

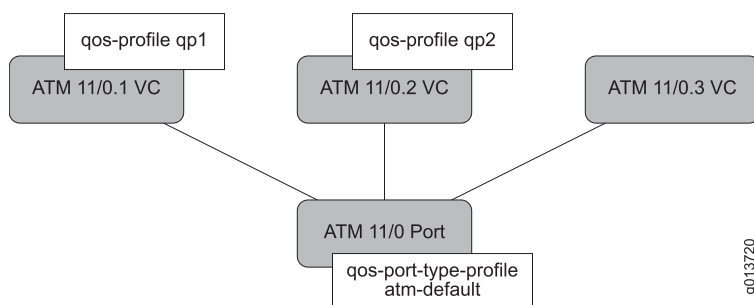
## Example: Port-Type QoS Profile Attachment

In this example, three ATM subinterfaces are configured on an ATM port:

- ATM 11/0.1—QoS profile qp1 is attached
- ATM 11/0.2—QoS profile qp2 is attached
- ATM 11/0.3—No QoS profile is attached

The major ATM interface, 11/0, does not have a QoS profile explicitly attached. Therefore, by default the atm-default QoS port-type profile is attached.

**Figure 1: Attaching QoS Profiles to ATM Subinterfaces**



To configure this example:

1. Create and configure QoS profile qp1.

```
host1(config)#qos-profile qp1
host1(config-qos-profile)#atm-vp node scheduler-profile sp1
host1(config-qos-profile)#atm-vc queue traffic-class tc1 scheduler-profile sp1
queue-profile qp1
host1(config-qos-profile)#atm-vc queue traffic-class tc2 scheduler-profile sp2
queue-profile qp2
host1(config-qos-profile)#atm-vc queue traffic-class tc3 scheduler-profile sp3
queue-profile qp3
host1(config-qos-profile)#atm-vc queue traffic-class tc4 scheduler-profile sp4
queue-profile qp4
host1(config-qos-profile)#atm-vc queue traffic-class tc5 scheduler-profile sp5
queue-profile qp5
host1(config-qos-profile)#exit
```

2. Create and configure QoS profile qp2.

```
host1(config)#qos-profile qp2
host1(config-qos-profile)#atm-vp node scheduler-profile sp1
host1(config-qos-profile)#atm-vc queue traffic-class tc1 scheduler-profile sp1
queue-profile qp1
host1(config-qos-profile)#atm-vc queue traffic-class tc2 scheduler-profile sp2
queue-profile qp2
host1(config-qos-profile)#atm-vc queue traffic-class tc3 scheduler-profile sp3
queue-profile qp3
```

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

3. Attach the QoS profiles to the ATM subinterfaces, as shown in Figure 1.

```
host1(config)#interface atm 11/0.1
host1(config-subif)#qos-profile qp1
host1(config-subif)#exit
host1(config)#interface atm 11/0.2
host1(config-subif)#qos-profile qp2
host1(config-subif)#exit
```

4. Display the QoS interface hierarchy for ATM interface 11/0. This display shows all QoS attachments above interface 11/0.

If no QoS profiles are attached above the specified interface, the router shows the first attachment below the specified interface.

```
host1# show qos interface-hierarchy interface atm 11/0
attachment@ atm-vc ATM11/0.2:
      qos      interface rule traffic      scheduler queue t-class
profile        type     type class      profile  profile group
-----
qp2@ATM11/0.2  atm-vp     node
qp2@ATM11/0.2  atm-vc     queue tc1      sp1      qp1
qp2@ATM11/0.2  atm-vc     queue tc2      sp2      qp2
qp2@ATM11/0.2  atm-vc     queue tc3      sp3      qp3
atm-default @atm ip      node      default default
atm-default @atm atm-vc  node      default default
atm-default @atm Bridge node      default default
atm-default @atm ipv6   node      default default
atm-default @atm ip     queue best-effort default default
atm-default @atm atm    queue best-effort default default
atm-default @atm atm-vc queue best-effort default default
atm-default @atm Bridge queue best-effort default default
atm-default @atm ipv6   queue best-effort default default
attachment@ atm-vc ATM11/0.1:
      qos      interface rule traffic      scheduler queue t-class
profile        type     type class      profile  profile group
-----
qp1@ATM11/0.1  atm-vp     node
qp1@ATM11/0.1  atm-vc     queue tc1      sp1      qp1
qp1@ATM11/0.1  atm-vc     queue tc2      sp2      qp2
qp1@ATM11/0.1  atm-vc     queue tc3      sp3      qp3
qp1@ATM11/0.1  atm-vc     queue tc4      sp4      qp4
qp1@ATM11/0.1  atm-vc     queue tc5      sp5      qp5
atm-default @atm ip      node      default default
atm-default @atm atm-vc  node      default default
atm-default @atm Bridge node      default default
atm-default @atm ipv6   node      default default
atm-default @atm ip     queue best-effort default default
atm-default @atm atm    queue best-effort default default
atm-default @atm atm-vc queue best-effort default default
atm-default @atm Bridge queue best-effort default default
atm-default @atm ipv6   queue best-effort default default
```

ATM subinterface 11/0.3 was not shown because no QoS profile is attached to it. You can display the QoS interface hierarchy for subinterface 11/0.3 by specifying the subinterface, as shown below. In this case, the QoS port-type profile, atm-default, is attached (by default) to the ATM major interface, ATM 11/0, below ATM subinterface 11/0.3. Because no QoS profile is attached to this ATM subinterface, the QoS port-type profile is applied.

The @atm in the qos profile column indicates that the row comes from a default QoS port-type profile that is below the interfaces shown: subinterfaces ATM 11/0.2 and ATM 11/0.1 in this example.

You can explicitly show the ATM subinterface that has no explicit QoS profile attachment, as shown below. In this case, attachment@ indicates the ATM major interface (11/0) below the subinterface.

```
host1# show qos interface-hierarchy interface atm 11/0.3
attachment@ atm ATM11/0:
      qos      interface  rule  traffic      scheduler  queue  t-class
profile      type      type  class      profile  profile  group
-----
atm-default@atm  ip      node
atm-default@atm atm-vc  node
atm-default@atm Bridge  node
atm-default@atm ipv6    node
atm-default@atm ip      queue best-effort
atm-default@atm atm      queue best-effort
atm-default@atm atm-vc  queue best-effort
atm-default@atm Bridge  queue best-effort
atm-default@atm ipv6    queue best-effort
```

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