

# Troubleshoot Basic Configuration in FXOS

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## Introduction

This document describes the steps to help confirm the Cisco Secure Firewall eXtensible Operating (FXOS) basic state and configuration is correct.

# Prerequisites

## Requirements

Cisco recommended you have knowledge on:

- Cisco Secure Firewall eXtensible Operating (FXOS)
- Cisco Secure Firewall Threat Defense (FTD)

## Components Used

The information in this document was created from the devices in a specific lab environment. All the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

- Cisco Secure Firewall eXtensible Operating 4110, version 2.10.(1.179)
- Cisco Secure Firewall Threat Defense, version 7.0.5

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

## Background Information

The Cisco Secure Firewall chassis is a next-generation platform for network and contact security solutions. A logical device lets you run an application instance, either ASA or Cisco Secure Firewall Threat Defense (FTD).

Depending on the logical device you add, application instance type and version are defined.

## Chassis Information

This commands helps to get an overall information of your chassis (whether or not everything is operable) which information collect to TAC in order to troubleshoot the chassis error.

### Serial Number

The serial number is used as an identifier of the chassis. It is needed in case of an RMA of the entire chassis

```
FPR4110-04-A# scope chassis 1
FPR4110-04-A /chassis # show inventory
Chassis      PID          Vendor          Serial (SN)    HW Revision
-----
1            FPR-4110-K9  Cisco Systems Inc JMX2136L03W  0
```

### FXOS Version

FPR4110-04-A# show version

Version: 2.10(1.179)

Startup-Vers: 2.10(1.179)

There are two ways to know the FXOS Version, this one includes the firmware.

FPR4110-04-A# show fabric-interconnect firmware

Fabric Interconnect A:

Running-Kern-Vers: 5.0(3)N2(4.101.103)

Running-Sys-Vers: 5.0(3)N2(4.101.103)

Package-Vers: 2.10(1.179)

Startup-Kern-Vers: 5.0(3)N2(4.101.103)

Startup-Sys-Vers: 5.0(3)N2(4.101.103)

Act-Kern-Status: Ready

Act-Sys-Status: Ready

Bootloader-Vers:

## Bootloader Version

FPR4110-04-A# scope chassis 1

FPR4110-04-A /chassis # scope server 1

FPR4110-04-A /chassis/server # scope adapter 1

FPR4110-04-A /chassis/server/adapter # show version detail

Adapter 1:

Running-Vers: 5.10(1.53)

Package-Vers: 2.10(1.179)

Update-Status: Ready

Activate-Status: Ready

Bootloader-Update-Status: Ready

Startup-Vers: 5.10(1.53)

Backup-Vers: 5.10(1.57)

Bootloader-Vers: 4.0(1.62)

## Check Up Time

FPR4110-04-A# connect fxos

FPR4110-04-A(fxos)# show system uptime

System start time: Mon Oct 23 16:45:36 2023

System uptime: 98 days, 1 hours, 49 minutes, 36 seconds

Kernel uptime: 98 days, 1 hours, 40 minutes, 19 seconds

Active supervisor uptime: 98 days, 1 hours, 49 minutes, 36 second

## Show Clock

FPR4110-04-A# show clock  
Tue Jan 30 17:07:50 EST 2024

## Check Ntp-server

```
FPR4110-04-A# scope system
FPR4110-04-A /system # scope services
FPR4110-04-A /system/services # show ntp-server
NTP server hostname:
Name Time      Sync Status
-----
172.16.254.131  Time Synchronized
```

## Monitoring Chassis Health

These are some commands to help troubleshoot the status of the chassis hardware.

### Check Environment

```
FPR4110-04-A# scope chassis 1
FPR4110-04-A /chassis # show environment expand detail
Chassis 1:
Overall Status: Power Problem
Operability: Operable
Power State: Redundancy Failed
Thermal Status: Ok
```

```
PSU 1:
Threshold Status: N/A
Overall Status: N/A
Operability: N/A
Power State: Off
Thermal Status: OK
Voltage Status: N/A
```

```
PSU 2:
Threshold Status: OK
Overall Status: Operable
Operability: Operable
Power State: On
Thermal Status: OK
Voltage Status: OK
```

```
Tray 1 Module 1:
Threshold Status: OK
Overall Status: Operable
Operability: Operable
Power State: On
Thermal Status: OK
Voltage Status: OK
```

Fan Module Stats:

Ambient Temp (C): 27.000000

Fan 1:

Threshold Status: OK  
Overall Status: Operable  
Operability: Operable  
Power State: On  
Thermal Status: OK  
Voltage Status: OK

Fan 2:

Threshold Status: OK  
Overall Status: Operable  
Operability: Operable  
Power State: On  
Thermal Status: OK  
Voltage Status: OK

...

Server 1:

Name:  
User Label:  
Overall Status: Ok  
Operability: Operable  
Oper Power: On

Adapter 1:

Threshold Status: N/A  
Overall Status: Operable  
Operability: Operable  
Power State: On  
Thermal Status: N/A  
Voltage Status: N/A

Motherboard:

Threshold Status: OK  
Overall Status: N/A  
Operability: N/A  
Oper Power: On  
Power State: Ok  
Thermal Status: OK  
Voltage Status: OK  
CMOS Battery Voltage Status: Ok  
Mother Board Power Usage Status: Ok

Motherboard Temperature Statistics:

Motherboard Front Temperature (C): 19.000000  
Motherboard Rear Temperature (C): 26.000000

Memory Array 1:

Threshold Status: N/A  
Overall Status: N/A  
Operability: N/A  
Power State: N/A  
Thermal Status: N/A  
Voltage Status: N/A

DIMMs:

DIMM	Threshold Status	Overall Status	Operability	Power State	Thermal Status	Voltage Status
1	N/A	Operable	N/A	N/A	OK	N/A
2	N/A	Removed	N/A	N/A	N/A	N/A

3	N/A	Removed	N/A	N/A	N/A	N/A
4	N/A	Operable	N/A	N/A	OK	N/A
5	N/A	Removed	N/A	N/A	N/A	N/A
...						

CPU 1:  
 Threshold Status: N/A  
 Overall Status: Operable  
 Operability: Operable  
 Power State: N/A  
 Thermal Status: OK  
 Voltage Status: N/A

## Show Fault

The fault list shows any hardware problems identified on the Secure Firewall platforms, it helps to get a summary of the active faults as well as the already cleared.

The faults are shown in chronological order. The Severity reflects the importance of the fault, while the description provides a brief overview. The focus is mainly on the severity, the timestamp, and the description. The fault severity order from most severe to least severe is:

- Critical
- Major
- Minor
- Warning
- Info/Condition
- Cleared

FPR4110-04-A# show fault

Severity	Code	Last Transition Time	ID	Description
Major	F0276	2023-12-14T18:26:29.505	507308	ether port 2/2 on fabric interconnect A oper state: 1
Major	F0276	2023-11-13T14:07:37.720	221350	ether port 1/1 on fabric interconnect A oper state: 1
Info	F0279	2023-11-13T14:07:37.720	446504	ether port 1/7 on fabric interconnect A oper state: s
Major	F0276	2023-11-07T08:10:50.143	434090	ether port 1/6 on fabric interconnect A oper state: 1
Major	F0276	2023-11-07T08:10:49.941	434081	ether port 1/5 on fabric interconnect A oper state: 1
Major	F0282	2023-07-31T17:52:04.764	201600	lan port-channel 7 on fabric interconnect A oper stat
Major	F0282	2023-07-31T17:51:03.325	201446	lan port-channel 4 on fabric interconnect A oper stat
Major	F0282	2023-07-31T17:49:00.451	201281	lan port-channel 2 on fabric interconnect A oper stat
Major	F0282	2023-07-31T17:42:34.236	200638	lan port-channel 1 on fabric interconnect A oper stat
Major	F0909	2023-06-19T14:02:55.642	99113	default Keyring's certificate is invalid, reason: exp
Warning	F1781	2012-01-11T02:21:44.215	90296	The password encryption key has not been set.
Info	F0461	2011-12-31T21:32:43.448	35793	Log capacity on Management Controller on server 1/1 i
Major	F0408	2011-12-31T21:32:32.787	35497	Power state on chassis 1 is redundancy-failed
Warning	F0528	2011-12-31T21:32:32.787	35498	Power supply 1 in chassis 1 power: off
Minor	F1437	2011-12-31T21:31:08.462	32663	Config backup may be outdated

FPR4110-04-A#

The faults can be filter based on cause, detail, severity or suppressed faults.

FPR4110-04-A# show fault ?

```

0-18446744073709551615 ID
<CR>
> Redirect it to a file
>> Redirect it to a file in append mode
cause      Cause
detail     Detail
severity   Severity
suppressed Fault Suppressed
| Pipe command output to filter

```

```

FPR4110-04-A# show fault severity major
Severity Code   Last Transition Time      ID      Description
-----
Major      F0276 2023-12-14T18:26:29.505 507308 ether port 2/2 on fabric interconnect A oper state: li
Major      F0276 2023-11-13T14:07:37.720 221350 ether port 1/1 on fabric interconnect A oper state: li
Major      F0276 2023-11-07T08:10:50.143 434090 ether port 1/6 on fabric interconnect A oper state: li
Major      F0276 2023-11-07T08:10:49.941 434081 ether port 1/5 on fabric interconnect A oper state: li
Major      F0282 2023-07-31T17:52:04.764 201600 lan port-channel 7 on fabric interconnect A oper state
Major      F0282 2023-07-31T17:51:03.325 201446 lan port-channel 4 on fabric interconnect A oper state
Major      F0282 2023-07-31T17:49:00.451 201281 lan port-channel 2 on fabric interconnect A oper state
Major      F0282 2023-07-31T17:42:34.236 200638 lan port-channel 1 on fabric interconnect A oper state
Major      F0282 2023-07-31T17:41:34.673 200660 lan port-channel 3 on fabric interconnect A oper state
Major      F0408 2011-12-31T21:32:32.787 35497  Power state on chassis 1 is redundancy-faile

```

## Power Supply Issues

For power supply issues, a status of Voltage Problem is the indicator of a problem.

```

FPR4110-04-A# scope chassis 1
FPR4110-04-A /chassis # show psu

```

```

PSU:
PSU Type Wattage (W) Overall Status
-----
 1 DV      0           N/A
 2 DV     1100        Operable

```

## Fan Issues

If there are thermal faults, most likely they are either a legitimate hardware problem with cooling/fans or a false positive due to a software defect. If the fan status is Inoperable or degraded, contact TAC for further assistance.

```

FPR4110-04-A# scope chassis 1
FPR4110-04-A /chassis # show fan-module
Fan Module:
Tray Module Overall Status
-----
 1           1           Operable
 1           2           Operable
 1           3           Operable
 1           4           Operable

```

```
1          5          Operable
1          6          Operable
```

## Show Event

It is important to check FXOS for application faults to see if the issue lies in the blade itself or if the application is unable to boot for a software-related problem.

```
FPR4110-04-A# scope chassis
FPR4110-04-A /chassis # scope server
FPR4110-04-A /chassis/server # scope fxos
FPR4110-04-A /chassis/server/fxos # show event
Creation                Time ID Code      Description
-----
2024-01-25T14:09:32.783 588408 E4197910 [FSM:STAGE:END]: Waiting for install license complete from blade 1/1
2024-01-25T14:09:32.783 588409 E4197611 [FSM:STAGE:SKIP]: Reboot blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:succes
2024-01-25T14:09:32.783 588410 E4197611 [FSM:STAGE:END]: Reboot blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:succes
2024-01-25T14:09:32.783 588411 E4197612 [FSM:END]: Init OS on blade 1/1(FSM:sam:dme:OsControllerInitOS:succes
2024-01-25T14:09:32.783 588412 E4197612 [FSM:STAGE:END]: (FSM-STAGE:sam:dme:OsControllerInitOS:succes
2024-01-25T14:09:32.782 588405 E4197909 [FSM:STAGE:STALE-SUCCESS]: Request for upgrade to blade 1/1(FSM-STAGE:s
2024-01-25T14:09:32.782 588406 E4197909 [FSM:STAGE:END]: Request for upgrade to blade 1/1(FSM-STAGE:s
2024-01-25T14:09:32.782 588407 E4197910 [FSM:STAGE:SKIP]: Waiting for install license complete from blade 1/1
2024-01-25T14:09:32.773 588404 E4197909 [FSM:STAGE:ASYNC]: Request for upgrade to blade 1/1(FSM-STAGE:s
2024-01-25T14:09:32.768 588401 E4197609 [FSM:STAGE:END]: Request for upgrade to blade 1/1(FSM-STAGE:s
2024-01-25T14:09:32.768 588402 E4197610 [FSM:STAGE:SKIP]: Waiting for upgrade complete from blade 1/1
2024-01-25T14:09:32.768 588403 E4197610 [FSM:STAGE:END]: Waiting for upgrade complete from blade 1/1
FPR4110-04-A /chassis/server/fxos #
```

## Show System Reset-reason

For unexpected application/device reloads, verify that no cores exist for any processes (FTD) and check for ASA/Lina **crashinfo** using the **show crash** command. If those do not exist then the problem is likely FXOS-related and can be routed using the FXOS keyword.

```
FPR4110-04-A# connect fxos
FPR4110-04-A(fxos)# show system reset-reason
----- reset reason for Supervisor-module 1 (from Supervisor in slot 1) ---
1) No time
Reason: Unknown
Service:
Version: 5.0(3)N2(4.101)

2) No time
Reason: Unknown
Service:
Version: 5.0(3)N2(4.101)
...
```

## Motherboard Power Issues



```
FPR4110-04-A# scope chassis 1
FPR4110-04-A /chassis # scope server 1/1
FPR4110-04-A /chassis/server # show fsm status
```

```
Slot: 1
Server: sys/chassis-1/blade-1
```

```
FSM 1:
Remote Result: Not Applicable
Remote Error Code: None
Remote Error Description:
Status: Nop
Previous Status: Turnup Success
Timestamp: 2023-10-23T16:48:19.299
Try: 0
Flags: 0
Progress (%): 100
Current Task:
```

```
FSM 2:
Status: Nop
Previous Status: Identify Success
Timestamp: 2023-10-23T16:47:33.592
Try: 0
Progress (%): 100
Current Task:
```

```
FSM 3:
Status: Nop
Previous Status: Configure Success
Timestamp: 2023-10-23T16:48:16.739
Try: 0
Flags: 0
Progress (%): 100
Current Task:
```

```
FPR4110-04-A /chassis/server # show fault
```

Severity	Code	Last Transition Time	ID	Description
Info	F0461	2011-12-31T21:32:43.448	35793	Log capacity on Management Controller on server 1/1

## Logical Devices

As stated in the background information, a logical device lets you run an application instance, either ASA or FTD.

These are some command to confirm the status of the application instance installed in the chassis.

## Monitoring Instance

### Show Server Status

View if the slot and the discovery status.

```
FPR4110-04-A# show server status
Server Slot Status Overall Status Discovery
-----
1/1 Equipped Ok Complete
```

## Show Slot

View the Log level, the admin state and the operable state of the slot.

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # show slot
```

```
Slot:
Slot ID Log Level Admin State Oper State
-----
1 Info Ok Online
```

## Show Application Instance

View the name, version, author, which deploy types are supported, the CSP type and if it is the default application used.

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # show app
Name Version Author Supported Deploy Types CSP Type Is Default App
-----
ftd 7.0.4-55 cisco Native,Container Application No
ftd 7.0.5-72 cisco Native,Container Application Yes
```

## Show Logical-device

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # show logical-device
```

```
Logical Device:
Name Description Slot ID Mode Oper State Template Name
-----
FTD1 1 Standalone Ok ftd
```

## Show App-instance

View the full information of the operating state of the app instance use show app-instance under the slot scope.

This command helps particularly when you create or upgrade the application instance, as it shows in the operative state if it is Installing or Online and the running software version.

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # scope slot 1
FPR4110-04-A /ssa/slot # show app-instance
```

Application Instance:

App Name	Identifier	Admin State	Oper State	Running Version	Startup Version	Deploy Type	Turbo Mode	Profi
ftd	FTD1	Enabled	Online	7.0.5-72	7.0.5-72	Native	No	

## Show App-instance Detail

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # show app-instance detail
```

```
App Name: ftd
Identifier: FTD1
Slot ID: 1
Admin State: Enabled
Oper State: Online
Running Version: 7.0.5-72
Startup Version: 7.0.5-72
Deploy Type: Native
Profile Name:
Cluster State: Not Applicable
Cluster Role: None
Current Job Type: Start
Current Job Progress: 100
Current Job State: Succeeded
Clear Log Data: Available
Error Msg:
Hotfixes:
Externally Upgraded: No
FPR4110-04-A /ssa #
```

## Show Resource Detail

View resource allocation for the application instance.

```
FPR4110-04-A# scope ssa
FPR4110-04-A /ssa # scope slot 1
FPR4110-04-A /ssa/slot # enter app-instance ftd FTD1
FPR4110-04-A /ssa/slot/app-instance # show resource detail
```

```
Resource:
Allocated Core NR: 22
Allocated RAM (MB): 52096
Allocated Data Disk (MB): 128685
Allocated Binary Disk (MB): 3907
```

Allocated Secondary Disk (MB): 0

## Chassis Manager Access

### Access to Local Web Server

By default, the Secure Firewall Threat Defense 4100/9300 chassis denies all access to the local web server. You must configure your IP Access List with a list of allowed services for each of your IP blocks.

The IP Access List supports protocols:

- HTTPS
- SNMP
- SSH

```
FPR4110-04-A# scope system
FPR4110-04-A /system # scope services
FPR4110-04-A /system/services # show ip-block
```

```
Permitted IP Block:
IP Address Prefix Length Protocol
-----
0.0.0.0          0 https
0.0.0.0          0 snmp
```

The command **enter** is for configuring a new entry.

```
FPR4110-04-A /system/services # enter ?
dns          Domain Name Server hostname
ip-block     Permitted IP Block
ipv6-block   Permitted IPv6 Block
ntp-server   NTP server hostname
ssh-host     SSH Server public keys

FPR4110-04-A /system/services # enter ip-block ?
a.b.c.d IP Address

FPR4110-04-A /system/services # enter ip-block 0.0.0.0 ?
0-32 Prefix Length

FPR4110-04-A /system/services # enter ip-block 0.0.0.0 0 ?
https Https
snmp Snmp
ssh Ssh

FPR4110-04-A /system/services/ # enter ip-block 0.0.0.0 0 ssh
FPR4110-04-A /system/services/ip-block* # commit-buffer
FPR4110-04-A /system/services/ip-block # up
FPR4110-04-A /system/services # show ip-block
```

```

Permitted IP Block:
IP Address Prefix Length Protocol
-----
0.0.0.0          0 https
0.0.0.0          0 snmp
0.0.0.0          0 ssh

```

## Monitor Interfaces

### Verify Chassis Management IP

```
FPR4110-04-A# show fabric-interconnect
```

```

Fabric Interconnect:
ID  OOB IP Addr  OOB Gateway  OOB Netmask  OOB IPv6 Address  OOB IPv6 Gateway  Prefix  Operability  In
---  -
A   172.16.244.72 172.16.244.65 255.255.255.192 ::                ::                64      Operable     0

```

### Show Mgmt-port

Determine the status of the management interface.

```

FPR4110-04-A# connect local-mgmt
FPR4110-04-A(local-mgmt)#
FPR4110-04-A(local-mgmt)# show mgmt-port
eth0 Link encap:Ethernet HWaddr 50:0f:80:8e:a5:cd
inet addr:172.16.244.72 Bcast:172.16.244.127 Mask:255.255.255.192
inet6 addr: fe80::520f:80ff:fe8e:a5cd/64 Scope:Link
inet6 addr: fe80::520f:80ff:fe8e:a5cd/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:7359566 errors:0 dropped:0 overruns:0 frame:0
TX packets:1147585 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:1735874306 (1.6 GiB) TX bytes:360530127 (343.8 MiB)

```

**Ping** can be use to test connectivity.

```

FPR4110-04-A(local-mgmt)# ping 172.16.244.65
PING 172.16.244.65 (172.16.244.65) from 172.16.244.72 eth0: 56(84) bytes of data.
64 bytes from 172.16.244.65: icmp_seq=1 ttl=254 time=1.15 ms
64 bytes from 172.16.244.65: icmp_seq=2 ttl=254 time=1.38 ms
^C
--- 172.16.244.65 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 12ms
rtt min/avg/max/mdev = 1.146/1.364/1.479/0.122 ms
FPR4110-04-A(local-mgmt)#

```

## Set Capture on Management Interface

Enable capture on chassis (MIO) mgmt interface (this is only applicable on FP41xx/FP93xx). By default it only captures 10- packets.

```
FPR4110-04-A# connect fxos
FPR4110-04-A(fxos)# ethanalyzer local interface mgmt
Capturing on 'eth0'
1 2024-01-30 16:15:56.149887591 fe80::6a9e:bff:fed5:678c → ff02::2 ICMPv6 70 Router Solicitation from 68:9e:
2 2024-01-30 16:15:56.635897727 80:b7:09:32:f2:a0 → ff:ff:ff:ff:ff:ff ARP 60 Who has 172.16.244.65? Tell 172
3 2024-01-30 16:15:56.650081622 c4:72:95:76:df:97 → 01:80:c2:00:00:00 STP 60 RST. Root = 0/12/2c:31:24:b1:6b
4 2024-01-30 16:15:57.170356692 172.16.244.72 → 172.16.254.131 NTP 90 NTP Version 3, client
5 2024-01-30 16:15:57.234298977 172.16.254.131 → 172.16.244.72 NTP 90 NTP Version 3, server
6 2024-01-30 16:15:58.656444769 c4:72:95:76:df:97 → 01:80:c2:00:00:00 STP 60 RST. Root = 0/12/2c:31:24:b1:6b
7 2024-01-30 16:15:59.170382028 172.16.244.72 → 172.16.254.131 NTP 90 NTP Version 3, client
8 2024-01-30 16:15:59.233556065 172.16.254.131 → 172.16.244.72 NTP 90 NTP Version 3, server
9 2024-01-30 16:15:59.352654266 0.0.0.0 → 255.255.255.255 DHCP 368 DHCP Discover - Transaction ID 0x328ec1b7
10 2024-01-30 16:16:00.150684560 fe80::6a9e:bff:fed5:678c → ff02::2 ICMPv6 70 Router Solicitation from 68:9e:
10 packets captured
Program exited with status 0
```

**Ethanalyzer** can be used as well in the inbound interface. Options are high priority or low priority logs.

```
FPR4110-04-A(fxos)# ethanalyzer local interface ?
inbound-hi Inbound(high priority) interface
inbound-low Inbound(low priority) interface
mgmt       Management interface
```

A filter can be used on the capture.

```
FPR4110-04-A(fxos)# ethanalyzer local interface ?
inbound-hi Inbound(high priority) interface
inbound-low Inbound(low priority) interface
mgmt       Management interface
```

## Show Interface

This command shows the list and current state of the interface in the chassis as a brief description of the reason of each operable state.

---

**Note:** Interfaces that act as ports in port channels do not appear in this list.

---

```
FPR4110-04-A# scope eth-uplink
FPR4110-04-A /eth-uplink # scope fabric a
FPR4110-04-A /eth-uplink/fabric # show interface
```

Interface:

Port Name	Port Type	Admin State	Oper State	Allowed Vlan	State Reason
Ethernet1/1	Data	Enabled	Link Down	All	Link failure or not-connected
Ethernet1/2	Data	Disabled	Admin Down	All	Administratively down
Ethernet1/3	Data	Enabled	Up	All	Port is enabled and up
Ethernet1/4	Data	Enabled	Up	All	Port is enabled and up
Ethernet1/5	Data	Enabled	Link Down	All	Link failure or not-connected
Ethernet1/6	Data	Enabled	Link Down	All	Link failure or not-connected
Ethernet1/7	Data	Enabled	Sfp Not Present	All	Unknown
Ethernet1/8	Mgmt	Enabled	Up	All	Port is enabled and up
Ethernet2/2	Data	Enabled	Link Down	All	Link failure or not-connected
Ethernet2/5	Data	Disabled	Sfp Not Present	All	Unknown
Ethernet2/6	Data	Disabled	Sfp Not Present	All	Unknown
Ethernet2/7	Data	Disabled	Sfp Not Present	All	Unknown

Ethernet2/8 Data Disabled Sfp Not Present All Unknow

As mentioned before, the faults indicate any hardware problems identified on the Secure Firewall platforms. You can check the faults in different scopes to narrow down the issues in each scope. This example shows the faults in the eth-uplink.

```
FPR4110-04-A# scope eth-uplink
FPR4110-04-A /eth-uplink # show fault
Severity Code Last Transition Time ID Description
-----
Major F0727 2024-01-29T20:31:54.282 597025 1an Member 2/3 of Port-Channel 1 on fabric interconnect A oper state
Major F0727 2024-01-29T20:31:54.282 597023 1an Member 2/4 of Port-Channel 1 on fabric interconnect A oper state
Major F0282 2023-07-31T17:52:04.764 201600 1an port-channel 7 on fabric interconnect A oper state
Major F0282 2023-07-31T17:51:03.325 201446 1an port-channel 4 on fabric interconnect A oper state
Major F0282 2023-07-31T17:49:00.451 201281 1an port-channel 2 on fabric interconnect A oper state
Major F0282 2023-07-31T17:42:34.236 200638 1an port-channel 1 on fabric interconnect A oper state
Major F0282 2023-07-31T17:41:34.673 200660 1an port-channel 3 on fabric interconnect A oper state
```

## Show Port-channel

This shows the number of port-channels configured in the chassis, as well as their general status.

You can move to an specific port-channel scope to get the members information.

If you see the port-channel as Failed, contact TAC for further assistance, as this is an example of a faulty port-channel.

```
FPR4110-04-A# scope eth-uplink
FPR4110-04-A /eth-uplink # scope fabric a
FPR4110-04-A /eth-uplink/fabric # show port-channel
Port Channel:
Port Channel Id Name Port Type Admin State Oper State Port Channel Mode Allowed Vlan State Reason
-----
1 Port-channel1 Data Enabled Failed Active All No oper state
2 Port-channel2 Data Enabled Failed Active All No oper state
3 Port-channel3 Data Enabled Failed Active All No oper state
4 Port-channel4 Data Enabled Failed Active All No oper state
7 Port-channel7 Data Enabled Failed Active All No oper state
```

```
FPR4110-04-A /eth-uplink/fabric # scope port-channel 1
FPR4110-04-A /eth-uplink/fabric/port-channel # show member
```

```
Member Port:
Port Name Membership Oper State State Reason
-----
Ethernet2/3 Down Sfp Not Present Unknown
Ethernet2/4 Down Sfp Not Present Unknown
```

Use command **show port-channel summary** to view all the port-channel on device as well as their members



```
FPR4110-04-A# connect fxos
FPR4110-04-A(fxos)# show port-channel 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-Channel	Type	Protocol	Member Ports
1	Po1(SD)	Eth	LACP	Eth2/3(D) Eth2/4(D)
2	Po2(SD)	Eth	NONE	--
3	Po3(SD)	Eth	NONE	--
4	Po4(SD)	Eth	NONE	--
7	Po7(SD)	Eth	NONE	--

---

## Related Information

- [Generate FXOS Troubleshoot File](#)
- [Answer Firepower eXtensible Operating System \(FXOS\) FAQ](#)
- [Configure and Troubleshoot NTP Settings on Firepower Appliances](#)
- [Configure and Verify Port-Channel on Firepower Appliances](#)