Fabric Management Commands

This chapters provides details for the fabric management commands.

show asic-errors SFE

To display asic errors for the Switch Fabric Element (SFE), use the **show asic-errors SFE** command in the Administration EXEC mode.

show asic-errors SFE *element-id* **location** *location-id*

Syntax Description

element-id	SFE instance ID
location-id	Location ID of RP

Command Default

None

Command Modes

Administration EXEC

Command History

Release	Modification
Release 5.2.4	This command was first introduced.
Release 6.0.1	The **SFE** keyword was added.

Usage Guidelines

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
sfe	read

Example

This example show how to use the **show asic-errors SFE** command:

```
sysadmin-vm:0_RP0# show asic-errors SFE 0 all location 0/RP0
Wed Apr  20 06:31:49.555 UTC
all location 0/RP0
************************************************************
*                          Instance:0                      *
************************************************************
************************************************************
*                    Single Bit Errors                     *
************************************************************
************************************************************
*                   Multiple Bit Errors                    *
************************************************************
************************************************************
*                      Parity Errors                       *
************************************************************
```

```
************************************************************
*                      Barrier Errors                      *
************************************************************
************************************************************
*                    Unexpected Errors                     *
************************************************************
************************************************************
*                       Link Errors                        *
************************************************************
NCS-4000, , 0/RP0, sfe[0]
Name            : RTP.General_Interrupt_Register.LinkIntegrityChangedInt
Leaf ID         : 0x20026029
Error count     : 1
Last clearing   : Tue Apr 19 19:03:45 2016
Last N errors   : 1
------------------------------------------------------------
First N errors.
@Time, Error-Data
----------------------------------------
Apr 19 19:03:45.595144:              Name  Address     Value
                    Link_Integrity_Vector 0x000001a8 0x0000000000000000000e070707000000
------------------------------------------------------------
NCS-4000, , 0/RP0, sfe[0]
Name            : RTP.General_Interrupt_Register.UnicastTableChangedInt
Leaf ID         : 0x2002602a
Error count     : 4
Last clearing   : Tue Apr 19 19:03:42 2016
Last N errors   : 4
```

show controller fabric plane

To display the details about the fabric plane, use the **show controller fabric plane** command in the Administration EXEC mode.

show controller fabric plane {**all** | **plane-id**} [**statistics**]
[**brief | detail**]

Syntax Description

plane-id	Displays details of the selected plane number. Range is from 0 to 3.
all	Displays information about all the system fabric planes.
statistics	Displays plane statistics.
brief	Displays brief information about the system fabric plane or plane statistics.
detail	Displays detailed information about the system fabric plane or plane statistics.

Command Default

None

Command Modes

Administration EXEC mode

Command History

Release	Modification
Release 5.2.4	This command was introduced.
Release 6.0.1	The display output has been modified to show the plane mode details.

Usage Guidelines

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
sfe	read

Example

This example shows how to use the **show controller fabric plane** command:

```
sysadmin-vm:0_RP0# show controller fabric plane all


Plane Admin Plane  Plane  up->dn  up->mcast
Id    State State  Mode   counter   counter
---------------------------------------
0     UP    UP       SC          0         0
1     UP    UP       SC          0         0
```

```
2       UP      UP          SC              0           0
3       UP      UP          SC              0           0
```

Field	Description
Plane ID	Plane ID number.
Admin State	Admin status of the plane (up or down).
Plane State	Plane status (shut or unshut).
Plane Mode	Plane mode indicates single chassis or multi-chassis system.
up-dn counter	Plane counter.
up-mcast counter	Counter to indicate the if any of the links are down.

show controller sfe driver rack

To display the Switch Fabric Element (SFE) driver information, use the **show controller sfe driver rack** command in the Administration EXEC mode.

show controller sfe driver rack *rack-id*

Syntax Description

rack-id	The ID of the rack whose details need to be displayed.

Command Default

None

Command Modes

Administration EXEC

Command History

Release	Modification
Release 5.2.4	This command was first introduced.
Release 6.0.1	The output has been modified to show the Asic Class details.

Usage Guidelines

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
sfe	read

Example

This example shows how to use the **show controller sfe driver rack** command:

```
sysadmin-vm:0_RP# show controller sfe driver rack 0
SFE Driver information
================================================================================

Driver Version: 1   (1.1)

Functional role: Active,   ISSU role: NA
Rack: 0/RP0, Type: lcc, Number: 0, IP Address: 192.0.44.1
Startup time       : 2016 Feb 11 13:58:55.646
Availability Masks :
     Card: 0xF       Asic: 0x1C71C7       Exp Asic: 0x1C71C7
Unicast/Multicast (ratio) : 0
+-------------------------------------------------------------+
|Process  | Connection | Registration| Connection | DLL          |
|/Lib     | status     | status      | requests   | registration |
+-------------------------------------------------------------+
| PM      |  Active    |  n/a        |           1|  n/a         |
| PL-LOCAL|  Active    |  Active     |           1|  n/a         |
```

```
| FSDB    |  Active    |  Active     |           1|  n/a         |
| FGID    |  Active    |  Active     |           1|  n/a         |
| CM      |  Active    |  Active     |           1|  n/a         |
| CCC     |  Active    |  n/a        |           1|  n/a         |
| GASPP   |  n/a       |  n/a        |         n/a|  No          |
| CIH     |  n/a       |  n/a        |         n/a|  Yes         |
+-------------------------------------------------------------+

Asics :
HP - HotPlug event,  PON - Power ON reset,     WB - Warm Boot,  A - All
HR - Hard Reset,     DC  - Disconnect signal,  DL - DownLoad
+-------------------------------------------------------------------------------------+
| Asic inst.|card|HP|Asic| Asic  | Admin|plane| Fgid| Asic State |DC| Last  |PON|HR |
|  (R/S/A)  |pwrd|  |type| class | /Oper|/grp | DL  |            |  | init  |(#)|(#)|
+-------------------------------------------------------------------------------------+
| 0/FC0/0   | UP | 1|s123|  FE3600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
| 0/FC0/1   | UP | 1|s123|  FE3600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
| 0/FC0/2   | UP | 1|s123|  FE3600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
| 0/FC0/0   | UP | 1|s123|  FE1600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
| 0/FC0/1   | UP | 1|s123|  FE1600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
| 0/FC0/2   | UP | 1|s123|  FE1600| UP/UP| 0/A | DONE| NRML       | 0| PON   |  1|  0|
```

Field	Description
Process / Lib	External process name
Connection Status	State of SFE connection with external process(es)
Registration Status	State of SFE registration with external process(es)
Connection Requests	SFE connection request numbers with external process
DLL registration	DLL registration status
Asic inst. R/S/A	Asic instance number (Rack/ slot/ asic format)
Card PWRD	Card power status
HP	Hot plug attach status
Asic type	SFE mode - s13, s123, s2
Asic Class	SFE asic type - FE3600, FE1600
Admin/ Oper	Admin operation status from FSDB
Plane/ grp	Plane number
Fgid/ DL	FGID download status (Empty/ Done)
Asic State	Status of the ASIC
DC	Disconnect Status
Last init	Last Initialization Type - WB, PON, HPON
PON	Power or reset counters
HR	Hard reset counters

show controller sfe statistics

To display the Switch Fabric Element (SFE) statistics, use the **show controller sfe statistics** command in the Administration EXEC mode.

show controller sfe statistics asic-type [**FE3200** | **FE1600**] **block** *block-stats* **instance** { **asic-instance** | **all** } **location** { *node-id* | **all**}

Syntax Description

asic-type	Type of FE (FE1600 or 3200).
block *block-stats*	SFE block type. The possible options are: • CCS statistics - valid for FE1600 and FE3200 • DCH statistics - valid for FE1600 and FE3200 • DCL statistics - valid for FE1600 and FE3200 • DCM statistics - valid for FE3200 • DCMA statistics - valid for FE1600 • ECI statistics - valid for FE1600 • FMAC statistics - valid for FE1600 • FSRD statistics - valid for FE3200 • MESH statistics - valid for FE3200 • RTP statistics - valid for FE1600 and FE3200
instance	Indicates an instance.
asic-instance	Displays statistics for a specific ASIC.
all	Displays statistics for all asics or nodes.
location	Specifies the target location; the node-id is expressed in the R/S/I/P format.

Command Default

None

Command Modes

Administration EXEC

Command History

Release	Modification
Release 6.0.0	This command was first introduced.
Release 6.0.1	The **asic-type** keyword was added.

Usage Guidelines

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
sfe	read

Example

This example shows how to use the **show controller sfe statistics** command:

```
sysadmin-vm:0_RP0# show controller sfe statistics asic-type FE1600 block DCH instance 0
location 0/FC0
Wed Apr  20 06:40:33.225 UTC
DCH statistics:
--------------------------------
DCH0 FifoDiscardCounterP:                          0
DCH0 DCHReordDiscardCounterP:                      6
DCH0 FifoDiscardCounterS:                          0
DCH0 DCHReordDiscardCounterS:                      6
DCH0 UnreachDestCntP:                              0
DCH0 UnreachDestCntS:                              0
DCH0 DchDroppedLowMulCntP:                         0
DCH0 DchDroppedLowMulCntS:                         0
DCH0 ErrorFilterCntAP:                             0
DCH0 ErrorFilterCntBP:                             0
DCH0 ErrorFilterCntAS:                             0
DCH0 ErrorFilterCntBS:                             0
DCH0 DropLowPriCntP:                               0
DCH0 DropLowPriCntS:                               0
DCH0 Ecc_1bErrCnt:                                 0
DCH0 Ecc_2bErrCnt:                                 0
DCH0 ParityErrCnt:                                 0
DCH1 FifoDiscardCounterP:                          0
DCH1 DCHReordDiscardCounterP:                     18
DCH1 FifoDiscardCounterS:                          0
DCH1 DCHReordDiscardCounterS:                     18
DCH1 UnreachDestCntP:                              0
DCH1 UnreachDestCntS:                              0
DCH1 DchDroppedLowMulCntP:                         0
DCH1 DchDroppedLowMulCntS:                         0
DCH1 ErrorFilterCntAP:                             0
DCH1 ErrorFilterCntBP:                             0
DCH1 ErrorFilterCntAS:                             0
DCH1 ErrorFilterCntBS:                             0
DCH1 DropLowPriCntP:                               0
DCH1 DropLowPriCntS:                               0
DCH1 Ecc_1bErrCnt:                                 0
DCH1 Ecc_2bErrCnt:                                 0
DCH1 ParityErrCnt:                                 0
DCH2 FifoDiscardCounterP:                          0
DCH2 DCHReordDiscardCounterP:                      0
DCH2 FifoDiscardCounterS:                          0
DCH2 DCHReordDiscardCounterS:                      0
DCH2 UnreachDestCntP:                              0
DCH2 UnreachDestCntS:                              0
DCH2 DchDroppedLowMulCntP:                         0
DCH2 DchDroppedLowMulCntS:                         0
```

```
DCH2 ErrorFilterCntAP:                          0
DCH2 ErrorFilterCntBP:                          0
DCH2 ErrorFilterCntAS:                          0
DCH2 ErrorFilterCntBS:                          0
DCH2 DropLowPriCntP:                            0
DCH2 DropLowPriCntS:                            0
DCH2 Ecc_1bErrCnt:                              0
DCH2 Ecc_2bErrCnt:                              0
DCH2 ParityErrCnt:                              0
DCH3 FifoDiscardCounterP:                       0
DCH3 DCHReordDiscardCounterP:                   0
DCH3 FifoDiscardCounterS:                       0
DCH3 DCHReordDiscardCounterS:                   0
DCH3 UnreachDestCntP:                           0
DCH3 UnreachDestCntS:                           0
DCH3 DchDroppedLowMulCntP:                      0
DCH3 DchDroppedLowMulCntS:                      0
DCH3 ErrorFilterCntAP:                          0
DCH3 ErrorFilterCntBP:                          0
DCH3 ErrorFilterCntAS:                          0
DCH3 ErrorFilterCntBS:                          0
DCH3 DropLowPriCntP:                            0
DCH3 DropLowPriCntS:                            0
DCH3 Ecc_1bErrCnt:                              0
DCH3 Ecc_2bErrCnt:                              0
DCH3 ParityErrCnt:                              0
```

show platform

To display information and status for each node in the system, use the **show platform** command in EXEC mode or Administration EXEC mode.

show platform [**node-id**]

Syntax Description

node-id	Node for which information needs to be displayed. Node-id needs to be entered in R/S/I/P format.

Command Default

None

Command Modes

EXEC or Admin EXEC

Command History

Release	Modification
Release 5.2.4	This command was introduced.
Release 6.0.1	The display output has been modified to display additional details for line cards.

Usage Guidelines

You must be in a user group associated with a task group that includes the proper task IDs. The command reference guides include the task IDs required for each command. If you suspect user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

The show platform command provides a summary of the nodes in the system, including node type and status.

Task ID

Task ID	Operation
system	read

Example

This example shows how to use the **show platform** command:

```
RP/0/RP1:router # show platform

Node              Type                       State             Config state
--------------------------------------------------------------------------------
0/0/CPU0          NCS4K-2H10T-OP-KS          IOS XR RUN        NSHUT
0/1/CPU0          NCS4K-2H10T-OP-KS          IOS XR RUN        NSHUT
0/2/CPU0          NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/4/CPU0          NCS4K-2H-O-K               IOS XR RUN        NSHUT
0/5/CPU0          NCS4K-2H10T-OP-KS          IOS XR RUN        NSHUT
0/6/CPU0          NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/8/CPU0          NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/9/CPU0          NCS4K-2H10T-OP-KS          IOS XR RUN        NSHUT
0/10/CPU0         NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/11/CPU0         NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/12/CPU0         NCS4K-2H-O-K               IOS XR RUN        NSHUT
0/13/CPU0         NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/15/CPU0         NCS4K-20T-O-S              IOS XR RUN        NSHUT
0/RP0/CPU0        NCS4K-RP                   IOS XR RUN        NSHUT
```

```
0/RP1/CPU0       NCS4K-RP                 IOS XR RUN       NSHUT
0/FC0            NCS4016-FC2-M            OPERATIONAL      NSHUT
0/FC1            NCS4016-FC2-M            OPERATIONAL      NSHUT
0/FC2            NCS4016-FC2-M            OPERATIONAL      NSHUT
0/FC3            NCS4016-FC2-M            OPERATIONAL      NSHUT
0/FT0            NCS4K-FTA                FAILED           NSHUT
0/FT1            NCS4K-FTA                FAILED           NSHUT
0/PT1            NCS4K-AC-PEM             OPERATIONAL      NSHUT
0/EC0            NCS4K-ECU                OPERATIONAL      NSHUT
```