



# Traffic Optimization Policy Configuration

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## bandwidth-mgmt

This command configures bandwidth management parameters for a traffic optimization policy.

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**Product**

P-GW

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**Privilege**

Security Administrator, Administrator

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**Command Modes**

Exec > ACS Configuration > Traffic Optimization Policy Configuration

**active-charging service** *service\_name* > **traffic-optimization-policy** *policy\_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-traffic-opt-policy)#
```

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**Syntax Description**

```
bandwidth-mgmt { backoff-profile [ managed | unmanaged ] [ min-effective-rate effective_rate [ min-flow-control-rate flow_rate ] | min-flow-control-rate flow_rate [ min-effective-rate effective_rate ] ] | min-effective-rate effective_rate [ backoff-profile [ managed | unmanaged ] [ min-flow-control-rate flow_rate ] | min-flow-control-rate control_rate [ backoff-profile [ managed | unmanaged ] ] | min-flow-control-rate [ [ backoff-profile [ managed | unmanaged ] [ min-effective-rate effective_rate ] | [ min-effective-rate effective_rate ] [ backoff-profile [ managed | unmanaged ] ] ] }  
[ no ] bandwidth-mgmt
```

**no**

Overwrites the traffic-optimization configured parameter(s) with default values. Before deleting a policy profile, all policies associated to the policy profile should be removed. If policy associations are not removed before deletion, the following error message will be displayed:

```
Failure: traffic-optimization policy in use, cannot be deleted.
```

**backoff-profile**

Determines the overall aggressiveness of the back off rates.

**managed**

Enables both traffic monitoring and traffic optimization.

**unmanaged**

Only enables traffic monitoring.

**min-effective-rate *effective\_rate***

Configures minimum effective shaping rate in Kbps. The shaping rate value is an integer ranging from 100 to 10000.

**min-flow-control-rate *flow\_rate***

Configures the minimum rate allowed in Kbps to control the flow of heavy-session-flows during congestion. The control rate value is an integer ranging from 100 to 10000.

**Usage Guidelines**

Use this command to configure bandwidth management parameters for a traffic optimization policy.

## curbing-control

This command configures curbing flow control related parameters.

**Product**

P-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > ACS Configuration > Traffic Optimization Policy Configuration

**active-charging service *service\_name* > traffic-optimization-policy *policy\_name***

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-traffic-opt-policy)#
```

**Syntax Description**

```
curbing-control { max-phases max_phase_value [ rate curbing_control_rate [ threshold-rate threshold_rate [ time curbing_control_duration ] ] ] | rate curbing_control_rate [ max-phases [ threshold-rate threshold_rate [ time curbing_control_duration ] ] ] | threshold-rate [ max-phases max_phase_value [ rate curbing_control_rate [ time curbing_control_duration ] ] ] | time [ max-phases max_phase_value [ rate curbing_control_rate [ threshold-rate threshold_rate ] ] ] }
```

```
}
[ no ] curbing-control
```

**no**

Overwrites the traffic-optimization configured parameter(s) with default values. Before deleting a policy profile, all policies associated to the policy profile should be removed. If policy associations are not removed before deletion, the following error message will be displayed:

```
Failure: traffic-optimization policy in use, cannot be deleted.
```

**max-phases *max\_phase\_value***

Configures consecutive phases where target shaping rate is below threshold-rate to trigger curbing flow control. The maximum phase value is an integer ranging from 2 to 10.

**rate *curbing\_control\_rate***

Configures the curbing flow-control at a fixed rate in Kbps instead of a dynamic rate. The control rate value is an integer ranging from 0 to 10000. To disable fixed flow control rate, set the flow control rate value to 0.

**threshold-rate *threshold\_rate***

Configures the minimum target shaping rate in kbps to trigger curbing. The threshold rate is an integer ranging from 100 to 10000.

**time *curbing\_control\_detection***

Configures the duration of a flow control phase in milliseconds. The flow control duration value is an integer ranging from 0 to 600000. To disable flow control, set the flow control duration value to 0.

**Usage Guidelines**

Use this command to configure curbing control parameters for a traffic optimization policy.

**do show**

Executes all **show** commands while in Configuration mode.

**Product**

All

**Privilege**

Security Administrator, Administrator

**Syntax Description**

**do show**

**Usage Guidelines**

Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command.

The pipe character | is only available if the command is valid in the Exec mode.

**Caution**

There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

## end

Exits the current configuration mode and returns to the Exec mode.

**Product**

All

**Privilege**

Security Administrator, Administrator

**Syntax Description**

**end**

**Usage Guidelines**

Use this command to return to the Exec mode.

## exit

Exits the current mode and returns to the parent configuration mode.

**Product**

All

**Privilege**

Security Administrator, Administrator

**Syntax Description**

**exit**

**Usage Guidelines**

Use this command to return to the parent configuration mode.

## heavy-session

This command configures heavy session detection parameters.

**Product**

P-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > ACS Configuration > Traffic Optimization Policy Configuration

**active-charging service** *service\_name* > **traffic-optimization-policy** *policy\_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-traffic-opt-policy)#
```

**Syntax Description**

```
heavy-session { standard-flow-timeout [ threshold threshold_value | threshold
threshold_value seed-time seed_time_value [ standard-flow-timeout timeout_value ]
}
[ no ] heavy-session
```

**no**

Overwrites the traffic-optimization configured parameter(s) with default values. Before deleting a policy profile, all policies associated to the policy profile should be removed. If policy associations are not removed before deletion, the following error message will be displayed:

```
Failure: traffic-optimization policy in use, cannot be deleted.
```

**standard-flow-timeout *timeout\_value***

Configures the idle timeout in milliseconds, for expiration of standard flows. The timeout value is an integer ranging from 100 to 3000.

**threshold *threshold\_value***

Configures heavy-session detection threshold in bytes. On reaching the threshold, the flow will be monitored and potentially managed. The threshold value is an integer ranging from 0 to 100000000.

**seed-time *seed\_time\_value***

Configures time in ms for detection of elephant flow. Use this parameter in the enhanced detection mode.

**Usage Guidelines**

Use this command to configure heavy session detection for a traffic optimization policy.

## link-profile

This command configures link profile parameters for a traffic optimization policy.

**Product**

P-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > ACS Configuration > Traffic Optimization Policy Configuration

```
active-charging service service_name > traffic-optimization-policy policy_name
```

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-traffic-opt-policy)#
```

**Syntax Description**

```
link-profile { initial-rate initial_seed_value [ max-rate max_peak_rate_value [
peak-lock ] ] | max-rate [ initial-rate initial_seed_value [ peak-lock ] ] |
peak-lock [ initial-rate initial_seed_value [ max-rate max_peak_rate_value ] ]
}
[ no ] link-profile
```

**no**

Overwrites the traffic-optimization configured parameter(s) with default values. Before deleting a policy profile, all policies associated to the policy profile should be removed. If policy associations are not removed before deletion, the following error message will be displayed:

```
Failure: traffic-optimization policy in use, cannot be deleted.
```

**initial-rate *initial\_seed\_value***

Configures the initial seed value of the acquired peak rate in Kbps for a traffic session. The initial seed value is an integer ranging from 100 to 30000.

**max-rate *max\_peak\_value\_rate***

Configures the maximum learned peak rate allowed in Kbps for a traffic session. The max rate value is an integer ranging from 100 to 30000.

**peak-lock**

Confirms with the link peak rate available at the initial link peak rate setting.

**Usage Guidelines**

Use this command to configure a link profile for a traffic optimization policy.

## session-params

This command configures session parameters for a traffic optimization policy.

**Product**

P-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > ACS Configuration > Traffic Optimization Policy Configuration

**active-charging service *service\_name* > traffic-optimization-policy *policy\_name***

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-traffic-opt-policy)#
```

**Syntax Description**

```
session-params { tcp-ramp-up tcp_rampup_duration [ udp-ramp-up udp_rampup_duration ] | udp-ramp-up udp_rampup_duration [ tcp-ramp-up tcp_rampup_duration ] }  
[ no ] session-params
```

**no**

Overwrites the traffic-optimization configured parameter(s) with default values. Before deleting a policy profile, all policies associated to the policy profile should be removed. If policy associations are not removed before deletion, the following error message will be displayed:

```
Failure: traffic-optimization policy in use, cannot be deleted.
```

**tcp-ramp-up *tcp\_rampup\_duration***

Configures the ramp-up-phase duration in milliseconds, for TCP traffic. The TCP ramp-up duration is an integer ranging from 0 to 5000.

**udp-ramp-up *udp\_rampup\_duration***

Configures the ramp-up-phase duration in milliseconds, for UDP traffic. The UDP ramp-up duration is an integer ranging from 0 to 5000.

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**Usage Guidelines**

Use this command to configure session parameters for a traffic optimization policy.

