

Example: Simple Shared Shaping for ATM VCs

The following commands configure a simple shared shaper for a VC, as shown in [\[Unresolved xref\]](#). In this example, the best-effort queue for logical interface VC 3 is shaped to a shared rate of 1 Mbps. The voice and video queues for VC 3 share the 1 Mbps with the best-effort traffic. The voice queue has first claim on the shared 1 Mbps, but only up to its individual shaping rate of 200 Kbps. The video queue claims up to the next 300 Kbps. The best-effort queue obtains whatever bandwidth remains of the 1 Mbps after the voice and video traffic have made their claims.

1. Configure the traffic classes and traffic-class groups.

```
(config)#traffic-class voice
(config-traffic-class)#fabric-strict-priority
(config-traffic-class)#exit
(config)#traffic-class video
(config-traffic-class)#exit

(config)#traffic-class-group EF auto-strict-priority
(config-traffic-class-group)#traffic-class voice
(config-traffic-class-group)#exit
((config)#traffic-class-group AF extended
(config-traffic-class-group)#traffic-class video
(config-traffic-class-group)#exit
```

2. Configure the shared shaper.

```
(config)#scheduler-profile 200kbps
(config-scheduler-profile)#shaping-rate 200000
(config-scheduler-profile)#exit
(config)#scheduler-profile 300kbps
(config-scheduler-profile)#shaping-rate 300000
(config-scheduler-profile)#exit
(config)#scheduler-profile shared-1mbps
(config-scheduler-profile)#shared-shaping-rate 1000000 simple
(config-scheduler-profile)#exit

(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)#atm-vc queue traffic-class video scheduler-profile 300kbps
(config-qos-profile)#atm-vc queue traffic-class voice scheduler-profile 200kbps
(config-qos-profile)#exit
```

3. Delete the rule in the default port type profile that creates IP best-effort queues by default.

```
config)#qos-profile atm-default
(config-qos-profile)#no ip queue traffic-class best-effort
(config-qos-profile)#exit
```

4. Attach the profile to the ATM subinterface for VC 3.

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

The **qos-profile subscriber-default-mode** command shown in this example is appropriate if you have configured the SAR to be in default mode (by issuing the **no qos-mode-port** command). If this QoS profile is attached in low-CDV mode, the shaper is effective but the CDV is not correctly bounded, because the VC is not reshaped in the SAR.

The following commands configure a QoS profile different from the one shown in the previous example. In this example, the best-effort scheduler node for VC 3 is shaped to a shared rate of 1 Mbps. The **qos-profile subscriber-low-cdv-mode** command is appropriate if you configure the SAR in low-CDV mode (by issuing the **qos-mode-port low-cdv** command). The VC is reshaped to 1 Mbps in the SAR. If this QoS profile is attached in the SAR default mode, the 1-Mbps shaper is disabled by VC backpressure from the SAR.

```
(config)#qos-profile subscriber-low-cdv-mode  
(config-qos-profile)#atm-vc node scheduler-profile shared-1mbps  
(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  
(config-qos-profile)#atm-vc queue traffic-class video scheduler-profile 300kbps  
(config-qos-profile)#atm-vc queue traffic-class voice scheduler-profile 200kbps  
(config-qos-profile)#exit
```

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 - Simple Shared Shaping Overview