



CHAPTER 4

Using the Quota Manager Command-Line Utility

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Introduction

This chapter describes the Quota Manager (QM) command-line utility (CLU).

Quota Manager CLU Description

The QM CLU (p3qm) displays the QM configuration, status, and statistics. The command format is p3qm <operation>. [Table 4-1](#) lists p3qm operations.

Table 4-1 p3qm Operations

Operation	Description
<code>--show-config</code> [--package <i>packageId</i>]	Displays all the QM profiles. To display only a certain profile, use the --package option.
<code>--show-quota -s</code> <i>subscriber name</i> [--detail]	Displays the quota status of a specific subscriber. To specify a subscriber name, use the -s option. To display each slice period detail for the subscriber consumption, add the --detail tag.
<code>--show-statistics</code> [-n/--ne-name= <i>NAME</i>]	Displays counters of QM messages handled. To display the statistics of a specific SCE, use the -n option.
<code>--show-connections</code> [-n/--ne-name= <i>NAME</i>]	Displays all of the SCE connections to the QM along with their connection status. Use the -n option to display the connection status of a specific SCE.
<code>--show-subs-in-breach</code> [-q/--quota-profile= <i>QUOTA-PROFILE-NAME</i>]	Displays all subscribers that are currently breached. If the --quota-profile option is used, this command displays the subscribers that are in breach and belong to a certain Quota Profile.

Table 4-1 p3qm Operations (continued)

Operation	Description
--show-subs-in-penalty [-q/--quota-profile= <i>QUOTA-PROFILE-NAME</i>]	Displays all the subscribers that are currently in penalty. If the --quota-profile option is used, this command displays the subscribers that are in penalty and belong to a certain Quota Profile.
--set-quota -s subscriber name -b/--bucket bucket ID=bucket value	Sets the quota for a specific bucket of a subscriber. After the quota is set, the QM initiates a remaining quota RDR ¹ from the SCE. Therefore, if the subscriber was breached, new quota is available immediately.
--add-quota -s subscriber name -b/--bucket bucket ID=bucket value	Adds quota to a specific bucket of a subscriber. After the quota is added, the QM initiates a remaining quota RDR from the SCE. Therefore, if the subscriber was breached, new quota is available immediately.
--replenish-quota -s subscriber name	Replenishes the quota buckets for a specific subscriber without starting a new aggregation period. To specify the subscriber name, use the -s option. Use this CLU in cases when it is required to bypass the QM internal replenishment logic.
--get-quota -s subscriber name [--detail]	Triggers a remaining quota indication to be sent from the SCE ² for a specific subscriber. To specify the subscriber name, use the -s option. To display each slice period detail for the subscriber consumption, add the --detail tag. After using this CLU, the output is the same as the show-quota CLU. However, after using this get-quota CLU, the quota manager is up-to-date with the SCE and so the displayed information is the latest available. Use this CLU if the quota dosage is large and the rate of the remaining quota indications is low.
--enable-logging -s subscriber name	Use this CLU for debugging or troubleshooting. It adds all quota events and quota provisions that are related to a specific subscriber to the user log. To specify the subscriber name, use the -s option. There is no output from this CLU.
--disable-logging -s subscriber name	Use this CLU to disable logging of quota events and quota provisions that are related to a specific subscriber to the user log. To specify the subscriber name, use the -s option. There is no output from this CLU.

Table 4-1 *p3qm Operations (continued)*

Operation	Description
<code>--reset-statistics [-n/--ne-name=NAME]</code>	Resets counters of QM messages handled. To reset the counters of a specific SCE, use the <code>-n</code> option.
<code>--help</code>	Displays a list of available operations and arguments, with a short explanation of their meanings.

1. RDR = Raw Data Record
2. SCE = Service Control Engine

Viewing the Quota Manager Configuration

The following is an example using the `p3qm` CLU using the `show-config` command:

```
> p3qm --show-config
Quota-profile1:
Bucket Sizes = 1000,1000
Dosage Sizes = 10,10
Aggregation Period = Daily
Day of Week = Sunday
Time of Day = 00:00
Aggregation Period Gap = 0
Modification Timestamp = Thu Aug 17 14:50:300 IDT 2006
Command terminated successfully
>
```

Viewing the Current Quota Status

The following is an example using the `p3qm` CLU using the `show-quota` command:

```
> p3qm --show-quota -s subscriber name
Package ID = 1
Last SCE that consumed quota = 10.56.217.84

Aggregation Period:
Last Replenish Time = Tue May 05 13:22:01 IDT 2009
Aggregation Period End = Tue May 05 13:23:00 IDT 2009

Quota Buckets:
Bucket 1 - Quota size = 500, Remaining Quota = 500, Last quota reported by SCE = 50
Bucket 2 - Quota size = 500, Remaining Quota = 500, Last quota reported by SCE = 50

Penalty start = TIME_NOT_SET
Next penalty monitor = TIME_NOT_SET
Command terminated successfully
>
```

Viewing the Quota Manager Statistics

The following is an example using the p3qm CLU using the **show-statistics** command, the number in parenthesis is the rate:

```
> p3qm --show-statistics
Quota Manager Statistics:
=====
SCE2000 (10.56.209.197): connected
Quota State Restore Notifications:      34 (0.4)
Quota Status Notifications:            0 (0)
Quota Below Threshold Notifications:    10 (0)
Quota Depleted Notifications:          0 (0)
Quota Update Sent:                     128 (45.4)
Quota Update Success Acknowledge:      128 (45.4)
Quota Update Failure Acknowledge:      0 (0)
Command terminated successfully
>
```

Viewing the SCE Connections

The following is an example using the p3qm CLU using the **show-connections** command:

```
> p3qm --show-connections
sce1 (10.56.217.81): connected
sce2 (10.56.217.82): not connected
Command terminated successfully
>
```

Viewing the Breached Subscribers

The following is an example using the p3qm CLU using the **show-breached-subs** command:

```
> p3qm --show-subs-in-breach [-q/--quota-profile=QUOTA-PROFILE-NAME]
Subscriber1
Subscriber2
Subscriber3
Subscriber4
Subscriber5
System found 5 subscribers
Command terminated successfully
>
```

Viewing the Subscribers in Penalty

The following in an example using the p3qm CLU using the **show-subs-in-penalty** command:

```
> p3qm --show-subs-in-penalty [-q/--quota-profile=QUOTA-PROFILE-NAME]
Subscriber1
Subscriber2
Subscriber3
Subscriber4
Subscriber5
System found 5 subscribers
Command terminated successfully
>
```

Setting a Subscriber's Quota

The following is an example using the p3qm CLU using the **set-quota** command:

```
> p3qm --set-quota -s sub1 -b 1=1000,2=2000
Command terminated successfully
>
```

This command sets the sub1 quota bucket 1 to 1000 and quota bucket 2 to 2000.

Adding to a Subscriber's Quota

The following is an example using the p3qm CLU using the **add-quota** command:

```
> p3qm --add-quota -s sub1 -b 1=1000,2=2000
Command terminated successfully
>
```

This command adds 1000 to the sub1 quota bucket 1 and 2000 to the sub1 quota bucket 2.

Replenishing Subscriber Quota

The following is an example using the p3qm CLU using the **replenish-quota** command:

```
> p3qm --replenish-quota -s subscriber name
Quota was replenished:
Bucket 1: 1000
Bucket 2: 500
Command terminated successfully
>
```

Getting Subscriber Quota

The following is an example using the p3qm CLU using the **get-quota** command:

```
> p3qm --get-quota -s subscriber name
Quota status was sent from SCE:
Package ID = 1
Last SCE that consumed quota = 10.56.217.81
Aggregation Period:
Last Replenish Time = Thu Aug 17 15:41:23 IDT 2006
Aggregation Period End = Fri Aug 18 00:00:00 IDT 2006
Quota Buckets:
Bucket 1 - Remaining Quota 495 (Last quota reported by SCE is 5)
Bucket 2 - Remaining Quota 1000 (Last quota reported by SCE is 10)
Command terminated successfully
>
```

The **--get-quota** command is different from the **--show-quota** command in that it requests the Service Control Engine (SCE) to send a remaining quota indication, waits for the response, and displays the quota. The **--show-quota** command displays the quota without getting the latest update from the SCE. Therefore, the **--get-quota** command gives more accurate results.

Enabling Logging on a Subscriber

The following is an example using the p3qm CLU using the **enable-logging** command:

```
> p3qm --enable-logging -s subscriber name
Command terminated successfully
>
```

Disabling Logging on a Subscriber

The following is an example using the p3qm CLU using the **disable-logging** command:

```
> p3qm --disable-logging -s subscriber name
Command terminated successfully
>
```

Resetting Statistics

The following is an example using the p3qm CLU using the **reset-statistics** command:

```
> p3qm --reset-statistics [-n/--ne-name=NAME]
Command terminated successfully
>
```

Obtaining Help

The following is an example using the p3qm CLU using the **help** command:

```
> p3qm --help
Usage: p3qm <OPERATION> [OPTION]
```

QM operations:

<code>--show-config</code>	Displays the Quota Manager server configuration parameters. Can be used with <code>--package</code> to display a specific profile.
<code>--show-quota</code>	Displays the remaining quota of a subscriber.
<code>--show-connections</code>	Displays the current devices connected to the server.
<code>--show-statistics</code>	Displays statistics counters related to the Quota Manager. Can be used with <code>-n</code> to display statistics of a specific SCE.
<code>--reset-statistics</code>	Resets statistics counters related to the Quota Manager. Can be used with <code>-n</code> to reset statistics of a specific SCE.
<code>--replenish-quota</code>	Replenish all quota buckets for a subscriber without starting a new aggregation period.
<code>--set-quota</code>	Sets quota buckets of a subscriber to new values without starting a new aggregation period.
<code>--add-quota</code>	Adds quota to specific quota buckets of a subscriber without starting a new aggregation period.
<code>--get-quota</code>	Requests a quota-status indication to be sent from the SCE.
<code>--enable-logging</code>	Enable logging of all quota indications and provisions for a specific subscriber.
<code>--disable-logging</code>	Disable logging of all quota indications and provisions for a specific subscriber.

--show-subs-in-breach Displays all subscribers that are currently breached. If --quota-profile option is used this operation displays the subscribers that are in breach and belong to a certain Quota Profile.

--show-subs-in-penalty Displays all the subscribers that are currently in penalty. If --quota-profile option is used, this operation displays the subscribers that are in penalty and belong to a certain Quota Profile.

QM options:

-s/--subscriber=NAME Perform the operation using this subscriber NAME

-n/--ne-name=NAME Perform the operation using this SCE platform

-b/--bucket=KEY=VAL[,MORE] Perform the operation using the bucket IDs and bucket values

-q/--quota-profile=NAME Perform the operation using the quota profile NAME. This operation can be used in --show-breached-subs and in --show-subs-in-penalty operations.

--detail Used with --show-quota and --get-quota whether to display a detailed view of subscriber quota

--package=NUMBER Perform the operation using this package ID

Command terminated successfully

