

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.

Command Default

By default, keepalive monitoring is enabled on routers.

Command Modes

XR EXEC mode

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.

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*id* | *all*	Specifies that you want to filter the output based on a specific NPU instance. • Replace *id* 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 *location* | *all*	Specifies that you want to filter the output based on a specific hardware location. • Replace *location* with a specific hardware location identifier. For example, `0/5/CPU0`. 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  Required/Available      Fabric Capacity
        BW(Gbps)   Fabric BW (Gbps)       (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  Required/Available      Fabric Capacity
        BW(Gbps)   Fabric BW (Gbps)       (percent)
============================================================
0/5/1      4800     5280/6000               113

Port        Far-end    Oper  Port          Cap.   Flap  High NZ-CW-Bin UCE    CRC  SNR
Extra      Comment
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.
instance*id* | *all*	Specifies that you want to filter the output based on a specific NPU instance. • Replace *id* 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 *LC_location* | *all*	Specifies that you want to filter the output based on a specific hardware location. • Replace *LC_location* with a specific line card location. For example, `0/5/CPU0`. This displays capacity information only for the NPU(s) on the Line Card at that location. • *all* 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*id* | *all*	Specifies that you want to filter the output based on a specific NPU instance. • Replace *id* 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 *location* | *all*	Specifies that you want to filter the output based on a specific hardware location. • Replace *LC_location* with a specific line card location. For example, `0/5/CPU0`. 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  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 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|
```

```
    +-----------+--+

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
```