



CHAPTER 1

Preparing to Install Cisco Prime Performance Manager

This chapter helps you to plan your installation of Cisco Prime Performance Manager. It describes the Prime Performance Manager installation methods, supported platforms, hardware, and software requirements.

Supported Platforms

Cisco Prime Performance Manager supports the following operating system:

- Oracle Solaris version 10 with the latest recommended patches from Oracle, Inc.
- RedHat Enterprise Linux versions:
 - 5.0 AS Update 3
 - 5.0 AS Update 5

System Requirements

This section details the system requirements for Prime Performance Manager 1.0 on Oracle Solaris and Linux servers. You can deploy Prime Performance Manager in two ways:

- Single deployment, where the Gateway and Unit run on the same server.
- Distributed deployment, where the Gateway and Unit run on different servers.

Single Deployment

Table 1-1 lists the different types for single deployment:

Table 1-1 *Single Deployment - Network Types*

Network Details	Medium	Large	Very Large
Number of nodes	2000	5000	10000
Number of PWE3 links	10000	75000	300000
Number of interfaces ¹	100000	250000	1200000
Number of interfaces with stats ²	50000	125000	500000

1. Number of interfaces are counted as number of entries in interface table on the devices. This number is usually higher than number of physical ports, such as PVCs, Tunnels, PWE3s, VLANs, and so forth, which also appear as interfaces.
2. Number of interfaces to collect statistics: This excludes interfaces such as ds1, ds3, sonet, sdh, and atm layers, which do not return valid statistics for those layers.

Table 1-2 lists the system requirements for Linux:

Table 1-2 *Single Deployment - System Requirements for Linux*

Network Type	Hardware Requirement	Software Requirement
Medium	<ul style="list-style-type: none"> • Cisco UCS¹ C200M2 or Cisco UCS C210M2 for non NEBs compliant systems • Sun Netra X4250 or equivalent for NEBs compliant systems 	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)
Large	Cisco UCS C210M2 for non NEBs Compliant Systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)
Very Large	Cisco UCS C210M2 for non NEBs compliant systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)

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Table 1-3 lists the system requirements for Oracle Solaris:

Table 1-3 Single Deployment - System Requirements for Oracle Solaris

Network Type	Hardware Requirement	Software Requirement
Medium	<ul style="list-style-type: none"> Sparc T3-1 or equivalent for non NEBs compliant systems Sparc T5120 or equivalent for non NEBs compliant systems Sparc Netra T5220 or equivalent for NEBs compliant systems Sparc Netra T3-1 or equivalent for NEBs compliant systems 	Oracle Solaris 10 with latest recommended patches.
Large	<ul style="list-style-type: none"> Sparc T3-1 or equivalent for non NEBs compliant systems Sparc Netra T3-1 or equivalent for NEBs compliant systems 	Oracle Solaris 10 with latest recommended patches.
Very Large	Not available	Not available

**Note**

For additional system requirements, such as CPU type, number of CPUs, memory, swap space, Linux updates, Oracle Solaris updates, and so on, see [Appendix A, “Detailed System Requirements”](#).

Distributed Deployment

[Table 1-4](#) lists the different types for distributed deployment:

Table 1-4 Distributed Deployment - Network Types

Network Details	Very Large	Extremely Large
Number of nodes	10000	16000
Number of PWE3 links	500000	860000
Number of interfaces ¹	1500000	2470000
Number of interfaces with stats ²	700000	1125000

- Number of interfaces are counted as number of entries in interface table on the devices. This number is usually higher than number of physical ports, such as PVCs, Tunnels, PWE3s, VLANs, and so forth, which also appear as interfaces.
- Number of interfaces to collect statistics: This excludes interfaces such as ds1, ds3, sonet, sdh, and atm layers, which do not return valid statistics for those layers.

[Table 1-5](#) lists the system requirements for Gateway on Linux:

Table 1-5 *Distributed Deployment - System Requirements for Gateway on Linux*

Network Type	Hardware Requirement	Software Requirement
Very Large	Cisco UCS C210 or Cisco UCS C200M2 for non NEBs compliant systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)
Extremely Large	Cisco UCS C210 or Cisco UCS C200M2 for non NEBs compliant systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)

Table 1-6 lists the system requirements for a Unit with 10000 nodes on Linux:

Table 1-6 Distributed Deployment - System Requirements for Unit with 10000 nodes on Linux

Network Type	Hardware Requirement	Software Requirement
Very Large	Cisco UCS C210M2 for non NEBs compliant systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)
Extremely Large	Cisco UCS C210M2 for non NEBs Compliant Systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)

Table 1-7 lists the system requirements for a Unit with 6000 nodes on Linux:

Table 1-7 Distributed Deployment - System Requirements for Unit with 6000 nodes Linux

Network Type	Hardware Requirement	Software Requirement
Extremely Large	Cisco UCS C210M2 for non NEBs Compliant Systems	Linux RedHat RHEL 5 Update 3 or Update 5 (64 bit)



Note

For additional system requirements, such as CPU type, number of CPUs, memory, swap space, Linux updates, Oracle Solaris patches, and so on, see [Appendix A, “Detailed System Requirements”](#).

Client Requirement

Prime Performance Manager web interface is supported on the following browsers:

- Microsoft Internet Explorer version 8.0
- Mozilla Firefox 3.6.x

SNMP Configuration Requirements

This section provides requirements for setting up the SNMP configuration of the network elements (nodes) that the Cisco Prime Performance Manager manages.

When you configure your network for Cisco Prime Performance Manager management, you should:

- Configure each network node to be accessible through IP networking to or from the Cisco Prime Performance Manager Unit. That is, you should be able to access each node from the Cisco Prime Performance Manager Unit.
- Configure nodes to use SNMP community names. Cisco Prime Performance Manager requires that the names be at least read-only (RO). The read-write (RW) names also work.

To implement these requirements, enter the following IOS commands on all Cisco Prime Performance Manager-managed nodes:

```
snmp-server community snmp community string RO
```

For more information about these commands, see

<http://www.cisco.com/univercd/cc/td/doc/product/software/ios122>

Alternate Ports

The Cisco Prime Performance Manager Gateway uses the following default ports:

- RMI Registry Port—45742
- Login Server Port—45752
- Client Port—46173-46273 (The range depends on the number of expected units)
- HTTP Web Server Port—4440
- Data Server Port—45751

The Prime Performance Manager Unit must know which ports that are used by the Prime Performance Manager Gateway. By default, the Unit uses the following ports:

- Web Server Port—5440
- RMI Registry Port—55742
- Data Server Port—55751
- Login Server Port—55752
- Client Port—56173

Sometimes these default ports cannot be used because other system software may be running on them. If non-default ports are used on the Prime Performance Manager Gateway, you must specify these while Prime Performance Manager Unit is being installed. You are prompted to enter these ports during installation.

No additional configuration is required when a Unit uses a non-default port.

Prime Performance Manager detects port conflicts during installation. To find available TCP ports, you can enter the following commands instead of the default ones:

```
Solaris: netstat -a -n -f inet -P tcp  
Linux: netstat -a -n -t
```

If you specify an alternate port, you must ensure that the ports 1 through 1023 are not used. These ports are reserved for system processes and should not be used.

For more information about Prime Performance Manager ports, see the [User Guide for the Cisco Prime Performance Manager 1.0](#).