Installing Prime Network Units

This chapter covers the installation and post installation tasks for Prime Network units.

- Installing a Unit, page 7-1
- Post Installation Tasks For Units, page 7-4

Installing a Unit

Complete the following steps to install the Prime Network unit and the tools that are required for unit functionality, including JDK 1.7.0_25 and Perl 5.16.

> **Note** Ensure that the OS version of unit and gateway is same while adding the unit to the gateway. Also, make sure that the home directory of the unit or the redundant unit is the same as the home directory of the gateway.

Step 1 Before starting with the installation, check the unit prerequisites in Prime Network Unit Requirements, page 2-9 and make sure you have completed all the unit preinstallation tasks in Unit Preinstallation Tasks, page 3-4.

Step 2 Insert **Disk 1: New Install** in the DVD drive. (See Installation DVDs, page 1-2.)

Step 3 Open a Telnet or SSH session to the unit and log in as root.

Step 4 Back up and remove the old version of the unit (if an older version exists). For backup procedures, see the Cisco Prime Network 4.3.1 Administrator Guide.

Step 5 To change directories to the CD directory, enter:

```
cdCisco Prime Network 4.3.1 Installation Guide /cdrom/cdrom0/Server
```

Step 6 To install the Cisco Prime Network unit, complete one of the following steps:

a. For a new Prime Network 4.3.1 installation, enter the following command:

```
perl install.pl -user pn431 -dir /export/home/pn431
-uninstall_previous_versions -override_swap -override_ports
```

You must enter the same *pnuser* and directory path that you used when you installed the gateway. (If the gateway and unit have different usernames and directory paths, the unit will not start.)

For example, if the name of the user is pn431, enter the above command:

The installation of the unit starts.

> ✎
> **Note**   This process might take a while.

Step 7   After the installation is complete, you will be prompted to configure Prime Network. Enter **yes** to continue to Step 8 or **no** to continue to the next step and configure later using the **network-conf** command. (You can run network-conf by opening a Telnet or SSH to the unit, logging in as *pnuser*, and running **network-conf**.)

Step 8   Select **Set machine as Prime Network unit**, then press **Enter**. The Prime Network configuration utility configures the system by running a number of procedures.

Step 9   Enter the required information at the prompts. The following table lists the prompts that appears at various stages of the unit configuration and their required settings

Table 7-1   Prompts A

Unit Field	Enter:	Notes
Checking NTP configuration on machine.	yes	Default is **yes**.
Gateway IP address	IP address of the gateway	Make sure the gateway is up and runn before proceeding.
OS root user password	The Unix root password.	Prime Network uses the root passwor machine-level settings and to execute as "root".
Selecting a single interface for Prime Network backend services. **Note** This prompt appears only if more than one interface is detected during the network-conf process.	The number corresponding with the IP address of the back-end interface to be used for gateway-to-unit communication.	This prompt appears if more than one interface is detected during the netwo
Proceeding with installation for unit behind NAT. **Note** This prompt appears if the unit does not have connectivity to the gateway.	yes	If the unit is connected to a gateway w and IPv6 interfaces (dual stack), a sec listener must be added to the unit. Se Configuring Dual Listeners, page 7-3
Prime Network administrator username and password	username and password	Prime Network internal admin user, u secure communication with the gatew
Selecting the unit protection group name	Choose from the listed options.	—
Checking if the unit is a standby unit.	no	Default is **no**.
Unique name for the unit	Unit name	—
Enabling unit protection.	yes	Default is **yes**. When this option is en high availability is enabled on the uni
Entering the database interface accessible from the unit.	Oracle listener IP	This appears when the unit's IP versio different from the Oracle listener IP v

Step 10   When configuring the unit, if the SSH keys are not retrieved automatically within 60 seconds, the following message is displayed: "Connection to *gateway-IP-address* failed. 60 seconds timeout exceeded." To resolve this issue, verify that the unit can reach port 6081 on the gateway.

Configuring Dual Listeners

If the unit connects to a gateway with multiple interfaces (dual stack), the installer asks you to specify the interface that should be used. This happens when the gateway has multiple interfaces (dual stack) and the unit is installed with interface type that differs from the interface on which the database is installed. For example, the gateway and database are installed on an IPv4 interface. The gateway also has an IPv6 interface, and the unit only has an IPv6 interface. To add the unit, the database must be configured with dual listeners and an interface that allows the unit to communicate with the database.

For Embedded Database

To add a listener to an Oracle embedded database installation:

Step 1   As *pnuser*, log into the Prime Network gateway.

Step 2   Change to the embedded database directory:

```
cd Main/scripts/embedded_db
```

Step 3   Run the following perl script:

```
add_oracle_listener.pl
```

Step 4   Answer the script's questions.

```
Is the database installed on a remote server? (yes,no)
```

If you enter **yes**, the following response appears:

```
Provide the new IP Address to be supported by the listener.
```

Enter the database IP address that the new listener should use.

If you enter **no**, the following response appears:

```
The following network interfaces were detected on this host. Please select a single
interface to be used by the new listener:
```

Select the address to be added to the listener.

For External Database

To add a listener to an Oracle external database installation:

Step 1   As the Oracle user, log into the Oracle database.

Step 2   Change to the Oracle home directory:

```
cd $ORACLEHOME/network/admin
```
Step 3   Add the new address to the listener.ora file.

For example:

```
LISTENER =
(DESCRIPTION_LIST =
(DESCRIPTION =
(ADDRESS = (PROTOCOL = TCP)(HOST = 10.56.22.55)(PORT = 1521))
(ADDRESS = (PROTOCOL = TCP)(HOST = 2001:420:44ff:b8:221:28ff:fe04:bba7)(PORT = 1521))
)
)
ADR_BASE_LISTENER = /export/home/oracle
```

Step 4   Stop and then start the listener by executing the following command:

lsnrctl stop
lsnrctl start

✎

Note   In dual-stack gateway installation, redundant units must be of same IP type as the unit. In other words, an IPv4 redundant unit cannot replace an IPv6 unit.

Post Installation Tasks For Units

The following sections describe post installation tasks to verify the Prime Network unit installation:

- Verifying the Prime Network Version and the Unit Processes, page 7-4
- Verifying the Unit Configuration, page 7-5

Verifying the Prime Network Version and the Unit Processes

The **networkctl status** command verifies that the following unit processes are up and running:

- AVM 0—High availability/switch process
- AVM 25—Event persistence
- AVM 83—Internal use; used as a TFTP server by Change and Configuration Management
- AVM 99—Management process
- AVM 100—Prime Network Event Collector (AEC) process

✎

Note   AVM 100 is disabled by default. To enable it, refer to the "Enabling a Single Event Collector on a Gateway or a Unit" section in the Cisco Prime Network 4.3.1 Administrator Guide.

- secured connectivity daemon

At this point in the installation, no AVMs have been added. When you add AVMs and assign VNEs to them, they appear as AVM *ID*, where *ID* is the number assigned to the AVM.

As a Prime Network user, to check the status of all processes and daemons, enter:

networkctl status

The output lists all processes. For each AVM process that is checked, the **status** command displays, in brackets, the number of exceptions found in the total number of log file lines for that process. For example, the information for AVM 0 is [OK 0/45]; that is, 0 exceptions in the 45 log file lines that were checked:

```
--------------------------------------------------------------------------
.-= Welcome to server-name, running Prime Network unit (pn431 (build 347)) =-.
--------------------------------------------------------------------------

+ Checking for services integrity:
  - Checking if host's time server is up and running                [DOWN]
  - Checking if secured connectivity daemon is up and running       [OK]
+ Detected AVM99 is up, checking AVMs
  - Checking for AVM103's status                                    [OK 0/857]
  - Checking for AVM83's status                                     [OK 0/45]
  -Checking for AVM101's status                                      [OK 0/857]
  -Checking for AVM0's status                                        [OK 0/57]
  - Checking for AVM100's status                                    [DISABLED]
  - Checking for AVM25's status                                     [OK 0/35]
```

Verifying the Unit Configuration

Use this procedure to verify that the *golden source* registry was configured correctly on the unit.

Step 1   On the server, locate and open the $*NETWORKHOME*/Main/registry/avm99.xml file.

Step 2   Confirm that the file contains an entry for the key *parent*, which is the value of the IP address of the gateway. If it does not contain the entry, rerun the installation.