Traffic Optimization Policy Confiugration

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* **[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.

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.