

Configuring Layer 2 Circuit Trunk Mode Scheduling

For ATM2 IQ interfaces configured to use Layer 2 circuit trunk mode, you can share a scheduler among 32 trunks on an ATM port. A weighted round robin scheduling algorithm ensures each trunk receives a proportional share of the bandwidth when all trunks are active, and redistributes bandwidth that would have otherwise been reserved by an inactive trunk, thus minimizing the latency on each trunk. For general information about Layer 2 circuit trunk mode, see *Configuring Layer 2 Circuit Transport Mode*. For general information about ATM CoS scheduling, see *Configuring ATM2 IQ VC Tunnel CoS Components*.

Each trunk is associated with a trunk bandwidth. The trunk bandwidth is the maximum bandwidth used each time a trunk is serviced. We recommend configuring trunk bandwidths so that the ratio between the minimum and maximum bandwidths does not exceed 1:500.

To minimize latency, the JUNOS software does not shape the trunks. As cells are received, they are immediately transmitted.

To configure trunk bandwidth, include the `trunk-bandwidth` statement:

```
trunk-bandwidth rate;
```

You can include this statement at the following hierarchy levels:

- [edit interfaces *interface-name* unit *logical-unit-number*]
- [edit logical-systems *logical-system-name* interfaces *interface-name* unit *logical-unit-number*]

The trunk bandwidth can be from 1,000,000 through 542,526,792 bps. You can specify the rate in bits per second or cells per second (cps). You can specify a bits-per-second value either as a complete decimal number or as a decimal number followed by the abbreviation k (1000), m (1,000,000), or g (1,000,000,000). You can specify a cells-per-second value by entering a decimal number followed by the abbreviation c; values expressed in cells per second are converted to bits per second by means of the formula 1 cps = 384 bps.

The JUNOS software rounds off the configured value. Therefore, we recommend that you configure a minimum trunk bandwidth of 1m. From 1m, configure values in increments of 500k.

Example: Configuring Layer 2 Circuit Trunk Mode Scheduling

Configure two logical interfaces to use Layer 2 circuit trunk mode, ATM CoS scheduling, and proportional bandwidth sharing:

```
[edit interface]
at-1/1/0 {
  encapsulation atm-ccc-cell-relay;
  atm-options {
    pic-type atm2;
```

```

ilmi;
scheduler-maps {
  trunk-map {
    vc-cos-mode strict;
    forwarding-class cbr-class {
      priority high;
      transmit-weight percent 40;
      epd-threshold 100;
    }
    forwarding-class rtvbr-class {
      priority low;
      transmit-weight percent 30;
      epd-threshold 100;
    }
    forwarding-class nrtvbr-class {
      priority low;
      transmit-weight percent 20;
      epd-threshold 100;
    }
    forwarding-class ubr-class {
      priority low;
      transmit-weight percent 10;
      epd-threshold 100;
    }
  }
}
}
unit 0 {
  encapsulation atm-ccc-cell-relay;
  trunk-id 1;
  trunk-bandwidth 10m;
  atm-scheduler-map trunk-map;
  family ccc {
    filter {
      output atm-trunk-01;
    }
  }
}
unit 1 {
  encapsulation atm-ccc-cell-relay;
  trunk-id 3;
  trunk-bandwidth 30m;
  atm-scheduler-map trunk-map;
}
}

```