

## Configuring a Parameter Definition for QoS Downstream Rate

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To associate a parameter instance with the QoS downstream rate application:

1. Configure traffic classes.

```
host1(config)#traffic-class voice  
host1(config-traffic-class)#exit  
host1(config)#traffic-class best-effort  
host1(config-traffic-class)#exit
```

2. Create a parameter definition for the QoS downstream rate application.

- a. Configure the QoS parameter name and the application.

```
host1(config)#qos-parameter-define downstreamVLAN application  
qos-downstream-rate
```

- b. Configure controlled-interface types.

```
host1(config-qos-parameter-define)#controlled-interface-type vlan  
host1(config-qos-parameter-define)#controlled-interface-type ip
```

- c. Configure subscriber-interface types.

```
host1(config-qos-parameter-define)#subscriber-interface-type vlan
```

3. Do one of the following:

- For VLANs, configure the shaping mode by creating a parameter definition with the QoS cell mode application. Ensure that you specify a subscriber-interface type.

See Configuring a Parameter Definition to Shape Ethernet Traffic Using Cell Mode.

- For ATM VCs, configure the shaping mode by issuing the **qos-shaping-mode** command.

See Configuring the QoS Shaping Mode for ATM Interfaces.

4. Enable QoS adaptive mode for the system by issuing the **qos-adaptive-mode** command in L2C Configuration mode.

```
host1(config)#l2c  
host1(config-l2c)#qos-adaptive-mode
```

5. Enable the QoS downstream rate application to use downstream rates obtained from the Actual-Data-Rate-Downstream [26-130] DSL Forum VSA.

```
host1(config)#aaa qos downstream-rate
```

6. Configure the scheduler profile for the shaping rate.

```
host1(config)#scheduler-profile vlan1  
host1(config-scheduler-profile)#shared-shaping-rate downstreamVLAN * 5 auto
```

7. Configure the QoS profile for the shaping rate.

```
host1(config)#qos-profile vlan1  
host1(config-qos-profile)#vlan node scheduler-profile vlan1
```

8. Attach the QoS profile to a logical Ethernet interface.

ANCP or AAA dynamically creates the parameter instances for the QoS downstream rate application, and if applicable, the QoS cell mode application; therefore, you do not need to specify them.

```
host1(config)#interface gigabitEthernet 6/0/2  
host1(config-if)#encapsulation vlan  
host1(config-if)#interface gigabitEthernet 6/0/2.1  
host1(config-if)#vlan id 1  
host1(config-if)#qos-profile vlan1  
host1(config-if)#ip address 6.10.10.10 255.255.255.255
```

#### Related Topics

- Example: QoS Parameter Configuration for QoS Downstream Rate
- For information about downstream rate and RADIUS, see *JUNOS Broadband Access Configuration Guide*
- For more information about configuring ANCP (L2C) parameters, see *JUNOS IP Services Configuration Guide*
- `aaa qos downstream-rate`
- `controlled-interface-type`
- `encapsulation vlan`
- `instance-interface-type`
- `ip address`
- `node`
- `qos-parameter`
- `qos-adaptive-mode`
- `qos-parameter-define`
- `qos-profile`
- `queue`
- `shared-shaping-rate`
- `subscriber-interface-type`
- `traffic-class`
- `vlan id`