



Managing Gateways and Units Using the CLI

The following topics tell you how to start, stop, and restart Prime Performance Manager gateways and units with parameters, and how to display their status and software versions:

- [Logging In as the Root User, page 2-1](#)
- [Starting Gateways and Units, page 2-2](#)
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Logging In as the Root User

Starting, stopping, or restarting Prime Performance Manager gateways and units requires you to log in as the root user or the user enabled with the ppm superuser command.

To log in as the root user, enter:

```
login: root  
Password: root-password
```

If you are already logged in, but not as the root user, use the **su** command to change your login to root:

```
# su  
# Password: root-password
```

For information about the ppm superuser command, see [ppm superuser, page B-108](#).



Caution

As the root user, you can harm your operating environment if you are not aware of the effects of the commands that you use. If you are an inexperienced UNIX user, limit your root user activities to the tasks described in this guide.

Running Prime Performance Manager as a Non-Root User

You can use the `ppm superuser` command to create a user that can run Prime Performance Manager as a non-root user. The command will update the number of soft and hard processing sessions (`nproc`) in `/etc/security/limits.conf` to 63536. Before starting your first non-root user session, verify that the number of soft and hard `nprocs` are greater than 16000.

To find the `nproc` values look for entries marked with the super user id in the first column. For example, if the user ID is `superuser` the entries might look like the following in `/etc/security/limits.conf`:

```
superuser  soft  nproc      63536
superuser  hard  nproc      63536
```

If no user specific entries are found, look for default `nproc` entries, for example:

```
*  soft  nproc      63536
*  hard  nproc      63536
```

The number in the fourth column is the number of processes allowed. If there are no entries or the number of processes allowed is too low, add or update the following lines in `/etc/security/limits.conf`:

```
superuser  soft  nproc      16000 > 63536
superuser  hard  nproc      16000 > 63536
```

Gateway and Unit Command Summary

You can use the following CLI commands with parameters to start and stop the Prime Performance Manager gateway and units:

`ppm start gw`—Starts all processes on the gateway.

`ppm restart gw`—Restarts all processes on the gateway.

`ppm start unit`—Starts all processes on the unit.

`ppm restart unit`—Restarts all processes on the unit.

`ppm start both`—Starts all processes on the gateway and unit.

`ppm restart both`—Restarts all processes on the gateway and unit.

`ppm stop gw`—Stops all process on the unit.

`ppm stop unit`—Stops all process on the unit.

Starting Gateways and Units

Before you start a Prime Performance Manager gateway or unit, verify that:

- You have IP connectivity to the Prime Performance Manager gateway and unit.
- The unit server has IP connectivity to the devices that you want to monitor.
- SNMP, or other protocol used to connect to devices, is enabled. For information about other device protocols supported by Prime Performance Manager, see [Adding Device Credentials for Other Protocols](#), page 5-6.

- If you will run CSV-based reports, the device must be configured with Prime Performance Manager drop location and the same need to be updated in BulkStats.properties, which is located in `/opt/CSCOppm-unit/properties/`. For more information, see [Setting Up StarOS Bulk Statistics Reports, page 8-21](#).

Prime Performance Manager includes a gateway and a unit component. You must start both components. If the gateway and unit are installed on the same machine, the ppm start command will start the gateway and unit automatically.

**Note**

During Prime Performance Manager installation, the installer allows you to start the gateway and unit after Prime Performance Manager is installed. These procedures only need to be performed if you did not start the gateway and unit after installation, or you stopped the gateway and unit for other reasons.

Complete the following steps to start a Prime Performance Manager gateway and unit if the unit is installed on the same machine as the gateway.

Step 1 Log in as the root user or user enabled with ppm superuser. See [Logging In as the Root User, page 2-1](#).

Step 2 To start the gateway and unit (if installed), enter:

```
/opt/CSCOppm-gw/bin/ppm start
```

The gateway components are started:

```
Starting Prime Performance Manager Gateway App Server...
-- Prime Performance Manager Gateway Launch      Server IS Started.
-- Prime Performance Manager Gateway Database     Server IS Started.
-- Prime Performance Manager Gateway Naming       Server IS Started.
-- Prime Performance Manager Gateway MessageLog   Server IS Started.
-- Prime Performance Manager Gateway DataServer   Server IS Started.
-- Prime Performance Manager Gateway JSP/WebServer IS Started.
Prime Performance Manager Gateway App Server IS Started.
```

If a unit is installed on the same machine, the unit components are started:

```
Starting Prime Performance Manager Unit App Server...
-- Prime Performance Manager Unit Launch          Server IS Started.
-- Prime Performance Manager Unit Database         Server IS Started.
-- Prime Performance Manager Unit Naming          Server IS Started.
-- Prime Performance Manager Unit MessageLog      Server IS Started.
-- Prime Performance Manager Unit DataServer      Server IS Started.
-- Prime Performance Manager Unit JSP/Web Server  IS Started.
Prime Performance Manager Unit App Server IS Started.
```

The gateway web component is started and web URL is displayed:

```
Starting Prime Performance Manager Gateway Web      Server On Port 4440...
-- Prime Performance Manager Gateway Web          Server IS Started.
Connect Web Browser To Gateway:
http://gatewayhostname:4440
```

If any gateway or unit component is not started, a message similar to the following appears:

```
-- Prime Performance Manager Gateway Launch      Server NOT Started.
```

The message can be displayed for any gateway or unit component. If it appears, review the `sgmConsoleLog.txt` to determine the cause and apply the appropriate fixes. `sgmConsoleLog.txt` is located in the `/opt/CSCOppm-gw/logs/` or `/opt/CSCOppm-unit/logs` directories.

Complete the following steps to start a Prime Performance Manager unit installed on a machine separate from the gateway:

Step 1 Log into the unit server as the root user. See [Logging In as the Root User, page 2-1](#).

Step 2 To start the unit, enter:

```
/opt/CSCOppm-unit/bin/ppm start
```

The unit components are started:

```
Starting Prime Performance Manager Unit App Server...
-- Prime Performance Manager Unit Launch      Server IS Started.
-- Prime Performance Manager Unit Database     Server IS Started.
-- Prime Performance Manager Unit Naming       Server IS Started.
-- Prime Performance Manager Unit MessageLog   Server IS Started.
-- Prime Performance Manager Unit DataServer   Server IS Started.
-- Prime Performance Manager Unit JSP         Server IS Started.
Prime Performance Manager Unit App Server IS Started.
```



Note

The `ppm start` command starts the gateway and automatically starts the unit if it is installed on the same machine. This occurs regardless of whether you initiate the command from the gateway install directory (`/opt/CSCOppm-gw/bin/`) or the unit install directory `/opt/CSCOppm-unit/bin/`. If the gateway and unit are installed on the same machine and you want to start only the gateway, enter `ppm start gateway`. Similarly, if you want to start only the unit, enter `ppm start unit`.

Stopping Gateways and Units

Complete the following steps to stop a Prime Performance Manager gateway and unit if the unit is installed on the same machine as the gateway:

Step 1 Log in as the root user or user enabled with ppm superuser. See [Logging In as the Root User, page 2-1](#).

Step 2 To stop the gateway, enter:

```
/opt/CSCOppm-gw/bin/ppm stop
```

The gateway components are stopped:

```
Stopping Prime Performance Manager Gateway App      Server...
-- Prime Performance Manager Gateway App           Server Stopped.
Stopping Prime Performance Manager Gateway Launch  Server...
-- Prime Performance Manager Gateway Launch        Server Stopped.
Stopping Prime Performance Manager Gateway Web     Server...
-- Prime Performance Manager Gateway Web           Server Stopped.
```

If a unit is installed on the same server as the gateway, the unit components are stopped:

```
Stopping Prime Performance Manager Unit App        Server...
-- Prime Performance Manager Unit App              Server Stopped.
Stopping Prime Performance Manager Unit Launch     Server...
-- Prime Performance Manager Unit Launch           Server Stopped.
```

Depending on how quickly the gateway and unit can be shut down, you might see the following messages indicating additional time is needed to shut down the unit components:

```

Waiting for Prime Performance Manager Unit App Server to stop [10 more ]
Waiting for Prime Performance Manager Unit App Server to stop [9 more ]
Waiting for Prime Performance Manager Unit App Server to stop [8 more ]
Waiting for Prime Performance Manager Unit App Server to stop [7 more ]

```

**Note**

The `ppm stop` command stops the gateway and automatically stops the unit if it is installed on the same machine. This occurs regardless of whether you initiate the command from the gateway install directory (`/opt/CSCOppm-gw/bin/`) or the unit install directory `/opt/CSCOppm-unit/bin/`. If the gateway and unit are installed on the same machine and you want to stop only the gateway, enter **ppm stop gateway**. Similarly, if you want to stop only the unit, enter **ppm stop unit**.

Complete the following steps to stop a Prime Performance Manager unit installed on a machine separate from the gateway:

Step 1 Log into the unit as the root user. See [Logging In as the Root User, page 2-1](#).

Step 2 To stop the unit, enter:

```
/opt/CSCOppm-unit/bin/ppm stop
```

The unit components are stopped:

```

Stopping Prime Performance Manager Unit App      Server...
-- Prime Performance Manager Unit App      Server Stopped.
Stopping Prime Performance Manager Unit Launch  Server...
-- Prime Performance Manager Unit Launch  Server Stopped.

```

Restarting Gateways and Units

Complete the following steps to restart a Prime Performance Manager gateway:

Step 1 Log in as the root user or user enabled with ppm superuser. See [Logging In as the Root User, page 2-1](#).

Step 2 To restart the gateway and unit (if installed), enter:

```
/opt/CSCOppm-gw/bin/ppm restart
```

First, the gateway components are stopped:

```

Stopping Prime Performance Manager Gateway App  Server...
-- Prime Performance Manager Gateway App  Server Stopped.
Stopping Prime Performance Manager Gateway Launch Server...
-- Prime Performance Manager Gateway Launch Server Stopped.
Stopping Prime Performance Manager Gateway Web  Server...
-- Prime Performance Manager Gateway Web  Server Stopped.

```

If a unit is installed on the same server as the gateway, the unit components are stopped:

```

Stopping Prime Performance Manager Unit App      Server...
-- Prime Performance Manager Unit App      Server Stopped.
Stopping Prime Performance Manager Unit Launch  Server...
-- Prime Performance Manager Unit Launch  Server Stopped.

```

Depending on how quickly the gateway and unit can be shut down, you might see the following messages indicating additional time is needed to shut down the unit components:

```
Waiting for Prime Performance Manager Unit App Server to stop [10 more ]
Waiting for Prime Performance Manager Unit App Server to stop [9 more ]
Waiting for Prime Performance Manager Unit App Server to stop [8 more ]
Waiting for Prime Performance Manager Unit App Server to stop [7 more ]
```

Next, the gateway components are started:

```
Starting Prime Performance Manager Gateway App Server...
-- Prime Performance Manager Gateway Launch      Server IS Started.
-- Prime Performance Manager Gateway Database     Server IS Started.
-- Prime Performance Manager Gateway Naming       Server IS Started.
-- Prime Performance Manager Gateway MessageLog   Server IS Started.
-- Prime Performance Manager Gateway DataServer   Server IS Started.
-- Prime Performance Manager Gateway JSP         Server IS Started.
Prime Performance Manager Gateway App Server IS Started.
```

If a unit is installed on the same machine, the unit components are started:

```
Starting Prime Performance Manager Unit App Server...
-- Prime Performance Manager Unit Launch      Server IS Started.
-- Prime Performance Manager Unit Database     Server IS Started.
-- Prime Performance Manager Unit Naming       Server IS Started.
-- Prime Performance Manager Unit MessageLog   Server IS Started.
-- Prime Performance Manager Unit DataServer   Server IS Started.
-- Prime Performance Manager Unit JSP         Server IS Started.
Prime Performance Manager Unit App Server IS Started.
```

The gateway web component is started and web URL is displayed:

```
Starting Prime Performance Manager Gateway Web      Server On Port 4440...
-- Prime Performance Manager Gateway Web          Server IS Started.
Connect Web Browser To Gateway:
  http://gatewayhostname:4440
```



Note

The ppm restart command restarts the gateway and automatically restarts the unit if it is installed on the same machine. This occurs regardless of whether you initiate the command from the gateway install directory (/opt/CSCOppm-gw/bin/) or the unit install directory /opt/CSCOppm-unit/bin/. If the gateway and unit are installed on the same machine and you want to restart only the gateway, enter **ppm restart gateway**. Similarly, if you want to restart only the unit, enter **ppm restart unit**.

Complete the following steps to restart a Prime Performance Manager unit installed on a machine separate from the gateway:

Step 1 Log into the unit server as the root user. See [Logging In as the Root User, page 2-1](#).

Step 2 To restart the unit, enter:

```
/opt/CSCOppm-unit/bin/ppm restart
```

The unit components are stopped:

```
Stopping Prime Performance Manager Unit App      Server...
-- Prime Performance Manager Unit App           Server Stopped.
Stopping Prime Performance Manager Unit Launch  Server...
-- Prime Performance Manager Unit Launch       Server Stopped.
```

Then the unit components are started:

```
Starting Prime Performance Manager Unit App Server...
-- Prime Performance Manager Unit Launch      Server IS Started.
-- Prime Performance Manager Unit Database     Server IS Started.
-- Prime Performance Manager Unit Naming       Server IS Started.
-- Prime Performance Manager Unit MessageLog   Server IS Started.
-- Prime Performance Manager Unit DataServer   Server IS Started.
-- Prime Performance Manager Unit JSP         Server IS Started.
Prime Performance Manager Unit App Server IS Started.
```

Displaying Gateway and Unit Status

Use the ppm status command to view the status of a Prime Performance Manager gateways and units. Gateway and unit component status will be either running or not running. Should a component have a not running status, view the sgmConsoleLog.txt to determine the cause. sgmConsoleLog.txt is located in the /opt/CSCOppm-gw/logs/ or /opt/CSCOppm-unit/logs directories.

Complete the following steps to view the gateway and unit status:

- Step 1** Log in as the root user or user enabled with ppm superuser. See [Logging In as the Root User, page 2-1](#).
- Step 2** To view the status of the gateway and unit, if the unit is installed on the same machine as the gateway, enter:

```
/opt/CSCOppm-gw/bin/ppm status
```

The gateway status is displayed, for example:

```
=====
Prime Performance Manager Gateway Version      : 1.7.0.000
Prime Performance Manager Gateway Build       : Tue Jul 28 16:02 EST 2015
Prime Performance Manager Gateway Install     : Tue Jul 28 16:25 EST 2015
Prime Performance Manager Gateway Hostname    : ems-lnx408
Prime Performance Manager Gateway SSL Support : Installed [Disabled]
=====
sgmMsgLogServer: 1.7.0.000 Tue Jul 28 15:59 EST 2015
sgmDataServer:   1.7.0.000 Tue Jul 28 15:59 EST 2015
=====
Prime Performance Manager Gateway App Server IS Running.
-- Prime Performance Manager Gateway Database      Server IS Running.
-- Prime Performance Manager Gateway Naming        Server IS Running.
-- Prime Performance Manager Gateway MessageLog    Server IS Running.
-- Prime Performance Manager Gateway DataServer    Server IS Running.
-- Prime Performance Manager Gateway JSP/Web       Server IS Running.
Maximum Memory Used: 1387562/2097152
Event model queue size is 0. Queue is not congested!
Last Restart:
  Tue Jul 28 16:26:29 EST 2015
Linux Uptime:
  14:50:07 up 87 days, 14:28, 2 users, load average: 0.39, 0.42, 0.44
Current Time: 2015/12/12 14:50:07 EST
=====
Prime Performance Manager Unit Version        : 1.7.0.000
Prime Performance Manager Unit Build         : Tue Jul 28 16:02 EST 2015
Prime Performance Manager Unit Install       : Tue Jul 28 16:25 EST 2015
Prime Performance Manager Unit Hostname     : ems-lnx408
Prime Performance Manager Unit SSL Support   : Installed [Disabled]
Prime Performance Manager Unit Gateway Name  : ems-lnx408
```

```

=====
sgmMsgLogServer:  1.7.0.000  Tue Jul 28 15:59 EST 2015
sgmDataServer:    1.7.0.000  Tue Jul 28 15:59 EST 2015
=====

```

If a unit is installed on the same machine, the unit status is displayed, for example:

```

Prime Performance Manager Unit App  Server  IS  Running.
  -- Prime Performance Manager Unit Database      Server  IS  Running.
  -- Prime Performance Manager Unit Naming         Server  IS  Running.
  -- Prime Performance Manager Unit MessageLog    Server  IS  Running.
  -- Prime Performance Manager Unit DataServer    Server  IS  Running.
Maximum Memory Used: 2133650/3145728
Event model queue size is 0. Queue is not congested!
Last Restart:
  Tue Jul 28 17:51:18 EST 2015
Linux Uptime:
  14:50:15 up 87 days, 14:28,  2 users,  load average: 0.65, 0.47, 0.46
Current Time: 2015/12/12 14:50:15 EST

```

Complete the following steps to view the status of a unit installed on a machine separate from the gateway:

Step 1 Log into the unit server as the root or admin user. See [Logging In as the Root User, page 2-1](#).

Step 2 To view the status of the unit, enter:

```
/opt/CSCOppm-unit/bin/ppm status
```

The unit status is displayed, for example:

```

=====
Prime Performance Manager Unit Version:  1.7.0.000
Prime Performance Manager Unit Build    :  Tue Jul 28 16:02 EST 2015
Prime Performance Manager Unit Install  :  Tue Jul 28 16:25 EST 2015
Prime Performance Manager Unit Hostname  :  ems-lnx408
Prime Performance Manager Unit SSL Support :  Installed [Disabled]
Prime Performance Manager Unit Gateway Name :  ems-lnx408
=====
sgmMsgLogServer:  1.7.0.000  Tue Jul 28 15:59 EST 2015
sgmDataServer:    1.7.0.000  Tue Jul 28 15:59 EST 2015
=====
Current Time: 2015/12/12 14:50:15 EST

```



Note

The ppm status command provides the gateway and unit status if the unit is installed on the same machine. This occurs regardless of whether you initiate the command from the gateway install directory (/opt/CSCOppm-gw/bin/) or the unit install directory /opt/CSCOppm-unit/bin/. If the gateway and unit are installed on the same machine and you want to view only the gateway status, enter **ppm status gateway**. Similarly, if you want to view only the unit status, enter **ppm status unit**.

Displaying Gateway and Unit Software Versions

Complete the following steps to view the Prime Performance Manager software version installed on gateways and units:

- Step 1** Log in as the root user or admin user. See [Logging In as the Root User, page 2-1](#).
- Step 2** To view the Prime Performance Manager version installed on the gateway and unit, if the unit is installed on the same machine as the gateway, enter:

```
/opt/CSCOppm-gw/bin/ppm version
```

The gateway version details are displayed, for example:

The gateway status is displayed, for example:

```
=====
Prime Performance Manager Unit Version      : 1.7.0.000
Prime Performance Manager Unit Build       : Tue Jul 28 16:02 EST 2015
Prime Performance Manager Unit Install     : Tue Jul 28 16:25 EST 2015
Prime Performance Manager Unit Hostname    : ems-lnx408
Prime Performance Manager Unit SSL Support : Installed [Disabled]
Prime Performance Manager Unit Gateway Name : ems-lnx408
=====
sgmMsgLogServer: 1.7.0.000 Tue Jul 28 15:59 EST 2015
sgmDataServer:   1.7.0.000 Tue Jul 28 15:59 EST 2015
=====
Current Time: 2015/12/12 14:50:15 EST
```

If the unit is installed on the same machine, the unit version details are displayed, for example:

```
=====
Prime Performance Manager Unit Version:    1.7.0.000
Prime Performance Manager Unit Build      : Tue Jul 28 16:02 EST 2015
Prime Performance Manager Unit Install    : Tue Jul 28 16:25 EST 2015
Prime Performance Manager Unit Hostname   : ems-lnx408
Prime Performance Manager Unit SSL Support : Installed [Disabled]
Prime Performance Manager Unit Gateway Name : ems-lnx408
=====
sgmMsgLogServer: 1.7.0.000 Tue Jul 28 15:59 EST 2015
sgmDataServer:   1.7.0.000 Tue Jul 28 15:59 EST 2015
=====
Current Time: 2015/12/12 14:50:15 EST
```

To view the Prime Performance Manager version on a unit installed on a machine separate from the gateway:

- Step 1** Log into the unit server as the root or admin user. See [Logging In as the Root User, page 2-1](#).
- Step 2** To view the Prime Performance Manager version installed on the unit, enter:

```
/opt/CSCOppm-unit/bin/ppm version
```

The unit Prime Performance Manager version is displayed, for example:

```
=====
Prime Performance Manager Unit Version:    1.7.0.000
Prime Performance Manager Unit Build      : Tue Jul 28 16:02 EST 2015
Prime Performance Manager Unit Install    : Tue Jul 28 16:25 EST 2015
Prime Performance Manager Unit Hostname   : ems-lnx408
Prime Performance Manager Unit SSL Support : Installed [Disabled]
Prime Performance Manager Unit Gateway Name : ems-lnx408
=====
sgmMsgLogServer: 1.7.0.000 Tue Jul 28 15:59 EST 2015
sgmDataServer:   1.7.0.000 Tue Jul 28 15:59 EST 2015
=====
```

Current Time: 2015/12/12 14:50:15 EST

**Note**

The `ppm version` command provides the Prime Performance Manager gateway and unit version if the unit is installed on the same machine. This occurs regardless of whether you initiate the command from the gateway install directory (`/opt/CSCOppm-gw/bin/`) or the unit install directory `/opt/CSCOppm-unit/bin/`. If the gateway and unit are installed on the same machine and you want to view only the Prime Performance Manager version installed on the gateway, enter **`ppm version gateway`**. Similarly, if you want to view only the Prime Performance Manager version installed on the unit status, enter **`ppm version unit`**.

Limiting Client Access to Servers

Following Prime Performance Manager installation, all client IP addresses can connect to the gateway. You can limit client access to the server by creating the `ipaccess.conf` file and entering the client IP addresses that want to give access to the gateway. Prime Performance Manager allows connections from only those clients and the local host.

If the file exists but is empty, Prime Performance Manager allows connections only from the local host. (Prime Performance Manager always allows connections from the local host.)

Complete the following steps to create the `ipaccess.conf` file and add the client IP addresses that you want to allow access to the gateway:

Step 1 Log into Prime Performance Manager server as the root user.

Step 2 Change to the bin directory:

```
cd /opt/CSCOppm-gw/bin
```

Step 3 Create the `ipaccess.conf` file:

- To create the `ipaccess.conf` file and add a client IP address to the list, enter:
`./ppm ipaccess add`
- To create the `ipaccess.conf` file and open the file to edit it directly, enter:
`./ppm ipaccess edit`

By default, the `ipaccess.conf` file is located in Prime Performance Manager `/opt/CSCOppm-gw/etc` installation directory. If you installed Prime Performance Manager in a different directory, then the default directory is located in that directory.

Step 4 Add the `ipaccess.conf` entries:

- Begin comment lines with a pound sign (`#`).
- Lines without a pound sign are Prime Performance Manager client IP addresses. Enter one address per line.
- Wildcards (`*`) are allowed, as are ranges (for example, 1-100). For example, if you enter the address `*.*.*.*`, all clients can connect to Prime Performance Manager server.

Step 5 After you create the `ipaccess.conf` file, you can use the full set of Prime Performance Manager `ipaccess` keywords to work with the file. The keywords are:

- `clear`—Remove all client IP addresses from the `ipaccess.conf` file and allow connections from any Prime Performance Manager client IP address.
- `list`—List all client IP addresses currently in the `ipaccess.conf` file. If no client IP addresses are listed (that is, the list is empty), connections from any Prime Performance Manager client IP address are allowed.
- `rem`—Remove the specified client IP address from the `ipaccess.conf` file.
- `sample`—Print out a sample `ipaccess.conf` file.

For more information, see [ppm ipaccess, page B-48](#).

Step 6 After `ipaccess.conf` entries are complete, you must restart the gateway for the changes to take effect. See [Restarting Gateways and Units, page 2-5](#).
