



Monitoring Fabric Links Commands

This module describes the Cisco IOS XR software commands related to monitoring fabric links.

For detailed information about monitoring fabric links concepts, configuration tasks, and examples, see the *Traffic Monitoring* chapter in the *System Monitoring Configuration Guide for Cisco 8000 Series Routers*.

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hw-module fabric-tsmon-port-reset disable

To disable the maximum port-reset threshold value of five, use the **hw-module fabric-tsmon-port-reset disable** command in XR EXEC mode.

```
hw-module fabric-tsmon-port-reset disable
```

Syntax Description	This command has no keywords or arguments.
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Command Default	By default, keepalive monitoring is enabled on routers.
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Command Modes	XR EXEC mode
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Command History	Release	Modification
	Release 24.2.11	This command was introduced.

Usage Guidelines



Caution	We recommend that you troubleshoot and resolve the reason for the fabric port shutdown instead of using the hw-module fabric-tsmon-port-reset disable command to prevent the fabric port shutdown.
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Use the **hw-module fabric-tsmon-port-reset disable** command to disable the maximum port-reset threshold value of five.

Task ID	Task ID	Operations
	config-services	read, write
	root-lr	read, write

Examples

The following example shows how to disable the maximum port-reset threshold value of five:

```
Router# configuration terminal
Router(config)# hw-module fabric-tsmon-port-reset disable
Router(config)# commit
```

show controller fabric dashboard

To display each NPU's capacity and detail only down or potentially bad fabric links. To display NPU capacity and problematic links, use the **show controller fabric dashboard** command in the XR EXEC mode.

show controller fabric dashboard [**instance** *id* | **all** **location** *location* | **all**]

Syntax Description	dashboard	Provides options to filter the displayed information.
	instance <i>id</i> all	Specifies that you want to filter the output based on a specific NPU instance. <ul style="list-style-type: none"> • Replace <i>id</i> with a specific Network Processing Unit (NPU) instance number. This displays information only for that particular NPU. • all displays information for all available NPU instances.
	location <i>location</i> all	Specifies that you want to filter the output based on a specific hardware location. <ul style="list-style-type: none"> • Replace <i>location</i> with a specific hardware location identifier. For example, <i>0/5/CPU0</i>. This displays information only for components at that location. • all displays information for components at all available hardware locations.

Command Default None

Command Modes XR EXEC mode

Command History	Release	Modification
	Release 25.3.1	This command was introduced.

Usage Guidelines No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	interface	read
	filesystem	read, write
	cisco-support	read

Examples

The **show controller fabric dashboard** display each NPU's capacity and detail only down or potentially bad fabric links.

```
Router#show controllers fabric dashboard
Sun Jun  2 06:08:35.980 UTC
```

```
Node: 0/5/CPU0(8800-LC-36FH-M, SN:FOC2403P47R),NPU[0](Asic Type: Q200)
```

R/S/A	Network BW(Gbps)	Required/Available Fabric BW (Gbps)	Fabric Capacity (percent)
0/5/0	4800	5280/6400	121

```
Node: 0/5/CPU0(8800-LC-36FH-M, SN:FOC2403P47R),NPU[1](Asic Type: Q200)
```

R/S/A	Network BW(Gbps)	Required/Available Fabric BW (Gbps)	Fabric Capacity (percent)
0/5/1	4800	5280/6000	113

Port Extra	Far-end Comment	Oper	Port	Cap.	Flap	High	NZ-CW-Bin	UCE	CRC	SNR
R/S/A/L	R/S/A/L	state	state	Impact	Count	BER	length			
Pol.BER										

0/5/1/170	0/FC0/0/40	DN	ACTIVATED	T	0	F	0	196908	0	20
-1.000e+00	[MAC]Bad Link Quality									
0/5/1/177	0/FC0/0/52	UP	UP	F	0	F	7	0	0	23
3.579e-07	[MAC]High extra pol ber									

show controller fabric dashboard capacity

To display each NPU's available fabric capacity, use the **show controller fabric dashboard capacity** command in the XR EXEC mode.

```
show controller fabric dashboard capacity [ instance id | all location LC_location | all ]
```

Syntax Description	dashboard capacity	Displays only each NPU's available fabric capacity.
	instanceid <i>all</i>	Specifies that you want to filter the output based on a specific NPU instance. <ul style="list-style-type: none"> • Replace <i>id</i> with a specific Network Processing Unit (NPU) instance number. This displays information only for that particular NPU. • <i>all</i> displays information for all available NPU instances.
	location <i>LC_location</i> <i>all</i>	Specifies that you want to filter the output based on a specific hardware location. <ul style="list-style-type: none"> • Replace <i>LC_location</i> with a specific line card location. For example, <i>0/5/CPU0</i>. This displays capacity information only for the NPU(s) on the Line Card at that location. • <i>all</i> displays capacity information for NPUs at all available line card locations.

Command Default None

Command Modes XR EXEC mode

Command History	Release	Modification
	Release 25.3.1	This command was introduced.

Usage Guidelines No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	interface	read
	filesystem	read, write
	cisco-support	read

Examples

The **show controller fabric dashboard capacity** display only each NPU's available fabric capacity.

```
Router#show controllers fabric dashboard capacity instance all location all
```

```
Sun Jun 2 06:08:35.980 UTC
Node: 0/5/CPU0(8800-LC-36FH-M, SN:FOC2403P47R),(Asic Type: Q200)
```

```
R/S/A Network Required/Available Fabric Capacity
```

```

          BW(Gbps)   Fabric BW (Gbps)           (percent)
=====
0/5/0      4800      5280/6200                117
0/5/1      4800      5280/6200                117
0/5/2      4800      5280/6200                117

Node: 0/11/CPU0(8800-LC-48H, SN:FOC2329P657), (Asic Type: Q100)

R/S/A   Network  Required/Available   Fabric Capacity
        BW(Gbps)   Fabric BW (Gbps)     (percent)
=====
0/11/0   2400     2640/3200            121
0/11/1   2400     2640/3200            121

Node: 0/0/CPU0(8800-LC-48H, SN:FOC2317PACY), (Asic Type: Q100)

R/S/A   Network  Required/Available   Fabric Capacity
        BW(Gbps)   Fabric BW (Gbps)     (percent)
=====
0/0/0   2400     2640/3200            121
0/0/1   2400     2640/3200            121

Router#

```

show controller fabric dashboard link-all

To display each NPU's capacity and quality information for all fabric links, use the **show controller fabric dashboard link-all** command in the XR EXEC mode.

```
show controller fabric dashboard link-all [ instance id | all location location | all ]
```

Syntax	Description
dashboard link-all	Display each NPU's capacity and quality information for all fabric links.
instance <i>id</i> all	Specifies that you want to filter the output based on a specific NPU instance. <ul style="list-style-type: none"> Replace <i>id</i> with a specific Network Processing Unit (NPU) instance number. This displays information for all fabric links connected to that particular NPU. all displays information for all fabric links across all available NPU instances.
location <i>location</i> all	Specifies that you want to filter the output based on a specific hardware location. <ul style="list-style-type: none"> Replace <i>LC_location</i> with a specific line card location. For example, <i>0/5/CPU0</i>. This displays information for all fabric links associated with components at that location. all information for all fabric links across all available hardware locations.

Command Default None

Command Modes XR EXEC mode

Command History	Release	Modification
	Release 25.3.1	This command was introduced.

Usage Guidelines No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	interface	read
	filesystem	read, write
	cisco-support	read

Examples

The **show controller fabric dashboard link-all** displays each NPU's capacity and quality information for all fabric links.

```
Router#show controllers fabric dashboard link-all instance all location all
```

```
Sun Jun  2 06:08:35.980 UTC
Node: 0/5/CPU0(8800-LC-36FH-M, SN:FOC2403P47R), (Asic Type: Q200)
```

R/S/A	Network BW(Gbps)	Required/Available Fabric BW (Gbps)	Fabric Capacity (percent)
0/5/0	4800	5280/6200	117
0/5/1	4800	5280/6200	117
0/5/2	4800	5280/6200	117

```
Node: 0/11/CPU0(8800-LC-48H, SN:FOC2329P657), (Asic Type: Q100)
```

R/S/A	Network BW(Gbps)	Required/Available Fabric BW (Gbps)	Fabric Capacity (percent)
0/11/0	2400	2640/3200	121
0/11/1	2400	2640/3200	121

```
Node: 0/0/CPU0(8800-LC-48H, SN:FOC2317PACY), (Asic Type: Q100)
```

R/S/A	Network BW(Gbps)	Required/Available Fabric BW (Gbps)	Fabric Capacity (percent)
0/0/0	2400	2640/3200	121
0/0/1	2400	2640/3200	121

```
Router#
```

show controller fabric health

To display the general fabric health information, use the **show controller fabric health** command in the XR EXEC mode.

show controller fabric health

Syntax Description	health	Displays the general health information of the fabric, such as fabric system health and collaborator process state .
Command Default	None	
Command Modes	XR EXEC mode	
Command History	Release	Modification
	Release 24.3.1	This command was introduced.

Usage Guidelines No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	interface	read
	filesystem	read, write
	cisco-support	read

Examples

The **show controller fabric health** command displays general fabric health information, such as **Fabric System Health** and **Collaborator Process State**.

```
Router# show controller fabric health
```

Fabric System Health

```
-----
Flags: T - Total,          U - Up,          A - Admin Down
      L - LCC,            M - Mcast Down, Y - Yes
      F - FCC,            D - Down,        N - No or Not Ok
      V - Valid,
```

Collaborator Process State:

```
-----
FSDB Aggregator: OK
+-----+
|Rack id   | 0|
+-----+
|FSDB status|Ok|
+-----+
|SFE status|Ok|
```

show controller fabric plane

```

+-----+
Router Health:
-----

Rack      Planes      SFE Asics    Fia Asics
T/L/F    U/M/D/A    T/U/D        T/U/D
-----
1/1/0    2/0/6/0    6/6/0        2/2/0

Plane Admin Plane  Racks   Data
id     state state  in issue drop/error
-----
0      UP    UP     0       No
1      UP    UP     0       No
2      UP    DN     1       No
3      UP    DN     1       No
4      UP    DN     1       No
5      UP    DN     1       No
6      UP    DN     1       No
7      UP    DN     1       No
-----

Rack Health:
-----

Rack: 0, Type: LCC

SFE Asics  FIA Asics  Planes  Valid
T/U/D      T/U/D      U/M/D   fab ids
-----
6/6/0     2/2/0     2/0/6   2

PLA Health:
-----

Description:
planes      : p0-p7
plane mask  : Asic #0-3
Asic value  1: destination reachable via asic
             .: destination unreachable via asic
             x: asic not connected to LC (for S3)
             -: plane not configured (for S2) or asic missing
=====
Destination p0    p1    p2    p3    p4    p5    p6    p7    Reach-mask
Oper Up
Address      mask  mask  mask  mask  mask  mask  mask  mask  links/asic
links/asic
Fapid(R/S/A) 0123  0123  0123  0123  0123  0123  0123  0123  Mn/Mx Tota
l Mn/Mx Total
-----
0(0/0/0)     111   111   ---   ---   ---   ---   ---   ---   2/4   22
8/8         48
1(0/0/1)     111   111   ---   ---   ---   ---   ---   ---   2/4   22
8/8         48

```

show controller fabric plane

To display plane state information on fabric plane, use the **show controller fabric plane** command in the XR EXEC mode.

show controller fabric plane { plane id | all }

Syntax Description	plane-id	Displays the information on selected fabric plane, such as admin state and plane state .
	all	Displays the information on all fabric plane.
Command Default	None	
Command Modes	XR EXEC mode	
Command History	Release	Modification
	Release 24.3.1	This command was introduced.
Usage Guidelines	No specific guidelines impact the use of this command.	
Task ID	Task ID	Operations
	interface	read
	filesystem	read, write
	cisco-support	read

Examples

The **show controller fabric plane all** command displays plane state information on fabric planes, such as **admin state** and **plane state**.

```
Router# show controller fabric plane all
Plane Admin Plane up->dn up->mcast
Id State State counter counter
-----
0 UP UP 0 0
1 UP UP 0 0
2 UP DN 0 0
3 UP DN 0 0
4 UP DN 0 0
5 UP DN 0 0
6 UP DN 0 0
7 UP DN 0 0
```

■ show controller fabric plane