a. From the Web Server drop-down list, select **Domino Web Server**.
 - b. In the **Document Root Path** field, type *Lotus_Notes_home*, where *Lotus_Notes_home* is your Lotus Notes home directory. It should match the Document Root that you specified during the configuration of the instance.(for example, *drive:\Lotus\Domino\data*).
 - c. In the **CGI Path** field, type *drive:\Ibm\NetCommerce3\cgi-bin*.
4. Click **OK**.
5. Open the `httpd.cnf` file, which can be found in the *drive:\Domino_install_path\Domino\Data* directory, where *Domino_install_path* is the directory where Domino was installed, and add the following Pass statements after the Service section within the `httpd.cnf` file:

```
Pass /pasample/* drive:\Ibm\NetCommerce3\pasample\*
Pass /ca_html/* drive:\Ibm\NetCommerce3\pasample\ca_html\*
```
6. Restart Domino Web Server.

Note: When you use Domino Web Server with Product Advisor and view metaphors that you have created for the Next Generation store, you may encounter errors regarding missing header and footer files. The Product Advisor's ICViewer produces the following error message:

```
Server misconfiguration: cannot find
drive:\lotus\domino\data\domino\html\nextgeneration\NG_head.html
Server misconfiguration: cannot find
drive:\lotus\domino\data\domino\html\nextgeneration\NG_foot.html
```

To fix the problem, create a directory called `nextgeneration` under the *drive:\lotus\domino\data\domino\html* directory and copy the HTML files from *drive:\Ibm\NetCommerce3\html\locale\nextgeneration* to the *drive:\lotus\domino\data\domino\html\nextgeneration* directory, where *document_root* is the document root directory that you specified during instance configuration. Next, reload the page in your Web browser.

Configuring Product Advisor with WebSphere for Oracle

If you are using either Domino Go Webserver, Domino Web Server, 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 2.02 Standard Edition, do the following:

1. Download the `classes111.zip` file from Oracle's Web site at `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\ictmgrclasses111.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 138 or depending on whether you are using Product Advisor or not.
 - b. Stop WebSphere Services.
 - c. Restart the Web server.
8. Specify the maximum number of cursors by doing the following:
 - a. Open the file `Initorcl.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.

Chapter 6. Verifying Your Installation

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 Net.Commerce 3.2.

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

1. You have installed either Netscape Enterprise Server 3.61, Domino Go Webserver 4.6.2.61, or Domino Web Server 5 as your Web server. You may have installed the Web server as a pre-installation requirement, or as part of the Net.Commerce 3.2 installation process. If you are using Netscape Enterprise Server 3.61, ensure that you have met the pre-installation requirements outlined in “Using Supported Software Not Bundled with Net.Commerce” on page 5.
2. You have installed either DB2 Universal Database 6.1, or Oracle 8.0.4 or Oracle 8.0.5 as your database. You may have installed the database as a pre-installation requirement, or as part of the Net.Commerce 3.2 installation process. If you are using Oracle, ensure that you have met the pre-installation requirements outlined in “Using Supported Software Not Bundled with Net.Commerce” on page 5.
3. You have followed the Net.Commerce 3.2 installation instructions to install Net.Commerce 3.2, Net.Data 6.1, JDK 1.1.7 and WebSphere Application Server 2.02 (for PRO only), and Payment Server 1.2.20.0 (optional).
4. You have created a Net.Commerce instance.
5. If you are using Oracle, you have performed the steps outlined in “Chapter 8. Configuring ODBC and Creating a Schema Using Oracle” on page 53.
6. If you are using Domino Web Server 5, you have performed the steps in “Chapter 9. Configuring Domino Web Server” on page 57.
7. You have configured Product Advisor as described in “Chapter 5. Configuring Product Advisor” on page 41.

Verifying that All Net.Commerce Components are Running

To verify that all Net.Commerce components are active, do the following:

1. Access the Configuration Manager by doing the following:
 - a. Click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce Configuration**. The secure 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 Net.Commerce 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 restart 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 Net.Commerce 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 URL:

`http://host_name`

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 URL:

`https://host_name`

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 Product Advisor Configuration

To verify that Product Advisor is configured properly(required for Net.Commerce 3.2 PRO only), run the Product Advisor Installation Verification tool by doing the following:

1. Access the following URL in your browser:

`http://host_name/ncadmin/ictmgr/icvfhome.html`

where *host_name* is the fully qualified name of your Net.Commerce server.

2. The Product Advisor Installation Verification page appears. Click **Language**. The language selection page appears.
3. From the drop-down list of languages, select the language in which you wish to use this tool, and click **Select**.
4. Click **Step 1**. The verification page for that component appears and, if the installation is correct, displays a confirmation message. If the installation is incorrect, a message appears to help you determine the cause of the problem. Repeat this action for each of the steps.
5. Click **Test Summary** to view a list of the steps you have completed. To return to the previous page, click **Back**.

For additional information about the Product Advisor Installation Verification tool, refer to *Test the Product Advisor Installation* in the Net.Commerce on-line help. If you encounter errors when loading Product Advisor, a problem may have occurred during its installation. See *Configuration Checklist for the Product Advisor* in the on-line help for details on correcting the problems.

Verifying Net.Commerce Functionality

Note: The following steps are high level verification steps to ensure that your Net.Commerce components have been installed correctly. The steps are not intended to ensure that your Net.Commerce installation works for every configuration. The steps are provided as guidance on how to verify that Net.Commerce is functioning correctly.

To verify the functionality of your installed version of Net.Commerce, do the following:

1. Open the Net.Commerce Administrator, by doing the following:
 - a. From your Windows machine, open your browser and type the following URL:
`http://host_name/ncadmin`
 - b. When the Net.Commerce Administrator Logon screen appears, enter the user ID and password and click **Logon**. The default user ID and password is ncadmin. The Net.Commerce Administrator home page appears.
2. On the task bar, click **Store Creator** and do the following:
 - a. Follow the prompts to create a One-Stop Shop store.
 - b. Open the store you just created by accessing its URL in a browser (for example, `http://host_name/store_name`, where *host_name* is the fully qualified host name for your Net.Commerce server, and *store_name* is the name of the store (without any spaces) that you created with the One-Stop Shop store model.

- c. Browse the store and purchase an item. You can type 2222222222 as the credit card number. You must also enter a valid expiry date.
- 3. Load Metropolitan Mall by following the instructions in the Net.Commerce on-line help. Once it has been loaded, you must stop and restart the Net.Commerce server. Instructions on how to restart the server appear once Metropolitan Mall has been loaded.
- 4. Complete the following:
 - a. On your Windows machine, open your Web browser.
 - b. Enter the following URL to access Demomall:
`http://host_name/demomall`
 - c. Browse the store and purchase an item. You can type 2222222222 as the credit card number. You must also enter a valid expiry date.

Chapter 7. Installing Your DB2 Database on a Separate Machine

To reduce the load on your Net.Commerce server, you may wish to install your DB2 database on a separate machine. To do this, first install Net.Commerce on one machine according to the instructions in “Chapter 2. Installing Net.Commerce” on page 9. Then follow the instructions in the remainder of this chapter.

Creating the Remote DB2 Database

To set up your remote database, you must install DB2 Universal Database 6.1 Enterprise Edition from the DB2 Universal Database 6.1 CD on the machine you have designated as the remote database. To do this, run `setup.exe` from the root of the CD. Use the list of DB2 Universal Database 6.1 components in “Quick Reference to the Components Installed During a Typical Install” on page xii as a guide to install DB2 Universal Database 6.1. If you are using DB2 Universal Database 5.2, install it according to the documents that came with that software.

You must also create a database instance on the remote machine. The instance ID and password must be the same on both the Net.Commerce and remote database machines.

To create the remote database, do the following on the machine on which you installed the Net.Commerce server:

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
```

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 `db2 list node directory` using your DB2 database logon ID and look for the name in the response. 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 Net.Commerce database resides.

port_num

The DB2 connection port number.

2. Copy the *drive:\Ibm\NetCommerce3\nc_schema\db2\UDF\nt\netcpswd.dll* file to the *Ibm\sqllib\function* directory of the remote machine.
3. In a DB2 command window, create the database by typing the following on the machine on which you installed Net.Commerce:

```
cd drive:\Ibm\NetCommerce3\nc_schema\db2
remote_schema.cmd db_name node_name db_user db_password S | N
"NCAdmin_password" [log_file]
```

where the variable information is defined as follows:

db_name

The name of your remote database.

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 *db2 list node* directory using your DB2 instance ID and look for the name in the response. If the name does not appear in the list, you can use it as the node name.

db_user

Your DB2 database logon ID.

db_password

The password of the user ID that you specified above.

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 production server.

NCAdmin_password

The encrypted default password of the Net.Commerce Administrator, in double quotation marks. To determine the encrypted password, do the following:

- a. At a prompt, type the following:

```
cd drive:\Ibm\NetCommerce3\bin
nc3_crypt -e ncadmin
```

- b. The system responds with two character strings, one in ASCII and one in hexadecimal. Use the ASCII character string for the *nc3_crypt* command.

log_file The full path and name of the file into which you want the command to write log records as it populates the database. The default is *db_name.log* in the current directory.

4. When the command completes, check the log file for errors.

5. Use the Configuration Manager to change the name of the Net.Commerce database to the name you specified when you created the database by doing the following:
 - a. On your Net.Commerce machine, click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce Configuration**. A Web browser window appears, launching the URL, `http://host_name:4444`, where *host_name* is the fully qualified host name of your Net.Commerce 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. On the Configuration Manager window, click the **Database** tab.
 - d. In the **Database Name** field, type the name of your remote database.
 - e. Click **Finish**.

Chapter 8. Configuring ODBC and Creating a Schema Using Oracle

This chapter provides information on configuring ODBC and creating a Net.Commerce database schema using Oracle. It does not provide detailed information on installing Oracle.

Chapter Checklist

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
 - ODBC driver
 - SQL*Plus
 - TCP/IP Protocol Adapter
 - Oracle Intelligent Agent
 - Object Type Translator
- ___ 2. Install the following other Oracle products (if you are using Product Advisor or other applications that require JDBC):
 - Oracle8 JDBC Drivers (You can get the latest Oracle JDBC Thin Driver from Oracle's Web site at www.oracle.com. You need to have version 8.0.4.0.6 or higher.)
- ___ 3. Create the following items:
 - a. Oracle SID
 - b. Oracle table space or table spaces for Net.Commerce
 - c. Oracle service name for the Oracle listener
- ___ 4. Install ODBC.
- ___ 5. Configure ODBC, as described in "Configuring ODBC" on page 54.
- ___ 6. Verify database connectivity, as described in "Verifying Connectivity" on page 55.
- ___ 7. Install and configure Net.Commerce, as described in "Part 1. Installing Net.Commerce" on page 1 and "Part 2. Configuring Net.Commerce Components" on page 17, with the result that a Net.Commerce instance

is created. Note that you will not be able to start this instance yet. Ensure that you select Oracle as your DBMS when you configure Net.Commerce.

- ___ 8. Create a Net.Commerce database schema, as described in “Creating a Net.Commerce Database Schema” on page 55.
- ___ 9. Start the Net.Commerce instance.

If you want to use Oracle with Product Advisor, refer to the instructions in “Chapter 5. Configuring Product Advisor” on page 41.

Notes:

1. Only Oracle 8.0.4 and Oracle 8.0.5 are supported by Net.Commerce.
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.

Configuring ODBC

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.
7. In the **Description** field, type IBM Net.Commerce3.
8. In the **Service Name** field, type the Oracle service name that you created prior to installing Net.Commerce.
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**.
 - c. Click **Oracle ODBC Test**.
 - d. Click **Connect**.
 - e. Click the **Machine Data Source** tab.
 - f. Click the entry for the data source name that you defined during ODBC configuration.
 - g. Click **OK**.
 - h. Enter your Oracle user ID and password in the pop-up window. You should receive a message stating that you connected successfully.

Creating a Net.Commerce Database Schema

To create the Net.Commerce database schema, do the following:

1. On a DOS command window, switch to the *drive:\Ibm\NetCommerce3\nc_schema\oracle* directory and review the scripts that are provided with Net.Commerce. 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 Net.Commerce 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.

db_password

The password of the user name you specified above.

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 production server.

NCAdmin_password

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

- a. From a prompt on the machine on which you installed Net.Commerce, switch to the drive on which you installed Net.Commerce.
- b. Type the following:

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

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

- c. The command responds with two character strings, one in ASCII and one in hexadecimal. Copy the ASCII 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.

You can also populate the database with information for the sample mall that is provided with Net.Commerce. More information on the sample mall is provided in the Net.Commerce on-line help.

Using Oracle with Product Advisor

If you want to use Oracle with Product Advisor, refer to the instructions in “Chapter 5. Configuring Product Advisor” on page 41.

Chapter 9. Configuring Domino Web Server

Net.Commerce supports the integrated Domino Web Application Server from Domino V5.0 as its Web server. For more information on configuring Domino Web server with Product Advisor, refer to “Configuring Product Advisor with Domino Web Server” on page 41.

After you install Net.Commerce, configure Domino Web Server for Net.Commerce according to the instructions below:

1. From the Domino Administrator, click the **Configuration** tab, select **Server**, and then edit the **All Server Documents** for the Web server.
2. Click on the **Web** pull-down list and select **Create URL Mapping/Redirection**. The **Mapping/Redirection** window will appear.
3. For each of the rows in Table 2, do the following:
 - a. In the listbox in the Basics tab window, make sure that the **URL→Directory** option is selected.
 - b. In the **Site Information** tab window, in the **IP Address** field, type the IP address of your Web server.
 - c. In the **Mapping** tab window, in the **Incoming URL string** field, type the name that appears in the **URL Path** column in the table.
 - d. In the **Target server directory** field, type the directory that appears in the **Directory** column in the table.
 - e. In the **Access** tab window, in the **Access level** field, select the level of access that appears in the **Access** column in the table.
 - f. Press **Ctrl+S** to save the entries.
 - g. Press **ESC** to close the **Mapping/Redirection** window and repeat steps 2 and 3 for the next row in the table.

Table 2. Mapping of URL paths to directories

URL Path	Directory	Access
/bus2bus2/*	drive:\Ibm\NetCommerce3\html\locale\bus2bus2*	Read
/butnbars/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\butnbars*	Read
/demomall/*	drive:\Ibm\NetCommerce3\html\locale\demomall*	Read
/euromall/*	drive:\Ibm\NetCommerce3\adt\samples\euromall\html\euromall*	Read
/grocery/*	drive:\Ibm\NetCommerce3\html\locale\grocery*	Read
/msprotect/*	drive:\Ibm\NetCommerce3\cgi-bin*	Execute
/cgi-bin/*	drive:\Ibm\NetCommerce3\cgi-bin*	Execute

Table 2. Mapping of URL paths to directories (continued)

URL Path	Directory	Access
/ncacom/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\common*	Read
/ncadmin/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin*	Read
/ncagif/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\gif*	Read
/ncbooks/*	drive:\Ibm\NetCommerce3\html\locale\ncbooks*	Read
/ncerror/*	drive:\Ibm\NetCommerce3\html\locale\ncerror*	Read
/nchelp/*	drive:\Ibm\NetCommerce3\html\locale\nchelp*	Read
/ncsample/*	drive:\Ibm\NetCommerce3\html\locale\ncsample*	Read
/nextgeneration/*	drive:\Ibm\NetCommerce3\html\locale\nextgeneration*	Read
/sggifs/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\StoreCreator\sggifs*	Read
/sitemgr/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\sitemgr*	Read
/storemgr/*	drive:\Ibm\NetCommerce3\html\locale\ncadmin\storemgr*	Read
/te_html/*	drive:\Ibm\NetCommerce3\instance\instance_name\teditor\te_html*	Read
/tutorial/*	drive:\Ibm\NetCommerce3\html\locale\tutorial*	Read
/ca_icons/*	drive:\Ibm\NetCommerce3\html\locale\ca_icons*	Read
/*	This value should be identical to the value of the document root specified during Net.Commerce instance creation with * appended at the end. Refer to “Chapter 3. Configuring a Net.Commerce Instance” on page 19 for more information.	Read

4. Add the Domain Name to Domino Web server as follows:
 - a. From the Domino Administrator, click the **Configuration** tab, select **All Server Documents**, and then edit the server document for the Web server.
 - b. Click the **Internet Protocols** tab, and then click the **HTTP** tab.
 - c. Add the URL of your Web server to the **Host Name(s)** field.
 - d. Press **Ctrl+S** to save the change.
 - e. Press **ESC** to close the **Server** window.
5. Create a self-signed certificate as follows:
 - a. From the Domino Administrator, click the **Configuration** tab, select **Server**, and then select the edit the server that you want to create a certificate for. Make sure that the correct server is selected from the **Server** list box.
 - b. Select your machine.
 - c. From the list of databases, select **Server Certificate Admin** and click **Open**. An informational window appears.
 - d. Read the information, and press **ESC** to close the window.

- e. On the CertAdminFullScreen window, click **Create Key Ring with Self-Certified Certificate**.
- f. On the Create Key Ring with Self-Certified Certificate window, complete the fields as follows:
 - Key Ring File Name**
Type testnetc.kyr.
 - Key Ring Password**
Type a password of your choice.
 - Common Name**
Type the URL of your Web server.
 - Organization**
Type the name of your organization.
 - State or Province**
Type your state, province, or equivalent.
 - Country**
Type the two-character code representing your country.
- g. Click **Create Key Ring with Self-Certified Certificate** to create the certificate.
- h. Click **OK**.
6. Enable SSL as follows:
 - a. From the Domino Administrator, click the **Configuration** tab, select **Server**, and then edit the server document for the Web server.
 - b. Click the **Ports** tab, and then click the **Internet Ports** tab.
 - c. In the **SSL key file** field, type testnetc.kyr.
 - d. Find the entry for SSL port number 443. In the **SSL port status** field just below port number 443, expand the drop-down list, select **Enabled**, and click **OK**.
 - e. Click **Save and Close** to save your information and close the view.
7. Restart Domino Web Server according to the instructions in “Starting and Stopping Domino Web Server” on page 140.
8. Before you open your store to shoppers, You must open the CertAdminFullScreen window and create a production certificate by following steps 1 to 4 that you will find in the window. You can access the window by double-clicking the **Server Certificate Admin** icon in your Lotus Notes Workspace, which is created when you follow the steps above.

Chapter 10. Installing Payment Server on a Separate Machine

This chapter describes how to install and configure Payment Server 1.2.20.0 on a separate machine in a DB2 environment, in order to improve the performance of payment processing. To complete the steps in this chapter, you will need the Net.Commerce 3.2 CD. To do this, you must first install Payment Server 1.2.20.0 on your Net.Commerce machine according to the instructions in “Chapter 2. Installing Net.Commerce” on page 9. The Net.Commerce server requires several Payment Server files to be available on its machine in order for it to control the remote Payment Server machine.

Installation Procedure

To install Payment Server 1.2.20.0 on a separate machine, do the following:

1. If you are running Net.Commerce on the same machine as your database, perform steps 1 and 2 on page 50. (If you will be running your server and database on separate machines, you should have already completed the steps in that section.)
2. On the machine on which you want to run Payment Server 1.2.20.0, do the following:
 - a. Install Payment Server from the Net.Commerce 3.2 CD. To manually install Payment Server 1.2.20.0, do the following:
 - 1) Insert the Net.Commerce 3.2 CD into your CD-ROM drive.
 - 2) Install Payment Server 1.2.20.0 by running `setup.exe` from the `/payment_server` directory.
 - b. Install DB2 Client Application Enabler from the DB2 Universal Database 6.1 CD by selecting only **DB2 Client Application Enabler** on the Component Selection window.

Note: This configuration requires only the DB2 Client Application Enabler component on this machine, not the entire DB2 server.

- c. Enable the database client/server connection, and catalog the node and the database on the client by entering the following commands on a DB2 command window:

```
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 db2 list node directory command in a DB2 command window, and look for the name in the response. If the name is *not* listed, you can use it as your node name.

host_name

The fully qualified host name of the machine on which the Net.Commerce database resides.

port_num

The port number that identifies the TCP/IP connection. To determine the port number, do the following:

- 1) On a DB2 command window on the machine running your database, enter the command db2 get dbm cfg, and note the value of SVCENAME (which is also identified by the text TCP/IP Service Name).
- 2) On the machine running your database, open the file Winnt\system32\drivers\etc\services and look for the line that begins with the name you noted in the previous step. The port number appears in the second column of the same line (with the string /tcp appended to it).

db_name

The name of your Net.Commerce database.

Configuring Your Remote Payment Server Machine

On your Payment Server machine, do the following:

1. Rename the file *drive:\Payment_Server_Install_Path\userexit.dll* to *drive:\Payment_Server_Install_Path\userexit.etill*.
2. Copy the file *drive:\Ibm\NetCommerce3\bin\userexit.dll* from the machine on which you have installed the Net.Commerce server that you want to use to control the Payment Server machine, to *drive:\Payment_Server_Install_Path* on your Payment Server machine.
3. Copy the following files from your Net.Commerce machine to the *drive:\Payment_Server_Install_Path* directory on your Payment Server machine:
 - *drive:\Ibm\NetCommerce3\bin\nc3_common.dll*
 - *drive:\Ibm\NetCommerce3\bin\nc3_containers.dll*
 - *drive:\Ibm\NetCommerce3\bin\nc3_dbc.dll*
 - *drive:\Ibm\NetCommerce3\bin\nc3_messages.dll*
4. Create the following directories:

- *drive:\Payment_Server_Install_Path\data* to be used for certificate files
 - *drive:\Payment_Server_Install_Path\logs* to be used for log files
5. Copy the
drive:\Ibm\NetCommerce3\instance\instance_name\bin\etill.cmd file from the machine on which you have installed Net.Commerce that you want to use to control the Payment Server machine, to
drive:\Payment_Server_Install_Path on your Payment Server machine.
 6. Open the *etill.cmd* file on your Payment Server machine and ensure that the path name for the *jre* command is the *\jre\bin* subdirectory of the path in which you installed Payment Server on your Payment Server machine. Also ensure that the following information is correct:
 - The path name for *db2java.zip* must be the *\java* subdirectory off the directory in which you installed DB2 on your Payment Server machine.
 - The path name for *rt.jar* must be the *\jre\lib* subdirectory off the directory in which you installed Payment Server on your Payment Server machine.
 - The path name for *eTillClasses.zip* must be the directory in which you installed Payment Server on your Payment Server machine.
 - The second last path name on the *-classpath* parameter must be the directory in which you installed Payment Server on your Payment Server machine.
 - The path name for *i18n.jar* must be the *\jre\lib* subdirectory off the directory in which you installed Payment Server on your Payment Server machine.
 - The final qualifier in the value of the *DBjdbcURL* parameter must be the name of your Net.Commerce database.



As an example, assume that your configuration is as follows:

- DB2 (or DB2 Client Application Enabler) is installed on your Payment Server machine in E:\Ibm\Sqllib
- Your database name is mser
- Your database user name is user1

After you update etill.cmd, it should contain the following:

```
"E:\Ibm\etill\jre\bin\jre" -nojit
-classpath "E:\Ibm\Sqllib\java\db2java.zip";
"E:\Ibm\etill\jre\lib\rt.jar";
"E:\Ibm\etill\etillClasses.zip";
"E:\Ibm\etill";"E:\Ibm\etill\jre\lib\i18n.jar"
-DeTill.Hostname=my.host.com com.ibm.etill.ETill
DBdriver=COM.ibm.db2.jdbc.app.DBDriver
DBjdbcURL=jdbc:db2:mser DBOwner=user1 DBUserID=user1
DBPassword=%1
```

where *my.host.com* is the domain qualified host name of the machine where Payment Server is installed. Note that the classpath statement should be entered on one line. It is split here for presentation purposes only.

Configuring Your Net.Commerce Machine

On the machine on which you are running Net.Commerce (or, in a multi-machine environment, on all machines on which you are running Net.Commerce), do the following:

1. In the server controller initialization file,
drive:\Ibm\NetCommerce3\instance\instance_name\config\svrctrl.ini
(where *instance_name* is the name of the Net.Commerce instance), determine whether the list of pool names on the CONTROL_POOL_CONFIG directive includes the file *pay_etill*. If it does, remove it, including the entire path and the comma that precedes it.
2. In the Net.Commerce initialization file,
drive:\Ibm\NetCommerce3\instance\instance_name\config\ncommerce.ini, do the following:
 - a. Ensure that *PAYSYS_CONTROLLER* is set to 1. (In a multi-machine environment running multiple Net.Commerce servers, ensure that this parameter is set to 1 on the machine that you want to use to control the Payment Server machine, and to 0 on all the other machines.)
 - b. Set the *ETILL_HOSTNAME* directive to the host name of the machine on which you are running Payment Server.
3. In the payment initialization file,
drive:\Ibm\NetCommerce3\instance\instance_name\config\pay_back.ini,

set the ETILL_HOSTNAME directive to the host name of the machine on which you are running Payment Server. Note that this file may not exist on all your Net.Commerce machines.

4. Identify in the Net.Commerce database, the path on the Payment Server machine to which you want the Payment Server machine to write its logs, by entering the following commands on a DB2 command window on the machine on which you have installed your database:

```
db2 connect to db_name
db2 update ETILLCONFIG set LOGPATH='drive:\Payment_Server_Install_Path\logs'
```

where *db_name* is the name of your Net.Commerce database and *Payment_Server_Install_Path* is your IBM Payment Server installation path.

5. Update the database to refer to the correct Payment Server port numbers by doing the following:
 - a. On the machine on which you are running the Net.Commerce server that will control the Payment Server server, open the file *drive:\Ibm\NetCommerce3\instance\instance_name\config\ncommerce.ini* in a text editor.
 - b. Look for the SERVICE_NAME_PREFIX directive, and record its value.
 - c. Open the file *\Winnt\system32\drivers\etc\services* in a text editor, and look for the following statement:

Service_prefix_1

where *Service_prefix* is the value recorded above. The value of this statement is the service port number. Record this value.

- d. Open the file *drive:\Ibm\NetCommerce3\instance\instance_name\config\pay_etill.ini* in a text editor, and record the values of the following directives:

```
ETILL_ADMIN_PORT
ETILL_PAY_PORT
ETILL_ERROR_PORT
ETILL_SET_PAY_PORT
ETILL_SET_INQUIRY_PORT
```

- e. While logged on as your DB2 instance ID, type the following:

```
db2 connect to db_name
db2 update ETILLCONFIG set USEREXITPASSTHRU='host_name:Service_port'
db2 update ETILLCONFIG set ADMINAPIPORT=eTill_admin_port
db2 update ETILLCONFIG set PAYMENTAPIPORT=eTill_pay_port
db2 update ETILLCONFIG set ERRORLOGPORT=eTill_error_port
db2 update ETSETCFG set PAYMENTPORT=eTill_set_pay_port
db2 update ETSETCFG set INQUIRYPORT=eTill_set_inquiry_port
db2 update ETSETCFG set CERTFLATFILEPATH='Payment_Server_Install_Path\data'
db2 update ETSETCFG set SETFLATFILEPATH='Payment_Server_Install_Path\data'
db2 update ETSETCFG set CERTPASSWORD='certificate_password'
db2 update ETSETCFG set SETDBTYPE='flatfile'
db2 update ETSETCFG set CERTDBTYPE='flatfile'
```

where:

- *db_name* is the name of your DB2 database
 - *host_name* is the fully qualified TCP/IP host name of the machine on which you are running the Net.Commerce server that will control the Payment Server
 - *Payment_Server_Install_Path* is your IBM Payment Server installation path
 - The remaining variables are the port numbers you recorded in the previous step
6. If you have already created your Payment Server certificate files, also known as key files, on your Net.Commerce machine, move them from the *drive:\Ibm\NetCommerce3\instance\instance_name\data* directory, to your Payment Server machine in the *drive:\Payment_Server_Install_Path\data* directory, which you created in step 4 on page 62. The file names are *bci.db*, *crl.db*, *key.db*, and *keypair.db*.

If you have not yet created the certificate files, refer to the Net.Commerce on-line help for detailed instructions.

Note: If you are running Payment Server on a separate machine from Net.Commerce, Payment Server no longer starts automatically with Net.Commerce. However, Net.Commerce will automatically stop Payment Server when it shuts down. See “Starting and Stopping Payment Server” on page 139 for information on starting and stopping it manually.

Chapter 11. Configuring eNetwork Dispatcher

This chapter describes how to configure eNetwork Dispatcher for use with Net.Commerce. If your system configuration includes multiple Web server machines for enhanced load sharing, and you already have eNetwork Dispatcher installed on one of the machines in your configuration, you can follow the steps in this chapter to configure eNetwork Dispatcher.

The information in this chapter only describes how to configure eNetwork Dispatcher to work with your Net.Commerce system.

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

Configuring TCP/IP for eNetwork Dispatcher

Maximum Transfer Unit (MTU) is the maximum TCP/IP packet size in bytes. By default, your eNetwork Dispatcher server and each machine that initiates a connection to the eNetwork Dispatcher server (each of your Net.Commerce machines) can handle an MTU of 1500 bytes.

Note: You must set up your eNetwork Dispatcher server and each of your Net.Commerce machines with the *same* TCP/IP packet size.

To set the MTU value for your eNetwork Dispatcher server, type the following command:

```
ndcontrol e xm 32 MTU_size
```

where *MTU_size* is the maximum TCP/IP packet size in bytes.

To set the MTU value for your Net.Commerce machines, do the following for *each* Net.Commerce machine:

1. Double-click the **Network Neighborhood** icon on your desktop.
2. From the Network Neighborhood window, select **Properties**.
3. Select the **Adapters** tab.
4. Select your Network Interface card.
5. Click the **Properties** button.
6. On the window that appears, in the **MaxTxFrameSize** field, enter the maximum TCP/IP packet size in bytes. This value must be the same as the *MTU_size* value you specified above.
7. Click **OK**.

8. Exit any open windows and reboot your machine.

Configuring the eNetwork Dispatcher Server

Note: The eNetwork Dispatcher server requires two IP addresses. One IP address is the cluster IP address (the address to which clients connect); the second IP address is the non-forwarding IP address. For more information, refer to the eNetwork Dispatcher User's Guide.

You can set up eNetwork Dispatcher on either AIX, Windows NT, or the Solaris Operating Environment™. The configuration instructions provided below apply to all three platforms. Where the instructions vary depending on which platform you are on, platform-specific instructions have been provided.

On each eNetwork Dispatcher server, do the following:

1. On AIX or Solaris, log in as user ID root. In Windows NT, log in with a Windows NT user ID with Administrator authority.
2. 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:

On AIX:

```
ifconfig network_interface alias cluster_hostname netmask 255.255.255.0
```

On Sun Solaris:

```
ifconfig network_interface cluster_hostname netmask 255.255.255.0 up
```

On Windows NT:

```
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), and *cluster_hostname* is the fully qualified host name that shoppers use to access your Web site.

3. Start the eNetwork Dispatcher server, by doing one of the following:
 - On AIX or Sun Solaris, type the following command:

```
ndserver start
```
 - In Windows NT, click **Start**, point to **Programs** and click **eNetwork Dispatcher**.
4. Start the eNetwork Dispatcher executor, by typing the following command:

```
ndcontrol executor start
```
5. 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 2 on page 68.

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

```
ndcontrol port add cluster_hostname:80+443+16560
```

where *cluster_hostname* is the host name you used in step 2 on page 68. If you want to add more port numbers, type the command again, substituting the new port numbers for the port numbers (80+443+16560) that you have already added.

7. For each port number you have added, you must add a server to the port, so that eNetwork Dispatcher can dispatch to that individual server. 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 6.

server_hostname

The host name of your Net.Commerce machine(s).

Configuring the Net.Commerce Machines

Before you begin the steps in this section you should already have created Net.Commerce instance on *each* Net.Commerce machine, as described in “Chapter 3. Configuring a Net.Commerce Instance” on page 19.

Note: Before you begin, verify that the MAXAPPLS variable on your remote database machine is configured to run enough applications. If you need to change the maximum application number, do the following:

1. Log in as your DB2 user ID.
2. Type the following command:

```
db2 update db cfg for db_name using maxappls max_application_number
```

where *db_name* is the name of your database, and *max_application_number* is the maximum number of applications.

To configure your Net.Commerce machines for eNetwork Dispatcher, do the following:

1. Log in with a Windows NT user ID with Administrator authority.
2. On *each* Net.Commerce 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 68, 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) Select MS Loopback Adapter, and click **OK**.
 - 3) When prompted, insert your Windows NT CD.
 - 4) In the Network window, click **Protocols**.
 - 5) Select TCP/IP Protocol, and click **Properties**.
 - 6) Select MS Loopback Adapter, and click **OK**.
 - 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.

Note: You may have to exit and re-enter Network Settings for the MS Loopback Driver to appear under the TCP/IP configuration.

- d. 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 Net.Commerce machine, you must repeat step 2.d.

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 Net.Commerce instance. Change the MS_HOSTNAME from the individual Net.Commerce host name to the cluster host name (the *cluster_hostname* value from step 2 on page 68).
Do *not* change the JDBC_hostname and Etil1_hostname values.

4. 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 Net.Commerce machine to the cluster host name.
 - b. Change all the IP addresses in the `httpd.cnf` file from the individual IP address of the Net.Commerce machine to the cluster IP address.
5. Ensure you are logged in with a Windows NT user ID that has Administrator authority and start the Net.Commerce server from the Configuration Manager (port 4444).
6. From the Services window, stop then restart the Web server.

Important

Each time you create a new instance, you must repeat steps 3 to 6.

Configuring Payment Server for eNetwork Dispatcher

If you are using Payment Server 1.2.20.0, 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 Net.Commerce. 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.

Chapter 12. Enabling SSL for Production on Domino Go Webserver

When you install Net.Commerce 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 firewall, 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 URL 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 URL 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 URL 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 74.
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 URL 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 75.
 - 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 75, 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 74), 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 13. Methods of Creating a Store or Mall” on page 81 provides an overview of the different methods of creating a store or mall.
- “Chapter 14. Setting Up Your Store” on page 89 provides an overview of the tasks you must perform to set up a store.
- “Chapter 15. Building Your Store” on page 95 provides an overview of the tasks you must perform to build a store.

Chapter 13. Methods of Creating a Store or Mall

How you create your store or mall will depend on the size and nature of your business, and whether you are creating a mall or store. This chapter provides an overview of the following methods of creating a store or mall:

Store Creation Methods

- The Store Creator
- The Sample Stores
- The Site Manager and the Store Manager

Which method you choose will depend on what kind of store you wish to create, your target audience, the level of customization you wish to perform, and in the case of the Store Creator, which database management system you are using.

Mall Creation Methods

- The Site Manager and the Store Manager

If you want to include more than one store in your site, you create a mall. A mall requires additional structure, to enable the stores in the mall to be managed independently. You can create a mall using the Site Manager and Store Manager. You cannot use the Store Creator to create a mall.

Use the information in this chapter to decide on a method for creating your store or mall. Additional information on each of these methods is provided in the Net.Commerce on-line help.

Creating a Store Using the Store Creator

The Store Creator is a wizard which guides you through the process of creating a basic store. It is designed to give a Site Administrator a head start in creating a Net.Commerce store. It consists of a series of easy-to-use panels that guide you through seven steps to create a basic store. You select from a choice of three models upon which to base the store, and then specify the store's appearance and page layout, currency, tax rates, payment methods, and shipping providers.

When you are finished, you can view the results, as a shopper would, using a choice of sample data, and then add your own product catalog. You do not require programming experience to use the Store Creator. The store's infrastructure, including the database, and the necessary macros, HTML files,

commands and overridable functions, are automatically generated for you. A store that is created with the Store Creator can be accessed with any browser that supports frames.

Once you have created your store with Store Creator, you can use it as is, or further customize the store using the Site Manager and Store Manager.

Notes:

1. You must be a Site Administrator to use the Store Creator. Once you have created the store, you can designate Store Administrators to manage the store using the Store Manager.
2. If you use the Store Creator to create a store, and then make changes to that store using the Net.Commerce Administrator, you cannot return to the Store Creator to make other changes; otherwise, the modifications you made using the Net.Commerce Administrator may be overwritten by the Store Creator.
3. The Store Creator does not support Internet Explorer when creating a site.
4. The search page in the store created by Store Creator is case sensitive.
5. If you resize the browser window while working with the Store Creator, the store will be reloaded. You risk losing all of the information previously entered in the current window.

For step-by-step instructions on using Store Creator, refer to the Net.Commerce on-line help. From the main help window, select **How Do I**, and refer to the *Create a store starting with the Store Creator* section.

Creating a Store Using the Samples

This method involves adapting one of the sample stores to suit your own business. You can choose from several stores in the sample malls (Demomall, Metropolitan Mall, or Euro Mall) or one of the two stand-alone stores. Each sample store demonstrates different features or customization techniques.

Note: If you plan to install Metropolitan Mall and you are using Oracle, refer to *Install the Metropolitan Mall Database on Oracle* in the Net.Commerce on-line help for specific instructions.

After choosing the store which best meets your needs, you use the Site Manager and Store Manager to make modifications and to enter your own data. You also modify the Net.Data macros to customize the store pages.

Notes:

1. For Oracle users, the samples available are the Metropolitan Mall and the Euromall.

2. The samples provided with Net.Commerce can only be installed on a local database.

For step-by-step instructions on installing, viewing and modifying the samples, refer to the Net.Commerce on-line help. From the main help window, select **How Do I**, and refer to the *Create a store starting with a sample* section.

About the Samples

The Net.Commerce sample stores and malls are described below. Each sample shows how you can use specific features of Net.Commerce to build a customized store or mall. Each is intended to help you generate business ideas. Feel free to pick and choose from the supplied pages and shopping flows. You should customize them to meet business needs.

East West Food Mart

Note: This sample store runs only on a DB2 database.

The East West Food Mart is provided as an example of a business-to-consumer scenario. The store sells to individuals a variety of goods that you would typically find in a grocery setting, such as produce, beverages, frozen foods, and baked goods.

The East West Food Mart features a simplified shopping process. It bypasses certain Net.Commerce commands to produce a navigational structure that is simple and expedient, allowing shoppers to get in and out with only a few clicks of the mouse. Many of its macros make extensive use of JavaScript to enhance the dynamics of the store pages and to allow multiple functions to run simultaneously.

Shoppers must use a browser that supports JavaScript to access the store. Currently, Netscape Communicator Version 4.0 or later satisfies this requirement. Keep this in mind if you decide to use the East West Food Mart as a basis for your own store.

This sample store is ideal for stores that possess the following characteristics:

- You are targeting consumers
- Your product catalog is familiar to shoppers
- Your shoppers usually know what items they want to purchase and want to find them quickly
- Your shoppers often buy multiple quantities of the same product
- Your shoppers tend to repeat their purchases on a frequent and regular basis

- All orders are delivered to the same shipping address

The Office Window

The Office Window is an example of a business-to-business scenario, in which a store sells to other corporations rather than to consumers.

Each consumer corporation registers as an *office* which is equivalent to a shopper group. Shoppers registered with different offices have access to different product lists. The products in this example include a variety of office supplies and computer equipment.

Many of the macros used make extensive use of JavaScript to enhance the dynamics of the store pages and to allow multiple functions to run simultaneously. Shoppers must use a browser that supports JavaScript to access the store. Currently, Netscape Communicator Version 4.0 or later meets this requirement. Keep this in mind if you decide to use the Office Window as a basis for your own store.

The sample has been designed for the following users with the following roles:

User	Role
Merchant	<ul style="list-style-type: none"> • Creates the store pages • Populates the database with product and category information • Determines what categories and products will be accessible from each office • Approves office administrators and their requests for offices
Office Administrator	<ul style="list-style-type: none"> • Requests new offices • Approves shopper enrollments in those offices • Approves orders placed by shoppers in those offices • Browses the catalog available for the office • Places orders for products available in the office
Shopper	<ul style="list-style-type: none"> • Enrolls in an office • Browses the catalog available for that office • Places orders for products available in that office

An office administrator is typically a manager who oversees the purchase of specific products from the store, while a shopper is typically a lower level employee who is responsible for actually making the purchases. Before entering the store, the shopper must enroll in an office and the office

administrator must approve the enrollment; the office administrator must then approve all purchases made by the shopper.

Creating a Store Using the Site Manager and Store Manager

This method allows you to create a store completely to your specifications.

To create a store with the Site Manager and Store Manager, you use the on-line forms in the Net.Commerce Administrator to set up the site and enter your data into the database, and use other tools for such tasks as entering or deleting large amounts of data quickly and customizing the database.

The steps required to create a store are different, depending on whether you are creating a self-contained store, or a store that will be placed in an on-line mall.

The steps for creating a store using the Site Manager and Store Manager are explained in greater detail in the following chapters:

1. "Chapter 14. Setting Up Your Store" on page 89
2. "Chapter 15. Building Your Store" on page 95

Creating a Mall Using the Site Manager and Store Manager

If you will be creating a mall that requires significant customization, the best method is to use the tools provided in the Site Manager and Store Manager. This method allows you to create a mall completely to your specifications.

You use the Site Manager to enter mall data and define mall functions, and then you (or a Store Administrator) use the Store Manager to enter data and define functions for each store within the mall. To create your Web pages, you can access the Template Designer from either component. You can then customize many mall and store features, to better suit your needs.

For more information about creating a mall using this method, refer to the Net.Commerce on-line help. From the main help window, select **How Do I**, and then refer to the *Create a Mall Starting with the Site and Store Manager* section.

Creating a Mall Using the Samples

The Metropolitan Mall is an example of a mall that requires minimal customization. You can use it as a starting point for creating your own mall. You can also use one of the stores within it as a starting point for creating your own store. The Metropolitan Mall also includes some JavaScript. Browsers that have been tested and that have been successfully used to access the Metropolitan Mall and its stores are Microsoft Internet Explorer versions 3 and 4, Netscape Navigator version 3, and Netscape Communicator version 4.

This sample implements a wide variety of Net.Commerce features, including Secure Electronic Transactions (SET), and uses almost all of the default commands and overridable functions provided by the Net.Commerce system to display store pages and perform such processes as adding items to the shopping cart and processing an order. When you install it, the database is automatically populated with the sample data provided.

The mall contains the following stores, which you can either modify or replace with your own:

- 6th Avenue: A department store that sells hardware, computers, and clothing.
- Basics: A clothing store for men that features pants and tops.
- Netaway: A travel agency that offers travel packages.
- Next Generation (included only in the Net.Commerce PRO package): A store that sells computers. This store offers shoppers assistance in selecting products through its intelligent catalog, which was created with Product Advisor.

It also includes three stores that do not contain data and are provided only as placeholders: Nick's Nacks, Jim's Homeware, and Lorne's Lawncare.

After You Create Your Mall or Store

After you have created your mall or store, there are a number of optional features that you can use to further enhance it or to perform certain management tasks. The following is an outline of some of these features. For detailed information, refer to the Net.Commerce on-line help, click **Tell me About** and select the appropriate topic.

Designated server to test changes

You can use a separate server called a staging server to test any changes you make to product and category information after your store goes into production. This way, you do not disrupt customer

access to your store, and you can ensure that the changes work properly before exposing them to shoppers.

Dynamic page caching

Pages that are dynamically generated from templates are automatically cached to optimize performance of your site. There are two caching options, Basic and Advanced, which provide two different methods of determining what material gets cached.

Enhanced searching

If you have chosen to install DB2 Extenders, you can use it to enhance the way your shoppers search for products in your store. This utility allows you to use keywords that shoppers will associate readily with your products.

Personalized shopping assistance

To assist shoppers in selecting a product, you can create a dynamic interactive catalog based on key product features, using the Product Advisor. By answering a series of questions and answers, or by selecting and comparing features shoppers can narrow down their choices to the most suitable product. (This feature is available only in the Net.Commerce PRO package.)

Customizable shopper groups

You can create shopper groups to target specific markets, such as frequent shoppers or business customers. You can then create templates to display products to some shoppers differently than to they are displayed to others, or offer certain groups incentives or reduced prices.

Secure Electronic Transactions (SET)

SET lets you provide secure transmission of sensitive information such as data about shoppers, orders, and payment methods.

Discussion groups and e-mail

If you are currently using the Lotus Domino server, you can integrate discussion databases or e-mail into your store.

Legacy system integration

You can integrate Net.Commerce with specific legacy systems, or use EDI to integrate a legacy system.

Quick removal of obsolete data

The Database Cleanup utility allows you to quickly remove obsolete data from the database, such as completed orders or outdated shopper information.

Direct data import

The Mass Import utility allows you to import large quantities of

product or category information directly into the database. This is useful when you add a new product line to your store.

Chapter 14. Setting Up Your Store

The steps required to create a store are different, depending on whether you are creating a single-store site, or a store that will be placed in an on-line mall. This chapter will describe how to begin setting up a single-store site using Site Manager.

Because the steps may vary, depending on the methods you use to create your store and your store files, you may be referred to the Net.Commerce on-line help for further details in some sections.

This chapter covers the following topics:

1. "About Site Manager"
2. "Accessing the Site Manager" on page 90
3. "Defining Your Store" on page 90
4. "Creating the Store Front" on page 91
5. "Specifying Shipping Providers" on page 93

For detailed information on setting up a store that will be part of an on-line mall, refer to the Net.Commerce on-line help. From the main help window, select **How Do I** and click *Create a Store Starting with the Site and Store Manager*. Follow the *Create a store for an on-line mall* link on that page.

About Site Manager

The Net.Commerce Site Manager is a collection of on-line forms that you use to manage some of the high-level functions for electronic commerce. Site Manager is accessed from the Net.Commerce Administrator.

Using the Site Manager, you can do the following:

- Assign a mall header, footer, and home page
- Define categories for the stores in the mall
- Configure the site to support different currencies
- Maintain user IDs and passwords for Site Administrators and Store Administrators
- Assign site and store access by creating access control groups and assigning users to them to ensure that only authorized individuals are given access to the database

- Open or close a store
- Assign scope to shopping tasks, such as shipping or ordering, to specify whether they will function similarly for all the stores in the mall, or vary from one store to the next
- Assign Net.Data macros or overridable functions to tasks to customize certain shopping processes
- Define tax rates for stores
- Manage information about shoppers
- Maintain a list of shipping providers that are available to the stores
- Assign security levels to commands
- Create Web pages for the mall using the Template Designer

The person who manages these functions is called the Site Administrator. Once the Site Administrator sets up the basic framework of the store, as outlined in this chapter, the Store Administrator can begin building the store using the Store Manager functions in the Net.Commerce Administrator.

Note: For some sites, the individual designated as the Site Administrator may also perform the role of the Store Administrator.

Accessing the Site Manager

To access the Site Manager, do the following:

1. Open the Net.Commerce Administrator, by doing the following:
 - a. Open your browser, and type the following URL:
`http://host_name/ncadmin`

 If you are using Domino Web Server, you must enter
`http://host_name/ncadmin/login`
 - b. When the Net.Commerce Administrator Logon screen appears, enter the user ID and password and click **Logon**. The default user ID and password is ncadmin. The Net.Commerce Administrator home page appears.
2. On the task bar, click **Site Manager**. The Site Manager opens.

Defining Your Store

The first step in creating a store is to define some general information by creating a store record which will include the store name, the company name, and contact information.

To create a store record, do the following:

1. On the task bar of Net.Commerce Administrator, click **Site Manager** and then **Store Records**. The Store Records form appears.
2. In the appropriate fields, enter the store name, company name and phone number, and the first name, last name, and phone number of a contact person. Fields that appear in bold are mandatory.
3. Click **Save**.
4. In the Confirmation window, click **OK**.

In the future, if any of this information needs to be changed, this will be done using the Store and Merchant Information form in the Store Manager. The person who manages the store (the Store Administrator) typically makes these changes.

Creating the Store Front

Creating the store front involves the following steps:

1. Creating a home page for the store.
2. Creating a header and footer to display on store pages.
3. Assigning a home page in the database.
4. Assigning the header and footer in the database.

A **home page** is a virtual store front, or mall front, on the World Wide Web. Like a real store or mall front, it is the first image shoppers see. It typically contains the name and logo of the store or mall, an introduction or welcome message, any other general information, and hypertext links to connect shoppers to store or mall pages and to a registration page. Home pages typically contain a header, body and a navigational footer.

A **header** is information that appears at the very top of a Web page. It typically contains the name of the store and the company logo. You can also add any extra information that you want. For example, you may want to include a button bar or image map that links to the primary functions of the mall or store (such as departments, registration, and shopping cart). The header will automatically appear at the top of the Web pages to which it has been assigned.

A **footer** is information that typically appears at the bottom of a Web page, following the body of the page. Usually navigational in nature, footers contain hypertext links or image maps that connect shoppers to the primary elements of a store or mall, such as the home page, registration form, shopping cart, store departments, and address book. The hypertext links can be in the form of a row or grid of buttons, icons, an image map, or a list or line of text.

Creating a Home Page, Header and Footer

There are a number of options for creating the home page and header and footer files for your store. Net.Commerce provides the Template Designer tool, which is a graphical object-oriented editing tool that allows you to create Web pages for an on-line mall or store.

The purpose of the Template Designer is to help you create some basic pages. For production requirements, you may need to perform additional customization using the Net.Data macros, which define the microflow of your Web site and support your business rules.

The method you use to create your home page, header and footer will depend on your individual business requirements. For detailed information on the different methods available for creating your home page and your header and footer files, refer to the Net.Commerce on-line help.

Note: You do not have to have created your home page, header and footer to continue with the steps in “Assigning a Home Page” and “Assigning Headers and Footers”. You can create these files at a later time.

Assigning a Home Page

There are two methods of assigning a home page, depending on whether you are creating a single-store site, or a mall. This section describes the method for assigning a home page for a single-store site.

To assign a home page for your single-store site, do the following:

1. From the Net.Commerce Administrator task bar, click **Site Manager**.
2. Click **Mall Information** to display the Mall Information form.
3. In the **Home Page** field, enter the file name of the home page.
4. Click **Save**. Ensure that a confirmation message appears in the display area.

Assigning Headers and Footers

To assign a header and footer, you can do one of the following:

- Assign headers and footers to templates
- Assign headers and footers as the database default

This section will describe how to assign headers and footers as the database default for a single-store site. For information on assigning headers and footers to templates, or as defaults for a store in a mall, refer to the Net.Commerce on-line help.

To assign a header or footer as the default in the database for a single-store site, do the following:

1. From the Net.Commerce Administrator task bar, click **Site Manager**, and then select **Mall Information** to display the Mall Information form.
2. In the **Header** field, enter the file name of the header.
3. In the **Footer** field, enter the file name of the footer.

Note: Any headers or footers that have been assigned to specific templates using the Template Designer will take precedence over the above assignments.

4. Click **Save** to save the header and footer in the database.

Because the Net.Commerce database retrieves the header and footer files from the Mall Information form for certain site-wide pages such as the shopping cart and registration forms, you must also assign the header and footer to the store pages.

Specifying Shipping Providers

As Site Administrator, you must create a master list of all the shipping companies and types of shipping services that will be offered to shoppers. The Store Administrator will select the shipping services for the store from this master list.

To specify the shipping companies and types of shipping services that will be available to stores, do the following:

1. From the **Site Manager**, click **Shipping Providers**.
2. From the **Select** list, select **Add New Carrier/Shipping Mode**. If the fields contain information about another carrier, you can clear the fields by clicking **Clear**.
3. In the **Carrier** field, enter the name of the shipping company.
4. In the **Shipping Mode** field, enter the type of shipping service. For example, "overnight delivery" or "priority" are common modes of shipping.
5. In the **Description** field, enter a brief description of the shipping company, if desired.
6. In **Custom Field 1** and **Custom Field 2**, enter additional information if desired.

7. Click **Save**. Make sure that a confirmation message appears in the display area. The new carrier should now appear in the **Select** drop-down list.

Repeat these steps to add a complete list of all shipping providers and types of shipping services that will be available to your store(s).

Chapter 15. Building Your Store

This chapter describes how to build your store using the Store Manager. Once the Site Administrator has set up the basic framework of the store using Site Manager, the Store Manager is ready to begin building the store. This chapter will cover the main tasks involved in creating a store; depending on your business needs, you may wish to implement additional functions offered by Net.Commerce.

For complete information on the different options available to you as you build your store, refer to the Net.Commerce online help.

This chapter covers the following topics:

1. "About Store Manager"
2. "Accessing the Store Manager" on page 96
3. "Specifying Store Contact, Currency and Tax Rate Information" on page 96
4. "Specifying Shipping Services for the Store" on page 97
5. "Creating Product Categories" on page 100
6. "Entering Product Information" on page 102

About Store Manager

The Net.Commerce Store Manager, referred to as the Store Manager, is a collection of online forms that allow you to create and manage an interactive catalog for your electronic store.

Using the Store Manager, you can do the following:

- Enter information about the store
- Assign headers and footers for the store pages
- Create product categories
- Enter product information
- Implement discounts
- Select shipping services
- Configure the SET payment module
- Create customized pages to display products and categories to shopper groups
- Search for and view information about shoppers

- Locate information about orders placed by shoppers
- Create Web pages for the store using the Template Designer
- Prepare an interactive catalog and shopping metaphors to help guide shoppers to products that best fit their needs (Net.Commerce PRO version only)

The person who manages these functions is called the Store Administrator.

Accessing the Store Manager

To access the Store Manager, do the following:

1. Open the Net.Commerce Administrator, by doing the following:
 - a. Open your browser and type the following URL:
`http://host_name/ncadmin`
 - b. When the Net.Commerce Administrator Logon screen appears, enter the user ID and password and click **Logon**. The default user ID and password is ncadmin. The Net.Commerce Administrator home page appears.
2. On the task bar, click **Store Manager**. The Store Manager opens.

Specifying Store Contact, Currency and Tax Rate Information

Some basic information about your store was entered when the Site Administrator created the Store Record for your store. As Store Administrator, perform the following steps to enter or modify details about a store, such as the currency code and store contact information:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Store Information**. The Store and Merchant Information form appears.
2. From the **Select Store** drop-down list, select the store with which you want to work. The fields fill with any store information that is in the database.
3. To change the store name, type over the name that appears in the **Store Name** field.
4. In the **Currency** field, enter the currency for the product prices.
5. In the appropriate fields of the **Merchant Company Information** section, enter a street address, city, state or province, and country for the company.
6. If you want to define store level tax rates, do the following:
 - a. Deselect the **Use Mall Tax Rates** check box. By default, this box is selected.

- b. In the **Tax Rate 1** field, enter the percentage of sales taxes that will be applied to product prices. In the corresponding **Tax Name** field, enter the name of the tax.
- c. If more than one tax applies, enter the rates and names in the other fields.

If you later decide to use the rates defined at the mall level, you can select the **Use Mall Tax Rates** check box; however, you will lose the store level rates you have defined. If you have a single-store site, you can set either the mall rates or the store rates.
7. Fill in any other fields, if desired. If you make an error, simply type over the incorrect information, or click **Clear** to clear the fields and begin again.
8. Click **Save** to add the information to the database.

Ensure that a confirmation message appears in the display area. If you have missed a mandatory field, a message will appear. Click **OK**. The cursor will reposition on the field that requires information. Enter the appropriate information in the field, and click **Save** again.
9. If, after saving the store information, you realize that you made a mistake, you can easily correct the information by repeating these steps.

Specifying Shipping Services for the Store

You will need to specify shipping codes before specifying basic product information.

Use the Shipping Services form to create a list of shipping carriers and modes for your store. Using the other shipping forms, you can then create shipping codes for specific carriers and modes, select calculation methods, and assign a shipping code to each product in the database. Depending on how you have defined the codes, you can later change the way many products are shipped without having to enter new information for each product in the database.

To define the shipping services used by your store, you will do the following:

1. “Select Shipping Services”
2. “Create Shipping Codes” on page 98
3. “Define Shipping Code Details” on page 99

Select Shipping Services

Perform the following steps to choose the carriers and modes that will be available for your store:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Shipping Services**. The Shipping Services form appears.

2. From the **Select Store** drop-down list, select the appropriate store.
3. From the **Supported Shipping Mode** drop-down list, select **Add New Supported Shipping Mode**.
4. From the **Shipping Carrier and Mode** drop-down list, select the shipping carrier and mode you want.
5. In the **Start Date** and **End Date** fields, enter the start and end dates that you want this carrier to be available for your store.
6. Click **Save**.

Ensure that a confirmation message appears in the display area. The new carrier should now appear in the **Select Mode** drop-down list and will be available when defining shipping details.

Create Shipping Codes

After you have selected the shipping carriers and modes for your store, you need to create the shipping codes that will later be assigned to each product. A **shipping code** is a name or number that identifies a particular set of shipping details, such as a shipping carrier, the effective dates that the carrier's services are offered, and how shipping costs are calculated (for example, by weight or by unit). For each code, you can select the desired combination of these details. By associating products with a shipping code, you can change the way those products are shipped by just redefining the code.

To create shipping codes, do the following:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Shipping Services** and then **Product Codes**. The Product Shipping Codes form appears.
2. From the **Supported Product Shipping Code** drop-down list, select **Add New Code**.
3. In the **Product Shipping Code** field, enter a name for the code you are creating.
4. Select a calculation method from the drop-down list provided. For a summary of the calculation methods, refer to Table 3 on page 99.

Notes:

- a. If you select calculation by weight, and there is no weight specified for the product on the Product/Item Information form, then no shipping cost will be charged to the customer.
 - b. Weight must be expressed in the same units for all products that use the same shipping codes, for shipping charges to be calculated correctly
5. In the **Shipping Code Description** field, enter a brief description, if desired.

6. Click **Save** when complete.

Ensure that a confirmation message appears in the display area. The code appears in the **Supported Product Shipping Code** drop-down list.

Table 3. Summary of the calculation methods for shipping charges

Type	Description
Quantity/Cumulative/Total	Cost calculated for total quantity of items within each specified range. For example, \$1.00 for 1 to 5 books, \$2.00 for 6 to 10 books. A shipment of 7 books will cost \$3.00 (\$1.00 + \$2.00).
Quantity/Cumulative/Unit	Cost for each item, calculated for each specified range. For example, \$1.00 per book for 1 to 5 books, and \$2.00 per book for 6 to 10 books. A shipment of 7 books will cost \$9.00 (\$1.00 x 5 + \$2.00 x 2).
Quantity/Range/Total	Cost for total quantity of items, falling within a specified range. For example, \$1.00 for 1 to 5 books, and \$2.00 for 6 to 10 books. A shipment of 7 books will cost \$2.00.
Quantity/Range/Unit	Cost for each item, based on total quantity falling within a specified range. For example, \$1.00 for 1 to 5 books, and \$2.00 for 6 to 10 books. A shipment of 7 books will cost \$14.00 (7 x \$2.00).
Weight/Cumulative/Total	Cost for total weight of shipment, calculated for each specified range. For example, \$1.00 for 1 to 5 kg, \$2.00 for 6 to 10 kg. A shipment weighing 7 kg will cost \$3.00 (\$1.00 + \$2.00).
Weight/Cumulative/Unit	Cost for each unit of weight, calculated for each specified range. For example, \$1.00 per kg for 1 to 5 kg, and \$2.00 per kg for 6 to 10 kg. A shipment weighing 7 kg will cost \$9.00 (\$1.00 x 5 + \$2.00 x 2).
Weight/Range/Total	Cost for total weight of shipment, falling within a specified range. For example, \$1.00 for 1 to 5 kg, and \$2.00 for 6 to 10 kg. A shipment weighing 7 kg will cost \$2.00.
Weight/Range/Unit	Cost for each unit of weight, based on total weight within a specified range. For example, \$1.00 for 1 to 5 kg, and \$2.00 for 6 to 10 kg. A shipment weighing 7 kg will cost \$14.00 (7 x \$2.00).

Define Shipping Code Details

After you have assigned a name and calculation method to shipping codes, complete the following steps to specify which shipping mode will be used to ship all products linked to that code, and ranges for the calculation method. You can enter more than one shipping mode for a shipping code.

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Shipping Services** and then **Shipping Details**. The Shipping Details form appears.
2. From the **Product Shipping Code** drop-down list, select the shipping code.
3. From the **Shipping Mode** drop-down list, select the carrier and mode.
4. In the **Range: minimum** and **Range: maximum** fields, enter minimum and maximum ranges (of units or weight) for the shipping calculation.



For example, if you want the cost to be applied for shipments of 0 to 5 items, enter 0 and 6 in these fields. The higher number in a range is not included in the range (the lower number is included). For example, a range of "1 to 5 items" includes 1, 2, 3, and 4, and a range of "5 to 10 items" includes 5, 6, 7, 8, and 9.

This is particularly useful when specifying weight ranges. For example, weight ranges of "0 to 5 kg," and "5 to 10 kg," would place a shipment weighing 4.999 kg in the first range, and one weighing 5.0 kg in the second range.

5. In the **Charge (Total Cost)** field, enter the shipping charge for either the total cost or the unit cost, whichever applies.
Be sure to enter information in the field for the same shipping calculation method, either total cost or unit cost, that you selected for this code on the Product Shipping Code form. The calculation method appears beside the code name.
6. In the **Start Date** and **End Date** fields, enter start and end dates for the specified link to be valid, if desired.
7. In the **Country** field, enter the country that the carrier services.
8. In the **Jurisdiction** field, specify the jurisdiction (if applicable) for the shipping service.
9. Click **Create** when complete. The shipping details record is now added to the database.

Creating Product Categories

Online product categories correspond to departments in an actual store. They make navigating through an online store intuitive for shoppers, as they simulate a real shopping trip. With properly structured categories, shoppers can easily browse through an electronic store, and find the product or department they are looking for within a few clicks of the mouse. Product categories provide an effective structure for your product line, and lay out pathways for your shoppers to surf through your online store, starting at the home page, and ending at a product page.

There are two methods for creating product categories:

- Using the Store Manager forms provided in the Net.Commerce Administrator, to create categories one at a time
- Using the Mass Import utility to enter large amounts of category data in a single session, or to import data from another database

For the purpose of getting familiar with the Store Manager forms, this section will describe how to add product categories using these forms. This method is suitable if you are entering a smaller number of product categories, or you are maintaining (updating and deleting) the product categories that have already been entered.

For more information on using the Mass Import utility, refer to the Net.Commerce online help.

To create product categories using the Store Manager forms, do the following:

1. Enable the caching feature on your browser. If you encounter an error when you create product categories, check your browser's cache.
2. Open Net.Commerce Administrator, by doing the following:
 - a. Open your browser and type the following URL:
`http://host_name/ncadmin`

 If you are using Domino Web Server, you must enter:
`http://host_name/ncadmin/login`
 - b. When the Net.Commerce Administrator Logon screen appears, enter the user ID and password and click **Logon**. The default user ID and password is ncadmin. The Net.Commerce Administrator home page appears.
3. On the task bar, click **Store Manager** and then **Product Categories**.
4. From the **Select Store** drop-down list, select a store name.
 Any existing categories that have been created for the store will appear below the store name. As you create your categories, the category reference number appears in brackets beside the category name on the tree.
 You will use this number later to assign products to categories. You do not need to write the numbers down since you can display them again when you enter product information.
5. Choose one of the following:
 - To add your first categories beneath the root, click the store's name. Your selection will appear in italics.
 - To add a child category, click the parent category under which it should appear. Your selection will appear in italics.

6. From the action bar on the bottom, click **Add**. The Add New Category form appears.
7. In the **Name** field, enter the name of the category you want to add.
8. From the **Publish** drop-down list, select either **Yes** to display the category when your online store opens or **No** to delay its inclusion.
9. In the **Sequence Number** field, enter a number to indicate this category's position on the page (in relation to the other categories of the same level in the tree).

For example, enter 1 to position this category first on the page, enter 2 to position it second, and so forth.
10. Enter descriptions in the fields provided.
11. To include thumbnail and full-sized images for this category, enter the file names in the **Thumbnail Image** and **Full-sized Image** fields.

If the image is stored on your Web server, enter its path and file name. Make sure your image files are stored in an appropriate directory that your Web server has been configured to access. Otherwise, enter its URL.
12. If you make an error, you can type directly over the field, or click **Clear** to clear the fields and start over. When you are done, click **Save**. The category appears in the display area, in the specified location.
13. Repeat these steps to add all the categories in your category tree.

Notes:

1. You cannot add items or products to your category tree. Products are linked to categories, and items are linked to products, in the Product/Item Information form.

Entering Product Information

There are two ways to enter information about a store's products:

- Using the Store Manager forms provided in Net.Commerce Administrator to define products one at a time
- Using the Mass Import utility to enter large amounts of product data in a single session or to import data from another database

For the purpose of getting familiar with the Store Manager forms, this section will describe how to enter product information using these forms. This method is suitable if you are entering a smaller number of product categories, or you are maintaining (updating and deleting) the product categories that have already been entered.

For more information on using the Mass Import Utility, refer to the Net.Commerce online help.

Entering product information into the database involves the following tasks:

1. “Entering Basic Product Information”
2. “Specifying Prices for Products” on page 104
3. “Entering Product Attributes” on page 105
4. “Entering Items and Attributes” on page 107

Entering Basic Product Information

For each product in your store, follow these steps to enter high-level information about the product including a name and number, parent category, shipping code, and also the weight (if the shipping code assigned to the product calculates shipping prices based upon weight).

To enter basic product information, do the following:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Product Information**. The Product/Item Information form appears.
2. From the **Select Store** drop-down list, select the store for which you want to add products.
3. From the **Input For** drop-down list, select **Product**. This indicates that you are entering information for a product, as opposed to information for an item.
4. In the **Product Number or Item SKU** field, enter the product number. Product numbers and item SKUs are case-sensitive in Net.Commerce. For example, product number BR-77-T is not the same as product number BR-77-t.
5. Leave the **Product/Item Reference Number** field blank. Once you create and save the product in the database, the system will assign a number to the product and fill this field.
6. Click **Select Parent**. The Product Categories window appears. Record the number that is assigned to the parent category for this product from the category tree. Close the window.
7. In the **Parent Reference Number** field, enter the reference number of the parent category.
8. From the **Publish** drop-down list, select either **Yes** to display this product in your store as soon as the information is entered or **No** to wait until later.
9. In the **Thumbnail Image** and **Full-sized Image** fields, enter the path and file name of your thumbnail and full-sized image files (if available).

If the image is stored on your Web server, enter its path and file name. Make sure you have stored your image files in an appropriate directory that your Web server has been configured to access. Otherwise, enter its URL.

10. From the Product Shipping Code drop-down list, select the shipping code.
11. If you are using Taxware International to calculate taxes, enter the number of the tax code that calculates the tax for this product in the **Tax Code** field. To see a list of available tax codes, click the **Tax Code List** button. A list will appear at the bottom of the frame. Click a code in this list to place the code number in the **Tax Code** field.
12. Enter information in the other fields, if appropriate. If you want to express inches in the **Unit of Measure** field, type in. Do not use double quotes (").
13. If you make a mistake, you can type directly over the incorrect information, or click **Clear** to clear the fields and start over. When you are satisfied that the product information is accurate and complete, click **Save** to save the information before continuing to the next form.

Specifying Prices for Products

To specify prices for your products and items, do the following:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Product Information**. The Product/Item Information form appears.
2. Display the product for which you want to specify a price, by doing the following:
 - a. From the **Select Store** drop-down list, select the store for which you want to display product information.
 - b. To select the product for which you want to specify the price, do one of the following:
 - If you know the product number or item SKU, enter it in the **Product Number or Item SKU** field. Click **Update Form**. The form fills with information about the product.
 - If you do not know the product number or item SKU, enter product information in one or more fields. From the **Input For** drop-down list, select **Product**. Click **Search**.
A list of all the products or items that satisfy your search criteria will appear at the bottom of the screen. To fill the fields of the form with information about one of the products or items, click that product or item in the list.
3. On the task bar, click **Prices** to display the Price Information form.
To enter the regular price

- a. Enter the regular price and currency of the item in the appropriate fields.
- b. In the **Precedence** field, enter a low number (such as 1).
- c. To offer this price to all shoppers, select **None** from the Shopper Group drop-down list. You may leave the other fields blank.
- d. Click **Save**.

To enter a sale price for all shoppers

- a. Enter the price and currency in the appropriate fields.
- b. In the **Precedence** field, enter a number that is higher than the one you entered for the regular price (such as 2).
A higher number indicates that this price takes precedence over the regular price during the period that you will specify. Note that you can use floating decimal points, so that you can define the precedence of a new price in any position relative to existing prices. For example, you can enter 1.5 to give a price higher precedence than a price with a value of 1 and lower precedence than a price with a value of 2.
- c. From the Shopper Group drop-down list, select **None**.
- d. Enter the start and end dates that the sale price will be in effect.
- e. Click **Save**.

To enter a reduced price for a shopper group

- a. Enter the price and currency in the appropriate fields.
- b. In the **Precedence** field, enter a number that is higher than the previous values (such as 3) to give this price precedence over both the regular price and the sale price.
If you want the sale price to take precedence over the shopper group price, enter a number between the values for those two prices (such as 1.5).
- c. Select the shopper group to which this price applies, from the drop-down list.
- d. Enter the start and end dates that the shopper group price will be in effect.
- e. Click **Save**.

Entering Product Attributes

You can use the Product Attributes form to assign key descriptive terms (attributes) that can be used in product searches and for other data management purposes.

For example, a clothing distributor may find it useful to create an attribute type of "fabric," and then assign values such as "denim," "wool," and so forth to the various products in inventory. You can then search the database for all

products made of denim (on the Product Attributes form), to determine the inventory levels of this line of merchandise. This task involves assigning attribute values at the product level. For this application, product attributes can be considered an enhanced method of describing products that allows for more sophisticated data management.

To define attribute for your products, do the following:

1. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Product Information**. The Product/Item Information form appears.
2. Display the product for which you want to specify a price, by doing the following:
 - a. From the **Select Store** drop-down list, select the store for which you want to display product information.
 - b. To select the product for which you want to specify the price, do one of the following:
 - If you know the product number or item SKU, enter it in the **Product Number or Item SKU** field. Click **Update Form**. The form fills with information about the product.
 - If you do not know the product number or item SKU, enter product information in one or more fields. From the **Input For** drop-down list, select **Product**. Click **Search**.
A list of all the products or items that satisfy your search criteria will appear at the bottom of the screen. To fill the fields of the form with information about one of the products or items, click that product or item in the list.
3. Click **Attributes** to display the Product Attributes form.
4. Enter the name of the first attribute type in the field provided (such as size) under **Create/Remove Attribute**.
5. Click **Create**.
6. Repeat steps 3 and 4 for all the attributes for this product.
7. To assign an attribute value, under **Define Attribute**, select the first attribute type from the drop-down list (such as material).

Note: Be sure to select only the attribute for which you want to specify a value at the *product* level. Attribute values for items must be selected on the Item Attributes form.
8. Enter the attribute value for the product (such as denim or wool) in the **Attribute Value** field.
9. Click **Update**.
10. Repeat steps 7 and 8 for each attribute type for this product.

11. To define the attributes of all the other products under the same parent product without exiting the form, enter the product number in the field provided, click **Update Form**, and repeat these steps.
Attribute types are retained in the drop-down list until you exit this form and select a new parent product.

You have now created a product attribute. Now you can enter items and item attributes.

Entering Items and Attributes

An **item** is a product with specific set of attributes. For example, if a hammer is available with either a wood or a plastic handle, then both these formats are items of the hammer. Similarly, a particular size and color of a label of denim jeans is an item of that label. Each item has a unique SKU for stockkeeping purposes.

Item attributes are the corresponding attribute values assigned to the product's items. The item attributes for the pants could be blue, waist 36, length 38, and so forth. Shoppers select specific item attributes when they make online purchases. You must therefore create item attributes to allow them to make these selections.

To define the items and their attributes for each product, do the following:

1. Ensure that you have previously entered product attributes.
2. From the Net.Commerce Administrator task bar, click **Store Manager**, then **Product Information**. The Product/Item Information form appears.
3. Display the product for which you want to enter items and attributes, by doing the following:
 - a. From the **Select Store** drop-down list, select the store for which you want to display product information.
 - b. To select the product for which you want to specify the price, do one of the following:
 - If you know the product number or item SKU, enter it in the **Product Number or Item SKU** field. Click **Update Form**. The form fills with information about the product.
 - If you do not know the product number or item SKU, enter product information in one or more fields. From the **Input For** drop-down list, select **Product**. Click **Search**.
A list of all the products or items that satisfy your search criteria will appear at the bottom of the screen. To fill the fields of the form with information about one of the products or items, click that product or item in the list.
4. Check the fields and make any required changes for the item.

5. From the **Input For** drop-down list, select **Item**.
6. In the **Product Number or Item SKU** field, change the product number to the item SKU.

Note: Item SKUs are case-sensitive in Net.Commerce. For example, BR-77-T-01 is not the same as product number BR-77-t-01.

7. Clear the **Product/Item Reference Number** field. A new number will automatically be generated for this field after you create the item.
8. Click **Select Parent**. In the window that is displayed, note the number of the product that is the parent to the item. Close the window.
9. Enter the number in the **Parent Reference Number** field.
10. Click **Save**.
11. Click **Attributes** to display the Item Attributes form.
12. Under **Define Attribute**, select the first attribute type from the drop-down list (such as size). These are the attribute types you created on the Product Attributes form.
13. Enter the attribute value for the item (such as blue for color, or small for size) in the **Attribute Value** field.
14. Click **Update**.
15. Repeat the above steps for each attribute type for this item.
16. To define the attribute values of all the other items of this product without exiting the form, enter the SKU for each item in the field provided, click **Update Form**, and repeat steps 11 to 14.
Attribute types are retained in the drop-down list until you exit this form and select a new parent product.

Part 4. Migrating to Net.Commerce 3.2

This part describes how to migrate from a previous version of Net.Commerce 3 to Net.Commerce 3.2.

“Chapter 16. Guidance for Migrating to Net.Commerce 3.2” on page 111 provides helpful information for a Net.Commerce 3.2 migration.

“Chapter 17. Migrating from Net.Commerce 3 to Net.Commerce 3.2” on page 119 provides migration instructions for migrating from a previous version of Net.Commerce 3 to Net.Commerce 3.2.

Note: The information in this part applies only if you are migrating from a previous version of Net.Commerce 3 to Net.Commerce 3.2. If you are migrating from Net.Commerce 2, please refer to the **Downloads** link on the Net.Commerce Web site at the following URL:

<http://www.ibm.com/net.commerce>

Chapter 16. Guidance for Migrating to Net.Commerce 3.2

This chapter provides guidance on how to migrate from a previous version of Net.Commerce to Net.Commerce 3.2. It is recommended that you read this information prior to migration. This chapter contains high level helpful hints and tips for migration.

Migration from any of the following versions of Net.Commerce is supported:

- Net.Commerce 3.1
- Net.Commerce 3.1.1
- Net.Commerce 3.1.2
- Net.Commerce 3.1.2.2. References to migration from Net.Commerce 3.1.2.2 are for IBM Commerce Integrator customers only, *not* for Net.Commerce Hosting Server customers who may also use Net.Commerce 3.1.2.2.

Migrating From a Previous Version of Net.Commerce 3 to Net.Commerce 3.2

Before you migrate from any previous version of Net.Commerce 3 to Net.Commerce 3.2, it is recommended that you read the following information, which may be useful to your migration process.

Replacing Net.Commerce Files

Installing Net.Commerce 3.2 replaces all Net.Commerce files. You *cannot* revert to your previously installed version of Net.Commerce. It is strongly recommended that prior to installing Net.Commerce 3.2, you perform a complete system backup, including backing up any customized files, macros, and directories for Net.Commerce and its associated components (DB2, Domino Go Webserver, eTill/Payment Server, and Oracle, Domino Web Server, Netscape Enterprise Server, as applicable).

Backing up Net.Commerce Databases

Ensure that you back up your Net.Commerce databases. If you encounter difficulties migrating your databases to the Net.Commerce 3.2 level, you will have to restore your databases and manually run the database migration script, v32migrate. For 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*. For instructions on how to back up an Oracle database, refer to your Oracle documentation.

Replacing Existing Software for Migration

When you migrate from an existing version of Net.Commerce, several software components are upgraded for Net.Commerce 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`, `servlet.cnf` and `admin.pwd`.

eTill or Payment Server

eTill 1.0 is not supported for Net.Commerce 3.2. If you currently have eTill 1.0, the installation process will uninstall it and install Payment Server 1.2.20.0. Existing Net.Commerce customers who are using eTill 1.0 *must* read the pre-migration note for Payment Server (described in “Pre-Migration Steps” on page 119) before upgrading eTill 1.0 to Payment Server 1.2.20.0. Once you install Payment Server 1.2.20.0, you *cannot* revert to eTill 1.0.

If you are performing a typical installation, Payment Server 1.2.20.0 will be automatically installed even if eTill 1.0 is not installed. In the case of a custom installation, if you do not have eTill 1.0 installed, Payment Server 1.2.20.0 will not be selected by default. If you want to install Payment Server 1.2.20.0, you must either select it from the drop-down menu on the Component Selection panel during the Net.Commerce 3.2 installation process, or run `\payment_server\setup.exe` from the Net.Commerce 3.2 CD, at a later time. .

Writing Commands and Overridable Functions

If you add commands for use with Net.Commerce 3.2, you must re-compile your commands. Also, if you write overridable functions for use with Net.Commerce 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 4.2.

See *Standards for Writing Overridable Functions* in the Net.Commerce on-line help for more information on writing overridable functions.

Net.Data Macros

In the Net.Commerce system, a Net.Data macro is a file that retrieves data from the Net.Commerce database and displays it as a formatted Web page. It contains functions that usually execute SQL queries, HTML tags (which can

also contain JavaScript code), and Net.Data statements. The SQL statements search for and retrieve information from the Net.Commerce database, the HTML defines the layout of the search results, and the Net.Data statements control the flow of the output.

Net.Commerce 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 Net.Commerce on-line help for more information about the DTW_VARIABLE_SCOPE=GLOBAL parameter.

Modifying Database Schema Migration Scripts for Custom Table Spaces

By default, the database migration scripts drop and recreate some database tables based on the standard Net.Commerce 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`
For Oracle:
`drive:\Ibm\NetCommerce3\nc_schema\oracle\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.

Minimizing Downtime During Migration

As part of the migration process, you must take your business off-line (shut down your site) for the duration of the migration. To minimize the amount of downtime during migration, you can separate the migration process into two major steps: first, migrate the non-volatile database tables, and second, migrate the volatile tables. This two-step process requires that you use two database servers: a staging server to store a backed up version of the data, and a production server that contains all live information.

The following are high level instructions on how to perform a phased migration. The instructions are meant to provide guidance for this type of migration. If you intend to perform a phased migration, it is recommended that you contact your system administrator for assistance.

Pre-Migration Step

1. Separate your non-volatile database tables from your volatile tables. Non-volatile tables contain information that shoppers cannot alter during the shopping flow. The following are examples of non-volatile information:
 - Catalog
 - Product
 - Discounts
 - Shopper groups
 - Merchant

Volatile tables contain information that can be easily changed by shoppers when they shop or place orders. The following are examples of volatile information:

- Shopper
- Demographics
- Order
- Payment
- Shipping
- Shopping cart

First Phase of Migration: Staging Server

2. Back up the database on the production server and restore it on the staging server.

Note: Once you back up the database on the production server, do not change any information in the non-volatile tables on the production server until you complete the migration. Otherwise, any new information within these tables will not be retained.

3. From the staging server, switch to the directory which contains the database migration scripts. The location will depend on which database you are using, as follows:

For DB2:

`drive:\Ibm\NetCommerce3\nc_schema\db2\migrate`

For Oracle:

`drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate`

4. From the staging server, run the migration scripts. To migrate from Net.Commerce 3 to Net.Commerce 3.2, run `v32migrate` as described in “Migrating Your Database Schema” on page 129.
5. Remove any foreign key constraints or triggers on the volatile tables.
6. On the staging database, delete all rows from the volatile tables.

Second Phase of Migration: Production Server

7. On the production database, stop all shopper activity.
8. From the production database, export all rows from the volatile tables.

Note: At this point, you should compare the database tables before and after migration. If any column data-types have changed, you may need to modify the migration scripts accordingly.

9. Import all volatile tables to the staging database.
10. Recreate the foreign keys and triggers on the volatile tables.
11. The staging database is now the migrated database. You can reopen your site for business by backing up the staging database and restoring it on the production database server.

Migrating a Remote Database Configuration

If you are migrating databases that are on separate machines from your Net.Commerce machine, you can follow the high-level steps presented here. You should read through the steps carefully, including the steps in other sections that are referred to here, and plan your migration before you begin.

To migrate a remote configuration, perform the following high-level steps:

1. Disable the connections between your database machines and your Net.Commerce machine.

2. Migrate your Net.Commerce machine. You can use the instructions in “Chapter 17. Migrating from Net.Commerce 3 to Net.Commerce 3.2” on page 119 for guidance on performing this step (omitting the steps that pertain to your databases).

Note: If you are running only DB2 Client Application Enabler on any machine in a remote configuration, it is your responsibility to obtain a compatible version and migrate it. A version may be available on the DB2 Universal Database 6.1 CD.

3. With the connections between your Net.Commerce machine and your database machines still disabled, perform pre-migration of your databases on your database machines.
4. On each of your database machines, migrate from your current version of DB2 Universal Database to DB2 Universal Database 6.1.
5. Enable the connections between your Net.Commerce machine and your database machines.
6. Migrate the database schema by issuing the appropriate commands on the server machine.

If you are using DB2 and you have a remote database, you must manually migrate your remote database, by doing the following:

- a. Ensure that you are logged in as your database logon ID.
- b. In a DB2 command window, switch to the following directory:

drive:\Ibm\NetCommerce3\nc_schema\db2\migrate

- c. Run the following command:

v32migrate.cmd rdb_name rdbuser_ID password [logfile]

where the variables are defined as follows:

rdb_name

The name of the remote database.

rdbuser_ID

The database instance ID.

password

The password for the database instance ID you specified

logfile

The path and file name for the log file. By default, this path is *drive:\Ibm\NetCommerce3\nc_schema\db2\migrate*. This parameter is optional.

If you have more than one database, repeat the command for each database.

If you are using Oracle and you have a remote database, you must manually migrate your remote database, by doing the following:

- a. Ensure that you are logged in as your database logon ID.
- b. In a command window, switch to the following directory:
`drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate`
- c. Migrate the Net.Commerce 3 database schema to the Net.Commerce 3.2 schema by typing the following command, all on one line:
`v32migrate.cmd rdb_name rdbuser_ID rdb_password service_name
V31 | V312 | V3122 [logfile]`

where the variables are defined as follows:

rdb_name

The name of the remote database.

rdbuser_ID

The database instance ID.

password

The password for the database instance ID you specified

service_name

The Oracle service name.

V31 | V312 | V3122

Type V31 if you are migrating from Net.Commerce 3.1 or 3.1.1.

Type V312 if you are migrating from Net.Commerce 3.1.2. Type

V3122 if you are migrating from Net.Commerce 3.1.2.2.

logfile The path and file name for the log file. By default, this path is
`drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate` and is
called `migv32_db_user.log`. This parameter is optional.

If you have more than one database, repeat the command for each database.

- d. Perform the post migration steps outlined in “Post-Migration Procedures” on page 131.

Chapter 17. Migrating from Net.Commerce 3 to Net.Commerce 3.2

This chapter describes how to migrate from a previous version of Net.Commerce 3 to Net.Commerce 3.2 START or PRO. Do *not* follow the instructions in this chapter if you are migrating from Net.Commerce 2. For information about migrating from Net.Commerce 2, please refer to the **Downloads** link on the Net.Commerce Web site at the following URL:

<http://www.ibm.com/net.commerce>

To complete the steps in this chapter, you must have the following CDs:

- Your database management system. The DB2 Universal Database 6.1 CD is provided in the Net.Commerce 3.2 product box.
- Your Web server. The Domino Go Webserver 4.6.2.61 CD is provided in the Net.Commerce 3.2 product box.
- Net.Data 6.1, provided in the Net.Commerce 3.2 product box.
- WebSphere Application Server 2.02, provided in the Net.Commerce 3.2 product box. (Net.Commerce PRO only.)
- Net.Commerce 3.2, provided in the Net.Commerce 3.2 product box.

Migration from any of the following versions of Net.Commerce is supported:

- Net.Commerce 3.1
- Net.Commerce 3.1.1
- Net.Commerce 3.1.2
- Net.Commerce 3.1.2.2. References to migration from Net.Commerce 3.1.2.2 is for IBM Commerce Integrator customers only, *not* for Net.Commerce Hosting Server customers who may also use Net.Commerce 3.1.2.2.

Pre-Migration Steps

Before you begin your migration, note the following:

- Installing Net.Commerce 3.2 replaces all Net.Commerce files. You *cannot* revert to your previously installed version of Net.Commerce. It is strongly recommended that prior to installing Net.Commerce 3.2, you perform a complete system backup, including backing up any customized files, macros, and directories for Net.Commerce and its associated components, including your database, your Web server, eTill/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.
- If you are using eTill 1.0, note the following:
 1. If you currently have eTill 1.0, you must uninstall it before you install Payment Server 1.2.20.0. Once you install Payment Server 1.2.20.0, you *cannot* revert to eTill 1.0.
 2. If you do not have eTill 1.0 installed, you can select Payment Server 1.2.20.0 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 Net.Commerce 3.2 CD.
 3. The Net.Commerce migration utility calls the payment server's database migration utility automatically. eTill 1.0 database tables in the Net.Commerce database will be recreated as Payment Server 1.2.20.0 tables, with the data migrated to the new database tables. Before installing Net.Commerce 3.2 and Payment Server, from the **Services** window in the Control Panel, stop the Net.Commerce service. Next, ensure configuration data about acquirers, brands, and merchants that was used to create all version 1.0 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 eTill 1.0, refer to your *IBM Payment Server Administrator's Guide*.

Overview of the Migration Procedures

Migrating from a previous version of Net.Commerce 3 to Net.Commerce 3.2 requires several steps. Specific instructions are described later in this chapter; however, the following list outlines the high level steps required for migration:

- 1. If you are using Oracle, migrate it as necessary.

- ___ 2. If you are using Netscape Enterprise Server or Domino Web Server, upgrade it as necessary.
- ___ 3. Prepare to migrate to DB2 Universal Database 6.1.
- ___ 4. Install Netscape Communicator 4.61.
- ___ 5. Stop any active Net.Commerce instances, Web servers, databases, and payment servers according to the instructions in “Appendix A. Starting and Stopping Net.Commerce Components” on page 137. Also, if you are using Product Advisor, stop JDBC Applet Server in the NT Services Manager, and set its startup type to **Manual**. Reboot your machine before you begin to install Net.Commerce 3.2.
- ___ 6. Install Net.Commerce 3.2 and follow the onscreen installation instructions which will lead you through the process of installing DB2 Universal Database 6.1, Net.Data 6.1, Domino Go Webserver 4.6.2.61, JDK 1.1.7 and WebSphere Application Server 2.02, Payment Server 1.2.20.0, and Net.Commerce 3.2, as applicable.
- ___ 7. Migrate your DB2 database.
- ___ 8. Migrate your configuration files.
- ___ 9. Migrate your database schema.
- ___ 10. Perform the post-migration instructions.

Migrating Oracle

If you are using Oracle with Net.Commerce 3.2, do the following:

1. Migrate your Oracle DBMS, the database, and the data, to Oracle 8.0.4 or Oracle 8.0.5, if necessary. To perform the migration, follow the documentation provided by Oracle. You may need to use the MIG-80 or export-import method to migrate the database manually.
2. Uninstall your Intersolv Driver 3.0.1 and upgrade to the latest ODBC driver (for example, use Intersolv Driver 3.2 or Merant Driver 3.5). To configure it, do the following:
 - Copy the .odbc.ini and .odbc.sh files to the directory where the ODBC driver is installed (for example, /opt/odbc).
 - Edit the .odbc.ini file as follows:

Note: This example shows Oracle 8.0.4 in some places. Also, the SID is shown as o804. If you are using Oracle 8.0.5, these should be changed accordingly.

```
[ODBC Data Source]
oracle8_SID=IBM Net.Commerce3

[oracle8_SID]
Driver=/opt/odbc/lib/ODBC_driver_file
```

```
Description=Using Oracle 8.0.4
ServerName=oracle8_SID
LogonID=
Password=
```

where *oracle8_SID* is your Oracle instance name and *ODBC_driver_file* is the name of the ODBC driver file (for example, IBo813.so for InterSolv Driver 3.2 and iBo814.so for Merant Driver 3.5).

- Edit the .profile file as follows:

```
PATH=/usr/bin:/etc:/usr/sbin:/usr/ucb:$HOME/bin:/usr/bin/X11:
    /sbin:.$ORACLE_HOME/bin
export PATH

export ODBCHOME=/opt/odbc
export ODBCINI=$ODBCHOME/odbc.ini

export ORACLE_BASE=/oracle8/u01/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/8.0.4
export LIBPATH=/usr/lib:$ORACLE_HOME/lib:$ODBCHOME/lib
export ORACLE_SID=o804
export ORACLE_TERM=Oracle_terminal
export PATH=$PATH:$ORACLE_HOME/bin:/bin:/usr/ccs/bin
export TMPDIR=/tmp
export TNS_ADMIN=$ORACLE_HOME/network/admin
export ORAENV_ASK=NO
export LD_LIBRARY_PATH=$ODBCHOME/lib:$ORACLE_HOME/lib:/usr/ucblib

if [ -s "$MAIL" ]          # This is at Shell startup. In normal
then echo "$MAILMSG"      # operation, the Shell checks
fi                        # periodically.
```

```
. /ODBC_directory/.odbc.sh
```

where *Oracle_terminal* is the name of the Oracle terminal (for example, hft) and *ODBC_directory* is the directory where the ODBC driver is installed (for example, /opt/odbc).

3. Copy the /odbc/.odbc.ini file to *Oracle_user_home/.odbc*, where *Oracle_user_home* is the home directory for the Oracle user ID (for example, /export/home/oracle8)

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 following files, which are located in the document root (for example, *drive:\netscape\suitespot\docs*):
 - db2www.ini
 - srvrctrl.conf
 - ncommerce.conf
 - pay_back.conf
 - pay_etill.conf
 - pay_cyber.conf
 - scheduler.conf
 - Any other customized Net.Commerce 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 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 3.61.
6. If the *drive:\netscape* directory exists, remove it.

Installing Netscape Enterprise Server 3.61

Once you have uninstalled your existing version of Netscape Enterprise Server, install Netscape Enterprise Server 3.61 by following your Netscape documentation. When you have installed Netscape Enterprise Server 3.61, do the following:

1. Activate SSL, according to Netscape's instructions
2. Restore the configuration files and any customized directories and files, which you backed up in step 1.
3. Ensure that the server and document root directories are the same as your previous version of Net.Commerce 3.
4. Ensure that the server certificate has been migrated successfully. Depending on your certificate authority, you may need to install a new certificate.

Upgrading Domino Web Server

If you are using Domino Web Server, upgrade to Domino Web Server 5, following the documentation provided by Lotus.

Preparing to Migrate DB2

If you are using DB2 Universal Database with Net.Commerce 3.2, 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. If you are using DB2 Universal Database 5.2, you do not have to upgrade it.

Note: Before you upgrade to DB2 Universal Database 6.1, ensure you stop the Net.Commerce instance and server.

When you have installed Net.Commerce 3.2, you can continue to migrate the DB2 database, as described in “Migrating the DB2 Database” on page 128.

DB2 Pre-Migration Steps

To ensure that all databases on your system can be migrated to DB2 Universal Database 6.1, do the following:

1. Complete all database transactions.
2. 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
```

3. Ensure that all applications are stopped by reissuing the following command:
4. 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 applications
```

```
db2 list database directory
```

Note: The db2ckmig database migration verification command does not verify uncataloged databases.

5. 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.

6. Stop the database manager by typing the following command:

```
db2stop
```

Preparing the DB2 Instance for Migration

Before you migrate a DB2 instance, all applications using any databases owned by the instance must be completed. To prepare the DB2 instance for migration, do the following:

1. Log on as your database logon ID.

2. Type the following command:

```
db2start
```

3. Stop the DB2 license daemon by typing the following command:

```
db2licm end
```

4. Stop all command line processor sessions by typing the following command against each session that is running:

```
db2 terminate
```

5. Exit your DB2 instance. Repeat the above steps for each DB2 instance.

Verifying that the Database Can Be Migrated

To ensure that your DB2 database can be migrated to the DB2 Universal Database 6.1 format, do the following:

1. Insert the DB2 Universal Database 6.1 CD into your CD-ROM drive.
2. Next, in a DOS window, switch to the *drive:\db2\common* directory.
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
```

where 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.

Installing Netscape Communicator 4.61

To access Net.Commerce Administrator and Configuration Manager, you require Netscape Communicator 4.61. To install Netscape Communicator 4.61, do the following:

1. Insert the Net.Commerce 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.

Stop Active Services

Stop any active Net.Commerce instances, Web servers, databases, and payment servers according to the instructions in “Appendix A. Starting and Stopping Net.Commerce Components” on page 137. You should also open the Windows Task Manager to confirm that no processes associated with Net.Commerce, your database, or your Web server are running.

Notes:

1. If you are using Domino Web Server (*not* Domino Go Webserver), ensure that the Web server is stopped. If it is not, the installation program will not be able to run.
2. If you are using Product Advisor, stop the JDBC Applet Server in the NT Services Manager, and set its startup type to **Manual**. Reboot your machine before you begin to install Net.Commerce 3.2.

Installing Net.Commerce 3.2

To install Net.Commerce 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 URLs” on page ix.
2. If you are using your Windows NT machine as a backup Domain Controller, ensure that DB2 is installed before you install Net.Commerce 3.2.
3. If you are using your NT machine as a backup Domain Controller, you must install DB2 before installing Net.Commerce. Install DB2 Universal

Database 6.1 based on the components listed in “Quick Reference to the Components Installed During a Typical Install” on page xii.

4. 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.
5. Insert the Net.Commerce 3.2 CD into your CD drive.
6. From the root directory of the Net.Commerce 3.2 CD, run setup.exe.
If your system does not meet the pre-installation 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 pre-installation requirements and begin the installation again.
7. A Welcome window appears. Click **Next** to continue.
8. The Install Type window appears. Click **Custom**, and then **Next** to continue.
9. A window appears allowing you to select the components that you want to install. Refer to “A Custom Install” on page 13 for more information.
10. The installation program displays a window to allow you to override the default install path. All Net.Commerce components will be installed in 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.

-
11. On the next window, either accept the default folder name or enter the name of the folder which will be created for Net.Commerce in the Program folder. Click **Next** to continue.
 12. 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. For a list of the components that are installed during a typical install, refer to “Quick Reference to the Components Installed During a Typical Install” on page xii.
 13. If you are upgrading to DB2 Universal Database 6.1, the installation program prompts you to insert the DB2 Universal Database 6.1 CD. Insert the CD. If your system is set up to autorun from the CD-ROM, the installation begins immediately; otherwise, click **OK** to begin the installation.
 14. When DB2 Universal Database 6.1 has been installed, you are prompted to insert the Net.Data 6.1 CD. Insert the CD and click **OK** to continue.

15. When 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.
16. When Domino Go Webserver has been installed, you are prompted to insert one of the following CDs, depending on whether you are installing Net.Commerce START or PRO:
 - If you are installing Net.Commerce START, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Net.Commerce 3.2 and, if you selected to install it, Payment Server 1.2.20.0 are installed.
 - If you are installing Net.Commerce PRO, you are prompted to insert the WebSphere Application Server CD. Insert the CD and click **OK** to continue. After WebSphere Application Server has been installed, you are prompted to insert the Net.Commerce CD. Insert the CD and click **OK** to continue. Net.Commerce 3.2 and, if you selected to install it, Payment Server 1.2.20.0 are installed.
17. After Net.Commerce has been installed, you are prompted to reboot. Click **OK** and reboot the machine.
18. After your system reboots, log on to the same NT user ID that you used to begin the installation.
19. You are prompted to run `db2 migrate` and `v32migrate` to migrate your DB2 databases and the database schema as described in the following sections.

Migrating the DB2 Database

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 all DB2 services are started and have a startup type of Automatic.
3. Open a DB2 command window.
4. Start DB2 by typing the following command:
`dbstart`
5. 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.

6. 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.

7. 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 Net.Commerce database, and *backup_path* is a path that is not used by any Net.Commerce component. If you have more than one database, run `db2start` and repeat the last three commands for *each* database.

Migrating Your Configuration Files

You do not need to perform any manual steps to migrate your Net.Commerce configuration files to the Net.Commerce 3.2 format, other than entering the correct cache values into the `ncommerce.ini` file, using Configuration Manager. If you used Web server caching with the previous level of Net.Commerce, you need to open the `ncommerce.ini` file and change the value of the `CACHE_ENABLED` field to `WS` to avoid performance degradation.

Migrating Your Database Schema

After installing Net.Commerce 3.2, you must migrate your Net.Commerce 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 1.2.20.0.

Migrating a DB2 Database

If you are using DB2 and you have a local or remote database, migrate your database schema by doing the following:

1. In a DB2 command window, switch to the following directory:

```
drive:\Ibm\NetCommerce3\nc_schema\db2\migrate
```

2. Type the following:

```
db2start
```

3. Run the following command:

```
v32migrate.cmd db_name dbuser_ID password [logfile]
```

where the variables are defined as follows:

db_name

The name of the local or remote database.

dbuser_ID

The database instance ID.

password

The password for the database instance ID you specified

logfile

The path and file name for the log file. By default, this path is *drive:\Ibm\NetCommerce3\nc_schema\db2\migrate\db_name.log*. This parameter is optional.

If you have more than one database, repeat the command for each database.

Migrating an Oracle Database

If you are using Oracle, you must manually migrate your database schema, by doing the following:

1. If you are using Payment Server 1.2.20.0, open the *drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate\migrateEtill.cmd* file in a text editor and replace the string <<path of Oracle Thin JDBC driver 8.0.4.0.6 (or above)>> with the path where your JDBC driver is installed.
2. From a command prompt window, switch to the following directory:
drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate
3. Run the following command, all on one line:
v32migrate.cmd db_name dbuser_name password service_name
V31 | V312 | V3122 [logfile]

where the variables are defined as follows:

db_name

The name of the database.

dbuser_name

The database user ID.

password

The password for the database user ID you specified.

V31 | V312 | V3122

Type V31 if you are migrating from Net.Commerce 3.1 or 3.1.1.

Type V312 if you are migrating from Net.Commerce 3.1.2. Type

V3122 if you are migrating from Net.Commerce 3.1.2.2.

instance_name

The Oracle instance name.

logfile

The path and file name for the log file. By default, this path is `drive:\Ibm\NetCommerce3\nc_schema\oracle\migrate\db_name.log`. This parameter is optional.

If you have more than one database, repeat the command for each database.

Post-Migration Procedures

Any time after you have migrated from a previous version of Net.Commerce 3, you can perform the post migration procedures.

Starting the Net.Commerce Instance

To start the Net.Commerce 3.2 and, if you selected to install it, Payment Server 1.2.20.0 are installed, do the following:

1. On your Net.Commerce machine, click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce 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 Net.Commerce 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**.

Enabling SSL with Domino Go Webserver 4.6.2.61

1. If you are using Domino Go Webserver 4.6.2.61, do the following:
 - a. Complete the 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 12. Enabling SSL for Production on Domino Go Webserver” on page 73.
 - Import your existing certificate to Domino Go Webserver for use with Net.Commerce 3.2. For more information, refer to your Domino Go Webserver documentation.
 - Use your existing security ring for testing purposes. This is for testing purposes only and should not be used for your production system. If you need to create a security key ring for testing, follow

the instructions in “Appendix B. Enabling SSL on Domino Go Webserver for Testing” on page 143.

Preparing the Database for the Mass Import Utility

Once you have completed the procedures for migrating from a previous version of Net.Commerce to Net.Commerce 3.2 and wish to use the Net.Commerce 3.2 version of the Mass Import utility, you must complete the following actions:

1. Ensure that the database schema has been migrated, as described in “Migrating Your Database Schema” on page 129 above.
2. Prepare your database by running the popcgnbr program, supplied with Net.Commerce 3.2, as described below.

To use the Mass Import utility for this version of Net.Commerce, 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 Net.Commerce 3.2 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 Net.Commerce 3.2 version of the Mass Import utility, in which case, the popcgnbr may fail. If the program fails, you must manually populate column CGNBR for each category entry.

To properly populate the CGNBR column with a unique value, type one of the following commands, depending on which database you are using:

For DB2, in a DB2 command window, type the following:

```
popcgnbr db_name [db_user] [db_passwd] [logfile]
```

For Oracle, type the following:

```
popcgnbr db_name db_user db_passwd [logfile]
```

where the variables are defined as follows:

db_name

The name of your Net.Commerce database. If you are using a remote database configuration, type the name of the remote database.

db_user

The database user ID.

db_password

The password for the user ID that you specified above.

logfile

The full path and name of the file into which you want the command to write log records as it populates the database. The default is popcgnbr.log in the current directory.

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.

Uninstalling Net.Commerce 3.2 After Migration

Once Net.Commerce 3.2 has been installed, you *cannot* uninstall it and revert back to your previous level of Net.Commerce. You must completely uninstall Net.Commerce and its bundled products by following the procedures in “Uninstalling Net.Commerce” on page 148. You can then restore your previous level of Net.Commerce using the backups you performed prior to installing Net.Commerce 3.2.

If you did not perform a complete system backup prior to installing Net.Commerce 3.2, you must completely uninstall Net.Commerce and its bundled products as described in “Appendix C. Uninstalling Net.Commerce Components” on page 147 and follow the installation instructions for new customers as described in “Chapter 2. Installing Net.Commerce” on page 9.

Part 5. Appendixes

Appendix A. Starting and Stopping Net.Commerce Components

This appendix explains how to start and stop each product that is provided as part of the Net.Commerce package, and the optional Web server, Domino Web Server. Use this information if you need to restart any component.

Starting and Stopping Net.Commerce

To start Net.Commerce, 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 139. 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 Net.Commerce instance that you wish to start, do the following:
 - a. From the **Service** list, select **Net.Commerce – 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 Net.Commerce, 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 Net.Commerce instance that you wish to stop, do the following:
 - a. From the **Service** list, select **Net.Commerce – 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 Net.Commerce 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**.

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. 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**.

If you are running WebSphere Application Server with Lotus Domino Go Webserver, WebSphere Application Server stops automatically when you shut down your Web server.

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. 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**.

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**.

To stop DB2, do the following:

1. Stop Net.Commerce according to the instructions in “Starting and Stopping Net.Commerce” on page 137.
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**.

Starting and Stopping Payment Server

By default, if Net.Commerce and Payment Server 1.2.20.0 are installed on the same machine, Payment Server starts automatically when you start Net.Commerce, and it stops automatically when you stop Net.Commerce. If Payment Server and Net.Commerce are installed on separate machines, Payment Server does not start automatically when you start Net.Commerce, but it does stop automatically when Net.Commerce 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 Net.Commerce 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 Net.Commerce. (If you installed Net.Commerce using the typical install, the *db_password* is set initially to the password you entered on the configuration window.)

If you have installed Payment Server on a separate machine from Net.Commerce, and you have copied `etill.cmd` to your Payment Server machine and modified it as described in “Chapter 10. Installing Payment Server on a Separate Machine” on page 61, start Payment Server by switching to the Payment Server installation directory running `etill.cmd` as described above.

Note: Do not attempt to use the **Start** menu to start Payment Server.

To stop Payment Server manually, whether it is running on the same machine as Net.Commerce 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 Net.Commerce 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 Net.Commerce instance.

Starting and Stopping Domino Web Server

To start Domino Web Server, do one of the following:

- If you already have a Lotus Domino Server window open, type `load http` on the command line of the window.
- If you do not have a Lotus Domino Server window open, while logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, then **Lotus Applications**, and click **Lotus Domino Server**. Domino Web Server starts automatically when the Lotus Domino Server window opens.

To stop Domino Web Server, on the Lotus Domino Server window command line, type `quit http`.

Appendix B. Enabling SSL on Domino Go Webserver for Testing

When you install Net.Commerce 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 12. 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: 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 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. Click the **Automatic login** box.
12. Complete the fields under **Distinguished Name**. For **Server name**, use the fully qualified name of your Net.Commerce 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, re-try these steps. The error message should indicate the problem that was encountered.

Setting Your Test Key Ring as the Current Key Ring

To make the Web server use your test key ring, do the following:

1. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.
2. Under **Security**, click **Security Configuration**.
3. On the Security Configuration form under **Default Key rings**, select *drive:\Ibm\Www\Bin\testnetc.kyr*.
4. Select **Set selected key ring as current key ring**.
5. Click **Apply**. You should see a page that confirms that the security configuration changes have been made.

Receiving and Testing the Test Key Ring Certificate

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

1. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.
2. On the Configuration and Administration Forms page under **Security**, click **Receive Certificate**.
3. On the Receive Certificate form in the **Name of file containing certificate** field, type *drive:Ibm\Www\Bin\testnetc.txt*.
4. In the **Key ring** field, type: *drive:\Ibm\Www\Bin\testnetc.kyr*.
5. In the **Key ring password** field, type the password that you used to create the key ring in step 10 on page 144 in the section "Creating a Security Key Ring for Testing".
6. Click **Apply**. You should see a confirmation page that indicates that the certificate was successfully received.
7. Return to the Configuration and Administration Forms page by clicking **Configuration Page** at the bottom of the confirmation page.
8. Under **Security**, click **Key Management**.
9. 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 144 in the section "Creating a Security Key Ring for Testing".
10. Select **Designate Trusted Root Keys**, and click **Apply**.
11. On the Designate Trusted Root Keys form under **Keys**, select testnetc from the list.
12. Click **Apply**. You should see a confirmation page that indicates that the operation was successful.
13. 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 143 in the section Creating a Security Key Ring for Testing.
 - b. Click **Stop**.
 - c. When the Web server stops, click **Start**.
14. 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.

15. Restore your caching and proxy (or socks) server settings to their original states.

Appendix C. Uninstalling Net.Commerce Components

If you encounter problems installing Net.Commerce, you may want to uninstall one or more components and start again. This appendix explains how to uninstall each component of Net.Commerce.

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. Click **Start**, point to **Settings**, and click **Control Panel**.
5. On the Control Panel window, double-click the **System** icon. The System Properties window appears.
6. Click the **Environment** tab.
7. 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
8. From the System Properties window, click **Set**.

Note: If you plan on reinstalling Net.Commerce at some later point, you will also have to reinstall Net.Data. Ensure that you reinstall Net.Data into the *drive:\Ibm\NetCommerce3\netdata* directory. Before reinstalling Net.Data, but after installing Net.Commerce, ensure that you back up your *db2www.ini* file. (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 Net.Commerce

To uninstall Net.Commerce, do the following:

1. Ensure that you uninstall Net.Data first including editing the Windows Registry to remove all Net.Data entries. For instructions on uninstalling Net.Data and editing the Registry, refer to “Uninstalling Net.Data” on page 147.
2. If you plan to reinstall Net.Commerce once you have uninstalled it, ensure that you back up the `\macro\locale` directory, which contains macros for stores that you have previously created.
3. Stop Net.Commerce, as described in “Starting and Stopping Net.Commerce” on page 137.
4. 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.
5. While logged on to a Windows NT user ID with Administrator authority, click **Start**, point to **Programs**, point to **IBM Net.Commerce**, and click **Net.Commerce Uninstall**.
6. When asked whether you are sure that you want to uninstall Net.Commerce, click **Yes**.
7. When the uninstall program has completed, reboot your machine.
8. Delete the `drive:\Ibm\NetCommerce3` directory, along with all its subdirectories and files. Note that once you delete this directory, you have effectively deleted Net.Data. If you plan to reinstall Net.Commerce, ensure that you reinstall Net.Data into the `drive:\Ibm\NetCommerce3\netdata` directory.
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 Net.Commerce component (identified in the list that follows these steps) that is designated with a Startup 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 Net.Commerce 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.
10. Switch to the \Winnt directory and delete any Net.Commerce related files, including the following (if they exist):
 - ncnlspathlog.dat
 - ncpathlog.dat
 11. In the \Winnt\system32\drivers\etc directory, modify the services file, removing all Net.Commerce entries. If there are any entries in this file, they will be at the end of the file. The names of the entries begin with nc and the names are accompanied by a comment indicating that they are related to Net.Commerce.
 12. 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 Net.Commerce are deleted. This includes removing all references to Net.Commerce directories from the **PATH, Bookshelp, Help, and NLSPATH** entries, as necessary.
 13. Edit the Registry to remove all Net.Commerce 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 Net.Commerce entry, if it exists.
 - c. Expand the HKEY_LOCAL_MACHINE folder and the System\CurrentControlSet\Services subfolder. If there are any Net.Commerce server entries, delete them.
 14. Remove the Net.Commerce entry from the Taskbar.
 15. Empty the Recycle Bin.
 16. Reboot your machine.

17. If you intend on reinstalling Net.Commerce, you will also have to reinstall Net.Data. If you plan to reinstall Net.Commerce, ensure that you reinstall Net.Data into the *drive:\Ibm\NetCommerce3\netdata* directory. When you run the Net.Commerce 3.2 installation program, it will prompt you for the Net.Data 6.1 CD.
18. 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, and you will not be able to use Product Advisor.

Also, if you reinstall Domino Go Webserver and WebSphere Application Server, you will need to recreate your Net.Commerce instance before you can access Net.Commerce 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 Net.Commerce, uninstall Net.Commerce first by following the steps in "Uninstalling Net.Commerce" on page 148.
2. If you have created stores using Store Creator, 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 re-creation 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 the uninstall program has completed, 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 Net.Commerce component, identified in the list that follows these steps, that is designated with a Startup 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 Net.Commerce that you are using, your components may include any of the following:

- One or more instances of Net.Commerce, 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*.
 - 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
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 158 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 Net.Commerce 3.2 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 150 and 3 on page 150.
2. Uninstall WebSphere Application Server, as described in “Uninstalling WebSphere Application Server 2.02” on page 153.
3. Reinstall WebSphere Application Server from the WebSphere Application Server 2.02 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. Follow the steps in “Appendix B. Enabling SSL on Domino Go Webserver for Testing” on page 143.
5. Access Configuration Manager by clicking **Start**, pointing to **Programs**, then **IBM Net.Commerce**, and **Net.Commerce Configuration**. This process starts the Web server and opens a Web browser window to the following URL:
`http://host_name:4444`

where *host_name* is the fully qualified host name of your Net.Commerce machine.

If an instance is listed on the main Configuration Manager window, delete the instance and recreate it.

Uninstalling WebSphere Application Server 2.02

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, and you won't be able to use Product Advisor.

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 2.02, click **Yes**.
3. When prompted to confirm that you want to delete all files within the directory where WebSphere Application Server 2.02 is installed click **Yes**.
4. If prompted whether you want to back up the configuration logs and user files, click **No**.
5. The uninstallation program starts and removes WebSphere Application Server 2.02. When the uninstallation has completed, click **OK**.
6. When prompted to reboot the machine, click **OK**.
7. Remove the \IBM\WAServer directory.
8. 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 backup 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 backup configuration file. To make these settings active again, you must transfer them from the backup file into the active Web server configuration file.

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 on-line information. (See “DB2 Information” on page 171 for instructions on accessing the DB2 on-line information.) After you have completed the backup, move the backed up database to a directory that is not used by Net.Commerce component.
2. Drop all Net.Commerce databases, by doing the following:
 - a. From a DB2 command window, list all databases by typing:
`db2 list db directory`
 - b. For each Net.Commerce database listed, type the following command:
`db2 drop db db_name`

where *db_name* is the name of the Net.Commerce database.
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**.

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 has completed, 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 Net.Commerce component (identified in the list that follows these steps) that is designated with a Startup 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 Net.Commerce that you are using, your components may include any of the following:

- One or more instances of Net.Commerce, 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*.
 - 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.
8. 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, stop every Net.Commerce component and try again.
9. 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**.
10. Switch to the \Winnt directory and delete any DB2-related files, including db2*. *.
11. In the \Winnt\system32\drivers\etc directory, modify the services file, removing all DB2 entries. If there are DB2 entries in this file, they will be at the end of the file.
12. Edit the Registry to remove all DB2 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 DB2 entry, if it exists.
13. Delete the user ID DB2ADMIN from the Windows NT 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 158 for more information.

Note: 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 Net.Commerce 3.2 CD.

Uninstalling Payment Server

To uninstall Payment Server, do the following:

1. Stop Payment Server, as described in “Starting and Stopping Payment Server” on page 139
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 Net.Commerce component identified in the list that follows these steps that is designated with a Startup 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 Net.Commerce that you are using, your components may include any of the following:

- One or more instances of Net.Commerce, 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 Net.Commerce component, identified in the list that follows these steps, that is designated with a Startup 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 Net.Commerce that you are using, your components may include any of the following:

- One or more instances of Net.Commerce, 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 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, and you will not be able to use Product Advisor.

Also, if you reinstall Netscape Enterprise Server and WebSphere Application Server, you will need to recreate your Net.Commerce instance before you can access Net.Commerce 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. Stop all Netscape Enterprise Server servers (ports 80 and 443).
2. 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 on page 159 and 4 above.
7. Uninstall WebSphere Application Server, as described in "Uninstalling WebSphere Application Server 2.02" on page 153.
8. Reinstall WebSphere Application Server from the WebSphere Application Server 2.02 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. Apply the configuration file changes to the port 80 server on the Netscape Enterprise Server Administration page.
10. Access Configuration Manager by clicking **Start**, pointing to **Programs**, then **IBM Net.Commerce**, and **Net.Commerce Configuration**. This process starts the Web server and opens a Web browser window to the following URL:

`http://host_name:4444`

where *host_name* is the fully qualified host name of your Net.Commerce machine.

If an instance is listed on the main Configuration Manager window, delete the instance and recreate it.

Appendix D. Troubleshooting

This appendix lists some of the problems you may encounter while installing and configuring Net.Commerce, 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.

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 8 on page 12 (if you performed a Typical install), or in step 8 on page 16 (if you performed a Custom install), your machine was only logged off instead of performing a complete reboot.

Reboot the machine and recreate the Net.Commerce instance using the Configuration Manager. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 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 154. Ensure the \Db2 and Ibm\Sql1ib 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 Net.Commerce instance using the Configuration Manager. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 for information on starting and using the Configuration Manager.

2. Configuration window 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 8 on page 12 (if you performed a Typical install), or in step 8 on page 16 (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 step “Migrating a DB2 Database” on page 129 in “Part 4. Migrating to Net.Commerce 3.2” on page 109 then start the

Net.Commerce server from the NT Services Manager. If the DB2 services still do not start, reinstall DB2 as indicated in step 1.b on page 161 for problem 1.

3. Net.Commerce server fails to start after configuration has completed.

The possible causes are:

- a. The Net.Commerce server cannot connect to the database as indicated in the control log located in the
`\Ibm\NetCommerce3\instance\instance-name\logs\`, where *instance_name* is the name of your Net.Commerce 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 URLs” on page ix under the **Windows NT User ID** heading. To check the database user logon or password, run the Configuration Manager. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 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 Net.Commerce instance does not exist. Use the Configuration Manager to create a new instance. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 for information on starting and using the Configuration Manager.
 - The DB2 database for your Net.Commerce 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 161 above for possible solutions.
- b. The Net.Commerce server has detected a back level database. The following error message will be found in the log file located in the
`\Ibm\NetCommerce3\instance\instance_name\logs\` directory (where *instance_name* is the name of your Net.Commerce instance): The database has not been migrated to version 3.2 of Net.Commerce. This problem occurs for existing Net.Commerce customers or new Net.Commerce customers with existing databases. The possible causes for the database not being migrated are:

- You uninstalled Net.Commerce prior to installing Net.Commerce 3.2. Manually perform the database migration as described in step “Migrating an Oracle Database” on page 130 or “Migrating a DB2 Database” on page 129 of “Part 4. Migrating to Net.Commerce 3.2” on page 109, depending on which DBMS you are using and start the Net.Commerce server from NT Services Manager.
 - The database user logon ID or password contains invalid characters. To correct this, do the following:
 - 1) Change the logon ID and password to one complying to the rules specified in “Quick Reference to User IDs, Passwords and URLs” on page ix. Run the Configuration Manager and select **Settings** to correct the user ID and password on the Database page. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 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.
 - 2) Manually perform the database migration as described in step “Migrating an Oracle Database” on page 130 or “Migrating a DB2 Database” on page 129 of “Part 4. Migrating to Net.Commerce 3.2” on page 109, depending on which DBMS you are using.
 - 3) Start the Net.Commerce server from NT Services Manager.
 - The Net.Commerce 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 Net.Commerce instance. This error occurs for new Net.Commerce 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 Net.Commerce instance using the Configuration Manager. See “Accessing Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 for information on starting and using the Configuration Manager.
4. Opening the Net.Commerce Administrator results in the Netscape 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.
 5. Opening the Net.Commerce Administrator fails with error CMN0302E
The Net.Commerce server is not responding. Stop and restart the server. If the server does not start, see problem 3 on page 162 above.

6. When the configuration process tries to open the Net.Commerce 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 Configuration Manager” on page 33 and “Updating A Net.Commerce Instance” on page 34 for information on starting and using the Configuration Manager.

7. 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 Net.Commerce.

To check the database level, do the following:

- a. From a DB2 command window, type the following:

```
db2 connect to db_name
select mhdvversion 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.
- 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.

8. Unable to log into Net.Commerce 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:

- a. From a DB2 command window, connect to the database by typing db2 connect to *db_name*.
- b. Verify that the SHOPPER table NCAdmin password matches the nc3_crypt Encrypted string (ASCII) by typing the following command:
db2 select shlpswd from shopper where shlogid='ncadmin'
- c. Type the following command:
nc3_crypt -e ncadmin (Encrypted string (ASCII))

Output from command:

```
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
```

These two commands should produce the same results except for the padding. If this is not the case, perform a DB2 update to correct the problem. For example, type the following:

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

Please note that the value of SHLPSWD should be the Encrypted string (ASCII).

9. Receiving Authorization Failure (CMN0962E) when accessing the Administrator.

When accessing the Administrator, the fully qualified URL should be specified including the domain. For example, www.ibm.com is fully qualified.

10. When accessing a Net.Commerce 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.

11. Problems with Product Advisor and WebSphere

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 Net.Commerce on-line 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.

12. Unable to access Net.Commerce Administrator.

The possible causes are:

- a. 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:

- 1) On your Windows machine, open your Web browser.
- 2) Enter the following URL:

`https://host_name`

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.
- 3) 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 Net.Commerce Administrator.
 - 4) If you are unable to view your Web server's home page, enable SSL for testing by doing the following:
 - a) If you are using Domino Go Webserver, follow the instructions in "Chapter 12. Enabling SSL for Production on Domino Go Webserver" on page 73.
 - b) If you are using Domino Web Server, follow steps 5 on page 58 to 7 on page 59 in "Chapter 9. Configuring Domino Web Server" on page 57.
 - 5) After enabling SSL for testing, attempt to access Net.Commerce Administrator again. If you are still unable to access Net.Commerce Administrator, review the remaining possible causes listed below to determine a cause for not being able to access Net.Commerce Administrator.
- b. If you are using Netscape Enterprise Server as your Web server, you may receive the following error message when attempting to access Net.Commerce 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, do the following:

- 1) On your Windows machine, open your Web browser.

- 2) Enter the URL for your Netscape Enterprise Server Administration port. (For example, `http://host_name:11111`.)
 - 3) 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.
 - 4) Repeat step 12.b.3 for your non-secure server port.
 - 5) Attempt to access Net.Commerce Administrator again. If you are still unable to access Net.Commerce Administrator, review the remaining possible causes listed below to determine a cause for not being able to access Net.Commerce Administrator.
- c. If you receive the following error when trying to access Net.Commerce 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 Net.Commerce instance may not be started. To start your Net.Commerce instance, do the following:

- 1) Access the Net.Commerce Configuration Manager by doing the following:
 - a) Click **Start**, point to **Programs**, point to **Net.Commerce**, and click **Net.Commerce Configuration**. The secure 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 Net.Commerce 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) If there is an instance listed on the main Configuration Manager window, highlight the instance and click **Start**.
- 3) If there are no instances listed on the main Configuration Manager window, you must create an instance by following the steps in “Chapter 3. Configuring a Net.Commerce Instance” on page 19.
- 4) If you are able to access the Net.Commerce 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 Net.Commerce Administrator ID and password, refer to “Determining the

Encrypted Net.Commerce Administrator Password” on page 36 and “Changing the Net.Commerce Administrator Password” on page 37.

13. Unable to start an instance, with the following message in the controlpid error log:

```
STATUS CMN0001S: Opening database 'mser' for 'db2inst1' using password 'shhh!'
ERROR CMN0006E: Database SQL State 08001' : '[IBM][CLI Driver] SQL1032N
No start database manager command was issued.
SQLSTATE=57019'.
ERROR CMN0001E: The database returned the error code -1006.
```

Check that DB2 has been started by clicking **Start, Control Panel**, then **Services**.

14. If you are using Domino 5.0 Webserver with Net.Commerce, and you receive the following Netscape error message:

Connection Reset by Peers

you may have to change the maximum transmission unit (MTU). Please consult the Lotus KnowledgeBase at the Lotus Web site, and search for MTU. Follow the instructions in the KnowledgeBase to resolve the problem.

15. If you are using DB2 with Net.Commerce, 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:

```
db2 update db cgf for db_name using primary logprimary 9
```

where *db_name* is the name of the database.

16. If the command does not return successfully, increase 9 by a higher number. Re-adjust the number until the command is successful.
17. SSL key verification fails after a Net.Commerce 3.1.2.2 migration

If you SSL key verification fails and your browser times out while you are trying to log into Net.Commerce Administrator, do the following:

- Ensure that you perform all Net.Commerce 3.1.2.2 migrations steps, as described in “Chapter 17. Migrating from Net.Commerce 3 to Net.Commerce 3.2” on page 119.
- Ensure that you have created an SSL key.
- Ensure that your Net.Commerce instance is using the correct database.

If all of the above tasks are complete and successful, then delete your Net.Commerce instance and recreate it. The new instance should use the existing migrated database.

Appendix E. Where to Find More Information

More information about the Net.Commerce system and its components is available from a variety of sources in different formats. The following sections indicate what information is available and how to access it.

Net.Commerce Information

The following are the sources of Net.Commerce information:

- Net.Commerce on-line help
- Net.Commerce printable document files
- Net.Commerce Web site

Using the On-line Help

The Net.Commerce on-line information is your primary source of information for customizing, administering, and reconfiguring Net.Commerce. After you have installed Net.Commerce, you can access the information in either of the following ways:

- Click **Start**, point to **Programs**, then **Net.Commerce**, and click **Net.Commerce Documentation**.
- Type the following on your browser:
`http://host_name/nchelp/index.htm`

Most of the topic titles that are referred to in this book begin with the phrase *How Do I*. To access such topics, click **How Do I** on the top bar, then look for the remainder of the title in the table of contents in the left frame. When you click a table of contents entry in the left frame, the information appears in the right frame.

For topic titles that do *not* begin with *How Do I*, you can usually find the topic by clicking **Index** on the top bar, and then clicking the first letter of the topic at the bottom of the left frame. Then look for the topic title, or the first part of the title, in the index listing in the left frame. If there is an arrow to the left of the title, click the arrow to expand the list of related topics. When you click a topic title, the information appears in the right frame.

Locating the Printable Documentation

This book and some of the on-line information is also available on your system in printable formats. See the file `drive:\Ibm\NetCommerce3\books\locale\docs.txt` for descriptions of the printable documents.

If you do not install the Books component, you can access the printable documents and the `docs.txt` file from the `\Docs` directory of the Net.Commerce CD.

Viewing the Net.Commerce Web site

Net.Commerce product information is available at the Net.Commerce Web site. To access it, type the following URL on your browser:

<http://www.ibm.com/net.commerce>

New and updated documentation may also be available from the Downloads section of the Net.Commerce Web site.

Domino Go Webserver Information

Domino Go Webserver information is available at <http://www.software.ibm.com/webserver/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.software.ibm.com/data/netdata/library.html>

Note that the documentation provided on the Net.Data web site may not refer to the Net.Data level shipped with Net.Commerce.

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`.

Additional Payment Server information is included in the Net.Commerce on-line information under *Secure Electronic Transactions*.

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/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/db2>.

Other IBM Publications

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

Appendix F. Notices

Any reference to an IBM licensed program in this publication is not intended to state or imply that only IBM's licensed program may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the IBM Director of Licensing, IBM Corporation, North Castle Drive, Armonk, NY 10504-1785, USA.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact IBM Canada Ltd., Department 071, 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada. Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

This publication contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

This publication may contain information about other companies' products, including references to such companies' Internet sites. IBM has no responsibility for the accuracy, completeness, or use of such information.

Credit card images, trade marks and trade names provided in this product should be used only by merchants authorized by the credit card mark's owner to accept payment via that credit card.

Trademarks and Service Marks

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States or other countries or both:

IBM	DB2	IBM Payment Server
DB2 Universal Database	CommercePOINT	Net.Data
DB2 Extenders	AIX	

Lotus and Domino are trademarks or registered trademarks of Lotus Development Corporation.

Microsoft, Windows and Windows NT are trademarks or registered trademarks of Microsoft Corporation.

Solaris, Solaris Operating Environment, Java, HotJava and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc.

Other company, product and service names may be trademarks or service marks of others.



This product contains RSA Software.

License Information

When you purchase Net.Commerce, you receive a license for IBM Net.Commerce for Windows NT. You also receive licensed copies of the Windows NT versions of IBM DB2 Universal Database™, Domino® Go Webserver, IBM Payment Server™ and IBM DB2 Extenders™. These licenses are valid only when you use these products in association with your licensed use of Net.Commerce.

The price of each Net.Commerce license is based on the number of processors and the number of merchant Web sites in the system or node executing all or any part of the Net.Commerce application.

If you wish to substitute any of the following products for the equivalent product provided on the Net.Commerce CD, you must obtain separate licenses for them:

- Oracle® 8.04 or 8.05 instead of DB2®

- Domino Web Server or Netscape Enterprise Server 3.6 instead of Domino Go Webserver

Refer to the License Information booklet provided with the product for additional license information.

Appendix G. Program Specifications and Specified Operating Environment

This version of Net.Commerce supports the following operating environment:

- Windows NT 4.0 with Service Pack 4

Net.Commerce 3.2 includes the following components:

Net.Commerce Administrator

The Net.Commerce Administrator consists of three tools for creating and maintaining an electronic commerce site/store: Site Manager, Store Manager, and Template Designer. These tools are further explained below.

Site Manager

A collection of easy-to-use on-line forms that help define and manage high-level functions related to Internet malls and stores. The site manager can also be used to assign macros and overridable functions to customize shopping processes.

Store Manager

The Store Manager contains on-line forms used to set up interactive catalogs for stores. You can use the Store Manager to enter or change information about the store; offer discounts; create and manage product categories; create buyer groups and assign buyers to groups; and customize pages so displays are tailored to different groups.

Template Designer

The Template Designer is a tool for creating and updating the dynamic Web pages that your shoppers will see. It provides customizable HTML templates that can be used to depict malls, storefronts, catalogs, and buying processes. Through a Java applet, you use simple drag-and-drop techniques to create Web pages including background colors, graphics, and standard HTML including fields, frames and links to other pages.

Store Creator

A browser accessible store creation wizard that can guide store administrators through every aspect of store creation. It covers pages, templates, graphical elements, catalog navigation, store flow, pricing, shipping, taxing, and payment.

Samples

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.

Product Advisor

A catalog tool provided with Net.Commerce PRO 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

Net.Commerce includes two tutorials to help you understand the way in which the various components work together. You can walk through the process of using Net.Commerce to set up a mall step by step, with hands-on guidance and detailed explanation of each step.

The following products are bundled with, and supported by, Net.Commerce 3.2:

DB2 Universal Database 6.1

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

DB2 Text Extenders

DB2 Text Extenders are an optional component for DB2 which provide 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 wildcard searches.

Domino Go Webserver 4.6.2.61

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

Payment Server 1.2.20.0

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

WebSphere Application Server 2.02 — available with Net.Commerce PRO version only

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 Windows version

Net.Commerce 3.2 also supports the following:

- Oracle 8.04 or 8.05 (requires Merant ODBC 3.5 or Intersolv ODBC 3.11)
- Netscape Enterprise Server 3.61
- Domino Web Server 5
- 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.

address book. A page where shoppers can store information about people to whom they will regularly send purchases. An address book eliminates the need to retype an address every time an order is placed: the shopper merely has to enter the nickname defined for that person (such as "Mom") in the appropriate place.

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 provided by Net.Commerce that enables the user to cache certain frequently used pages.

catalog. In Net.Commerce, 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. In Net.Commerce, categories are used to organize products or services offered by an on-line store. For example, a clothing store might include categories arranged by life-style (casual or dress), 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 also *Common Gateway Interface*.

Common Gateway Interface. A program that enables two-way communication between a Web server and a daemon.

Configuration Manager. The program used to manage the configuration of your Net.Commerce system.

D

DATABASE 2. An IBM relational database management system.

DB2. See *DATABASE 2*.

DB2 Extenders. An optional Net.Commerce product that enhances the search capabilities of DB2 by providing extensions to SQL. These extensions work with a search engine to allow shoppers 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 Net.Commerce.

Domino Web Server. A web server that can be used with Net.Commerce instead of Domino Go Webserver.

H

HTML. Hypertext Markup Language. 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

ICSS. Internet Connection Secure Server. The Web server that was provided with Net.Commerce Version 1 and Version 2.

intelligent catalog. A set of features and attributes that are directly linked to products. Shoppers specify features and attributes in order to locate the products they want. An intelligent catalog is prepared with the Catalog Builder in the Product Advisor tool.

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. In Net.Commerce, 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 Net.Commerce database, rather than completing forms in Net.Commerce Administrator one by one.

merchant. In Net.Commerce, an individual or company that uses Net.Commerce 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.Commerce Administrator. A series of interfaces that enables merchants to create and manage malls and stores.

Net.Data. The language used in Net.Commerce macros.

Netscape Enterprise Server. A Web server that can be used with Net.Commerce instead of Domino Go Webserver.

O

Oracle. A relational database management system. Oracle can be used with Net.Commerce 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*.

PRO. A Net.Commerce offering that includes all the features of Net.Commerce START, plus Product Advisor and back-end integration support.

Product Advisor. A component of the Net.Commerce, used to create intelligent catalogs. Available only in Net.Commerce PRO.

production server. The server on which you make your Net.Commerce 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 who will need it. See also *key ring* and *private key*.

S

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 such a server.

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. Secure Electronic Transaction. SET is a protocol that ensures secure transmission of sensitive information such as data about shoppers, orders, and payment methods.

shopper. In Net.Commerce, an individual who accesses an electronic store to browse catalogs and make purchases.

shopper group. A collection of shoppers, as defined by the merchant, who share some common characteristic or shopping pattern. Members of the group may be offered special prices or have customized product information or page designs displayed to them.

shopping cart. In Net.Commerce, a collection of goods or services that a shopper selects from an electronic catalog.

site. In Net.Commerce, a virtual location defined by the existence of a single instance of the Net.Commerce product.

site administrator. In Net.Commerce, 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 Net.Commerce database with mall and site information and to maintain this information. Site Manager is a component of Net.Commerce Administrator.

SKU number. Stockkeeping Unit number. An alphanumeric identifier for each item of merchandise. It can include variables for department, class, vendor, style, color, size, and location.

SSL. Secure Sockets Layer. SSL allows the client to authenticate the server and all data and requests to be encrypted. The URL of a secure server that is protected by SSL begins with https (rather than http). See also *authentication*.

staging server. A server on which you can test your data before making it available to shoppers on the production server.

START. The entry-level Net.Commerce offering.

store. A set of Web pages and macros that work with Net.Commerce to 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 on-line store.

store administrator. An individual with the authority to update the information that is associated with a store.

Store Creator. A component of the Net.Commerce Administrator that allows a site administrator to generate the infrastructure of a new store. It consists of a series of panels that guide the user through the steps required to create a basic store.

Store Manager. A collection of data entry forms used to populate the Net.Commerce database with store information and to maintain this

information. Store Manager is a component of Net.Commerce Administrator.

store model. One of several templates within the Store Creator that a site administrator can select when designing a new store. The store models present examples of on-line stores that meet the needs of different types of merchants.

Structured Query Language. A computer language that is used to manipulate relational databases.

T

TCP/IP. See *Transmission Control Protocol/Internet Protocol*.

Template Designer. A graphical HTML editor used to create and edit templates and HTML files that will be used as Web pages for on-line malls and stores. The Template Designer is a component of Net.Commerce Administrator.

Transmission Control Protocol/Internet Protocol. 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.

Index

A

- administrative tasks
 - accessing the Configuration Manager 33
 - Configuration Manager, changing the password 34
 - DB2 administrator password 33
 - Domino Go Webserver
 - changing the password 38
 - connecting to 38
 - Net.Commerce Administrator
 - opening 35
 - password, changing 37
 - password, determining 36
 - production key ring certificate, requesting 40
 - setting up Payment Server 39
 - updating a Net.Commerce instance 34

C

- caching
 - disable 24
 - enable advanced 23
 - enable basic 22
- Configuration Manager
 - accessing 33
 - changing configuration settings 34
- Database tab 19
 - database logon password 21
 - database name 20
 - database option 21
 - database user logon 21
 - DBMS 20
- Instance Data tab 24
- Net.Commerce tab 21
 - communication port base 22
 - instance name 22
 - merchant key 24
 - merchant key, default 24
 - server options 22
 - server processes, number of 22
- password, changing 34
- Payment tab 29
 - certificate password 30
 - payment option 30
 - processing interval 29

- Configuration Manager (*continued*)
 - Payment tab 33 (*continued*)
 - server cycle time 30
 - transaction timeout 29
 - Web Server tab 26
 - CGI path 28
 - document root path 27
 - host name 27
 - macro path 28
 - Web server 27
- configuration settings, changing 34
- configuring
 - Net.Commerce instance 19
 - remote Payment Server machine 62
 - SSL for production 73
- creating a mall
 - after 86
 - methods 81
 - using
 - samples 86
 - Site Manager 85
 - Store Manager 85
- creating a store
 - after 86
 - methods 81
 - using
 - Site Manager 85
 - Store Creator 81

D

- Database tab
 - instance owner ID, Oracle 20
- DB2
 - changing the administrator password 33
 - configuring 19
 - configuring remote connections 49
 - installing on a separate machine 49
 - migrating remote databases 115
 - starting and stopping 139
 - uninstalling 147, 154
- Domino Go Webserver
 - configuring 26
 - Enabling SSL 73
 - home page, connecting to 38
 - password, changing 38
 - security, about 73

- Domino Go Webserver (*continued*)
 - SSL, enabling for testing 26
 - starting and stopping 138
 - uninstalling 150
- Domino Web Server
 - configuring 57
 - installing 5
 - starting and stopping 140

H

- hardware requirements 3

I

- information, additional
 - DB2 171
 - Domino Go Webserver 170
 - IBM publications, other 171
 - Net.Commerce 169
 - Net.Data 170
 - Payment Server 170
- installing
 - Net.Commerce 10
 - custom install 13
 - typical install 11
 - Payment Server on a remote machine 61
 - pre-installation 3
 - user ID required 10
- instance, configuring
 - Net.Commerce 19
- instance, updating
 - Net.Commerce 34
- Instance Data tab
 - cache file path 26
 - configuration file path 25
 - log file path 25
 - root path 25
 - shared configuration file path 26

K

- knowledge requirements 3

L

- Lotus Domino Go Webserver
 - configuring 26
 - home page, connecting to 38
 - password, changing 38

M

migrating

- databases on remote machines 115
- version 3.2, guidance 111
- version 3 to 3.2 119

N

Net.Commerce

- administrative tasks 33
- DB2 administrator password, changing 33
- hardware requirements 3
- installing 10
- instance configuration 19
- on-line help, using 169
- pre-installation 3
- software requirements 4
- starting and stopping 137
- uninstalling 148
- version 3.2, migration guidance 111
- version 3 to 3.2, migrating 119

Net.Commerce Administrator

- browser settings 35
- opening 35
- password, changing 37

Net.Commerce instance

- configuration 19
- creating
 - using Configuration Manager 19
- updating 34

Net.Commerce tab

- advanced caching, enable 23
- basic caching, enable 22
- disable caching 24

NetQuestion, uninstalling 158

Netscape Enterprise Server

- NES non-secure server configuration file path 28
- NES secure server configuration file path 28

Netscape Navigator 4

O

Oracle

- configuring ODBC 54
- creating a database 55
- installing 5
- instance owner ID 20

P

Payment Server

- Changing the SET Certificate File Password 39
- configuring for Net.Commerce 29
- configuring for Net.Commerce on a separate machine 61
- installing on a separate machine 61
- production key ring certificate, requesting 40
- running the eecertreq utility 40
- setting up 39
- starting and stopping 139
- uninstalling 156

Payment Server, installing and configuring remote 61

pre-installation

- browser required 4
- Domino Web Server, using 5
- hardware requirements 3
- knowledge requirements 3
- Netscape Enterprise Server, using 5
- Oracle, using 5
- software requirements 4
- Windows NT user ID, requirements 5

prerequisite software

- Netscape Communicator 4.61 4
- Windows NT 4 4
- Windows NT Service Pack 4 4

R

remote

- database 49
- Payment Server 61

requirements

- hardware 3
- knowledge 3
- software 4

S

samples

- about
 - East West Food Mart 83
 - The Office Window 84
- using to create
 - to create a mall 86
 - to create a store 82

site administrator

- specifying shipping providers 93

Site Manager

- about 89
- accessing 90
- defining a store 90
- using to create
 - to create a mall 85
 - to create a store 85

SSL

enabling on Domino Go

- Webserver
 - for production 73
- enabling on Domino Go Webserver for production 40
- enabling on Domino Web server
 - for production 59
 - for testing 58, 143
- for production 73
 - certificate, receiving 77
 - key ring, setting as current key ring 76
 - key ring, testing 77
 - secure certificate, requesting from a CA 76
 - security, about 73
 - security key ring, creating 74

store

- assigning
 - footers 92
 - headers 92
 - homepage 92
- building 95
- creating
 - footer 92
 - header 92
 - homepage 92
 - product categories 100
 - shipping codes 98
- define shipping code details 99
- defining 90
- entering items and attributes 107
- front
 - about 91
- products
 - entering attributes 105
 - entering information 102
 - specifying prices 104
- setting up 89
- specifying
 - currency 96
 - shipping services 97
 - store contact 96
 - tax rate 96

Store Creator

- using to create a store 81

Store Manager

- about 95
- accessing 96
- using to
 - create product categories 100
 - create shipping codes 98
 - enter items and attributes 107
 - enter product information 102
 - select shipping services 97
 - to create a mall 85
 - to create a store 85
- using to specify
 - currency 96
 - store contact 96
 - tax rate 96

U

uninstalling

- DB2 Universal Database 154
- Domino Go Webserver 150
- Net.Commerce 148
- Net.Data 147
- NetQuestion 158
- Netscape Enterprise Server 159
- Payment Server 156
- WebSphere Application Server 153

utilities

- eecertreq, running 40
- mass import
 - using to create product categories 100
 - using to enter product information 102

W

web server

- Domino Go Webserver 38
 - configuring 26
 - home page, connecting to 38
 - password, changing 38
- Netscape Enterprise Server 5
 - installing 5

Web Server tab

- cached files, number of 28
- document root 27
- NES non-secure server
 - configuration file path 28
- NES secure server configuration
 - file path 28



Part Number: CT6TUNA



Printed in the United States of America
on recycled paper containing 10%
recovered post-consumer fiber.

GC09-2904-00



CT6TUNA

