C H A P T E R **67**

Backplane Traffic Monitoring

This chapter describes how to configure the Backplane Traffic Monitoring feature in Cisco IOS Software Release 12.2SX. Cisco IOS Release 12.2(33)SXI and later releases support the Backplane Traffic Monitoring feature.

Note For complete syntax and usage information for the commands used in this chapter, see the Cisco IOS Master Command List, at this URL:

http://www.cisco.com/en/US/docs/ios/mcl/allreleasemcl/all_book.html

Tip For additional information about Cisco Catalyst 6500 Series Switches (including configuration examples and troubleshooting information), see the documents listed on this page:

http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html

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Understanding Traffic Monitoring

Backplane Traffic Monitoring can monitor the backplane and fabric-channel traffic utilization at a configured interval and threshold.

Traffic monitoring allows the switch to monitor the backplane and fabric channel traffic utilization at a configured interval and threshold. Syslog messages are generated when the traffic utilization is above or below the configured threshold. The following examples show several types of syslog messages:

- 00:08:03: %TRAFFIC_UTIL-SP-4-MONITOR_BACKPLANE_REACH_THR: Backplane traffic utilization is 26%, reached threshold(20%) within 10 second interval

- 00:08:13: %TRAFFIC_UTIL-SP-4-MONITOR_BACKPLANE_BELOW_THR: Backplane traffic utilization is 18%, below threshold(20%) within 10 second interval

- 00:08:44: %TRAFFIC_UTIL-SP-4-MONITOR_FABRIC_IG_REACH_THR: Module 1, Channel 0 ingress traffic utilization is 5%, reached threshold(3%) within 30 second interval

- 00:08:44: %TRAFFIC_UTIL-SP-4-MONITOR_FABRIC_EG_REACH_THR: Module 1, Channel 0 egress traffic utilization is 5%, reached threshold(3%) within 30 second interval

- 00:09:14: %TRAFFIC_UTIL-SP-4-MONITOR_FABRIC_IG_BELOW_THR: Module 1, Channel 0 ingress traffic utilization is 1%, below threshold(3%) within 30 second interval

- 00:09:14: %TRAFFIC_UTIL-SP-4-MONITOR_FABRIC_EG_BELOW_THR: Module 1, Channel 0 egress traffic utilization is 1%, below threshold(3%) within 30 second interval

Default Configuration

- The default threshold is 80 percent.

- Traffic monitor is off by default.

Configuration Guidelines and Restrictions

The syslog message buffer is limited in size. To reduce false alarms and the number of syslog messages, use the following guidelines:

- Traffic can occur in bursts.

  If a small amount of bursts occur in a monitoring interval, it does not represent a capacity overload issue for the system; the hardware buffers are able to absorb the effects and not cause packet drops. For an example, if you set a monitoring interval to 10 seconds and the threshold to 80 percent, there are a total of 10 traffic utilization readings. Assume only 2 of the readings reached 90 percent and the other 8 readings are 20 percent. If the peak threshold of 90 percent is used to compare with the threshold, an unwanted warning syslog message is generated. It is better to use the average 34 percent of the 10 readings to compare with the threshold and not generate warning messages in this case. If the peak value comparison is really needed, you can set the interval to 1 second. Setting the interval to 1 second compares the reading directly with the threshold.

- The number of syslog messages that generate syslog messages are from below the threshold and above the threshold.

Configuring Backplane Traffic Monitoring

To configure the Backplane Traffic Monitoring feature, perform one or more of the following tasks:

Command	Purpose
Router(config)# **monitor traffic-util backplane interval** *interval* **threshold** *percentage*	Configures the backplane utilization traffic monitoring.
Router(config)# **monitor traffic-util fabric module** {*mod-num* | **all**} {**channel** {**0**|**1**|**both**}} {**direction** {**egress** | **ingress** | **both**}} [**interval** *interval* **threshold** *percentage*]	Configures the fabric channel utilization traffic monitoring.

Command	Purpose
Router(config)# **monitor traffic-util fabric logging interval** *second*	Configures the fabric channel utilization traffic monitor SYSLOG interval when the traffic utilization is in the crossed state.
Router(config)# **monitor traffic-util backplane logging interval** *second*	Configures the traffic monitor backplane SYSLOG interval when the traffic utilization is in the crossed state.
Router# **show catalyst6000 traffic-meter**	Displays the percentage of the backplane (shared bus) utilization and traffic monitor status information.

When configuring a range of interfaces, you can enter the *mod-num* as a list or a range. Separate each entry with a comma and each range with a hyphen (-). For example, 1,3,5-9,12.

The following example shows how to enable backplane traffic utilization monitoring:

```
Router(config)# monitor traffic-util backplane logging interval 50 threshold 100
```

The following example shows how to disable backplane traffic utilization monitoring:

```
Router(config)# no monitor traffic-util backplane
```

The following example shows how to specify the fabric channel traffic utilization monitor interval and threshold for a fabric channel on a specific module:

```
Router(config)# monitor traffic-util fabric module 8 channel both direction both interval 50 threshold 60
```

The following example shows how to specify the fabric channel traffic utilization monitor threshold for a specific fabric channel and for egress traffic only:

```
Router(config)# monitor traffic-util fabric module 6 channel 0 direction egress interval 100 threshold 90
```

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http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html

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