

Configuring Simple Shared Shaping

This section explains how to configure the shared shaper by specifying a shared-shaping rate for either the best-effort queue or the best-effort scheduler node for the logical interface. The router locates the other queues associated with the logical interface and shapes that set of queues to the shared rate.

You do not explicitly specify shared shaping on the other queues for the logical interface. You can configure individual shaping rates on the other queues that are less than the shared rate. These individual shapers have the effect of reserving some of the shared bandwidth for the other queues.

Before you configure simple shared shaping:

- Configure the traffic classes and traffic-class groups.
See [Configuring Traffic Classes That Define Service Levels](#) and [Configuring Traffic-Class Groups That Define Service Levels](#).

To configure simple shared shaping:

1. Create the scheduler profile.

```
host1(config)#scheduler-profile shared-1mbps
```

2. Configure the shared-shaping rate.

```
host1(config-scheduler-profile)#shared-shaping-rate 128000 burst 32767 simple
host1(config-scheduler-profile)#shared-shaping-rate 80000 + 53000
host1(config-scheduler-profile)#exit
```

The range for the shared-shaping rate is 1000–1000000000 bps (1 Kbps–1000 Kbps); the default is the minimum shaping rate (1 Kbps).

Use the *operator* and *operandValue* variables to specify the shared shaping rate as an expression.

Use the **bps** or **kbps** keywords to specify the unit of the shaping rate. By default, the shaping rate is configured in bps.

Use the **burst** keyword to configure the catch-up number associated with the shaper; the range is 0–522240 (0–510 KB). If you do not specify a burst value, the router selects an applicable default value.

Use the **milliseconds** or **bytes** keywords to specify the unit of the burst size.

You can specify **simple** to shape data queue rates to the value of the shared rate minus the combined voice and video traffic rate. By default, shared shaping is set to **auto**. In this mode, the router selects the type of shared shaping that is applied according to the type of line module. Compound shared shaping is hardware-dependent. If you specify **compound** for line modules that do not support it, an error message is generated and the router applies simple shared shaping.

3. Configure the QoS profile and reference the scheduler profile.

```
(config)#qos-profile subscriber-default-mode
(config-qos-profile)#atm-vc node
(config-qos-profile)#atm-vc node group AF
(config-qos-profile)#atm-vc node group EF
(config-qos-profile)#atm-vc queue traffic-class best-effort scheduler-profile
shared-1mbps
(config-qos-profile)#exit
```



TIP: The scheduler profile that you configured with the shared-shaping rate must be referenced in the best-effort queue or the best-effort scheduler node.

4. Attach the profile to the interface.

```
(config)#interface atm 11/0.10
(config-subif)#qos-profile subscriber-default-mode
(config-scheduler-profile)#exit
```

- Related Topics**
- Simple Shared Shaping Overview
 - Guidelines for Configuring Simple and Compound Shared Shaping
 - For more information about specifying an expression that you can reference within a scheduler profile, see [Using Expressions for Bandwidth and Burst Values in a Scheduler Profile](#)
 - Example: Simple Shared Shaping for ATM VCs
 - Example: Simple Shared Shaping for ATM VPs
 - Example: Simple Shared Shaping for Ethernet
 - node
 - qos-profile
 - queue
 - scheduler-profile
 - shared-shaping-rate
 - traffic-class
 - traffic-class-group

Published: 2010-03-21