



## APPENDIX **B**

# Command-Line Utilities

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## Introduction

This appendix describes the Command-Line Utilities (CLU) that are distributed with the Subscriber Manager application.

## Command-Line Utilities

The Subscriber Manager provides a set of Command-Line Utilities (CLU) that enable you to view Subscriber Manager operations and statistics and to perform subscriber management. You can use the CLU to configure the Subscriber Manager only indirectly; that is, you use the CLU to load an edited configuration file onto the Subscriber Manager.

This appendix describes the CLU commands, their operations, and options. The shorter descriptions of the CLU commands presented in [Chapter 5, “Configuration and Management”](#) focus on the performance of routine management and configuration tasks.

You can execute CLU commands only if you are logged in to the machine by using the **pcude** account, which is always installed (see [Chapter 4, “Installation and Upgrading”](#)). The CLU runs as a process that is separate from the Subscriber Manager. The CLU communicates with the Subscriber Manager through a predefined communication port and interface. Therefore, the Subscriber Manager must keep open a communication port at all times, at least locally on the configured machine.

## CLU Commands

This section describes in the Command-Line Utilities commands.

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- [Parsing CLU Operations and Options](#), page B-3
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The following CLUs are not documented in this guide.

- [The p3bgp Utility](#), page B-35
- [The p3dhcpsniff Utility](#), page B-35
- [The p3dhcpv6sniff Utility](#), page B-35
- [The p3leasequery Utility](#), page B-35
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## Informative Output

All CLU commands support the following operations for informative output:

Operation	Description
<code>--help</code>	Prints the help for the specified CLU command, then exits.
<code>--version</code>	Prints the Subscriber Manager program version number, then exits.

## Parsing CLU Operations and Options

Place in quotation marks a command operation or option that contains any of the following characters:

- A space character
- A separation sign (comma “,”; ampersand “&”; colon “:”)
- An escape character (backslash “\”)
- Parenthesis (“(“or”)”)
- An exclamation mark (“!”)
- The comparison operators (“<“or”>”)

A command operation or option that contains any of the following characters must have that character preceded by an escape character:

- An equal sign (=)
- A quotation mark (“or”)
- An escape character (backslash “\”)
- An exclamation mark (“!”)
- The “\$” character

The following table presents several examples of the preceding rules:

Operation/option contains the character	Example of how operation/option should be written
Space character	<code>--property="file name"</code>
Escape character (backslash “\”)	<code>--property="good\bad"</code>
Equal sign (=)	<code>--property="x=y"</code>
Quotation marks (“or”)	<code>--name=" \"myQuotedName\" "</code>  (in this example, inner quotation marks are escaped)
<b>Separation characters</b>	
comma (,)	<code>--names="x,y"</code>
ampersand (&)	<code>--names="x&amp;y"</code>
colon (:)	<code>--names="myHost:myDomain"</code>

You can use one-letter abbreviations for some of the operations and options. For example, **-d** is an abbreviation for **--domain**. Note that only one hyphen (-), not two, precedes the letter for an abbreviation, and that if the operation or option takes a parameter, there is a space and not an equal sign before the parameter.

Example of using complete name	--domain=subscribers
Example of using abbreviated name	-d subscribers

## The p3batch Utility

The **p3batch** utility enables you to run many operations on a single connection with the Subscriber Manager. You can use any text editor to create a batch file that contains a series of CLU commands, one command per line (terminated by a new-line character). Use the **p3batch** utility to run this file and execute the commands. Empty lines are skipped.

All batch file command line operations use the same connection option. The **p3batch** utility ignores any connection options in the script file commands. While processing the operations in the batch file, the system displays a progress indicator. The **p3batch** command has the following format:

**p3batch** [*FILE-OPTION*] [*ERROR-OPTION*]

Table B-1 and Table B-2 list the **p3batch** options.

**Table B-1** *p3batch File Option*

File Operation	Abbreviation	Description	Notes
<b>--file=FILE</b>	<b>-f</b>	Runs a batch file. FILE specifies the CLU script (batch) file to run.	The system displays a progress indicator.

**Table B-2** *p3batch Error Option*

Error Option	Description
<b>--skip-errors</b>	Specifies that the batch operation should <i>not</i> halt if an error occurs. If you do not specify this parameter, the batch operation <i>will</i> halt if an error occurs.

### Examples

The following command runs the batch file, which halts if an error occurs.

```
p3batch --file=mainBatchFile.txt
```

The following command runs the batch file so that it does not halt if an error occurs.

```
p3batch --file=mainBatchFile.txt --skip-errors
```

## The p3cable Utility

In a cable environment, the CPE is the subscriber and inherits its policy and domain from the cable modem through which it connects to the network. Each cable modem is linked with one or more CPEs. For background information about special characteristics of the cable environment, see the “[CPE as a Subscriber in a Cable Environment](#)” section on page C-1.

You can use the **p3cable** utility commands to import to the Subscriber Manager cable modem information from a CSV file. The command also enables you to export the cable modem information from the Subscriber Manager to a CSV file. You can also use this utility to clear the repository of all cable modems and to allow or deny the login of CPEs that belong to unfamiliar cable modems (that is, cable modems that do not exist in the Subscriber Manager database). However, the contents of the Cable Adapter Section of the configuration file (**p3sm.cfg**) determine whether such logins are allowed or denied. (See the “[Cable Adapter Section](#)” section on page A-17.)

The **p3cable** command has the following format:

```
p3cable OPERATION [FILE-OPTIONS]
```

Table B-3 and Table B-4 list the **p3cable** operations and options.

**Table B-3** p3cable Operations

Operation	Description
<b>--import-cm</b>	Imports cable modems from a CSV file. The filename to be imported is specified using the format <code>--file=import-filename</code> . The results go to a results file.
<b>--export-cm</b>	Exports cable modems to a CSV file. The filename to be exported is specified using the format <code>--output=export-filename</code> . The results go to a results file.
<b>--clear-all-cm</b>	Clears the repository of all cable modems.
<b>--show-dynamic-mode</b>	Shows whether to allow or deny the login of CPEs that belong to unfamiliar cable modems; for example, cable modems that do not exist in the Subscriber Manager database.

**Table B-4** p3cable File Options

File Option	Abbreviation	Description
<b>--file=FILE</b>	<b>-f</b> FILE	Specifies the CSV FILE from which information is imported.
<b>--output=FILE</b>	<b>-o</b> FILE	Specifies the subscriber CSV FILE to which information is exported.

**Examples**

The following command imports cable modem information from the specified CSV file:

```
p3cable --import-cm -f CMFile.csv
```

The following command exports cable modem information to the specified CSV file:

```
p3cable --export-cm --outfile=myCMFile.csv
```

The following command clears the repository of all cable modems:

```
p3cable --clear-all-cm
```

The following displays whether to allow or deny the login of CPEs that belong to unfamiliar cable modems (cable modems that do not exist in Subscriber Manager database):

```
p3cable --show-dynamic-mode
```

**The p3clu Utility**

The **p3clu** utility prints a list of all supported CLU utilities and options.

The **p3clu** command has the following format:

```
p3clu OPERATION
```

Table B-5 lists the **p3clu** operations.

**Table B-5**      *p3clu Operations*

Operation	Description
--help	Prints the currently supported CLU commands.

**Example**

The following command displays a listing of all supported CLU utilities and operations:

```
p3clu --help
```

**The p3cluster Utility**

The **p3cluster** utility displays the redundancy state of a cluster of two Subscriber Manager nodes and its components. This utility also supports operations that alter the redundancy state of the Subscriber Manager. Perform these operations and administrative tasks through the Subscriber Manager Cluster Agent.

The **p3cluster** command has the following format:

```
p3cluster OPERATION
```

Table B-6 lists the **p3cluster** operations.

**Table B-6** *p3cluster Operations*

Operation	Description
<code>--show</code>	Displays the redundancy status of the Subscriber Manager and its components.
<code>--active</code>	Makes the specified Subscriber Manager the active Subscriber Manager in the cluster.
<code>--standby</code>	Makes the specified Subscriber Manager the standby Subscriber Manager in the cluster.

#### Example

The following command displays the redundancy status of the Subscriber Manager and its components:

```
p3cluster --show
```

## The p3db Utility

The **p3db** utility manages and monitors the Subscriber Manager database database. The CLU exposes capabilities of some of the Subscriber Manager database CLUs that pertain to specific needs of the Subscriber Manager.

The **p3db** command has the following format:

```
p3db OPERATION [OPTIONS]
```

Table B-7 and Table B-8 list the **p3db** operations and options.



#### Caution

Some CLU commands can affect the database. If used incorrectly, these commands can damage the database.

**Table B-7** *p3db Operations*

Operation	Description
<code>--rep-status</code>	Displays status of the replication agent.
<code>--rep-start</code>	Starts the replication agent. <b>Note</b> Use only for database recovery.
<code>--rep-stop</code>	Stops the replication agent. <b>Note</b> Use only for database recovery.
<code>--rep-pause</code>	Pauses the replication agent. Used in cluster upgrades.
<code>--rep-continue</code>	Continues the replication agent. Used in cluster upgrades.
<code>--set-rep-scheme</code>	Assigns a replication scheme to the database.
<code>--drop-rep-scheme</code>	Drops the replication scheme from the database.
<code>--status</code>	Displays the database status.
<code>--destroy-rep-db</code>	Destroys the replicated data-store.

**Table B-7** *p3db Operations (continued)*

Operation	Description
<code>--destroy-local-db</code>	Destroys the local data-store.
<code>--duplicate</code>	Copies the data-store from the <i>remote</i> machine to the <i>local</i> machine. <b>Note</b> This option applies only for a <i>cluster setup</i> . For additional information, see the “ <a href="#">Data Duplication Procedure</a> ” section on page 4-23.
<code>--upgrade-rep-protocol</code>	Upgrades the replication protocol between the databases in the cluster.
<code>--keep-in-mem [SECS]</code>	Indicates to the database daemon how many seconds to keep the database in the memory, after the last connection to the database is down. Use this option with large databases to reduce the Subscriber Manager restart time. <b>Note</b> To prevent limitations in performing a database destroy, do not use values above a few minutes (that is, above a few hundred seconds).
<code>--num-of-subs</code>	Displays the current number of subscribers in the database.
<code>--sub-exists</code>	Verifies whether a particular subscriber exists in the database.

**Table B-8** *p3db Options*

Option	Description
<code>--local=LOCAL_HOSTNAME</code>	Specifies the local machine.
<code>--remote=REMOTE_HOSTNAME</code>	Specifies the remote machine.

**Example**

The following command displays the status of the replication agent:

```
p3db --rep-status
```

## The p3domains Utility

The **p3domains** utility displays the subscriber domains. When a system has more than one SCE platform, you can configure the platforms into groups or domains. A subscriber domain is one or more SCE platforms that share a specified group of subscribers. You must add the SCE platform to the network and create the domain before you can add an SCE platform to a domain.

The **p3domains** command has the following format:

```
p3domains OPERATION [OPTIONS]
```



Table B-9 and Table B-10 list the **p3domains** operations and options.

**Table B-9** *p3domains Operations*

Operation	Description
<code>--show-all</code>	Displays all configured domains.
<code>--show</code>	Displays a domain and its associated network elements.

**Table B-10** *p3domains Domain/Network Element (NE) Options*

Domain/NE Option	Abbreviation	Description	Notes
<code>--domain=DOMAIN</code>	<code>-d DOMAIN</code>	DOMAIN specifies logical name.	<b>You cannot use none;</b> it is a reserved word.

### Examples

The following command displays all configured domains:

```
p3domains --show-all
```

The following command displays the specified domain and its associated network elements:

```
p3domains --show --domain=myDomain
```

## The p3ftp Utility

The **p3ftp** utility monitors the Subscriber Manager internal FTP server.

The **p3ftp** command has the following format:

```
p3ftp OPERATION
```

Table B-11 lists the **p3ftp** operations and options.

**Table B-11** *p3ftp Operations*

Operation	Description
<code>--show</code>	Displays the port number that the FTP server listens to, the passive FTP port range that the server uses, the current number of open sessions, the maximum number of sessions supported, and the state (ONLINE/OFFLINE) of the FTP server.

### Example

The following command displays the port number that the FTP server listens to, the passive FTP port range that the server uses, the current number of open sessions, the maximum number of sessions supported, and the state (ONLINE/OFFLINE) of the FTP server.

```
p3ftp --show
```

## The p3http Utility

The **p3http** utility monitors the HTTP adapter server.



**Note**

The HTTP adapter server is a technician interface that normally should not be used.

The **p3http** command has the following format:

**p3http** OPERATION

Table B-12 lists the **p3http** operations:

**Table B-12** p3http Operations

Operation	Description
<code>--show</code>	Displays the port number that the server listens to, the state of the server, and the current number of open sessions.

**Example**

The following command displays the port number to which the server listens, the state of the server, and the current number of open sessions:

```
p3http --show
```

## The p3inst Utility

The **p3inst** utility installs or uninstalls an application (pqi file).



**Note**

Before using **p3inst** to install an application pqi file, read the application installation instructions that came with the application you are installing.

The **p3inst** command has the following format:

**p3inst** OPERATION [FILE-OPTION] [ARGUMENT-OPTION]

Table B-13, Table B-14, and Table B-15 list the **p3inst** operations and options.

**Table B-13** p3inst Operations

Operation	Abbreviation	Description	Notes
<code>--install</code>	<code>-i</code>	Installs the specified application pqi file to the Subscriber Manager.  It may be necessary to specify arguments for the installation procedure in the command line. Requires a file option.	Progress indicator
<code>--uninstall</code>	—	Uninstalls the specified application pqi file from the Subscriber Manager. Requires a file option.	Progress indicator

Table B-13 *p3inst Operations (continued)*

Operation	Abbreviation	Description	Notes
<code>--upgrade</code>	—	Upgrades an existing application using the specified application pqi file. It may be necessary to specify arguments for the upgrade procedure in the command line. Requires a file option.	Progress indicator
<code>--rollback</code>	—	Returns the specified application to the previous version. Rollback is the opposite of an upgrade operation: it reverses the upgrade.	Progress indicator
<code>--describe</code>	<code>-d</code>	Displays the contents of the specified application pqi file.	—
<code>--show-last</code>	—	Lists the details of the last installed application pqi file.	—

Table B-14 *p3inst File Options*

File Option	Abbreviation	Description
<code>--file=FILE[;FILE...]</code>	<code>-f FILE[;FILE...]</code>	Specifies one or more installation FILES to use. If there is more than one FILE, separate them with semicolons.

Table B-15 *p3inst Argument Options*

Argument Option	Description
<code>--arg=ARG1[,ARG2...]</code>	Specifies one or more arguments for the install and upgrade procedures.

**Example**

The following command installs the specified installation file:

```
p3inst --install --file=myInstallation.pqi
```

The following command uninstalls the specified installation file:

```
p3inst --uninstall -f oldInstallation.pqi
```

The following command upgrades an existing application using the specified application pqi file:

```
p3inst --upgrade --file=newInstallation.pqi
```

The following command upgrades an existing application using the specified application pqi file, and using arguments in the command line:

```
p3inst --upgrade -f newInstallation.pqi
```

The following command returns the specified application to the previous version:

```
p3inst --rollback
```

The following command displays the contents of the specified application pqi file:

```
p3inst --describe --file=myInstallation.pqi
```

The following command lists the details of the last installed application pqi file:

```
p3inst --show-last
```

## The p3log Utility

The **p3log** utility configures and manages the Subscriber Manager user log. The user log contains all user-related events and errors. View the user log for the history of the system events and errors.

The **p3log** command has the following format:

```
p3log OPERATION [FILE-OPTION]
```

Table B-16 and Table B-17 list the **p3log** operations and options.

**Table B-16** p3log Operations

Operation	Description	Notes
<code>--extract</code>	Retrieves the user log from the agent.	Progress indicator
<code>--reset</code>	Clears the user log.	—

**Table B-17** p3log File Option

File Option	Abbreviation	Description
<code>--output=FILE</code>	<code>-o FILE</code>	Specifies the location to which the Subscriber Manager user log file should be extracted.

### Examples

The following command extracts the Subscriber Manager user log to the specified file:

```
p3log --extract -o aug20.log
```

The following command clears the Subscriber Manager user log:

```
p3log --reset
```

## The p3net Utility

The **p3net** utility shows the connection status of network elements and tries to reconnect disconnected elements.

The **p3net** command has the following format:

```
p3net OPERATION [NETWORK-ELEMENT-OPTION]
```

Table B-18 and Table B-19 list the **p3net** operations and options.

**Table B-18** *p3net Operations*

Operation	Description
<code>--show-all</code>	Shows all the configured network elements.
<code>--show</code>	Shows the element connection status/general information.
<code>--connect</code>	Tries to connect a disconnected element.

**Table B-19** *p3net Network Element Options*

Network Element Option	Abbreviation	Description
<code>--ne-name=NAME</code>	<code>-n NAME</code>	Specifies the logical NAME for the network element, or the cable modem when working with the VLM.
<code>--detail</code>	—	(Optional) Used with the <code>--show-all</code> operation to display additional information in a table.

### Examples

The following command connects a disconnected element to the network:

```
p3net --connect -n mainNE
```

The following command displays the names of all configured network elements:

```
p3net --show-all
Network Element name list:
=====
sceRome
sceLondon
```

sceRome is a cascade setup containing two SCEs. This is displayed as a single entry in the list.

The following command displays all configured network element details in a table:

```
p3net --show-all --detail
=====
| Name                | Host          | Conn- | Sync- | Domain
|                     |               | Status| Status|
|-----|-----|-----|-----|-----|
| sceRome              | 1.2.3.4*     | up    | done  | subscribers
| sceRome              | 1.2.3.5     | up    | done  | subscribers
| sceLondon            | 1.2.3.6     | up    | done  | domain1
```

sceRome is a cascade setup containing two SCEs. This is displayed as two entries with the same name where '\*' represents the currently active SCE.



#### Note

The Subscriber Manager does not synchronize the standby SCE; therefore, the **Subscriber Management** field on the standby SCE might appear as **not-done** if the SCE was never active.

The following command displays the connection status of the specified network element:

```
p3net --show --ne-name=mainNE
Network Element Information:
=====
Name:          mainNE
Host:          1.1.1.1
Ip:           1.1.1.1
Port:          14374
Status:        Connection ready
Type:          SCE2000
Domain:        subscribers
Synchronization Status: done
Redundancy Status: Standalone
Quarantine Status: ok
```

The following command displays the connection status of cascaded SCEs. Specify the SCE name that appears in the configuration file:

```
p3net --show -n test
Network Element Information:
=====
Name:          test
Host:          1.1.1.1
Ip:           1.1.1.1
Port:          14374
Status:        Connection ready
Type:          SCE2000
Domain:        subscribers
Synchronization Status: done
Redundancy Status: Active
Quarantine Status: ok
Network Element Information:
=====
Name:          test
Host:          2.2.2.2
Ip:           2.2.2.2
Port:          14374
Status:        Connection ready
Type:          SCE2000
Domain:        subscribers
Synchronization Status: not-done
Redundancy Status: Standby
Quarantine Status: ok
```

## The p3rdr Utility

The **p3rdr** utility displays configuration information and statistics for the RDR server.

The **p3rdr** command has the following format:

```
p3rdr OPERATION
```

Table B-20 lists the **p3rdr** operations.

**Table B-20** *p3rdr Operations*

Operation	Description
<b>--show</b>	Displays the RDR server configuration, as well as other general information (for example, the maximum number of connections).
<b>--show-statistics</b>	Displays counters of RDR messages were processed or failed for each connection.
<b>--show-connections</b>	Displays a list of active connections.
<b>--reset-statistics</b>	Resets the counters of the processed RDR messages and rates.

### Examples

The following command displays the status of the RDR server and the current configuration:

```
p3rdr --show
Active:    true
Port:     33001
Connections:
    Max-limit: 10 connections
    Current:   2 connections
Command terminated successfully
>
```

The following command displays the current RDR statistics:

```
p3rdr --show-statistics
RDR Server Statistics:
=====
Handled RDRs: 12
Bad RDRs:    0
Current rate: 12.0 RDRs per second
Peak rate:   12.0 RDRs per second
Client statistics:
-----:
Connection from 10.1.8.81 statistics:
    Handled RDRs: 7
    Bad RDRs: 0
    Current rate: 7.0
    Is connected: true
    Times connected: 1
Connection from 10.1.8.82 statistics:
    Handled RDRs: 5
    Bad RDRs: 0
    Current rate: 5.0
    Is connected: true
    Times connected: 1
Command terminated successfully
>
```

The following command displays the current number of RDR server connections:

```
p3rdr --show-connections
The following clients are connected:
10.1.8.81 - 1 connection
10.1.8.82 - 1 connection
Command terminated successfully
>
```

## The p3rpc Utility

The **p3rpc** utility displays information about the proprietary Cisco Remote Procedure Call (RPC) server interface to the Subscriber Manager. It also authenticates users.

The **p3rpc** command has the following format:

```
p3rpc OPERATION [OPTIONS]
```

Table B-21, Table B-22, and Table B-23 list the **p3rpc** operations and options.

**Table B-21** *p3rpc Operations*

Operation	Description
<b>--show</b>	Displays the port number to which the PRPC server listens, the maximum number of connections, the current number of active connections, and the host IP to which the server listens.
<b>--show-client-names</b>	Displays the names of the connected clients. Can be used for extracting the LEG_NAME key, see the “ <a href="#">LEG-Domains Association Section</a> ” section on page A-5.
<b>--show-statistics</b>	Displays the PRPC server statistics. The statistics include information about the number of current PRPC sessions and information about PRPC server actions such as invocations and errors.
<b>--reset-statistics</b>	Clears the PRPC server statistics.
<b>--set-user</b>	Adds or updates the username and password.
<b>--validate-password</b>	Validates the username and password.
<b>--delete-user</b>	Deletes a user configuration.
<b>--show-users</b>	Displays all configured users.

**Table B-22** *p3rpc User Options*

User Option	Abbreviation	Description
<b>--username=USER-NAME</b>	<b>-u</b>	Specifies the name of the user. Used with <b>--set-user</b> , <b>--validate-password</b> , and <b>--delete-user</b> operations.
<b>--password=USER-PASSWORD</b>	<b>-p</b>	Specifies the password of the user. Used with <b>--set-user</b> , <b>--validate-password</b> , and <b>--delete-user</b> operations.



**Table B-23** *p3rpc Miscellaneous Options*

Option	Abbreviation	Description
<code>--remote=IP[:port]</code>	<code>-r</code>	(Optional) Used with <code>--set-user</code> , <code>--validate-password</code> , and <code>--delete-user</code> for user operations on the remote Subscriber Manager in High Availability setups.  Use the port option if the PRPC Server port on the remote Subscriber Manager machine differs from the default value (14374).

**Examples**

The following command displays the port number to which the PRPC server listens, the maximum number of connections, the current number of active connections, the host IP to which the server listens, and the name of the configuration file used by the server:

```
p3rpc --show
```

The following command displays the statistics of the PRPC server:

```
p3rpc --show-statistics
```

The following command clears the statistics of the PRPC server:

```
p3rpc --reset-statistics
```

The following command shows all of the users configured at the PRPC server:

```
p3rpc --show-users
```

## The p3sm Utility

The **p3sm** utility performs general configuration and management of the Subscriber Manager.

The **p3sm** command has the following format:

```
p3sm OPERATION [OPTIONS]
```

[Table B-24](#), [Table B-25](#), [Table B-26](#), and [Table B-27](#) list the **p3sm** operations and options.

**Table B-24** *p3sm Operations*

Operation	Description	Notes
<code>--show</code>	Displays the current Subscriber Manager configuration and statistics.	—
<code>--load-config</code>	Reloads the Subscriber Manager configuration file.  If you do not use the <code>-f</code> option, the <b>p3sm.cfg</b> file is loaded.	—

Table B-24 *p3sm Operations (continued)*

Operation	Description	Notes
<code>--resync</code>	Resynchronizes subscribers of the specified SCE with the Subscriber Manager database.  The SCE is specified using the <b>option</b> <code>--ne-name=SCE_NAME</code> .	Progress indicator
<code>--resync-all</code>	Resynchronizes all subscribers of all SCEs with the Subscriber Manager database.	Progress indicator
<code>--start [--wait]</code>	Starts the server. The option <code>--wait</code> causes the CLU to return only after the Subscriber Manager is up.	Default: started
<code>--stop</code>	Stops the server.  <b>Note</b> When using fail-over, a simple shut-down of the Subscriber Manager does <i>not</i> work. The Veritas Cluster Server reveals that the Subscriber Manager is down and attempts to restart it. The correct procedure is as follows:  <ol style="list-style-type: none"> <li>1. Perform the manual fail-over. See <a href="#">Chapter 3, “Subscriber Manager Failover”</a>.</li> <li>2. Use the Veritas Cluster Manager Application to stop the monitoring (probing) of the Subscriber Manager.</li> <li>3. Use the Subscriber Manager CLU (<b>p3sm --stop</b>) to stop the Subscriber Manager</li> </ol>	—
<code>--restart [--wait]</code>	Stops the server operation and then restarts it. The option <code>--wait</code> causes the CLU to return only after the Subscriber Manager is up.	—
<code>--sm-version</code>	Displays the currently installed Subscriber Manager version.	—
<code>--sm-status [--detail]</code>	Displays the Subscriber Manager operational status, whether the Subscriber Manager is running or not, and whether it is Active or Standby. If errors have occurred, it also displays a summary of the errors. To receive a detailed description, use the option <code>--detail</code> .	—

Table B-24 p3sm Operations (continued)

Operation	Description	Notes
<code>--extract-support-file</code>	Retrieves the support file from the agent.  This command extracts the Subscriber Manager support information to a defined file, which is defined using the option <code>--output=FILE</code> . Subscriber Manager support information should be extracted and sent to Cisco customer support with each support request.	—
<code>--reset-sm-status</code>	Clears errors and warnings that were displayed.	—
<code>--logging=[on/off]</code>	Enables/disables the logging of user logons to the UserLog.  <b>Note</b> Enabling this parameter might affect performance.	—
<code>--show-stats</code>	Displays statistics regarding login operations and inactive subscriber removal operations. The rate results are updated once every 10 seconds.	—
<code>--reset-stats</code>	Resets the statistics information.	—

Table B-25 p3sm Subscriber Manager Options

Subscriber Manager Option	Abbreviation	Description
<code>--ne-name=NAME</code>	<code>-n NAME</code>	Specifies logical NAME of the SCE platform to resynchronize.

Table B-26 p3sm File Options

File Option	Abbreviation	Description
<code>--output=FILE</code>	<code>-o FILE</code>	The location to which Subscriber Manager extracts the support information file, relative to the Subscriber Manager root directory
<code>--file=FILE</code>	<code>-f FILE</code>	The Subscriber Manager configuration file to load, relative to the Subscriber Manager configuration directory.

**Table B-27** *p3sm Miscellaneous Options*

File Option	Abbreviation	Description
<code>--ignore-warnings</code>	<code>-i</code>	Ignore configuration validation warnings while loading the configuration file.
<code>--remote=IP[:port]</code>	<code>-r</code>	Used with <code>--load-config</code> to load the local configuration file to both the local Subscriber Manager and the remote Subscriber Manager.
<code>--detail</code>	—	Displays a detailed view of the Subscriber Manager status.
<code>--wait</code>	—	Used with <code>--start</code> or <code>--restart</code> to signal the CLU to return only when the Subscriber Manager is up.

**Examples**

The following command starts the server:

```
p3sm --start
```

The following command stops the server:

```
p3sm --stop
```

When using fail-over, a simple shut-down of the Subscriber Manager does *not* work. The Veritas Cluster Server reveals that the Subscriber Manager is down and attempts to restart it. The correct procedure is as follows:

- 
- Step 1** Perform the manual fail-over. See [Chapter 3, “Subscriber Manager Failover”](#).
  - Step 2** Use the Veritas Cluster Manager Application to stop the monitoring (probing) of the Subscriber Manager.
  - Step 3** Use the Subscriber Manager CLU (**p3sm --stop**) to stop the Subscriber Manager
-

The following command displays the Subscriber Manager configuration:

```
>p3sm --show
Subscriber Management Module Information:
=====
Persistency in SCE (static):      false
Auto-resync at SCE reconnect:    true
Save subscriber state on logout:  false
Pull mode is on:                 false
LEG block mode is on:           false
Logon logging is on:            false
Statistics:
Number of logins:                 1872423
Number of logouts:                1824239
Number of auto-logout:           0
Number of pull requests:         0
LEG-SM link failure:
Clear all subscribers mappings:   false
Timeout:                          60
Up time:                          4 hours 16 minutes 44 seconds
Inactive Subscribers Removal:
Is Enabled:                       false
Inactivity timeout:               1 hours
Max removal rate:                 10 subscribers per second
Task interval:                   10 minutes
Last run time:                   Was never run
Automatic Logout (lease-time support):
Is Enabled:                       false
Max logout rate:                 50 IP addresses per second
Task interval:                   disabled
Grace period:                   10 seconds
Last run time:                   Was never run
Command terminated successfully
```

The following command resynchronizes the subscribers of the specified SCE with the Subscriber Manager database:

```
p3sm --resync --ne-name=my_SCE_100
```

The following command stops the server operation and then restarts it:

```
p3sm --restart
```

The following command reloads the Subscriber Manager configuration file, **p3sm.cfg**:

```
p3sm --load-config
```

The following command displays the Subscriber Manager operational status (active or inactive):

```
>p3sm --sm-status
SM is running.
SM operational state is Active
Command terminated successfully
```

The following command extracts the Subscriber Manager support information to the specified file:

```
p3sm --extract-support-file --output=support.zip
```

The following command displays statistics regarding login operations and inactive subscriber removal:

```
>p3sm --show-stats
Subscriber Management Statistics Information:
=====
Number of logins:                1872423
Login rate:                      10.34
Number of logouts:              1824239
Logout rate:                    10.67
Number of auto-logout:          0
Auto-logout rate:               0
Number of pull requests:        0
Pull requests rate:             0
Inactive Subscriber Removal Information:
=====
Number of inactive subscribers removed: 56732
Inactive subscribers removal rate:    9.98
Command terminated successfully
```

## The p3subs Utility

The **p3subs** utility manipulates individual subscriber information in the Subscriber Manager database. The subscriber properties that are supported by the SCA BB Console are packageId, upVlinkId, and downVlinkId. For a description of the subscriber properties, see the [Cisco Service Control Application for Broadband User Guide](#).

The **p3subs** command has the following format:

```
p3subs OPERATION [SUBSCRIBER-OPTIONS]
```

[Table B-28](#) and [Table B-29](#) list the **p3subs** operations and options.

**Table B-28** p3subs Operations

Operation	Description
<b>--add</b>	Adds/updates a subscriber. The operation fails if the subscriber exists, unless the <b>--overwrite</b> option is used.
<b>--set</b>	Adds/updates mappings and/or properties for the specified subscriber.  A new mapping overwrites all existing mappings, unless the <b>--additive-mapping</b> option is used.  A property is overwritten only when a new value is assigned to it, but not when a <i>different</i> property has a new value assigned to it.
<b>--show</b>	Displays information for the specified subscriber.
<b>--remove</b>	Removes the specified subscriber.
<b>--show-all-mappings</b>	Displays all the mappings for the specified subscriber.
<b>--remove-mappings</b>	Removes the specified mapping of the specified subscriber.
<b>--remove-all-mappings</b>	Removes all the mappings of the specified subscriber.
<b>--show-property</b>	Displays the value of the specified property of the specified subscriber.
<b>--show-all-properties</b>	Displays the values of all the properties of the specified subscriber.
<b>--show-all-property-names</b>	Displays all the property names and descriptions.

Table B-28 p3subs Operations (continued)

Operation	Description
<code>--reset-property</code>	Resets the specified property of the specified subscriber to its default value.
<code>--remove-properties</code>	Removes all properties and custom properties from the subscriber record.
<code>--clear-state</code>	Clears applicative state of specified subscriber. This command clears <i>only</i> the backup copy at the Subscriber Manager; it does <i>not</i> clear the applicative state record in the SCE platform.

Table B-29 p3subs Subscriber Options


Subscriber Option	Abbreviation	Description
<code>--overwrite</code>	—	Used in add operations to replace the existing subscriber configuration, instead of failing.
<code>--subscriber=NAME</code>	<code>-s NAME</code>	Performs operation using specified subscriber NAME.
<code>--additive-mappings</code>	—	Adds the new mapping(s) to any existing ones. (Without this option, existing mappings are overwritten.)
<code>--ip=IP1 [/RANGE] [, ...] [@VPN-NAME]</code>	—	<p>Performs the operation using specified IP or IPv6 mappings.</p> <p>“/RANGE” is used for specifying several consecutive mappings, by specifying the number of consecutive set bits in the mask. For example, <b>1.1.1.0/30</b> means <b>1.1.1.0</b> to <b>1.1.1.3</b>, or <b>1.1.1.0</b> with mask <b>255.255.255.252</b>.</p> <p>“@VPN-NAME” is used to specify a tunneled IP address or the range of a VPN.</p> <p> <b>Note</b> We recommend that you do not assign the same IPv6 address to different subscribers with different prefix values.</p>

Table B-29 *p3subs Subscriber Options (continued)*

Subscriber Option	Abbreviation	Description
<code>--vpn=VPN-NAMES-LIST</code>	—	Performs the operation using all the tunneled IP addresses of a VPN (full-range).  This has the same meaning as <code>--ip=0.0.0.0/0@VPN-NAME</code> .
<code>--ipv6-prefix</code>	—	Performs the operation using the specified IPv6 mappings.  A 64-bit IPv6 address representation is supported. All the generic IPv6 notations with prefix are supported, provided the prefix is in the range of 32 to 64.  The <code>--add</code> , <code>--set</code> , <code>--show</code> , and <code>--remove-mappings</code> operations support this subscriber option.
<code>--community=AS:value@VPN-NAME[,...]</code>	—	Performs the operation using the community field of a VPN.
<code>--property=KEY1[=VAL1][;...]</code>	<code>-p KEY1[=VAL1][;...]</code>	Performs the operation using the specified KEY=VAL property/properties. These properties are defined by the application and influence the subscriber service in the SCE.
<code>--custom-property=KEY1[=VAL1][;...]</code>	—	Performs the operation using the specified KEY=VAL custom property/properties. These properties are user-defined and have no influence on the service the subscriber receives.
<code>--domain=DOMAIN</code>	<code>-d DOMAIN</code>	Performs the operation on the specified DOMAIN. If DOMAIN is <b>none</b> , the operation refers to subscribers who have no domain specified.
<code>--up-vlink-name</code>	—	Performs the operation using the specified <b>up-vlink-name</b> .
<code>--down-vlink-name</code>	—	Performs the operation using the specified <b>down-vlink-name</b> .
<code>--giaddr</code>	—	Performs the operation using the specified giaddr IP value.

### Examples

The following command adds a subscriber with the specified IP address:



```
p3subs --add --subscriber=xyz --ip=96.142.12.7
```

The following command overwrites subscriber information. As the subscriber xyz already exists, this operation would have failed, but the **overwrite** option allows the IP address to be overwritten.

```
p3subs --add --subscriber=xyz --ip=96.128.128.42 --overwrite
```

The following command sets a property value for the specified subscriber:

```
p3subs --set --subscriber=xyz --property=packageId=1
```

The following command adds new mappings for the specified subscriber; any existing ones are overwritten:

```
p3subs --set --subscriber=xyz --ip=96.142.12.8
```

The following command adds new mappings to the existing ones for the specified subscriber:

```
p3subs --set --subscriber=xyz --ip=96.142.12.0/24 --additive-mappings
```

The following command adds tunneled IP addresses of a VPN, existing mappings are overwritten:

```
p3subs --set --subscriber=xyz --ip=10.1.1.0/24@myVpn
```

The following command adds all tunneled IP addresses of a VPN, existing mappings are overwritten:

```
p3subs --set --subscriber=xyz --vpn=myVpn
```

The following command adds a community of a VPN, existing mappings are overwritten:

```
p3subs --set --subscriber=xyz --community=1:10@myVpn
```

The following command adds a subscriber with the specified IPv6 address:

```
p3subs --add --subscriber=sub5 --ipv6-prefix=2001:0db8:85a3:1000::/64
```

The following command displays information for the specified subscriber:

```
p3subs --show --subscriber=xyz
```

The following command removes the specified subscriber:

```
p3subs --remove --subscriber=xyz
```

The following command displays all the mappings for the specified subscriber:

```
p3subs --show-all-mappings --subscriber=xyz
```

The following command removes the specified mappings for the specified subscriber:

```
p3subs --remove-mappings --subscriber=xyz --ip=96.142.12.7,96.128.128.42
```

The following command removes a range of consecutive mappings for the specified subscriber:

```
p3subs --remove-mappings --subscriber=xyz --ip=1.1.1.0/30
```

The following command removes all the mappings for a specified subscriber:

```
p3subs --remove-all-mappings --subscriber=xyz
```

The following command displays the value of the specified property for the specified subscriber:

```
p3subs --show-property --subscriber=xyz --property=reporting
```

The following command displays the values of all the properties for the specified subscriber:

```
p3subs --show-all-properties --subscriber=xyz
```

The following command displays all the property names and descriptions:

```
p3subs --show-all-property-names
```

The following command resets a specified property of a specified subscriber to its default value:

```
p3subs --reset-property --subscriber=xyz --property=rdr.transaction.generate
```

The following command clears the applicative state of the specified subscriber. This command clears only the backup copy at the Subscriber Manager. It does **not** clear the applicative state record in the SCE platform:

```
p3subs --clear-state --subscriber=xyz
```

## The p3subsdB Utility

The **p3subsdB** utility manages the subscriber database and performs operations on groups of subscribers.

The **p3subsdB** command has the following format:

```
p3subsdB OPERATION [OPTIONS] [FILE-OPTIONS]
```

Table B-30, Table B-31, and Table B-32 list the **p3subsdB** operations and options.

**Table B-30** p3subsdB Operations

Operation	Description	Notes
<code>--clear-all</code>	Removes all subscriber records from the Subscriber Manager database.	Progress indicator
<code>--clear-domain</code>	Removes all subscriber records from the specified domain.	Progress indicator
<code>--show-num</code>	Displays the number of subscribers in the database for the specified domain.	—
<code>--show-all</code>	Lists all the subscriber names.	—
<code>--show-domain</code>	Lists all the subscriber names in the specified domain.	—
<code>--import</code>	Imports subscribers to the database from a specified CSV file. See the “Subscriber CSV File Format used by the Cisco SCA BB Console for Import and Export of Subscriber Mappings” section on page B-30.  The filename of the file to be imported is specified using the format “--file=import-filename”.  The results go to a result file, <b>import-results.txt</b> , which is created in the same directory as the CSV file.	Progress indicator

Table B-30 p3subsdB Operations (continued)

Operation	Description	Notes
<code>--export</code>	<p>Exports subscribers from the database to a specified CSV file. See “Subscriber CSV File Format used by the Cisco SCA BB Console for Import and Export of Subscriber Mappings” section on page B-30.</p> <p>Use the <code>--mapping-type=MAPPING TYPE</code> option to export specific subscribers.</p> <p>The filename of the file to be exported is specified using the format “<code>--output=export-filename</code>”.</p> <p>The results go to a result file, <b>export-results.txt</b>, which is created in the same directory as the CSV file.</p>	Progress indicator
<code>--clear-all-states</code>	Clears the state of all subscribers in the Subscriber Manager database.	—
<code>--remove-property</code>	<p>Removes a specified property from all subscribers in the system.</p> <p><b>Note</b> After running this command, you should re-synchronize all SCE devices.</p>	—
<code>--remove-all-ip</code>	Removes all the IP addresses of all the subscribers.	In a dual-stack configuration, when used with the option <code>--mapping-type</code> , mapping type should be either <code>ipv4-only</code> or <code>ipv6-only</code> . If no option is used, all the mappings for all the subscribers are removed.
<code>--remove</code>	Removes all the subscribers that are specified in the CSV file from the Subscriber Manager.	—



Table B-31 p3subsdb Options

Option	Abbreviation	Description
<b>--mapping-type=</b> <i>MAPPING TYPE</i>	<b>-m</b> <i>MAPPING TYPE</i>	<p>Used to specify the mapping type in a dual-stack configuration.</p> <p>The mapping types that are supported are:</p> <ul style="list-style-type: none"> <li>- ipv4-only</li> <li>- ipv6-only</li> <li>- dual</li> </ul> <p>The <b>--show-num</b>, <b>--show-all</b>, <b>--show-domain</b>, <b>--remove-all-ip</b>, and <b>--export</b> operations support this option.</p> <p>Consider an example scenario where there are four subscribers with the following mapping details:</p> <ul style="list-style-type: none"> <li>• S1—IPv4 mappings only</li> <li>• S2—IPv6 mappings only</li> <li>• S3—Has both IPv4 and IPv6 mappings</li> <li>• S4—No mappings</li> </ul> <p>When the <b>--export</b> command is used with the specific mapping type:</p> <ul style="list-style-type: none"> <li>• <b>ipv4-only</b>—Exports only the subscribers with IPv4 mappings. In the example scenario, only S1 is exported.</li> <li>• <b>ipv6-only</b>—Exports only the subscribers with IPv6 mappings. In the example scenario, only S2 is exported.</li> <li>• <b>dual</b>—Exports the subscribers having both IPv4 and IPv6 mappings. In the example scenario, only S3 is exported.</li> </ul> <p>If no option is specified, the command exports all the subscribers, including those with no mappings.</p> <p>When any of the <b>--show-num</b>, <b>--show-all</b>, or <b>--show-domain</b> operation commands are used with the specific mapping type:</p> <ul style="list-style-type: none"> <li>• <b>ipv4-only</b>—Shows only the subscribers with IPv4 mappings. In the example scenario, only S1 is displayed.</li> <li>• <b>ipv6-only</b>—Shows only the subscribers with IPv6 mappings. In the example scenario, only S2 is displayed.</li> <li>• <b>dual</b>—Shows the subscribers having both IPv4 and IPv6 mappings. In the example scenario, only S3 is displayed.</li> </ul> <p>If no option is specified, <b>--show-num</b>, <b>--show-all</b>, or <b>--show-domain</b> operation commands shows all the subscribers, including those with no mappings.</p>

Table B-31 *p3subsdB Options (continued)*

Option	Abbreviation	Description
		<p>In a dual-stack configuration, when this option is used with the remove-all-ip operation, the mapping type should either be ipv4-only or ipv6-only, which removes all the IPv4 and IPv6 mappings from all the subscribers respectively.</p> <p>When the remove-all-ip operation is used with the specific mapping type:</p> <ul style="list-style-type: none"> <li>• <b>ipv4-only</b>—Removes the IPv4 mappings from all the subscribers. In the example scenario, S1 and S3 are removed.</li> <li>• <b>ipv6-only</b>—Removes the IPv6 mappings from all the subscribers. In the example scenario, only S2 is removed.</li> </ul> <p>If no option is specified, the remove-all-ip operation command removes all the mappings for all the subscribers.</p>
<code>--prefix=NAME</code>	—	Used in the export operation for filtering the export.
<code>--property=PROP</code>	—	Used in removing of property PROP from all of the subscribers.
<code>--domain=DOMAIN</code>	<code>-d DOMAIN</code>	Performs the operation on the specified DOMAIN. If DOMAIN is <b>none</b> , the operation refers to the subscribers who have no domain specified.

Table B-32 *p3subsdB File Options*

File Option	Abbreviation	Description
<code>--file=FILE</code>	<code>-f FILE</code>	Specifies the subscriber CSV FILES from which to import.
<code>--output=FILE</code>	<code>-o FILE</code>	Specifies the subscriber CSV FILE to which to export.

### Subscriber CSV File Format used by the Cisco SCA BB Console for Import and Export of Subscriber Mappings

The lines in a subscriber CSV files have the following fixed format of IPv4 only subscriber mappings:

```
subscriber-id,domain,mappings,package-id,upstream Virtual Link id,downstream Virtual Link id,monitor
```

The following is an example CSV file for use with the Subscriber Manager CLU:

```
JerryS,subscribers,80.179.152.159,0,0,0
ElainB,,194.90.12.2,3,12,1
```

The lines in a subscriber CSV files have the following fixed format of IPv4 only, IPv6 only, and dual-stack subscriber mappings:

```
subscriber-id,domain,mappings,mappings_ipv6,package-id,upstream Virtual Link id,downstream Virtual Link id,monitor
```

The following is a sample CSV file for use with the Subscriber Manager CLU:

- IPv6 mappings only  
subs1, subscribers, , abcd::/64, 0, 0, 0
- IPv4 mappings only  
subs2, subscribers, 194.90.12.2, , 3, 12, 1
- Both IPv4 and IPv6 mappings  
subs3, subscribers, 1.1.1.1, abcd::/64, 1, 2, 3

If no domain is specified, the default domain (subscribers) is assigned.



**Note**

The Subscriber Manager supports only one format at a time. Run the **p3sm --load-subaware-props** command after you change the format. All the changes should be made in the subaware.pro file too.



**Note**

Provide empty values in the mappings column to import IPv6 mappings, and provide empty values in the mappings\_ipv6 column to import IPv4 mappings.

For a complete description of subscriber properties, see the [Cisco Service Control Application for Broadband User Guide](#).

### Examples

The following command imports subscribers from a specified CSV file:

```
p3subsdb --import --file=mySubscriberFile.csv
```

The following command exports subscribers to a specified CSV file:

```
p3subsdb --export -o mySubscriberFile.csv
```

The following command exports subscribers to a specified CSV file, using filtering options:

```
p3subsdb --export --prefix=a --output=mySubscriberFile.csv
```

The following command exports subscribers to a specified CSV file, using filtering options:

```
p3subsdb --export --prefix=a -o a.csv
```

The following command removes all subscriber records from the Subscriber Manager database:

```
p3subsdb --clear-all
```

The following command removes all subscriber records from the specified domain:

```
p3subsdb --clear-domain --domain=myDomain
```

The following command lists all the subscribers:

```
p3subsdb --show-all
```

The following command lists all subscribers in a specified domain:

```
p3subsdb --show-domain --domain=myDomain
```

The following command shows the number of subscribers in a specified domain:

```
p3subsdb --show-num --domain=myDomain
```

The following command shows the number of subscribers with IPv4 address only in a dual-stack configuration:

```
p3subsdb --show-num -m=IPv4-only
```

The following command shows the number of subscribers with only IPv6 address in a specified domain in a dual-stack configuration:

```
p3subsdb --show-num --d=myDomain -m=ipv6-only
```

The following command lists all the subscribers who have no domain specified:

```
p3subsdb --show-domain --domain=none
```

The following command clears the state of all the subscribers in the Subscriber Manager database:

```
p3subsdb --clear-all-state
```

The following command removes all the subscribers with IPv6 mappings or IPv6 addresses in a dual-stack configuration:

```
p3subsdb --remove-all-ip -m=ipv6-only
```

The following command removes all the subscribers with IPv4 mappings or IPv4 addresses in a dual-stack configuration:

```
p3subsdb --remove-all-ip -m=ipv4-only
```

The following command removes all the subscriber mappings in a dual-stack configuration:

```
p3subsdb --remove-all-ip
```

The following command removes the monitor property from all the subscriber records:

```
p3subsdb --remove-property --property=monitor
```



## The p3vpn Utility

The **p3vpn** utility manages the VPN entities in the Subscriber Manager.

The **p3vpn** command has the following format:

```
p3vpn OPERATION [OPTIONS] [FILE-OPTIONS]
```

Table B-33, Table B-34, and Table B-35 list the **p3vpn** operations and options.

**Table B-33** p3vpn Operations

Operation	Description
<b>--add</b>	Adds a VPN to the Subscriber Manager. The operation fails if the VPN exists.
<b>--set</b>	Updates a VPN in the Subscriber Manager. A new mapping overwrites all existing mappings, unless the <b>--additive-mapping</b> option is used.
<b>--remove</b>	Removes the specified VPN.
<b>--remove-mappings</b>	Removes the specified mappings of the specified VPN.
<b>--remove-all-mappings</b>	Removes all mappings of the specified VPN.
<b>--show</b>	Displays information for the specified VPN.
<b>--show-subs</b>	Displays all the subscribers that belong to the specified VPN.
<b>--show-all</b>	Displays all VPN names.
<b>--show-all-mappings</b>	Displays all the mappings for the specified VPN.
<b>--show-num</b>	Displays the total number of VPNs.
<b>--import</b>	Imports VPNs from a CSV file. See the <a href="#">“VPN CSV File Format for import/export”</a> section on page B-34. The filename of the file to be imported is specified using the format “ <b>--file=import-filename</b> ”. The results go to a result file, <b>import-results.txt</b> , which is created in the same directory as the CSV file.
<b>--export</b>	Export VPNs to a CSV file. See the <a href="#">“VPN CSV File Format for import/export”</a> section on page B-34. The filename of the file to be exported is specified using the format “ <b>--output=export-filename</b> ”. The results go to a result file, <b>export-results.txt</b> , which is created in the same directory as the CSV file.
<b>--remove</b>	Remove the VPNs specified by a CSV file. The filename of the file that contains the VPNs to be removed is specified using the format “ <b>--file=remove-filename</b> ”. The results go to a result file, <b>remove-results.txt</b> , which is created in the same directory as the CSV file.
<b>--remove-all-vlan</b>	Removes all the VLAN-ids of all VPNs.
<b>--remove-all-mppls-vpn</b>	Removes all the MPLS/VPN mappings of all VPNs.

**Table B-34** *p3vpn Options*

Option	Abbreviation	Description
<code>--vpn=VPN-NAME</code>	—	Performs the operation using the specified VPN name.
<code>--mpls-vpn=RT@PE,...</code>	—	Performs the operation using the specified RT/RD@PE mappings.
<code>--vlan=VLAN</code>	—	Performs the operation using the specified VLAN mapping(s).
<code>--domain=DOMAIN</code>	<code>-d DOMAIN</code>	Performs the operation on the specified DOMAIN.

**Table B-35** *p3vpn File Options*

File Option	Abbreviation	Description
<code>--file=FILE</code>	<code>-f FILE</code>	Specifies the CSV FILE from which to import or remove VPNs.
<code>--output=FILE</code>	<code>-o FILE</code>	Specifies the CSV FILE to which the VPNs are exported.
<code>--force</code>	—	Used together with <code>--remove-vpn</code> or <code>--remove-all</code> to perform the removal operation even if subscribers contain tunneled mappings of the removed VPN. The subscribers tunneled mappings of the removed VPN are removed as well.

When working with VLAN mapping types, you must configure the Cisco SCE by using the following CLI:

```
SCE2000#> configure
SCE2000(config)#> in li 0
SCE2000(config if)#> VLAN symmetric classify
```

## VPN CSV File Format for import/export

Lines in VPN CSV files have the following fixed format:

```
vpn-id,domain,mappings
```

If no domain is specified, the default domain (subscribers) is assigned.

The following is a sample CSV file for use with the Subscriber Manager CLU:

```
MPLS-VPN,subscribers,1:1000@1.1.1.1
VLAN-VPN,subscribers,10
```

## Examples

The following command adds a VPN with the specified VLAN:

```
p3vpn --add --vpn=myVpn --vlan-id=10
```

The following command adds new mappings for the specified VPN; any existing ones are overwritten:

```
p3vpn --set --vpn=myVpn --vlan-id=11
```

The following command adds new mappings to the existing ones for the specified subscriber:

```
p3vpn --set --vpn=myVpn --vlan-id=12 --additive-mappings
```

The following command adds a VPN with the specified MPLS/VPN mappings:

```
p3vpn --add --vpn=myVpn --mpls-vpn=1:100@96.142.12.7
```

The following command displays information for the specified VPN:

```
p3vpn --show --vpn=myVpn
```

The following command removes the specified VPN:

```
p3vpn --remove --vpn=myVpn
```

The following command displays all the mappings for the specified VPN:

```
p3vpn --show-all-mappings --vpn=myVpn
```

The following command removes the specified mappings for the specified VPN:

```
p3vpn --remove-mappings --vpn=myVPN --vlan-id=10
```

The following command removes all the mappings for the specified subscriber:

```
p3vpn --remove-all-mappings --vpn=myVpn
```

## The p3bgp Utility

The **p3bgp** utility controls the operation of the BGP LEG and displays its status. For information about this CLU, see the “Using the MPLS/VPN BGP LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3dhcpsniff Utility

The **p3dhcpsniff** utility displays the SCE-Sniffer DHCP LEG configuration, status, and statistics. For information about this CLU, see the “Using the SCE-Sniffer DHCP LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3dhcipv6sniff Utility

The **p3dhcipv6sniff** utility displays the Cisco SCE-Sniffer DHCPv6 LEG configuration, status, and statistics. For information about this CLU, see the “Using the SCE-Sniffer DHCPv6 LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3leasequery Utility

The **p3leasequery** utility displays the DHCP Lease Query LEG configuration, status, and statistics. For information about this CLU, see the “Subscriber Manager Integration - Configuration” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3v6leasequery Utility

The **p3v6leasequery** utility displays the DHCPv6 Lease Query LEG configuration, status, and statistics. For information about this CLU, see the “Subscriber Manager Integration - Configuration” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3radius Utility

The **p3radius** utility displays the statistics of the RADIUS Listener LEG. For information about this CLU, see the “Using the RADIUS Listener LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3radiusniff Utility

The **p3radiusniff** utility displays the SCE-Sniffer RADIUS LEG configuration and statistics. For information about this CLU, see the “Using the SCE-Sniffer RADIUS LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3qm Utility

The **p3qm** utility displays the quota manager configuration, status, and statistics. For information about this CLU, see the “Using the Quota Manager CLU” chapter in the *Cisco Service Control Management Suite Quota Manager User Guide*.

## The p3soap Utility

The **p3soap** utility displays the SOAP LEG configuration and statistics. For information about this CLU, see the “Using the SOAP LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.

## The p3vlink Utility

The **p3vlink** utility displays the virtual link statistics of the Virtual Link Manager. For information about this CLU, see the *Cisco Service Control for Managing Remote Cable MSO Links Solution Guide*.

## The p3ipdr Utility

The **p3ipdr** utility displays the IPDR server and IPDR LEG information. For information about this CLU, see the “Using the IPDR LEG CLU” chapter in the *Cisco SCMS SM LEGs User Guide*.