

Chapter 31

Summary of Router Chassis Configuration Statements

The following sections explain each of the chassis configuration statements. The statements are organized alphabetically.

alarm

Syntax

```
alarm {  
    interface-type {  
        alarm-name (red | yellow | ignore);  
    }  
}
```

Hierarchy Level [edit chassis]

Description Configure the chassis alarms and whether they trigger a red or yellow alarm, or whether they are ignored. Red alarm conditions light the RED ALARM LED on the router's craft interface and trigger an audible alarm if one is connected to the contact on the craft interface. Yellow alarm conditions light the YELLOW ALARM LED on the router's craft interface and trigger an audible alarm if one is connected to the craft interface.

To configure more than one alarm, include multiple *alarm-name* lines.

Options *alarm-name*—Alarm condition. For a list of conditions, see Table 17 on page 362.

ignore—The specified alarm condition does not set off any alarm.

interface-type—Type of interface on which you are configuring the alarm. It can be one of the following: atm, ethernet, sonet, or t3.

red—The specified alarm condition sets off a red alarm.

yellow—The specified alarm condition sets off a yellow alarm.

Usage Guidelines See "Configure Conditions That Trigger Alarms" on page 360.

Required Privilege Level interface—To view this statement in the configuration.
interface-control—To add this statement to the configuration.

chassis

| | |
|---------------------------------|---|
| Syntax | chassis { ... } |
| Hierarchy Level | [edit] |
| Description | Configure router chassis properties. |
| Usage Guidelines | See “Router Chassis Configuration Guidelines” on page 359. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

failover

| | |
|---------------------------------|---|
| Syntax | failover on-loss-of-keepalives; |
| Hierarchy Level | [edit chassis redundancy] |
| Description | Instruct backup router to assume mastership if it detects loss of keepalive signal. |
| Usage Guidelines | See “Configure Routing Engine Redundancy” on page 364. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

fpc

| | |
|---------------------------------|--|
| Syntax | fpc <i>slot-number</i> { pic <i>pic-number</i> { framing (sdh sonet); no-concatenate; } } |
| Hierarchy Level | [edit chassis] |
| Description | Configure properties for the Physical Interface Cards (PICs) in individual Flexible PIC Concentrators (FPCs). |
| Options | <i>slot-number</i> —Slot number in which the FPC is installed. The remaining statements are explained separately. |
| Usage Guidelines | See “Configure SONET/SDH Framing” on page 362 and “Configure Channelized PIC Operation” on page 363. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

framing

| | |
|---------------------------------|---|
| Syntax | framing (sdh sonet); |
| Hierarchy Level | [edit chassis fpc <i>slot-number</i> pic <i>pic-number</i>] |
| Description | On SONET PICs only, configure the framing type. |
| Options | sdh—SDH framing. sonet—SONET framing. |
| | Default: sonet |
| Usage Guidelines | See “Configure SONET/SDH Framing” on page 362. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

keepalive-time

| | |
|---------------------------------|---|
| Syntax | keepalive-time <i>seconds</i> ; |
| Hierarchy Level | [edit chassis redundancy] |
| Description | Configure time period that must elapse before backup router assumes mastership if it detects loss of keepalive signal. |
| Usage Guidelines | See “Configure Routing Engine Redundancy” on page 364. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

no-concatenate

Syntax no-concatenate;

Hierarchy Level [edit chassis fpc *slot-number* pic *pic-number*]

Description Do not concatenate (multiplex) the output of a packet-over-SONET PIC (an interface with a name *so-fpc/pic/port*).

When configuring and displaying information about interfaces that are operating in channelized mode, you must specify the channel number in the interface name (*physical:channel*); for example, *so-2/2/0:0* and *so-2/2/0:1*. For more information about interface names, see “Configure the Interface Name” on page 28.

On SONET OC-48 interfaces that are configured for channelized (multiplexed) mode, the bytes e1-quiet and bytes f1 options in the sonet-options statement have no effect. The bytes f2, bytes z3, bytes z4, and path-trace options work correctly on channel 0 and work in the transmit direction only on channels 1, 2, and 3.

Default Output is concatenated (multiplexed).

Usage Guidelines See “Configure Channelized PIC Operation” on page 363.

Required Privilege Level interface—To view this statement in the configuration.
interface-control—To add this statement to the configuration.

See Also bytes on page 207, sonet-options on page 243

pic

Syntax pic *pic-number* {
 framing (sdh | sonet);
 no-concatenate;
}

Hierarchy Level [edit chassis fpc *slot-number*]

Description Configure properties for an individual Physical Interface cards (PICs).

Options *pic-number*—Slot number in which the FPC is installed.

The remaining statements are explained separately.

Usage Guidelines See “Configure SONET/SDH Framing” on page 362 and “Configure Channelized PIC Operation” on page 363.

Required Privilege Level interface—To view this statement in the configuration.
interface-control—To add this statement to the configuration.

redundancy

| | |
|---------------------------------|---|
| Syntax | <pre> redundancy { failover on-loss-of-keepalives; keepalive-time <i>seconds</i>; routing-engine <i>slot-number</i> (backup disabled master); ssb <i>slot-number</i> (always preferred); } </pre> |
| Hierarchy Level | [edit chassis] |
| Description | You can configure a redundant Routing Engine or System and Switch Board (SSB) in the chassis as a secondary backup for the chassis. By default, the Routing Engine in slot 0 is the master Routing Engine and the Routing Engine in slot 1 is the backup Routing Engine. The switchover from the master Routing Engine to the backup Routing Engine is performed manually. This feature can be used for software upgrades. New software can be loaded on the backup Routing Engine and when the routing engine is ready, you can switch the mastership over, without down time. |
| Default | Slot 0 is preferred. |
| Options | The statements are explained separately. |
| Usage Guidelines | See “Configure Redundancy” on page 364. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

routing-engine

| | |
|---------------------------------|--|
| Syntax | <pre> routing-engine <i>slot-number</i> (backup disabled master); </pre> |
| Hierarchy Level | [edit chassis redundancy] |
| Description | You can configure a redundant Routing Engine in the chassis as a secondary backup for the chassis. By default, the Routing Engine in slot 0 is the master Routing Engine and the Routing Engine in slot 1 is the backup Routing Engine. The switchover from the master Routing Engine to the backup Routing Engine is performed manually. This feature can be used for software upgrades. New software can be loaded on the backup Routing Engine and when the routing engine is ready, you can switch the mastership over, without down time. |
| Default | Slot 0 is preferred. |
| Options | <i>slot number</i> —Specify which slot is the master and which is the backup. master—Routing Engine in specified slot is the master. backup—Routing Engine in specified slot is the backup. disabled—Routing Engine in specified slot is disabled. |
| Usage Guidelines | See “Configure Routing Engine Redundancy” on page 364. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

source-route

| | |
|---------------------------------|--|
| Syntax | (source-route no-source-route); |
| Hierarchy Level | [edit chassis] |
| Description | Configure whether IP traffic with source-route constraints (loose or strict) is forwarded or discarded. |
| Options | no-source-route—Discard IP traffic that has loose or strict source-route constraints. Use this option when you want the router to use only the IP destination address on transit traffic for forwarding decisions. source-route—Forward IP traffic that has loose or strict source-route constraints. |
| | Default: source-route |
| Usage Guidelines | See “Configure the Drop Policy for Traffic with Source-Route Constraints” on page 364. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |

ssb

| | |
|---------------------------------|---|
| Syntax | ssb <i>slot-number</i> (always preferred); |
| Hierarchy Level | [edit chassis redundancy] |
| Description | For routers with two System and Switch Boards (SSB), you can configure which is the master and which is the backup. By default, the SSB in slot 0 is the master and the one in slot 1 is the backup. |
| Default | Slot 0 is preferred. |
| Options | <i>slot number</i> —Specify which slot is the master and which is the backup. always—Defines this SSB as the sole device. preferred—Defines this SSB as the preferred device of at least two. |
| Usage Guidelines | See “Configure SSB Redundancy” on page 366. |
| Required Privilege Level | interface—To view this statement in the configuration. interface-control—To add this statement to the configuration. |