



Traffic Optimization Policy Configuration

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bandwidth-mgmt

This command configures bandwidth management 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

```
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.

Usage Guidelines

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

