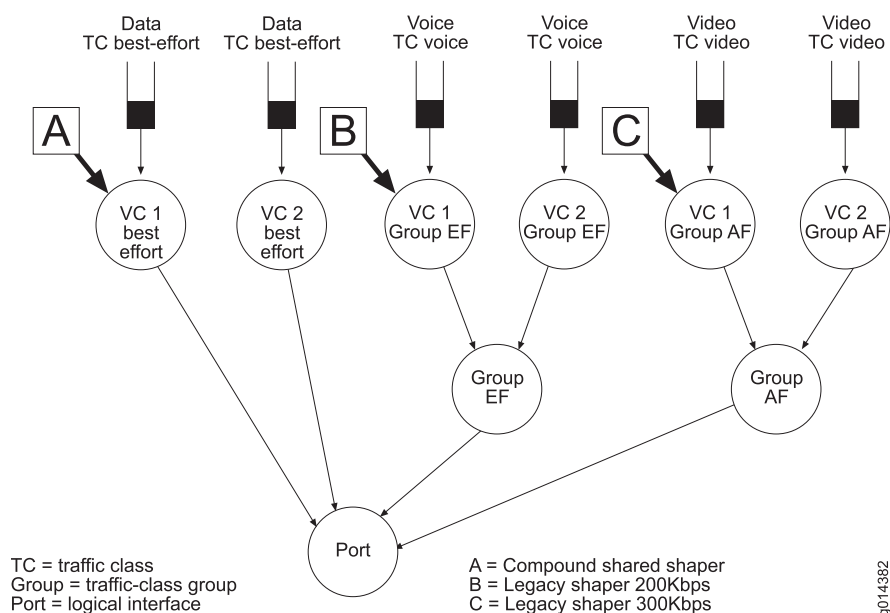


Example: Compound Shared Shaping for ATM VCs

Figure 1 on page 1 illustrates a typical DSL triple-play configuration, involving voice, video, and data traffic. In this example, a total of 1 Mbps of bandwidth is allocated to voice, video, and best-effort data traffic associated with the VC 1 logical interface.

The voice queue in the EF traffic-class group for VC 1 is a strict constituent that has first claim on up to 200 Kbps of the shared bandwidth. The video queue in the AF traffic-class group is a strict constituent that can claim up to 300 Kbps of the remaining 800–1000 Kbps of shared bandwidth. The best-effort queue for logical interface VC 1 is a strict constituent that has the last claim to the remaining 500–1000 Kbps of shared bandwidth.

Figure 1: VC Compound Shared Shaping Example



To configure VC compound shared shaping:

1. Configure the traffic classes, traffic-class groups, and additional scheduler profiles.
2. Configure the scheduler profile that defines the shared shaper and the profiles that apply the legacy shaper.

```
host1(config)#scheduler-profile shared-1Mbps
host1(config-scheduler-profile)#shared-shaping-rate 1000000 burst 32768 auto
host1(config)#scheduler-profile 300Kbps
host1(config-scheduler-profile)#shaping-rate 300000
host1(config)#scheduler-profile 200Kbps
host1(config-scheduler-profile)#shaping-rate 200000
```

3. Configure the QoS profile.

```
host1(config)#qos-profile vcSharedShaping
```

4. Create group nodes.

```
host1(config-qos-profile)#atm group AF scheduler-profile default
host1(config-qos-profile)#atm group EF scheduler-profile default
```

5. Create VC nodes for each group and for traffic in the default group.

```
host1(config-qos-profile)#atm-vc node
host1(config-qos-profile)#atm-vc node group AF
host1(config-qos-profile)#atm-vc node group EF
```

6. Create queues for the best-effort, video, and voice traffic. Apply the scheduler profile that defines the shared-shaping rate to the best-effort queue. Apply the legacy shaper profiles to the voice and video traffic queues.

```
host1(config-qos-profile)#atm-vc queue traffic-class best-effort scheduler-profile
shared-1mbps
host1(config-qos-profile)#atm-vc queue traffic-class video scheduler-profile
300Kbps
host1(config-qos-profile)#atm-vc queue traffic-class voice scheduler-profile
200Kbps
host1(config-qos-profile)#exit
```

7. Attach the QoS profile to an ATM subinterface.

```
host1(config)#interface atm 11/0.1
host1(config-interface)#qos-profile vcSharedShaping
host1(config-interface)#exit
```

In this example, the constituents of the VC shared shaper are the VC 1 best effort node, the VC 1 Group EF node, and the VC 1 Group AF node. The available bandwidth is strictly allocated in the following order:

1. VC 1 EF group node
2. VC 1 AF group node
3. VC 1 best effort node

To display the sample shared shaper configuration:

```
host1# show shared-shaper atm 11/0.1
```

interface	shared shaping rate	current shaping rate	resource	shaping rate
atm-vc ATM11/0.1	1000000	compound	best-effort atm-vc queue atm-vc best-effort node	
			EF voice atm-vc queue	200000
			AF video atm-vc queue	300000
atm-vc ATM11/0.2	1000000	compound	best-effort atm-vc queue atm-vc best-effort node	
			EF voice atm-vc queue	200000
			AF video atm-vc queue	300000
Total shared shapers: 2				

Total constituents: 8
Total failovers: 0

- Related Topics**
- Configuring Compound Shared Shaping
 - Compound Shared Shaping Overview

