



## FXOS CLI 故障排除命令

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## FXOS CLI 机箱模式故障排除命令

使用以下机箱模式 FXOS CLI 命令可解决 Firepower 1000/2100 系统的问题。

### show environment

显示机箱的环境信息。

例如：

```
FPR2100 /chassis # show environment expand detail
Chassis 1:
Overall Status: Power Problem
Operability: Operable
Power State: Ok
Thermal Status: Ok

PSU 1:
Overall Status: Powered Off
Operability: Unknown
Power State: Off
Voltage Status: Unknown

PSU 2:
Overall Status: Operable
Operability: Operable
Power State: On
Voltage Status: Ok

Tray 1 Module 1:
Overall Status: Operable
Operability: Operable
Power State: On

Fan 1:
Overall Status: Operable
Operability: Operable
Power State: On

Fan 2:
Overall Status: Operable
Operability: Operable
Power State: On
```

```

Fan 3:
  Overall Status: Operable
  Operability: Operable
  Power State: On
Fan 4:
  Overall Status: Operable
  Operability: Operable
  Power State: On
Server 1:
  Overall Status: Ok
  Memory Array 1:
    Current Capacity (MB): 32768
    Populated: 2
    DIMMs:
      ID Overall Status          Capacity (MB)
      ---
      1 Operable                16384
      2 Operable                16384
  CPU 1:
    Presence: Equipped
    Cores: 8
    Product Name: Intel(R) Xeon(R) CPU D-1548 @ 2.00GHz
    Vendor: GenuineIntel
    Thermal Status: OK
    Overall Status: Operable
    Operability: Operable

```

**show environmentbasic**

显示机箱和 CPU 温度数据。

例如：

```

FPR2100 /chassis # show environment basic
***** Chassis Temps *****
Inlet temperature is 75 degrees Celsius

***** CPU Data *****
Core Temperature 0 is 93 degrees Celsius
Core Temperature 1 is 93 degrees Celsius
Core Temperature 2 is 94 degrees Celsius
Core Temperature 3 is 92 degrees Celsius

```

**scope fan**

在 Firepower 2110 和 2120 设备上进入风扇模式。

**scope fan-module**

在 Firepower 2130 和 2140 设备上进入风扇模式。在此模式下，可以显示有关机箱风扇的详细信息。

例如：

```

FPR2100 /chassis # show fan-module expand detail
Fan Module:
  Tray: 1
  Module: 1
  Overall Status: Operable
  Operability: Operable
  Power State: On
  Presence: Equipped
  Product Name: Cisco Firepower 2000 Series Fan Tray
  PID: FPR2K-FAN
  Vendor: Cisco Systems, Inc
  Fan:
    ID: 1
    Overall Status: Operable

```

```

Operability: Operable
Power State: On
Presence: Equipped
ID: 2
Overall Status: Operable
Operability: Operable
Power State: On
Presence: Equipped

```

### show inventory

显示机箱编号、供应商和序列号等资产信息。

注意：此命令仅适用于 Firepower 2130 和 3140 设备。

例如：

```

FPR2100 /chassis # show inventory
Chassis  PID          Vendor          Serial (SN) HW Revision
-----
1 FPR-2140      Cisco Systems, In JAD201005FC 0.1

```

### show inventory expand

显示有关现场可更换组件（例如机箱、PSU 和网络模块）的详细库存信息。

例如：

```

FPR2100 /chassis # show inventory expand detail
Chassis 1:
  Product Name: Cisco Firepower 2000 Appliance
  PID: FPR-2130
  VID: V01
  Vendor: Cisco Systems, Inc
  Model: FPR-2130
  Serial (SN): JAD2012091X
  HW Revision: 0.1
PSU 1:
  Presence: Equipped
  Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
  PID: FPR2K-PWR-AC-400
  VID: V01
  Vendor: Cisco Systems, Inc
  Serial (SN): LIT2010CAFE
  HW Revision: 0
PSU 2:
  Presence: Equipped
  Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
  PID: FPR2K-PWR-AC-400
  VID: V01
  Vendor: Cisco Systems, Inc
  Serial (SN): LIT2010CAFE
  HW Revision: 0
Fan Modules:
  Tray 1 Module 1:
    Presence: Equipped
    Product Name: Cisco Firepower 2000 Series Fan Tray
    PID: FPR2K-FAN
    Vendor: Cisco Systems, Inc
Fans:
  ID Presence
  --
  1 Equipped
  2 Equipped
  3 Equipped
  4 Equipped
Fabric Card 1:
  Description: Cisco SSP FPR 2130 Base Module

```

```

Number of Ports: 16
State: Online
Vendor: Cisco Systems, Inc.
Model: FPR-2130
HW Revision: 0
Serial (SN): JAD2012091X
Perf: N/A
Operability: Operable
Overall Status: Operable
Power State: Online
Presence: Equipped
Thermal Status: N/A
Voltage Status: N/A
Fabric Card 2:
Description: 8-port 10 Gigabit Ethernet Expansion Module
Number of Ports: 8
State: Online
Vendor: Cisco Systems, Inc.
Model: FPR-NM-8X10G
HW Revision: 0
Serial (SN): JAD19510AKD
Perf: N/A
Operability: Operable
Overall Status: Operable
Power State: Online
Presence: Equipped
Thermal Status: N/A
Voltage Status: N/A

```

**scope psu**

进入电源装置模式。在此模式下，可以查看有关电源装置的详细信息。

例如：

```

FPR2100 /chassis # show psu expand detail
PSU:
PSU: 1
Overall Status: Powered Off
Operability: Unknown
Power State: Off
Presence: Equipped
Voltage Status: Unknown
Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
PID: FPR2K-PWR-AC-400
VID: V01
Vendor: Cisco Systems, Inc
Serial (SN): LIT2010CAFE
Type: AC
Fan Status: Ok
PSU: 2
Overall Status: Operable
Operability: Operable
Power State: On
Presence: Equipped
Voltage Status: Ok
Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
PID: FPR2K-PWR-AC-400
VID: V01
Vendor: Cisco Systems, Inc
Serial (SN): LIT2010CAFE
Type: AC
Fan Status: Ok

```

**scope stats**

进入统计信息模式。在此模式下，可以查看有关机箱统计信息的详细信息。

例如:

```
FPR2100 /chassis # show stats
Chassis Stats:
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/stats
  Suspect: No
  Outlet Temp1 (C): 43.000000
  Outlet Temp2 (C): 41.000000
  Inlet Temp (C): 30.000000
  Internal Temp (C): 34.000000
  Thresholded: 0
Fan Stats:
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/fan-module-1-1/fan-1/stats
  Suspect: No
  Speed (RPM): 17280
  Thresholded: 0
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/fan-module-1-1/fan-2/stats
  Suspect: No
  Speed (RPM): 17340
  Thresholded: 0
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/fan-module-1-1/fan-3/stats
  Suspect: No
  Speed (RPM): 17280
  Thresholded: 0
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/fan-module-1-1/fan-4/stats
  Suspect: No
  Speed (RPM): 17280
  Thresholded: 0
Psu Stats:
  Time Collected: 2016-11-14T21:19:46.318
  Monitored Object: sys/chassis-1/psu-1/stats
  Suspect: No
  Input Current (A): 0.000000
  Input Power (W): 8.000000
  Input Voltage (V): 0.000000
  Psu Temp1 (C): 32.000000
  Psu Temp2 (C): 36.000000
  Psu Temp3 (C): 32.000000
  Fan Speed (RPM): 0
  Thresholded: 0
  Time Collected: 2016-11-14T21:19:46.318
  Monitored Object: sys/chassis-1/psu-2/stats
  Suspect: No
  Input Current (A): 0.374000
  Input Power (W): 112.000000
  Input Voltage (V): 238.503006
  Psu Temp1 (C): 36.000000
  Psu Temp2 (C): 47.000000
  Psu Temp3 (C): 47.000000
  Fan Speed (RPM): 2240
  Thresholded: 0
CPU Env Stats:
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/blade-1/board/cpu-1/env-stats
  Suspect: No
  Temperature (C): 46.000000
  Thresholded: 0
  Time Collected: 2016-11-14T21:19:46.317
  Monitored Object: sys/chassis-1/blade-1/npu/cpu-1/env-stats
```

```
Suspect: No
Temperature (C): 38.000000
Thresholded: 0
```

## FXOS CLI 以太网-上行链路模式故障排除命令

使用以下以太网-上行链路模式 FXOS CLI 命令可解决 Firepower 1000/2100 系统的问题。

### show detail

显示有关 Firepower 1000/2100 设备的以太网上行链路的详细信息。

例如：

```
FPR2100 /eth-uplink # show detail
Ethernet Uplink:
  Mode: Security Node
  MAC Table Aging Time (dd:hh:mm:ss): 00:04:01:40
  VLAN Port Count Optimization: Disabled
  Current Task:
```

### scope fabric a

进入以太网-上行链路接口模式。在此模式下，可以查看端口通道、统计信息和接口信息。

例如：

```
FPR2100 /eth-uplink/fabric # show interface
Interface:
  Port Name      Port Type      Admin State Oper State      State Reason
  -----
  Ethernet1/1    Data           Enabled      Up              Up
  Ethernet1/2    Data           Enabled      Link Down      Down
  Ethernet1/3    Data           Disabled     Link Down      Down
  Ethernet1/4    Data           Disabled     Link Down      Down
  Ethernet1/5    Data           Disabled     Link Down      Down
  Ethernet1/6    Data           Disabled     Link Down      Down
  Ethernet1/7    Data           Disabled     Link Down      Down
  Ethernet1/8    Data           Disabled     Link Down      Down
  Ethernet1/9    Data           Disabled     Link Down      Down
  Ethernet1/10   Data           Disabled     Link Down      Down
  Ethernet1/11   Data           Disabled     Link Down      Down
  Ethernet1/12   Data           Disabled     Link Down      Down
  Ethernet1/13   Data           Disabled     Link Down      Down
  Ethernet1/14   Data           Disabled     Link Down      Down
  Ethernet1/15   Data           Disabled     Link Down      Down
  Ethernet1/16   Data           Disabled     Link Down      Down
  Ethernet2/1    Data           Disabled     Link Down      Down
  Ethernet2/2    Data           Disabled     Link Down      Down
  Ethernet2/3    Data           Disabled     Link Down      Down
  Ethernet2/4    Data           Disabled     Link Down      Down
  Ethernet2/5    Data           Disabled     Link Down      Down
  Ethernet2/6    Data           Disabled     Link Down      Down
  Ethernet2/7    Data           Disabled     Link Down      Down
  Ethernet2/8    Data           Disabled     Link Down      Down

FPR2100 /eth-uplink/fabric # show port-channel
Port Channel:
  State      Port Channel Id Name      Port Type      Admin State      Oper State      State Reason
  -----
  1          Port-channell            Data           Disabled         Link Down      Down
```

```
FPR2100 /eth-uplink/fabric/port-channel # show stats
Ether Error Stats:
  Time Collected: 2016-11-14T21:27:16.386
  Monitored Object: fabric/lan/A/pc-1/err-stats
  Suspect: No
  Rcv (errors): 0
  Align (errors): 0
  Fcs (errors): 0
  Xmit (errors): 0
  Under Size (errors): 0
  Out Discard (errors): 0
  Deferred Tx (errors): 0
  Int Mac Tx (errors): 0
  Int Mac Rx (errors): 0
  Thresholded: Xmit Delta Min
Ether Loss Stats:
  Time Collected: 2016-11-14T21:27:16.386
  Monitored Object: fabric/lan/A/pc-1/loss-stats
  Suspect: No
  Single Collision (errors): 0
  Multi Collision (errors): 0
  Late Collision (errors): 0
  Excess Collision (errors): 0
  Carrier Sense (errors): 0
  Giants (errors): 0
  Symbol (errors): 0
  SQE Test (errors): 0
  Thresholded: 0
Ether Pause Stats:
  Time Collected: 2016-11-14T21:27:16.386
  Monitored Object: fabric/lan/A/pc-1/pause-stats
  Suspect: No
  Recv Pause (pause): 0
  Xmit Pause (pause): 0
  Resets (resets): 0
  Thresholded: 0
Ether Rx Stats:
  Time Collected: 2016-11-14T21:27:16.386
  Monitored Object: fabric/lan/A/pc-1/rx-stats
  Suspect: No
  Total Packets (packets): 0
  Unicast Packets (packets): 0
  Multicast Packets (packets): 0
  Broadcast Packets (packets): 0
  Total Bytes (bytes): 0
  Jumbo Packets (packets): 0
  Thresholded: 0
Ether Tx Stats:
  Time Collected: 2016-11-14T21:27:16.386
  Monitored Object: fabric/lan/A/pc-1/tx-stats
  Suspect: No
  Total Packets (packets): 0
  Unicast Packets (packets): 0
  Multicast Packets (packets): 0
  Broadcast Packets (packets): 0
  Total Bytes (bytes): 0
  Jumbo Packets (packets): 0
FPR2100 /eth-uplink/fabric/interface # show stats
Ether Error Stats:
  Time Collected: 2016-11-14T21:27:46.395
  Monitored Object: sys/switch-A/slot-1/switch-ether/port-1/err-stats
  Suspect: No
  Rcv (errors): 0
  Align (errors): 0
```

```
Fcs (errors): 0
Xmit (errors): 0
Under Size (errors): 0
Out Discard (errors): 0
Deferred Tx (errors): 0
Int Mac Tx (errors): 0
Int Mac Rx (errors): 0
Thresholded: Xmit Delta Min
Ether Loss Stats:
Time Collected: 2016-11-14T21:27:46.395
Monitored Object: sys/switch-A/slot-1/switch-ether/port-1/loss-stats
Suspect: No
Single Collision (errors): 0
Multi Collision (errors): 0
Late Collision (errors): 0
Excess Collision (errors): 0
Carrier Sense (errors): 0
Giants (errors): 7180
Symbol (errors): 0
SQE Test (errors): 0
Thresholded: 0
Ether Pause Stats:
Time Collected: 2016-11-14T21:27:46.395
Monitored Object: sys/switch-A/slot-1/switch-ether/port-1/pause-stats
Suspect: No
Recv Pause (pause): 0
Xmit Pause (pause): 0
Resets (resets): 0
Thresholded: 0
Ether Rx Stats:
Time Collected: 2016-11-14T21:27:46.395
Monitored Object: sys/switch-A/slot-1/switch-ether/port-1/rx-stats
Suspect: No
Total Packets (packets): 604527
Unicast Packets (packets): 142906
Multicast Packets (packets): 339031
Broadcast Packets (packets): 122590
Total Bytes (bytes): 59805045
Jumbo Packets (packets): 0
Thresholded: 0
Ether Tx Stats:
Time Collected: 2016-11-14T21:27:46.395
Monitored Object: sys/switch-A/slot-1/switch-ether/port-1/tx-stats
Suspect: No
Total Packets (packets): 145018
Unicast Packets (packets): 145005
Multicast Packets (packets): 0
Broadcast Packets (packets): 13
Total Bytes (bytes): 13442404
Jumbo Packets (packets): 0
Thresholded: 0
```

## FXOS CLI 交换矩阵互联模式故障排除命令

使用以下交换矩阵互联模式 FXOS CLI 命令可解决 Firepower 1000/2100 系统的问题。

### show card

显示有关交换矩阵卡的信息。

例如：



```
FPR2100 /fabric-interconnect # show card detail expand
Fabric Card:
  Id: 1
  Description: Cisco SSP FPR 2130 Base Module
  Number of Ports: 16
  State: Online
  Vendor: Cisco Systems, Inc.
  Model: FPR-2130
  HW Revision: 0
  Serial (SN): JAD2012091X
  Perf: N/A
  Operability: Operable
  Overall Status: Operable
  Power State: Online
  Presence: Equipped
  Thermal Status: N/A
  Voltage Status: N/A
```

### show image

显示所有可用的映像。

```
firepower /firmware # show image
Name                                     Type                                     Version
-----
cisco-ftd.6.2.0.131.csp                 Firepower Cspapp                       6.2.0.131
cisco-ftd.6.2.0.140.csp                 Firepower Cspapp                       6.2.0.140
cisco-ftd.6.2.0.175.csp                 Firepower Cspapp                       6.2.0.175
fxos-k8-fp2k-firmware.0.4.04.SPA       Firepower Firmware                     0.4.04
fxos-k8-fp2k-lfbff.82.1.1.303i.SSA     Firepower System                       82.1(1.303i)
fxos-k8-fp2k-npu.82.1.1.303i.SSA       Firepower Npu                          82.1(1.303i)
fxos-k8-fp2k-npu.82.1.1.307i.SSA       Firepower Npu                          82.1(1.307i)
fxos-k9-fp2k-manager.82.1.1.303i.SSA   Firepower Manager                      82.1(1.303i)
```

### show package

显示所有可用的软件包。

```
firepower /firmware # show package
Name                                     Package-Vers
-----
cisco-ftd-fp2k.6.2.0.131-303i.SSA       6.2(0.131-303i)
cisco-ftd-fp2k.6.2.0.140-307i.SSA       6.2(0.140-307i)
cisco-ftd-fp2k.6.2.0.140-308i.SSA       6.2(0.140-308i)
cisco-ftd-fp2k.6.2.0.175-311i.SSA       6.2(0.175-311i)
cisco-ftd-fp2k.6.2.0.175-314i.SSA       6.2(0.175-314i)
cisco-ftd-fp2k.6.2.0.175-318i.SSA       6.2(0.175-318i)
cisco-ftd-fp2k.6.2.0.175-319i.SSA       6.2(0.175-319i)
```

### show package 软件包名称 expand

显示软件包详细信息。

```
firepower /firmware # show package cisco-ftd-fp2k.6.2.0.131-303i.SSA expand
Package cisco-ftd-fp2k.6.2.0.131-303i.SSA:
  Images:
    cisco-ftd.6.2.0.131.csp
    fxos-k8-fp2k-firmware.0.4.04.SPA
    fxos-k8-fp2k-lfbff.82.1.1.303i.SSA
    fxos-k8-fp2k-npu.82.1.1.303i.SSA
    fxos-k9-fp2k-manager.82.1.1.303i.SSA
```

### scope auto-install

进入自动安装模式。在此模式下，可以查看当前的 FXOS 升级状态。

```
firepower /firmware/auto-install # show
Firmware Auto-Install:
```

```

Package-Vers Oper State                               Upgrade State
-----
6.2(0.175-319i)                               Scheduled                               Installing Application

```

### scope firmware

进入固件模式。在此模式下，可以查看下载任务信息。

例如：

```

FPR2100 /firmware # show download-task
Download task:
  File Name                               Protocol Server
  Port      Userid      State
  -----
  cisco-ftd-fp2k.6.2.0.175-314i.SSA      Scp      172.29.191.78
0 danp      Downloaded
  cisco-ftd-fp2k.6.2.0.175-318i.SSA      Scp      172.29.191.78
0 danp      Downloaded
  cisco-ftd-fp2k.6.2.0.175-319i.SSA      Scp      172.29.191.78
0 danp      Downloaded

```

### scope download-task

进入下载任务模式。在此模式下，可以查看有关每项下载任务的更多详细信息并重新启动下载任务。

例如：

```

Download task:
  File Name: test.SSA
  Protocol: Scp
  Server: 172.29.191.78
  Port: 0
  Userid: user
  Path: /tmp
  Downloaded Image Size (KB): 0
  Time stamp: 2016-11-15T19:42:29.854
  State: Failed
  Transfer Rate (KB/s): 0.000000
  Current Task: deleting downloadable test.SSA on
local(FSM-STAGE:sam:dme:FirmwareDownloaderDownload:DeleteLocal)
firepower /firmware/download-task # show fsm status
File Name: test.SSA
FSM 1:
  Remote Result: End Point Failed
  Remote Error Code: ERR MO Illegal Iterator State
  Remote Error Description: End point timed out. Check for IP, port, password,
disk space or network access related issues.#
  Status: Download Fail
  Previous Status: Download Fail
  Timestamp: 2016-11-15T19:42:29.854
  Try: 2
  Progress (%): 0
  Current Task: deleting downloadable test.SSA on
local(FSM-STAGE:sam:dme:FirmwareDownloaderDownload:DeleteLocal)

firepower /firmware/download-task # restart
Password:

```

### scope psu

进入电源装置模式。在此模式下，可以查看有关电源装置的详细信息。

例如：

```

FPR2100 /chassis # show psu expand detail
PSU:

```

```

PSU: 1
Overall Status: Powered Off
Operability: Unknown
Power State: Off
Presence: Equipped
Voltage Status: Unknown
Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
PID: FPR2K-PWR-AC-400
VID: V01
Vendor: Cisco Systems, Inc
Serial (SN): LIT2010CAFE
Type: AC
Fan Status: Ok
PSU: 2
Overall Status: Operable
Operability: Operable
Power State: On
Presence: Equipped
Voltage Status: Ok
Product Name: Cisco Firepower 2000 Series AC 400W Power Supply
PID: FPR2K-PWR-AC-400
VID: V01
Vendor: Cisco Systems, Inc
Serial (SN): LIT2010CAFE
Type: AC
Fan Status: Ok

```

## FXOS CLI 安全服务模式故障排除命令

使用以下安全服务 (ssa) 模式 FXOS CLI 命令可排除 Firepower 1000/2100 系统的故障问题。

### show app

显示有关连接到 Firepower 1000/2100 设备的应用的的信息。

例如：

```

firepower /ssa # show app
Application:
  Name          Version      Description  Author      Deploy Type  CSP Type      Is Defa
ult App
-----
ftd             6.2.0.131   N/A         cisco       Native       Application   No
ftd             6.2.0.140   N/A         cisco       Native       Application   No
ftd             6.2.0.175   N/A         cisco       Native       Application   Yes

```

