FXOS CLI Troubleshooting Commands

FXOS CLI Chassis Mode Troubleshooting Commands

Use the following chassis mode FXOS CLI commands to troubleshoot issues with your Firepower 1000/2100 system.

show environment

Displays environment information for the chassis.

For example:

```
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

Displays chassis and CPU temperature data.

For example:

```
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

Enters the fan mode on Firepower 2110 and 2120 devices.

scope fan-module

Enters the fan mode on Firepower 2130 and 2140 devices. From this mode, you can display detailed information about the chassis fan.

For example:

```
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

Displays inventory information such as the chassis number, vendor, and serial number.
Note: This command only applies to Firepower 2130 and 3140 devices.
For example:

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

show inventory expand

Displays detailed inventory information about FRUable components such as the chassis, PSU, and network modules.
For example:

```
    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

Enters the power supply unit mode. From this mode, you can view detailed information about the power supply unit.

For example:

```
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

Enters the stats mode. From this mode, you can view detailed information about the chassis statatistics. For example:

```
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 Eth-Uplink Mode Troubleshooting Commands

Use the following eth-uplink mode FXOS CLI commands to troubleshoot issues with your Firepower 1000/2100 system.

show detail

Displays detailed information about your Firepower 1000/2100 device's Ethernet uplink.
For example:

```
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

Enters the eth-uplink interface mode. From this mode, you can view port channel, statistics, and interface information.
For example:

```
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:
    Port Channel Id Name            Port Type          Admin State           Oper
 State            State Reason
```

```
    -------------- ---------------- ------------------           -----------
      ----------------           ------------
    1               Port-channel1    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 Fabric Interconnect Mode Troubleshooting Commands

Use the following fabric-interconnect mode FXOS CLI commands to troubleshoot issues with your Firepower 1000/2100 system.

show card

Displays information on a fabric card.

For example:

```
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

Displays all available images.

```
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

Displays all available packages.

```
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 *package name* expand

Displays the package details.

```
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

Enters the auto-install mode. From this mode, you can view the current FXOS upgrade state.

```
    firepower /firmware/auto-install # show
    Firmware Auto-Install:
        Package-Vers Oper State                  Upgrade State
        ------------ ----------------------------- -------------
        6.2(0.175-319i)           Scheduled                   Installing Application
```

scope firmware

Enters the firmware mode. From this mode, you can view download task information.
For example:

```
    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

Enters the download-task mode. From this mode, you can view additional details about each download task and restart the download task.
For example:

```
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

Enters the power supply unit mode. From this mode, you can view detailed information about the power supply unit.
For example:

```
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
```

Connect Local-Mgmt Troubleshooting Commands for the Firepower 2100 in Platform Mode

Use the following connect local-mgmt mode FXOS CLI commands to troubleshoot issues with your Firepower 2100 in Platform mode. To access connect local-mgmt mode, enter:

FPR2100# **connect local-mgmt**

show lacp

Displays detailed information about EtherChannel LACP.
For example:

```
FPR2100(local-mgmt)# show lacp neighborFlags:  S - Device is requesting Slow LACPDUs
        F - Device is requesting Fast LACPDUs
        A - Device is in Active mode       P - Device is in Passive mode

Channel group: 11

Partner (internal) information:

          Partner                Partner                       Partner
Port      System ID              Port Number     Age         Flags
Eth1/1    32768,286f.7fec.5980  0x10e           13 s        FA


          LACP Partner           Partner           Partner
          Port Priority        Oper Key        Port State
          32768                0x16            0x3f

          Port State Flags Decode:
```

```
          Activity:   Timeout:   Aggregation:   Synchronization:
          Active      Long       Yes            Yes

          Collecting:   Distributing:   Defaulted:   Expired:
          Yes           Yes             No          No

          Partner                Partner                      Partner
Port      System ID             Port Number     Age          Flags
Eth1/2    32768,286f.7fec.5980  0x10f           5  s         FA

          LACP Partner           Partner           Partner
          Port Priority        Oper Key        Port State
          32768                0x16            0x3f

          Port State Flags Decode:
          Activity:   Timeout:   Aggregation:   Synchronization:
          Active      Long       Yes            Yes

          Collecting:   Distributing:   Defaulted:   Expired:
          Yes           Yes             No          No


FP2100(local-mgmt)# show lacp counters

             LACPDUs         Marker      Marker Response    LACPDUs
Port       Sent   Recv     Sent   Recv    Sent    Recv      Pkts Err
--------------------------------------------------------------------------
Channel group: 11
Eth1/1     4435   3532     0      0        0      0         0
Eth1/2     4566   3532     0      0        0      0         0
```

show portchannel

Displays detailed information about EtherChannels.
For example:

```
FPR2100(local-mgmt)# show portchannel summary
Flags:  D - Down        P - Up in port-channel (members)
I - Individual  H - Hot-standby (LACP only)
s - Suspended   r - Module-removed
S - Switched    R - Routed
U - Up (port-channel)
M - Not in use. Min-links not met
--------------------------------------------------------------------------------
Group Port-       Type     Protocol  Member Ports
      Channel
--------------------------------------------------------------------------------
11    Po11(U)     Eth      LACP      Eth1/1(P)    Eth1/2(P)
```

show portmanager

Displays detailed information about physical interfaces.
For example:

```
FPR2100(local-mgmt)# show portmanager counters ethernet 1 1
Good Octets Received                          : 105503260
Bad Octets Received                           : 0
MAC Transmit Error                            : 0
Good Packets Received                         : 1376050
Bad Packets Received                          : 0
BRDC Packets Received                         : 210
MC Packets Received                           : 1153664
```

```
Size 64                                          : 1334830
Size 65 to 127                                   : 0
Size 128 to 255                                  : 0
Size 256 to 511                                  : 41220
Size 512 to 1023                                 : 0
Size 1024 to Max                                 : 0
Good Octets Sent                                 : 0
Good Packets Sent                                : 0
Excessive Collision                              : 0
MC Packets Sent                                  : 0
BRDC Packets Sent                                : 0
Unrecognized MAC Received                        : 0
FC Sent                                          : 0
Good FC Received                                 : 0
Drop Events                                      : 0
Undersize Packets                                : 0
Fragments Packets                                : 0
Oversize Packets                                 : 0
Jabber Packets                                   : 0
MAC RX Error Packets Received                    : 0
Bad CRC                                          : 0
Collisions                                       : 0
Late Collision                                   : 0
bad FC Received                                  : 0
Good UC Packets Received                         : 222176
Good UC Packets Sent                             : 0
Multiple Packets Sent                            : 0
Deferred Packets Sent                            : 0
Size 1024 to 15180                               : 0
Size 1519 to Max                                 : 0
txqFilterDisc                                    : 0
linkChange                                       : 1
```

```
FPR2100(local-mgmt)# show portmanager port-info ethernet 1 1
port_info:
        if_index:    0x1081000
        type:        PORTMGR_IPC_MSG_PORT_TYPE_PHYSICAL
        mac_address: 2c:f8:9b:1e:8f:d6
        flowctl:     PORTMGR_IPC_MSG_FLOWCTL_NONE
        role:        PORTMGR_IPC_MSG_PORT_ROLE_NPU
        admin_state: PORTMGR_IPC_MSG_PORT_STATE_ENABLED
        oper_state:  PORTMGR_IPC_MSG_PORT_STATE_UP
        admin_speed: PORTMGR_IPC_MSG_SPEED_AUTO
        oper_speed:  PORTMGR_IPC_MSG_SPEED_1GB
        admin_mtu:   9216
        admin_duplex: PORTMGR_IPC_MSG_PORT_DUPLEX_AUTO
        oper_duplex: PORTMGR_IPC_MSG_PORT_DUPLEX_FULL
        pc_if_index: 0x0
        pc_membership_status: PORTMGR_IPC_MSG_MMBR_NOT_MEMBER
        pc_protocol: PORTMGR_IPC_MSG_PORT_CHANNEL_PRTCL_NONE
        native_vlan: 101
        num_allowed_vlan: 1
                allowed_vlan[0]: 101
        PHY Data:
        PAGE IFC OFFSET VALUE  | PAGE IFC OFFSET VALUE
        ---- --- ------ -----  | ---- --- ------ -----
         0    0  0x0000 0x1140 |  0    0  0x0001 0x796d
         0    0  0x0002 0x0141 |  0    0  0x0003 0x0ee1
         0    0  0x0004 0x03e3 |  0    0  0x0005 0xc1e1
         0    0  0x0006 0x000f |  0    0  0x0007 0x2001
         0    0  0x0008 0x4f08 |  0    0  0x0009 0x0f00
```

```
  0     0  0x000a 0x3800 |  0     0  0x000f 0x3000
  0     0  0x0010 0x3070 |  0     0  0x0011 0xac08
  0     0  0x0012 0x0000 |  0     0  0x0013 0x1c40
  0     0  0x0014 0x8020 |  0     0  0x0015 0x0000
 18     0  0x001b 0x0000 |
```

Item	Description
Good Octets Received	Number of ethernet frames received that are not bad ethernet frames
Bad Octets Received	Sum of lengths of all bad ethernet frames received
MAC Transmit Error	Number of frames not transmitted correctly or dropped due to internal MAC Tx error
Good Packets Received	The number of bad frames received
Bad Packets Received	The number of bad frames received
BRDC Packets Received	The number of good frames received that have a Broadcast destination MAC address
MC Packets Received	The number of good frames received that have a Multicast destination MAC address
Good Octets Sent	The sum of lengths of all Ethernet frames sent
Good Packets Sent	The number of good frames sent
Excessive Collision	The number of collision events seen by the MAC not including those counted in Single, Multiple, Excessive, or Late. This counter is applicable in half-duplex only
MC Packets Sent	The number of good frames send that have a Multicast destination MAC address
BRDC Packets Sent	The number of good frames send that have a Broadcast destination MAC address
Unrecognized MAC Received	Number of received MAC Control frames that are not Flow control frames.
FC sent	Number of Flow Control frames sent.
Good FC Received	Number of good IEEE 802.3x Flow Control packets received.
Drop Events	Number of packets dropped
Undersize Packets	Number of undersize packets received
Fragments Packets	Number of fragments received.
Oversize Packets	Number of oversize packets received

Item	Description
Jabber Packets	Number of jabber packets received
MAC RX Error Packets Received	Number of Rx Error events seen by the receive side of the MAC
Bad CRC	Number of packets received with bad CRC
Collisions	Number of late collisions seen by the MAC
Late collison	Total number of late collisions seen by the MAC
Bad FC Received	Number of bad IEEE 802.3x Flow Control packets received
Good UC Packets Received	Number of Ethernet Unicast frames received
Good UC Packets Sent	Number of Ethernet Unicast frames sent
Multiple Packets Sent	Valid Frame transmitted on half-duplex link that encountered more then one collision. Byte count and cast are valid.
Deferred Packets Sent	Valid frame transmitted on half-duplex link with no collisions, but where the frame transmission was delayed due to media being busy. Byte count and cast are valid.
Size 1024 to 15180	The number of received and transmitted, good and bad frames that are 1024 to 1518 bytes in size
Size 1519 to Max	The number of received and transmitted, good and bad frames that are more than 1519 bytes in size
txqFilterDisc	Number of IN packets that were filtered due to TxQ
linkChange	number of link up or link down changes for the port

```
FPR2100(local-mgmt)# show portmanager switch mac-filters
port ix          MAC               mask        action      packets       bytes

00   0ba  2C:F8:9B:1E:8F:D7  FF:FF:FF:FF:FF:FF  FORWARD
     0c9  01:80:C2:00:00:02  FF:FF:FF:FF:FF:FF  FORWARD
     0cc  2C:F8:9B:1E:8F:F7  FF:FF:FF:FF:FF:FF  FORWARD
     0cf  FF:FF:FF:FF:FF:FF  FF:FF:FF:FF:FF:FF  FORWARD
     b70  00:00:00:00:00:00  01:00:00:00:00:00  DROP         222201    14220864
     bb8  01:00:00:00:00:00  01:00:00:00:00:00  DROP        1153821    91334968

01   0bd  2C:F8:9B:1E:8F:D6  FF:FF:FF:FF:FF:FF  FORWARD
     0c0  01:80:C2:00:00:02  FF:FF:FF:FF:FF:FF  FORWARD
     0c3  2C:F8:9B:1E:8F:F6  FF:FF:FF:FF:FF:FF  FORWARD
     0c6  FF:FF:FF:FF:FF:FF  FF:FF:FF:FF:FF:FF  FORWARD         210       13440
     b73  00:00:00:00:00:00  01:00:00:00:00:00  DROP         222201    14220864
     bbb  01:00:00:00:00:00  01:00:00:00:00:00  DROP        1153795    91281055
<...>
```

```
FPR2100(local-mgmt)# show portmanager switch status
Dev/Port         Mode        Link   Speed  Duplex  Loopback Mode
---------  ----------------  -----  -----  ------  -------------

0/0             QSGMII        Up     1G     Full    None
0/1             QSGMII        Up     1G     Full    None
0/2             QSGMII       Down    1G     Half    None
0/3             QSGMII       Down    1G     Half    None
0/4             QSGMII       Down    1G     Half    None
0/5             QSGMII       Down    1G     Half    None
0/6             QSGMII        Up     1G     Full    None
0/7             QSGMII       Down    1G     Half    None
0/48            QSGMII       Down    1G     Half    None
0/49            QSGMII       Down    1G     Half    None
0/50            QSGMII       Down    1G     Half    None
0/51            QSGMII       Down    1G     Half    None
0/52              KR          Up     40G    Full    None
0/56            SR_LR        Down    10G    Full    None
0/57            SR_LR        Down    10G    Full    None
0/58            SR_LR        Down    10G    Full    None
0/59            SR_LR        Down    10G    Full    None
0/64            SR_LR        Down    10G    Full    None
0/65            SR_LR        Down    10G    Full    None
0/66            SR_LR        Down    10G    Full    None
0/67            SR_LR        Down    10G    Full    None
0/68            SR_LR        Down    10G    Full    None
0/69            SR_LR        Down    10G    Full    None
0/70            SR_LR        Down    10G    Full    None
0/71            SR_LR        Down    10G    Full    None
0/80              KR          Up     10G    Full    None
0/81              KR         Down    10G    Full    None
0/83              KR          Up     10G    Full    None
```

FXOS CLI Security Services Mode Troubleshooting Commands

Use the following security services (ssa) mode FXOS CLI commands to troubleshoot issues with your Firepower 1000/2100 system.

show app

Displays information about the applications attached to you Firpower 1000/2100 device.
For example:

```
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
```

showapp-instance

Displays information about the verified app-instance status

```
    firepower-2120 /ssa # show app-instance
Application Name     Slot ID    Admin State     Operational State    Running Version Startup
 Version Cluster Oper State
-------------------- ---------- --------------- -------------------- ---------------
```

```
-------------- ------------------
asa                 1          Enabled         Online               9.14.2          9.14.2
         Not Applicable
```

showfault

Displays information about the fault message

```
firepower-2120 /ssa # show fault
Severity  Code     Last Transition Time     ID       Description
--------- -------- ----------------------- -------- -----------
Cleared   F16589   2021-10-11T21:58:53.200    25140 [FSM:STAGE:RETRY:]: Waiting for chassis
 object ready(FSM-STAGE:sam:dme:SmSecSvcAutoDeployCSP:WaitForChassisM
oReady)
```

show failsafe-params

The fail-safe mode for an FTD application on Firepower 1000/2100 is activated due to continuous boot loop, traceback, etc. The following parameters control the activation of the fail-safe mode:

- Max Restart—maximum number of times that an application should restart in order to activate the fail-safe mode.
- Current Reboot Count—number of times the application continuously restarted.
- Restart Time Interval (secs)—the amount of time in seconds, during which the Max Restart counter should be reached in order to trigger the fail-safe mode. If the application restarts 'Max Restart' or more times within this interval, the fail-safe mode is enabled.

For example:

```
firepower-2120-failed(local-mgmt)# show failsafe-params
Max Restart: 8
Current Reboot Count: 0
Restart Time Interval(secs): 3600
```

When the system is in the fail-safe mode:

- The system name is appended with the "-failed" string:

  ```
  firepower-2120-failed /ssa #
  ```

- The output of the "show failsafe-params" command in the local-mgmt command shell contains a warning message:

  ```
  firepower-2120-failed(local-mgmt)# show failsafe-params
  Max Restart: 1
  Current Reboot Count: 1
  Restart Time Interval(secs): 3600
  WARNING: System in Failsafe mode. Applications are not running!
  ```

- Operation State of the application is Offline:

  ```
  firepower-2120-failed /ssa # show app-instance
  Application Name     Slot ID    Admin State     Operational State    Running Version
  Startup Version Cluster Oper State   Cluster Role
  -------------------- ---------- --------------- -------------------- ---------------
  ---------------- -------------------- ------------
  asa                  1          Enabled         Offline <=====       9.16.2.3
  9.16.2.3        Not Applicable       None
  ```