HP Domain Commerce Installation Guide

Edition 3

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Printing History

The manual printing date and part number indicate its current edition. The printing date will change when a new edition is printed. Minor changes may be made at reprint without changing the printing date. The manual part number will change when extensive changes are made.

Manual updates may be issued between editions to correct errors or document product changes. To ensure that you receive the updated or new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details.

1 What is HP Domain Commerce?

Introduction

HP Domain Commerce is a comprehensive, highly scalable software platform that delivers all the features you need for deploying successful mission-critical Internet commerce applications.

Because you will want to install and configure your system(s) to best fit your e-commerce needs, this manual only briefly explains the components that make up HP Domain Commerce and gives an example of installing and configuring HP Domain Commerce on a single system. Chapter 4 , "For More Information …," explains where to find more information about the components that make up HP Domain Commerce.

The Components of HP Domain Commerce

HP Domain Commerce

HP DESMS

HP ServiceControl

Netscape Enterprise Server

VeriFone vPOS Server

Oracle Database
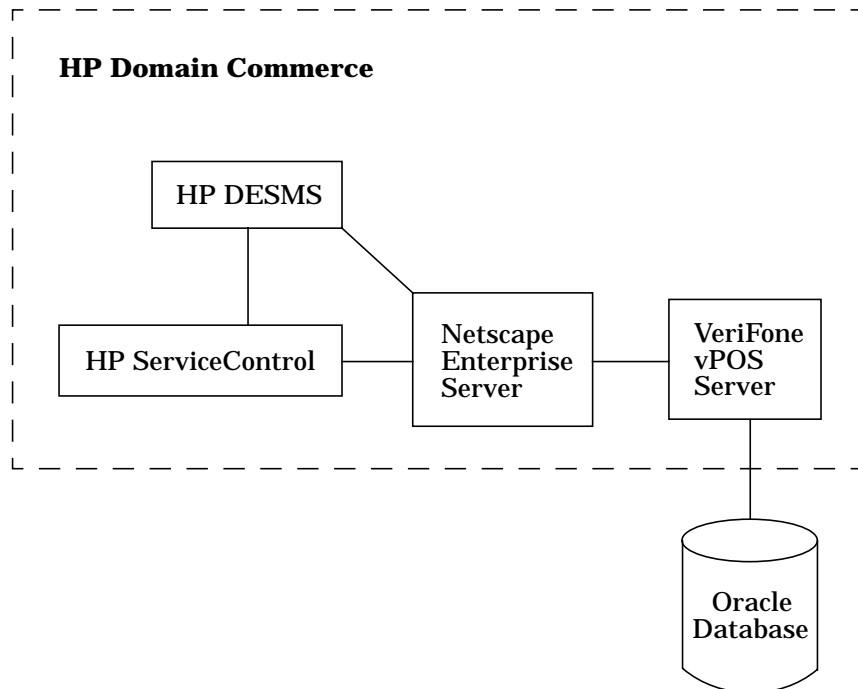
Using HP Domain Commerce, you can build your website using the Netscape Enterprise Server. Configure the VeriFone vPOS server to handle transactions and HP ServiceControl to control the sessions

admitted to your web server. Finally, use HP DESMS to administer the Netscape Enterprise Server and HP ServiceControl.

HP Domain Commerce is made up of the following software products:

- HP ServiceControl - Also known as Web Quality of Service (QoS), HP ServiceControl controls the amount and length of sessions admitted to a web server such that the system does not become overloaded. HP ServiceControl can also be configured to work with Cisco LocalDirector. It can automatically generate the information Cisco LocalDirector needs to distribute load and manage TCP/IP connections.

- HP DESMS - HP Domain Enterprise Server Management System configures, administers, operates, and monitors your system, including QoS. HP DESMS includes HP OpenView IT/Operations Special Edition also known as HP Domain Enterprise Server Operations Manager (HP DESOP).

- VeriFone vPOS - Virtual point of sale software enables Internet-based merchants to send and receive consumer- and merchant-originated payment transactions to and from their acquiring banks - securely and automatically. vPOS also provides the administrative functionality available in hardware-based POS terminals.

  The vPOS server requires an Oracle database which is not included as part of this product. The Oracle database can be purchased directly from Oracle Corporation.

- Netscape Enterprise Server - The Internet standards-based web server that connects employees, customers, and partners to an organization's information and network-based applications and provides powerful information management services for leveraging existing resources. The Netscape Enterprise Server also includes the Netscape Directory Server.

2　Installing HP Domain Commerce

Installation Requirements

Intended User

To successfully install and configure HP Domain Commerce, the user should have experience with HP-UX 10.20 and at least two of the following:

- HP DESMS
- HP ServiceControl
- Netscape Enterprise Server
- vPOS
- Oracle database

Hardware Requirements

- HP 9000 Computer System
- CD-ROM drive to load the software
- At least 256 MB of memory
- At least 2 GB of free disk space to load the software. This includes the disk space required for the Oracle database.

  For the example provided in Chapter 3 , "Installation and Configuration Example," on page 17, you will need to allocate the following amount of disk space to the specified directories (this disk space is included in the 2 GB):

Table 2-1   **Disk Space Needed for the Installation and Configuration Example**

Directory Name	Minimum Disk Space Requirements (MB)
/u01	600
/domain/oradata	100
/domain/vpos	40

Software Requirements

- Oracle database

  This release of HP Domain Commerce does not include the Oracle database software required by vPOS. You can purchase the database software directly from Oracle Corporation.

Operating System Requirements

- HP-UX 10.20

Other Installation Information

- The Oracle database software requires certain HP-UX kernel parameters to be configured at a minimum value. For a list of the kernel parameters and recommended values, refer to the online HTML guide, *Oracle7 Server Installation Guide for HP 9000 Series 700/800*, located in the `oracle/orainst/doc/platform/doc/IG73` directory. Specifically, the kernel parameters to configure are listed in the file `ch3.html`. This directory is included with the Oracle database software.

- Installation information for the Oracle database product can be found in the following manuals:

  Oracle7 Server Installation Guide for HP 9000 Series 700/800

  Oracle7 Reference Addendum for HP 9000 Series 700/800

  Getting Started with Oracle7 for UNIX

  Oracle7 Administrator's Reference for UNIX

  HTML versions of the HP-specific manuals can be found on Oracle's software CD-ROM in the directory `oracle/orainst/doc/platform/doc`.

- If you order an nCipher cryptographic accelerator, consider the following:

  — On a K-Class system, you may need to replace the tape or CD-ROM drive with the accelerator. Note that you will need the CD-ROM drive to install your software.

  — On a K-Class system, an external accelerator requires an SE

connector. If one is not available, you can order an adapter card from HP, such as the HP-PB SCSI/Centronic Host adapter, part number 28655-60001.

— On a V-Class system, an external accelerator requires a converter to convert between fastwide differential SCSI and single-sided SCSI. A converter can be ordered from HP, such as the HP SCSI bus converter, product number C4316A.

Product Installation Overview

In general, installing the HP Domain Commerce software involves doing the following steps, in the order shown:

1. swinstall the J4246AA software bundle.

2. Install the Oracle database.

3. Install the vPOS software.

4. Configure the Netscape Enterprise Server

5. Configure the vPOS software.

Because no two installations are exactly the same, it is not possible to include a detailed set of instructions for you to follow. Instead, the following chapter shows (in detail) the steps involved in an example installation.

Follow these steps to experience the process. The results will not be suitable for your needs. After installing the example, you should be able to remove the example installation and re-install a version of the software that is more suitable to your needs.

3 **Installation and Configuration Example**

An Example of Installing and Configuring HP Domain Commerce

This chapter provides detailed instructions on how to install and configure a working example of HP Domain Commerce on a single system.

1. `swinstall` the J4246AA software bundle.

2. Install the Oracle database.

3. Install vPOS.

4. Configure the Netscape Enterprise Server

5. Configure vPOS.

The details for each of these steps are provided in the next five sections.

NOTE The installation and configuration instructions for this example are included in the file `/opt/vpos/vpos.notes`. You can cut and paste information from this file while you are installing and configuring the software.

1. `swinstall` the J4246AA Software Bundle

Use `swinstall` to install the J4246AA software bundle.

2. Install the Oracle Database

NOTE The Oracle database software is not included in this release of HP Domain Commerce but is required by vPOS. You can purchase the database software directly from Oracle Corporation.

When installing the Oracle database, follow the instructions in Oracle's installation guide. The following set of instructions is an example of how to install the database.

Requirements

See "Other Installation Information" on page 15 for information about Oracle requirements.

Planning Your Directory Layout

Directory layout affects the performance of the Oracle database. In this example, four directories are planned. The four directories will contain the following:

- The Oracle installer. Typically, this is the directory on which the CD-ROM is mounted. But, it can be a file system mounted from the remote host if you are installing vPOS on more than one server.

- The web server. If you used swinstall, the web server installed is the Netscape Enterprise Server and the directory used is `/opt/ns-enterprise3`.

    If you are using a different web server and browser, place the binaries in any directory.

- The Oracle executables and database. In this example, `/u01/app` is used for the executables and `/u01/oradata` is used for the database files. You will need to allocate at least 600 MB for the `/u01` directory.

    While Oracle leaves the option to install the binaries in any directory, all Oracle documentation uses the Oracle Flexible Architecture (OFA). OFA is used in this example.

- vPOS. In this example, `/domain/vpos` is used for the executables and `/domain/oradata` is used for the database. You will need to allocate at least 40 MB for the `/domain/vpos` directory and 100 MB for the `/domain/oradata` directory.

Installation

Complete the following steps to install the Oracle database. Installation of the Oracle database may take over two hours to complete.

On the local system, do the following:

Step 1. If you are not using the console of the system on which you are installing the software, type the following:

```
xhost +
```

As root, do the following:

Step 1. Log on to the system on which you are installing the software.

Step 2. Configure groups dba and vpos.

Step 3. Configure users oracle and vpos. User oracle is a member of the dba group. User vpos is a member of the vpos group.

Step 4. Make sure that the directories you chose to use when you planned your directory layout are empty. If a directory already exists, do not change the ownership of it unless absolutely necessary.

1. Create the /u01 directory and its subdirectories. Type the following:

```
mkdir /u01

cd /u01

mkdir oradata

cd oradata

mkdir vpos

chown  -R  oracle:dba    /u01

cd /
```

2. Create the `/domain` directory and its subdirectories. Type the following:

   mkdir /domain

   cd /domain

   mkdir vpos

   chown -R vpos:vpos /domain

   mkdir oradata

   chown -R oracle:dba oradata

Step 5. If you use a CD-ROM to install Oracle, mount the CD-ROM on */my_orainst* directory, where *my_orainst* can be any name.

If you are using a disk mirror of the CD-ROM (whose contents were copied into a file system), then you should mount the file system on to */my_orainst*. For example, if the host omocha has a copy of the binaries of the CD-ROM in the directory /domain/binaries/oracle, remotely mount the file by typing:

mkdir */my_orainst*
mount omocha:/domain/binaries/oracle/ */my_orainst*

As user oracle, do the following:

Step 1. Log on to your system on which you are installing the software.

If you can have only one window open on your monitor, type the following:

su - oracle

Step 2. Set the following Oracle environment variables:

Table 3-1   **Oracle Environment Variables Set as User oracle**

Variable Name	Value
ORACLE_BASE	/u01/app/oracle
ORACLE_HOME	/u01/app/oracle/product/7.3.3

Table 3-1   **Oracle Environment Variables Set as User oracle**

Variable Name	Value
ORACLE_OWNER	oracle
ORACLE_PATH	/u01/app/oracle/product/7.3.3/bin:\ /u01/app/oracle/product/7.3.3/oback/bin:\ /usr/bin:/usr/ccs/bin
ORACLE_SID	domain
ORACLE_TERM	hpterm

If you are running the Korn Shell (ksh) or Bourne Shell (sh), use the following command: `export Variable_Name=Value`

If you are running the C Shell (csh), use the following command:
`set Variable_Name=Value`

Step 3. If you are not using the console of the system on which you are installing the software, you must also set the DISPLAY environment variable.

If you are using a Hewlett-Packard graphic terminal, set the following variables:

Table 3-2   **HP Graphic Terminal DISPLAY Settings**

Variable Name	Value
TERM	hpterm
DISPLAY	*hostname*:0.0

If you are using a terminal emulator (for example, you are using a Windows-based computer with access to an HP-UX server), set the following variables:

Table 3-3   **Windows-Based Terminal DISPLAY Settings**

Variable Name	Value
TERM	vt100
ORACLE_TERM	xterm

Otherwise, set the following variable:

Table 3-4　　　　　**Terminal DISPLAY Setting**

Variable Name	Value
DISPLAY	*hostname*:0.0

where *hostname* is the name of the system from which you are installing the software.

If you are running the Korn Shell (ksh) or Bourne Shell (sh), use the following command: **export *Variable_Name=Value***

If you are running the C Shell (csh), use the following command:
set *Variable_Name=Value*

Step 4. Start the Oracle installation program by typing:

```
cd /my_orainst/orainst
./orainst -m &
```

If you want to use the character-mode version of the installer, type:

```
cd /my_orainst/orainst
./orainst -c
```

If the following message displays:

```
A problem occurred with the Oracle Installer. Try
reinstalling it from distribution media. Or, you can provide
the following message to Support to debug the problem:

User Interface Failure: Window System Startup

Result: User Interface Failure: Window System Startup
```

try resetting the DISPLAY environment variable and restarting the installation program.

Step 5. You will be asked a series of questions and prompted to make selections. The questions, answers, and selections are listed. Answers and selections are in bold.

Default install
Custom install
Display readme files for this release

OK

Install, Upgrade, or De-Install Software
Create/Upgrade Database Objects
Perform Administrative Tasks

OK

Install New Product - Create DB Objects
Install New Product - Do not create DB Objects
Add/Upgrade Software
Build Oracle7 Staging Area
Install Documentation Only
De-Install software

OK

Verify that the following environment variables are set correctly:

ORACLE_BASE: /u01/app/oracle
ORACLE_HOME: /u01/app/oracle/product/7.3.3
ORACLE_SID: domain

OK

_____


```
Do you want to relink Oracle product executables? By
default, the Installer will not relink any product
executables ...
```

NO

_____


```
The following values will be used ...

Installation Option is Install New Product-Create DB Objects
Oracle Base is /u01/app/oracle
Oracle Home is /u01/app/oracle/product/7.3.3
Oracle Sid is vpos
Install log is
/u01/app/oracle/product/7.3.3/orainst/install.log
SQL Log is /u01/app/oracle/product/7.3.3/orainst/sql.log
OS Log is /u01/app/oracle/product/7.3.3/orainst/os.log
Make Log is u01/app/oracle/product/7.3.3/orainst/make.log
Install Source is CD-ROM
Language is American/English
```

OK

_____

The "Software Asset Manager" screen displays.
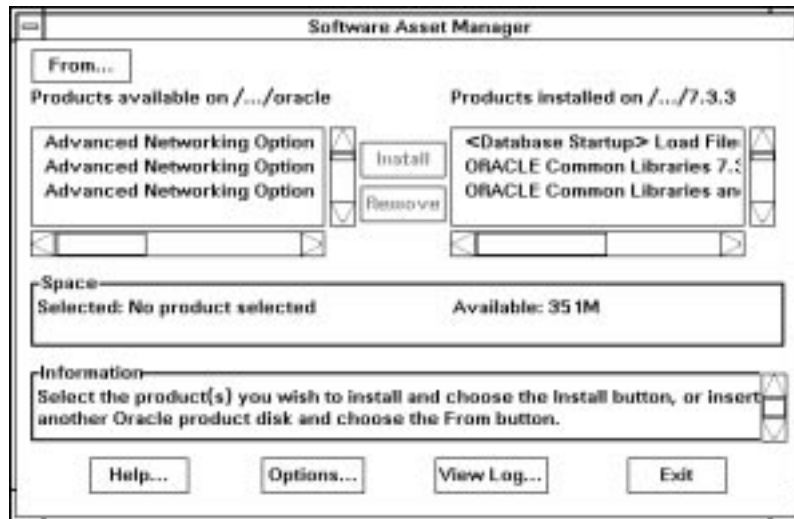
Select *all* of the following available options before clicking on Install:

```
Oracle7 Distributed Database Option 7.3.3.0.0
Oracle7 Enterprise Backup Utility 2.1.0.1.2
Oracle Parallel Query Option 7.3.3.0.0
Oracle7 Server (RDBMS) 7.3.3.0.0
PL/SQL V2 2.3.3.0.0
Pro*C 2.2.3.0.0
SQL*Net(V2)2.3.3.0.0
SQL*Plus 3.3.3.0.0
TCP/IP Protocol Adapter (V2)2.3.3.0.0
```

INSTALL

Selected options will move to the box on the right after the options are installed.

This step make take a few minutes to complete.

_____

Please enter the UNIX group name for the DBA group

dba

OK

Select the OSOPER group

dba

OK

Choose storage type for database

Filesystem-Based Database

OK

Distribute control files over three mount points?

NO

If you want to minimize I/O contention, you can specify three mount points that reside on different disks and use different disk controllers. In this example, you are using a simple setup: one mount point.

Enter mount point (the installer will create the directory)

/u01

OK

_____

Select the character set for creating the database

US7ASCII

OK

_____

Enter the password for the 'SYSTEM' ORACLE userid:

For test purposes, you can use the same password as user oracle.

OK

You will be prompted for several passwords. You may enter different passwords for Oracle, the operating system, the web server access control lists, and the vPOS software. Manage these passwords so you protect the integrity and confidentiality of your transactions. Document the passwords you select during the installation as they cannot be retrieved if you forget them.

_____

Enter the password for the 'SYS' ORACLE userid:

For test purposes, you can use the same password as user oracle.

OK

_____

Do you want to set passwords for internal users?

NO

_____

Enter the password for the TNS listener

For test purposes, you can use the same password as user oracle.

OK

Would you like MTS (Multi-Threader Server) configured and
the SQL*Net listener automatically started?

NO

Do you want the following files as control files?

```
/u01/oradata/vpos/control01.ctl
/u01/oradata/vpos/control02.ctl
/u01/oradata/vpos/control03.ctl
```

YES

The following are the default file names and sizes that will
be to create the new database. Select OK to continue to the
next screen of default files:

```
PASSWORD: /u01/app/oracle/product/7.3.3/dt
SYSTEM 40M: /u01/oradata/vpos/system01.dbf
LOG1 (500K): /u01/oradata/vpos/redovpos01.lc
LOG2 (500K): /u01/oradata/vpos/redovpos02.lc
LOG3 (500K): /u01/oradata/vpos/redovpos03.lc
```

YES

/u01 **is the mount point you selected earlier.**

_____

The next screen is the continuation of the default file
names and sizes:

```
ROLLBACK (25M): /u01/oradata/vpos/rbs01.dbf
TEMP (550K): /u01/oradata/vpos/temp01.dbf
USERS (1M): /u01/oradata/vpos/users01.dbf
TOOLS (15M): /u01/oradata/vpos/tools01.dbf
```

YES

_____

Select (yes) to accept the default file names ...

YES

_____

Would you like to load the SQL*Plus Help Facility?

YES

_____

Would you like to load the SQL*Plus demo tables?

YES

**The demo tables are used by the support engineers to track problems in
the database. Since you can remove the tables, you should consider
loading them unless you are short of disk space.**

_____

The "Installing" screen displays. This screen is not refreshed often.

It takes up to sixty minutes to load the files. However, during this time, you will be prompted to respond to several messages. For example, one of these messages is:

```
Installation of shared oracle library for Pro*C and XA
clients is complete
```

You must accept this message before the installation can complete.

Once installation has completed (the progress bar may not completely fill the available space when the installation is done), the following message is displayed:

```
The requested action has been performed for selected
products. Certain product setup actions need to be performed
by the root user after successful installation. Upon
completion of installation,  please log in as root and run
the root.sh script.
```

OK

The next set of steps in the next section (where you are logged in as root) takes you through the root.sh script.

The "Software Asset Manager" screen displays. The options that you selected appear in the installed section of the screen.

If you wish to install more components, select the options, and press INSTALL to repeat this entire step.

Otherwise, exit the program.

EXIT

```
Are you sure you want to exit the Oracle Installer?
```

YES

One of the following messages appears:

```
Result: Installation terminated at user request
```

or

```
Result: Success
```

You have successfully completed the Oracle installation program.

Step 6. Start the Oracle server manager by typing:

$ORACLE_HOME/bin/svrmgrl

The following is displayed:

```
Oracle Server Manager Release 2.3.3.0.0 - Production
Copyright (c) Oracle Corporation 1994, 1995. All rights
reserved.

Oracle7 Server Release 7.3.3.0.0 - Production Release
```

Step 7. At the SVRMGR> prompt, enter the following commands (one at a time) to shut down the Oracle database:

connect internal;
shutdown normal;
exit;

The session will look like the following:

```
SVRMGR> connect internal;
Connected.
SVRMGR> shutdown normal;
Database closed.
Database dismounted.
ORACLE instance shut down.
SVRMGR> exit;
Server Manager complete.
```

Step 8. Do *not* exit as user oracle. If you do, you will have to re-enter the environment variables you set in steps 2 and 3.

As root, do the following:

Step 1. In another terminal window, log on to your system on which you are installing the software.

If you can have only one window open on your monitor, type the following:

su -

Step 2. Set the following Oracle environment variables:

Table 3-5 **Oracle Environment Variables Set as User root**

Variable Name	Value
ORACLE_BASE	/u01/app/oracle
ORACLE_HOME	/u01/app/oracle/product/7.3.3
ORACLE_OWNER	oracle
ORACLE_PATH	/u01/app/oracle/product/7.3.3/bin:\ /u01/app/oracle/product/7.3.3/oback/bin:\ /usr/bin:/usr/ccs/bin
ORACLE_SID	domain
ORACLE_TERM	hpterm

If you are running the Korn Shell (ksh) or Bourne Shell (sh), use the following command: `export Variable_Name=Value`

If you are running the C Shell (csh), use the following command: `set Variable_Name=Value`

Step 3. If you are not using the console of the system on which you are installing the software, you must also set the DISPLAY environment variable.

If you are using a Hewlett-Packard graphic terminal, set the following variables:

Table 3-6 **HP Graphic Terminal DISPLAY Settings**

Variable Name	Value
TERM	hpterm
DISPLAY	*hostname*:0.0

If you are using a terminal emulator (for example, you are using a Windows-based computer with access to an HP-UX server), set the following variables:

Table 3-7   **Windows-Based Terminal DISPLAY Settings**

Variable Name	Value
TERM	vt100
ORACLE_TERM	xterm

Otherwise, set the following variable:

Table 3-8   **Terminal DISPLAY Setting**

Variable Name	Value
DISPLAY	*hostname*:0.0

where *hostname* is the name of the system from which you are installing the software.

If you are running the Korn Shell (ksh) or Bourne Shell (sh), use the following command: **export *Variable_Name=Value***

If you are running the C Shell (csh), use the following command: **set *Variable_Name=Value***

Step 4. Type the following:

```
cd $ORACLE_HOME/orainst
$ORACLE_HOME/orainst/root.sh
```

Step 5. You will be asked a series of questions and prompted to make selections. The questions, answers, and selections are listed. Answers and selections are in bold.

The following environment variables are set as:

```
ORACLE_OWNER= oracle
ORACLE_HOME=  /u01/app/oracle/product/7.3.3
ORACLE_SID=   vpos
```

Are these settings correct (Y/N)? [Y]:

Y

_____

Enter the full pathname of the local bin directory
[/usr/local/bin]:

RETURN

If your local bin directory is located in another directory, enter that information here.

_____

```
ORACLE_HOME does not match the home directory for oracle.
Okay to continue? [N]:
```

Y

_____

The following messages are displayed:

```
Creating /etc/oratab file...
Updating /etc/oratab file...
Leaving common section of ORACLE7 root.sh.

Please shutdown oracle before continuing.
Press enter when you are ready to continue.
```

ENTER

_____

A list of options currently in use displays. The list is similar to the

_____

following:

Table 3-9   **Terminal DISPLAY Setting**

```
/u01/app/oracle/product/7.3.3/bin/oracle:

    current values:

        shared executable

        shared library dynamic path search:

            SHLIB_PATH      disabled  second

            embedded path   disabled  first  Not Defined

        internal name:

            oracle

        shared library list:

            dynamic    /usr/lib/libcma.1

            dynamic    /usr/lib/libdld.1

         shared library binding:

            deferred

        static branch prediction disabled

        kernel assisted branch predictionenabled

        lazy swap allocationdisabled

        text segment lockingdisabled

        data segment lockingdisabled

        data page size: 4K

        instruction page size: 4K

    new values:

        shared executable

         shared library dynamic path search:
```

Table 3-**9**   **Terminal DISPLAY Setting**

```
         SHLIB_PATH      disabled  second

         embedded path  disabled  first  Not Defined

     internal name:

         oracle

     shared library list:

         dynamic    /usr/lib/libcma.1

         dynamic    /usr/lib/libdld.1

     shared library binding:

     kernel assisted branch predictionenabled

     lazy swap allocationdisabled

     text segment lockingdisabled

     data segment lockingdisabled

     data page size: 4K

     instruction page size: L (largest possible)

/u01/app/oracle/product/7.3.3/bin/oracle:

   current values:

       shared executable

       shared library dynamic path search:

           SHLIB_PATH      disabled  second

           embedded path  disabled  first  Not Defined

       internal name:

           oracle

       shared library list:

           dynamic    /usr/lib/libcma.1
```

Table 3-9 **Terminal DISPLAY Setting**

```
        dynamic    /usr/lib/libdld.1

    shared library binding:

        deferred

    static branch prediction disabled

kernel assisted branch predictionenabled

    lazy swap allocationdisabled

    text segment lockingdisabled

    data segment lockingdisabled

    data page size: 4K

    instruction page size: L (largest possible)

  new values:

    shared executable

    shared library dynamic path search:

        SHLIB_PATH     disabled  second

        embedded path  disabled  first  Not Defined

    internal name:

        oracle

    shared library list:

        dynamic    /usr/lib/libcma.1

        dynamic    /usr/lib/libdld.1

    shared library binding:

        deferred

    static branch prediction enabled

    kernel assisted branch predictionenabled
```

Table 3-**9**   **Terminal DISPLAY Setting**

```
lazy swap allocationdisabled

text segment lockingdisabled

data segment lockingdisabled

data page size: 4K

instruction page size: L (largest possible)
```

_____

Step 6. Optionally, run the vPOS diagnostic script to check the installation by
typing:

/opt/vpos/vpos.diag -h

Read the script /opt/vpos/vpos.diag for more information.

**As user oracle, do
the following:**

Step 1. Return to the terminal window in which you are logged in as user oracle.

If you can have only one window open on your monitor, you can exit as
user root and you will now be user oracle.

To verify that you are user oracle, type **whoami**.

Step 2. Start the Oracle server manager by typing:

$ORACLE_HOME/bin/svrmgrl

The following is displayed:

```
Oracle Server Manager Release 2.3.3.0.0 - Production
Copyright (c) Oracle Corporation 1994, 1995. All rights
reserved.

Oracle7 Server Release 7.3.3.0.0 - Production Release
```

Step 3. At the SVRMGR> prompt, enter the following commands (one at a time) to shut down the Oracle database:

```
connect internal;
startup;
exit;
```

The session will look like the following:

```
SVRMGR> connect internal;
Connected to an idle instance.
SVRMGR> startup;
ORACLE instance started.
Total System Global Area     4508860 bytes
Fixed Size                     38980 bytes
Variable Size                4052088 bytes
Database Buffers              409600 bytes
Redo Buffers                    8192 bytes
Database mounted.
Database opened.
SVRMGR> exit;
Server Manager complete.
```

Step 4. Verify that the Oracle processes are up and running by typing:

```
ps -ef | grep ora_ | grep -v grep
```

The following four processes are present when the Oracle database server is up and running:

```
ora_dbwr_vpos
ora_lgwr_vpos
ora_pmon_vpos
ora_smon_vpos
```

The following process is present if the database recovery daemon is configured:

```
ora_reco_vpos
```

Step 5. Start the Oracle server manager by typing:

```
$ORACLE_HOME/bin/svrmgrl
```

Step 6. At the SVRMGR> prompt, type the following:

```
connect internal;
create user ops$vpos identified by vpos;
(this identifies the database password as vpos; you should use a more
secure password on your production system)
create tablespace vposdata datafile
    '/domain/oradata/vposdata.dbf' size 200M;
create tablespace vpostemp datafile
    '/domain/oradata/vpostemp.dbf' size 200M;
alter user ops$vpos default tablespace vposdata;
alter user ops$vpos temporary tablespace vpostemp;
grant connect to ops$vpos;
grant resource to ops$vpos;
grant dba to ops$vpos;
(you may only want this much capability for initial debugging)
exit;
```

Step 7. Set up the store information. Since vPOS includes the default store shs,
build the proper oracle user and tablespaces. Do this by starting the
Oracle server manager by typing:

```
$ORACLE_HOME/bin/svrmgrl
```

Step 8. At the SVRMGR> prompt, type the following:

```
connect internal;
create user shs identified by shs;
grant connect to shs;
grant resource to shs;
create tablespace sample_store_data datafile
    '/domain/oradata/sample_store_data.dbf' size 60M;
create tablespace sample_store_temp datafile
    '/domain/oradata/sample_store_temp.dbf' size 60M;
alter user shs default tablespace sample_store_data;
alter user shs temporary tablespace sample_store_temp;
exit;
```

Step 9. Check the values you entered. Do the following:

1. Type the following:

   ```
   $ORACLE_HOME/bin/sqlplus ops\$vpos/vpos

   select username, user_id, default_tablespace,
       temporary_tablespace from dba_users;
   exit;
   ```

   The output of sqlplus resembles the following:

Table 3-10   **Terminal DISPLAY Setting**

USERNAME	USER_ID	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE
SYS	0	SYSTEM	TEMP
SYSTEM	5	TOOLS	TEMP
DBSNMP	9	SYSTEM	SYSTEM
TRACESVR	10	SYSTEM	SYSTEM
SCOTT	11	TOOLS	TEMP
MDSYS	12	SYSTEM	SYSTEM
OPS$VPOS	13	VPOSDATA	VPOSTEMP
SHS	14	SAMPLE_STORE_DATA	SAMPLE_STORE_TEMP
8 row selected			

Note that user SCOTT is created by orainst when it installed the sample database example (SCOTT/TIGER).

2. Type the following:

   ```
   $ORACLE_HOME/bin/svrmgrl

   connect internal;
   select username, user_id, default_tablespace,
       temporary_tablespace from dba_users;
   exit;
   ```

   The output looks similar to the output in part 1.

You have completed the Oracle database installation.

3. Install vPOS

The vPOS software must be installed before configuring the Netscape Enterprise Server.

To install the vPOS software, do the following:

Step 1. In a terminal window on the system on which you want to install the vPOS software (the same system on which you swinstalled the bundle), log in as user root.

Step 2. Install the vPOS software by typing the following:

```
cd /domain/vpos
tar -xvf /opt/vpos/vpos.tar
chown -R vpos:vpos /domain/vpos
```

4. Configure the Netscape Enterprise Server

In order to configure your Netscape Enterprise Server to use vPOS, you must complete the following steps (you must be logged in as the root user for each step):

1. Remove the default instance of the Netscape Enterprise Server.

2. Change ownership of the Netscape Enterprise Server binaries.

3. Create the vPOS administration server.

4. Create the vPOS payment server.

5. Verify that the vPOS server is running.

Removing the Default Instance of the Netscape Enterprise Server

When you swinstalled the Netscape Enterprise Server, a default server was configured for you. You will need to delete this default server. Do the following:

Step 1. From a terminal window, as user root, type:

```
export CLASSPATH=$CLASSPATH:/opt/ns-navigator/java/classes/
java40.jar
```

Step 2. From the same terminal window, start the HP administration server and configure the HP Domain Enterprise Server Management System (HP

DESMS) by typing:

`/opt/hpwebsuite/hpsetup`

Step 3. From the same terminal window, start HP DESMS:

1. Start a browser that supports frames and is Java-enabled, such as Navigator 3.0 or 4.0.

2. Go to the URL

   `http://hostname:8181`

   where *hostname* is the name of the system on which you are running the HP administration server.

3. Enter the administration user ID (hpadmin) and password (which you configured using the `/opt/hpwebsuite/hpsetup` startup script).

Step 4. If this the first time you are using HP DESMS, the "Express Setup" page is displayed. Click on "Configure Netscape Servers."

Otherwise, click on "Domain Commerce" at the top of the actions list and then click on "Configure Netscape Servers."

Step 5. The "Netscape Admin" page is displayed. Check to see if the Netscape Administration Server for the Enterprise Server is running. If it isn't, click on "Start /opt/ns-enterprise3 Admin Server."

Step 6. Click on "Visit Admin Server." Use the system's root user and password to log on.

Step 7. The "Netscape Server Administration" page is displayed. Click on "Remove Server" on the bottom right of the page.

Step 8. In the "Remove a Server From This Machine" page, do the following:

1. Under "Which Server" select "https-default" as the server to remove.

2. Under "Server binaries" do NOT select anything. You do NOT want to remove the server binaries.

3. Under "Verification" select "Yes" next to the statement "Yes, I really do want to remove this server:".

4. Select "OK."

Step 9. Keep the browser open as you will continue to use it when you create the vPOS administration server.

Changing Ownership of the Netscape Enterprise Server Binaries

Once you have removed the default instance of the Netscape you need to change the ownership of the Netscape Enterprise Server binaries to make the installation and configuration of the vPOS administration and payment servers easier.

Although this is not a required step, you will avoid any problems that might occur when altering the configuration of the vPOS servers.

To change the ownership, from a terminal window (you do not have to exit the Netscape Administration Server), type the following:

```
/usr/bin/chown -R vpos:vpos /opt/ns-enterprise3/*
```

Why Should I Change Ownership? Typically, a configured Netscape Enterprise Server is run as user www. The Netscape Enterprise Server binaries are installed with the appropriate files with the appropriate ownership such that user www can change information in all the necessary files.

In the case of the vPOS servers, the administration and payment servers are run as user vpos. User vpos cannot change information in all the necessary files as they are owned by user www. To correct this problem, you can either change ownership of all the Netscape Enterprise Server binaries ensuring that there will be no ownership problems or, as ownership errors occur, you can determine which files need to have their ownership changed and change them individually.

Changing ownership of the Netscape Enterprise Server binaries is the best and easiest way to avoid unnecessary errors.

Creating the vPOS Administration Server

Step 1. Return to the browser you were using to delete the default instance of the Enterprise Server and go to the "Netscape Server Administration" page.

If you closed the browser or exited from HP DESMS, go to the URL `http://`*`system_name`*`:17490` to get to the "Netscape Server Administration" page.

Step 2. Under "Servers Supporting General Administration," click on "Create New Netscape Enterprise Server 3.5.1."

Step 3. The "Netscape Enterprise Server Installation" page is displayed. Change the following fields to the specified values:

Table 3-11   **Terminal DISPLAY Setting**

Field Name	Value
Server Port	8081
Server Identifier	vposadmin
Server User	vpos
Document Root	/domain/vpos/vposadmin/htdocs

and click on "OK."

Step 4. After the message, click on "Configure more about your new server."

Step 5. Click on "Content Management" in the top menu bar and then "Additional Document Directories" in the side menu.

Step 6. Under "Current Additional Directories" remove any entries with the prefix `/help`. vPOS has its own context-sensitive help which you will install in the next step.

Step 7. Add the following document directory

Table 3-12 **Terminal DISPLAY Setting**

Field Name	Value
URL prefix	/help
Map To Directory	/domain/vpos/vposadmin/htdocs/help

and click on "OK." Select "Save" to save your modifications and to
continue configuring the vPOS administration server.

Step 8. Click on "Programs" in the top menu bar.

Step 9. To configure cgi-bin directories, enter the following information in the
"CGI Directory" page:

Table 3-13 **Terminal DISPLAY Setting**

Field Name	Value
URL prefix	vposadmin
CGI directory	/domain/vpos/vposadmin

and click on "OK" and then "Save and Apply" to save and activate the
changes you have made.

Step 10. Click on "Admin" in the top menu bar.

Step 11. Under "Servers Supporting General Administration," the vposadmin
server appears. You can start the server by clicking on the "on" button
next to vposadmin. The server may already be running.

You have completed the configuration of the vPOS administration server.
You are now ready to configure the vPOS payment server.

Creating the vPOS Payment Server

Step 1. Return to the browser you were using to create the vPOS administration server and go to the "Netscape Server Administration" page.

If you closed the browser, do the following:

1. In a terminal window, type:

   export CLASSPATH=$CLASSPATH:/opt/ns-navigator/java/
   classes/java40.jar

2. From the same terminal window, start the browser and go to the URL http://*system_name*:17490 to get to the "Netscape Server Administration" page.

Step 2. Under "Servers Supporting General Administration," click on "Create New Netscape Enterprise Server 3.5.1."

Step 3. The "Netscape Enterprise Server Installation" page is displayed. Change the following fields to the specified values:

Table 3-14 **Terminal DISPLAY Setting**

Field Name	Value
Server Port	8085
Server Identifier	vpospay
Server User	vpos
Document Root	/domain/vpos/htdocs

and click on "OK."

Step 4. After the message, click on "Configure more about your new server."

Step 5. Click on "Content Management" in the top menu bar and then "Additional Document Directories" in the side menu.

Step 6. If the "manual" or "help" prefixes already exist, you will need to edit the existing "Map To Directory" to the value listed below. Otherwise, add the

following document directories:

Table 3-15   **Terminal DISPLAY Setting**

URL Prefix	Map to Directory
stores	/domain/vpos/stores
manual	/domain/vpos/manual
vpos/help	/domain/vpos/htdocs/help
vpos/help/termint	/domain/vpos/htdocs/help/termint
vpos/htdocs	/domain/vpos/htdocs

and click on "OK" and select "Save" to save your modifications and to continue configuring the vPOS payment server.

Step 7. Click on "Programs" in the top menu bar.

Step 8. To configure cgi-bin directories, enter the following information in the "CGI Directory" page:

Table 3-16   **Terminal DISPLAY Setting**

Field Name	Value
URL prefix	vpos/cgi-bin
CGI directory	/domain/vpos/cgi-bin

and click on "OK" and select "Save" to save your modifications and to continue configuring the vPOS payment server.

Step 9. Make sure that Java is enabled on your browser:

1. Go to the "Edit" menu and select "Preferences ...".

2. Click on "Advanced" and make sure a check appears in the box next to "Enable Java."

3. Click on "OK."

Step 10. Click on "Server Preferences" in the top menu bar and then "Restrict Access" in the side menu.

Step 11. Under "A. Pick a resource" click on "Browse..."

Step 12. Click on "Options" located on the right side of the screen and do the following:

1. Enter the following for "List from:"

   /domain/vpos/cgi-bin/termint.exe

2. Select the following:

   List files as well as directories.
   Follow sym-links.

3. Click on "OK."

Step 13. Select the file termint.exe.

Step 14. You are returned to the "Access Control List Management" page with the value for "Editing" set to /domain/vpos/cgi-bin/termint.exe. Click on "Edit Access Control" and do the following:

1. Select "Access control is on."

2. Click on "New Line."

3. On line 2, click on "Deny."

4. In the menu that appears, select "Allow."

5. Click on "Update."

6. On line 2, click on "anyone."

7. In the menu that appears, do the following:

   a. Select "Authenticated people only."

   b. Select "Only the following people" and enter "vposadm" for "User."

   c. Enter "vposadm" for "Prompt for authentication."

   d. Select "Default" for the "Authentication Methods."

   e. Click on "Update."

8. Make sure that line 2 now reads "Allow vposadm anyplace all X" and click on "Submit."

Step 15. Select "Save" to save your changes and continue access control configuration.

Step 16. Repeat steps 11 - 14. However, use the file `certs.exe` instead of `termint.exe`.

Step 17. Select "Save and Apply" to save and activate the changes you have made.

Step 18. Click on "Admin" in the top menu bar.

Step 19. Under "General Administration," click on "Users & Groups."

Step 20. In the "New User" screen, enter the User ID of vposadm, Password of vpos, and the appropriate Surname and Full Name. Select "Create User."

Step 21. Click on "Admin" in the top menu bar.

Step 22. Under "Servers Supporting General Administration," the vpospay server appears. You can start the server by clicking on the "on" button next to vpospay. The server may already be running.

You have completed the configuration of the vPOS payment server.

Verifying that the vPOS Server is Running

To verify that the vPOS payment server is running, type:

`ps -u vpos`

If the ns-httpd and vposd processes are listed, the server is running.

5. Configure vPOS

Please, follow the vPOS instructions in the order presented here so you can access the 'sample' store configured in the tar vPOS file without inadvertently updating other configuration data.

NOTE   Perform the "Netscape Enterprise Server" and "Oracle Database" installation steps prior to installing vPOS in this section. Steps numbered within this section are independent of numbering within other sections.

Please note that when the instructions say "log-in as xxx" it means that you have to be the user xxx, not just invoke "su -u xxx" to execute the command. The components being installed here are very sensitive to ownership of files and directories and you may experience problems if you do not follow the steps below.

Pre-configuration steps:

There are several things that you can do now to prepare for the Installation and Configuration steps that follow. By doing these things now, you will have the necessary information for later use.

• Check /etc/services to find the current *ServicePort*. Make a note of the value.

Configuration:

Step 1 - **verify that the vPOS process is running**

To see if the vPOS server process is running you may use the commands:

• /usr/bin/ps -u vpos

   Note: At this point, you should not see the background process *vposd* yet because we will start it later on in the process.

Step 2 - **update the default configuration.**

Access the vPOS Admin server using your browser:

```
http://<hostname>:8081/index.html
```

Configuration Editor

The frames will navigate you through the screens. For example, you press "Configuration Editor" and you can change the default values for the vPOS server. Note that other screens have not been initialized yet. Do not attempt to access them at this time.

This will show a form with the current default values that MUST be updated by the user before proceeding with the next steps.

Change values and click on "Update" key (under vPOS INI File section).

Form:

....

Engine

    Service: ../cgi-bin

    ServicePort 7777

    ServiceIP   <hostname>

LOGGING

    errorLog   LOG_LOCAL1

DATABASE

    SID   vpos

    HOME ${ORACLE_HOME}   (replace by its value)

    BIN ${ORACLE_HOME}/bin (replace by its value)

vPOS INI File

    Update

....

Step 3 - set the encryption string.

You cat get context-sensitive help by clicking on one of the four frames (Configuration editor; Environment editor; Site administration; vPOS Service) and then clicking on the Help button.

Select: "Site administration" from the left-hand frame.

Click: "add".

It will show you a form and let you enter the encryption string. For example, enter string "vpos123" (and enter "vpos123" again to confirm it) and press NEXT. The following is a simple example. Be careful when selecting the actual user password!

The user should enter the appropriate values to match those shown on the following table.

Table 3-17   Encryption String Configuration Parameters

Configuration Parameter	Value
Store	shs
Admin user	vposadmin
DB User name	shs
DB Password	shs

Click: "CONFIGURE".

Step 4 - enter the information about the acquirer(s).

The user should enter the appropriate values to match those shown on the following two tables.

Table 3-18   Acquirer(s) Configuration Parameters — Screen 1

Configuration Parameter	Value
Store abbreviation	shs
Acquirer name	Acquirer1
Merchant BIN	123
Merchant ID	456
Terminal IDs	123-term

Enter the following text into the large text box (with no name):

"This is the first shs id screen."

Note: The system does not care what you enter into this box, but it does check to be sure that you put something here.

Click: OK

This will take you to the second screen.

Table 3-19   **Acquirer(s) Configuration Parameters — Screen 2.**

Configuration Parameter	Value
Store abbreviation	shs
Acquirer name	Acquirer2
Merchant BIN	123
Merchant ID	456
Terminal IDs	123-term

Enter the following text into the large text box (with no name):

"This is the second shs id screen."

Note: The system does not care what you enter into this box, but it does check to be sure that you put something here.

Click: OK.

If you edit the Site Administration screen at a later date, you will be able to update the stores.

Step 5 - **select vPOS Services.**

Click: "vPOS Services".

vPOS Service form Enter the password of the vPOS user in this form. The "password" that the form is requesting is the encryption string that you entered before "vpos123".

After entering the encryption string, the vposd server starts and you get a new screen.

Step 6 - **view initial "StoreFront" page.**

Access the vPOS server to see the initial page of a store front:

Go to:

```
http://<hostname>:8085/stores/shs/shs.html
```

Note that you will need a vWALLET to complete this transaction. You can browse through this screen and the next screen to see the user interaction but you will not be able to place the order.

Step 7 - **start using vPOS.**

Go to:

```
http://<hostname>:8085/vpos/cgi-bin/termint.exe/@shs@/
```

You will be prompted for a password. Enter VPOS as the password.

Go to "Operator" and follow the instructions.

For example, enter the following "Sale" transaction:

```
Invoice number      123

Credit Card Number 4242 4242 4242 4242

Expiration Date     05/2000

Transaction Amount 9.99

Street Address      11000 N. Wolfe Rd. Cupertino CA

Zip Code            95014

Customer Reference 1234

Destination ZIP     95070

Local tax           .82
```

Click: "Submit."

Step 8 - **optional check-step.**

NOTE   This is just a note about the vPOS implementation.

You may go back to the Environment Editor and see that vPOS is partially configured.

Instead of using the configuration form, you can update a file. Note that the values updated at this screen are stored in the file `/domain/vpos/admin/vpos.ini.` The initial values stored in the file are:

```
[vPOS INI File]

;vpos.ini

; Contains the values needed to run vPOS on your system

[Engine]

Service=../cgi-bin

ServicePort=7722

;ServicePort=7899

ServiceIP=stampy[LOGGING]

;UNIX: syslog facility - values LOCAL0 to LOCAL7

errorLog=LOG_LOCAL1

LogDir=../temp

DebugLog=1

[DATABASE]

;HOME and BIN parameters correspond to the ORACLE_HOME and ORACLE_BIN

;database parameters.  SID entry corresponds to the oracle system

;identifier.  If entry REMOTEDB is present the value should

;correspond to the entry for the database in the tnsnames.ora file

;in the $ORACLE_HOME/network/admin directory

SID=vpos40

HOME=/oracle/app/oracle/product/7.3.2.2

BIN=/oracle/app/oracle/product/7.3.2.2/bin

[vPOS INI File]
```

As said earlier, a reason to have the web server owned by user vpos is that the owner of the web server has to have write permission to the `/domain/vpos/admin/vpos.ini` file.

4   For More Information ...

The location of additional information about HP Domain Commerce and applications certified for HP Domain Commerce are provided in this chapter.

HP Domain Commerce

Information about HP Domain Commerce can be found at the URL
`http://www.hp.com/go/domain`. Click on "Electronic Commerce" in the
HP Domain logo.

Information about the Netscape Enterprise Server can be found at the
URL `http://home.netscape.com/enterprise/v3.5/index.html`.

Information about the VeriFone vPOS server can be found at the URL
`http://www.verifone.com`. Click on "Internet Commerce" in the side
navigation menu.

HP Domain Commerce Documentation

Documentation for each of the products that are part of HP Domain
Commerce can be found in the following locations:

HP DESMS

There are two manuals available for HP DESMS:

- *Getting Started with HP Domain Software* and

- *HP Domain Release Note*

These manuals can be found at the URL `http://docs.hp.com` in the
Internet & Security Solutions topic area.

HP ServiceControl

There are two manuals available for HP ServiceControl:

- *HP Domain ServiceControl Concepts and Operation Guide* and

- *HP Domain ServiceControl Release Note*

These manuals can be found at the URL `http://docs.hp.com` in the
Internet & Security Solutions topic area.

Netscape Enterprise Server

The Netscape Enterprise Server also includes the Netscape Directory Server. There are four manuals available for the Netscape Enterprise Server:

• *Netscape Enterprise Server 3.x Administrator's Guide*,

• *Netscape Directory Server 3.0 Deployment Guide*,

• *Netscape Directory Server 3.0 Installation Guide*, and

• *HP Domain Release Note* (this is the same release note listed for HP DESMS)

These manuals can be found at the URL `http://docs.hp.com` in the Internet & Security Solutions topic area.

VeriFone vPOS

VeriFone vPOS manuals can be found at the URL `http://cat.vfi.com/tphome/vposdocs/vpos.htm`.

Expanding HP Domain Commerce
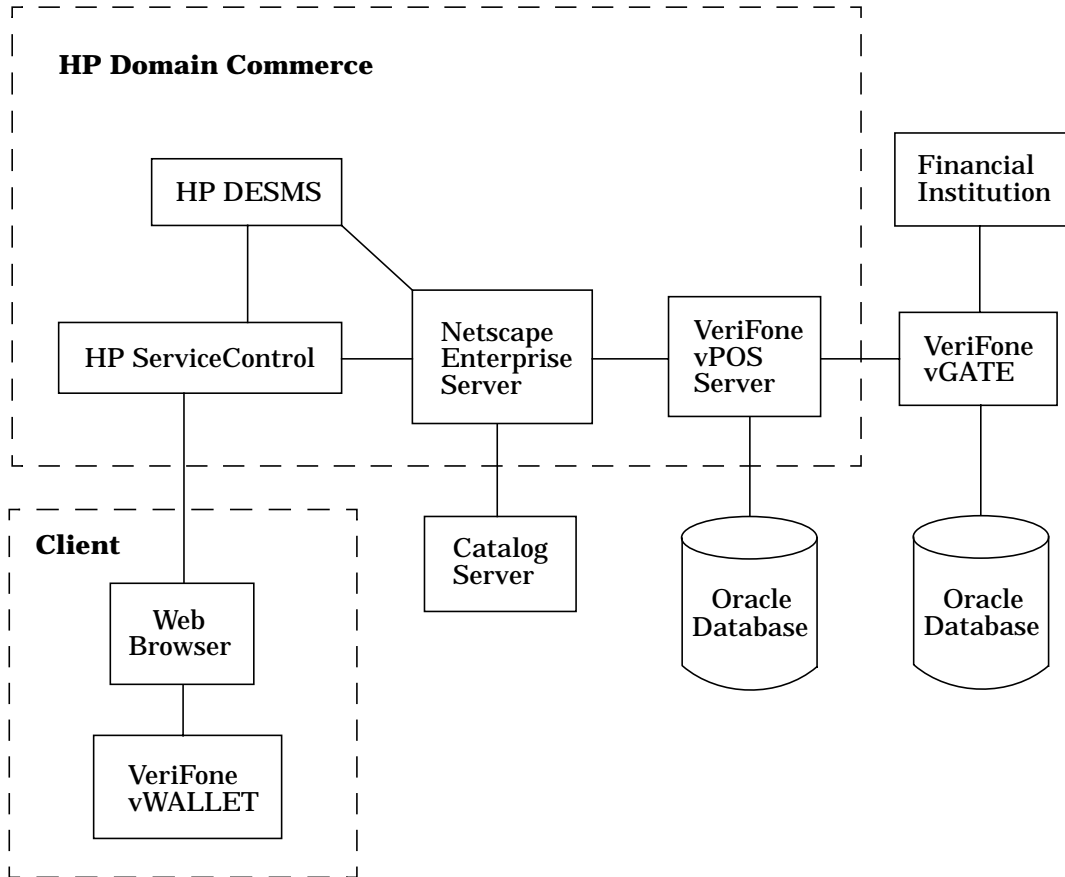
You may want to add other applications not included with HP Domain
Commerce to your e-commerce solution, such as a gateway to a financial
institution or a catalog server to your website.

Information about other applications that have been certified for HP
Domain Commerce can be found at the URL
`http://www.hp.com/go/domain`. Click on "Electronic Commerce" in the
HP Domain logo. Find and click on the link "HP Domain Commerce
Partners" near the middle of this page.