

## Chapter 11

# Configuring Fragmentation by Forwarding Class

For Adaptive Services (AS) PIC link services IQ interfaces (*lsq*) only, you can specify fragmentation properties for specific forwarding classes. Traffic on each forwarding class can be either multilink fragmented or interleaved. By default, traffic in all forwarding classes is fragmented.

If you do not configure fragmentation properties for particular forwarding classes in MLPPP interfaces, the fragmentation threshold you set at the [edit interfaces *interface-name* unit *logical-unit-number* fragment-threshold] hierarchy level is used for all forwarding classes within the MLPPP interface. For MLFR FRF.16 interfaces, the fragmentation threshold you set at the [edit interfaces *interface-name* mlfr-uni-nni-bundle-options fragment-threshold] hierarchy level is used for all forwarding classes within the MLFR FRF.16 interface. If you do not set a maximum fragment size anywhere in the configuration, packets are still fragmented if they exceed the smallest MTU of all the links in the bundle.

To configure fragmentation by forwarding class, you can include the following statements at the [edit class-of-service] hierarchy level of the configuration:

```
class-of-service {
  fragmentation-maps {
    map-name {
      forwarding-class class-name {
        fragment-threshold bytes;
        multilink-class number;
        no-fragmentation;
      }
    }
  }
  interfaces {
    interface-name {
      unit logical-unit-number {
        fragmentation-map map-name;
      }
    }
  }
}
```

This chapter discusses the following topics:

- Configuring Fragmentation by Forwarding Class on page 110
- Associating a Fragmentation Map with a Multilink PPP Interface or MLFR FRF.16 DLCI on page 111

## Configuring Fragmentation by Forwarding Class

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For AS PIC link services IQ interfaces (lsq) only, you can configure fragmentation properties on a particular forwarding class. To do this, include the `fragmentation-maps` statement at the `[edit class-of-service]` hierarchy level:

```
[edit class-of-service]
fragmentation-maps {
  map-name {
    forwarding-class class-name {
      fragment-threshold bytes;
      multilink-class number;
      no-fragmentation;
    }
  }
}
```

To set a per-forwarding class fragmentation threshold, include the `fragment-threshold` statement in the fragmentation map. This statement sets the maximum size of each multilink fragment.

To set traffic on a particular forwarding class to be interleaved rather than fragmented, include the `no-fragmentation` statement in the fragmentation map. This statement specifies that an extra fragmentation header is not prepended to the packets received on this queue and that static link load balancing is used to ensure in-order packet delivery.

For a given forwarding class, you can include either the `fragment-threshold` or `no-fragmentation` statement; they are mutually exclusive.

## Associating a Fragmentation Map with a Multilink PPP Interface or MLFR FRF.16 DLCI

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To associate a fragmentation map with a multilink PPP interface or MLFR FRF.16 DLCI, include the `fragmentation-map` statement at the `[edit class-of-service interfaces interface-name unit logical-unit-number]` hierarchy level:

```
[edit class-of-service interfaces]
lsq-fpc/pic/port {
  unit logical-unit-number { # Multilink PPP
    fragmentation-map map-name;
  }
}
lsq-fpc/pic/port:channel { # MLFR FRF.16
  unit logical-unit-number {
    fragmentation-map map-name;
  }
}
```

For configuration examples, see the *JUNOS Services Interfaces Configuration Guide*.

