

排除FXOS中的基本配置故障

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簡介

本文描述幫助確認思科安全防火牆可擴展操作(FXOS)基本狀態和配置正確性的步驟。

必要條件

需求

思科建議您瞭解以下內容：

- 思科安全防火牆可擴充作業(FXOS)
- 思科安全防火牆威脅防禦(FTD)

採用元件

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

- 思科安全防火牆可擴展操作4110，版本2.10.(1.179)
- 思科安全防火牆威脅防禦，版本7.0.5

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

背景資訊

思科安全防火牆機箱是用於網路和聯絡安全解決方案的下一代平台。透過邏輯裝置，您可以運行ASA或思科安全防火牆威脅防禦(FTD)應用例項。

根據您增加的邏輯裝置，定義應用例項型別和版本。

機箱資訊

此命令有助於獲取機箱的總體資訊（無論是否所有資訊均可操作），這些資訊將收集到TAC以排查機箱錯誤。

序號

序列號用作機箱的識別符號。如果整個機箱都存在RMA，則需要使用它

```
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版本

```
FPR4110-04-A# show version
```

```
Version: 2.10(1.179)
```

```
Startup-Vers: 2.10(1.179)
```

瞭解FXOS版本的方法有兩種，其中一種包括韌體。

```
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:
```

開機載入器版本

```
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)
```

檢查時間

```
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
```

顯示時鐘

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

檢查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
```

監控機箱運行狀況

以下是一些幫助排除機箱硬體狀態故障的命令。

檢查環境

```
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

顯示錯誤

故障清單顯示了安全防火牆平台上辨識出的任何硬體問題，這有助於獲取活動故障和已清除故障的摘要。

故障會依時間順序顯示。嚴重性反映出故障的重要性，而說明則提供了簡要的概觀。重點主要在於嚴重性、時間戳記及說明。故障嚴重性從最嚴重到最不嚴重的順序為：

- 嚴重
- 主要
- 輕微
- 警告
- 資訊/狀況
- 已清除

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: link-down, reason: Link failure or not-connected
Major F0276 2023-11-13T14:07:37.720 221350 ether port 1/1 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected

Info F0279 2023-11-13T14:07:37.720 446504 ether port 1/7 on fabric interconnect A oper state: sfp-not-present
Major F0276 2023-11-07T08:10:50.143 434090 ether port 1/6 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected
Major F0276 2023-11-07T08:10:49.941 434081 ether port 1/5 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected
Major F0282 2023-07-31T17:52:04.764 201600 lan port-channel 7 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:51:03.325 201446 lan port-channel 4 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:49:00.451 201281 lan port-channel 2 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:42:34.236 200638 lan port-channel 1 on fabric interconnect A oper state: failed, reason: No operational members
Major F0909 2023-06-19T14:02:55.642 99113 default Keyring's certificate is invalid, reason: expired.
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 is very-low
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#

可以根據原因、詳細資訊、嚴重性或抑制的故障來篩選故障。

```
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: link-down, reason: Link failure or not-connected  
Major F0276 2023-11-13T14:07:37.720 221350 ether port 1/1 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected  
Major F0276 2023-11-07T08:10:50.143 434090 ether port 1/6 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected  
Major F0276 2023-11-07T08:10:49.941 434081 ether port 1/5 on fabric interconnect A oper state: link-down, reason: Link failure or not-connected  
Major F0282 2023-07-31T17:52:04.764 201600 lan port-channel 7 on fabric interconnect A oper state: failed, reason: No operational members  
Major F0282 2023-07-31T17:51:03.325 201446 lan port-channel 4 on fabric interconnect A oper state: failed, reason: No operational members  
Major F0282 2023-07-31T17:49:00.451 201281 lan port-channel 2 on fabric interconnect A oper state: failed, reason: No operational members  
Major F0282 2023-07-31T17:42:34.236 200638 lan port-channel 1 on fabric interconnect A oper state: failed, reason: No operational members  
Major F0282 2023-07-31T17:41:34.673 200660 lan port-channel 3 on fabric interconnect A oper state: failed, reason: No operational members  
Major F0408 2011-12-31T21:32:32.787 35497 Power state on chassis 1 is redundancy-faile
```

電源問題

對於電源問題，「電壓問題」狀態是問題的指示器。

```
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

風扇問題

如果存在熱故障，最有可能的原因是冷卻/風扇的硬體問題或軟體缺陷導致的誤報。如果風扇狀態為「無法操作」或降級，請與TAC聯絡以獲取進一步幫助。

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

顯示事件

請務必檢查FXOS的應用程式錯誤，以檢視問題出在刀鋒本身，或應用程式因軟體相關問題而無法開機。

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(FSM-STAGE:sam:dme:OsControl
2024-01-25T14:09:32.783 588409 E4197611 [FSM:STAGE:SKIP]: Reboot blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:RebootHostAfterUpgra
2024-01-25T14:09:32.783 588410 E4197611 [FSM:STAGE:END]: Reboot blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:RebootHostAfterUpgra
2024-01-25T14:09:32.783 588411 E4197612 [FSM:END]: Init OS on blade 1/1(FSM:sam:dme:OsControllerInitOS)
2024-01-25T14:09:32.783 588412 E4197612 [FSM:STAGE:END]: (FSM-STAGE:sam:dme:OsControllerInitOS:success)
2024-01-25T14:09:32.782 588405 E4197909 [FSM:STAGE:STALE-SUCCESS]: Request for upgrade to blade 1/1(FSM-STAGE:sam:dme:OsControllerIn
2024-01-25T14:09:32.782 588406 E4197909 [FSM:STAGE:END]: Request for upgrade to blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:Request
2024-01-25T14:09:32.782 588407 E4197910 [FSM:STAGE:SKIP]: Waiting for install license complete from blade 1/1(FSM-STAGE:sam:dme:OsControl
2024-01-25T14:09:32.773 588404 E4197909 [FSM:STAGE:ASYNC]: Request for upgrade to blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:Requ
2024-01-25T14:09:32.768 588401 E4197609 [FSM:STAGE:END]: Request for upgrade to blade 1/1(FSM-STAGE:sam:dme:OsControllerInitOS:Request
2024-01-25T14:09:32.768 588402 E4197610 [FSM:STAGE:SKIP]: Waiting for upgrade complete from blade 1/1(FSM-STAGE:sam:dme:OsControllerIni
2024-01-25T14:09:32.768 588403 E4197610 [FSM:STAGE:END]: Waiting for upgrade complete from blade 1/1(FSM-STAGE:sam:dme:OsControllerIni
FPR4110-04-A /chassis/server/fxos #

Show System Reset-reason

對於意外應用程式/裝置重新載入，請驗證是否存在任何進程(FTD)的核心，並使用show crash命令檢查ASA/Lina crashinfo。如果沒有這些關鍵字，則問題可能與FXOS相關，可以使用FXOS關鍵字路由。

```
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)
...
```

主機板電源問題

```
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 is very-low

邏輯裝置

如背景資訊中所述，透過邏輯裝置可以運行ASA或FTD等應用例項。

以下是一些用於確認機箱中安裝的應用例項狀態的命令。

監督執行個體

顯示伺服器狀態

檢視插槽和發現狀態。

FPR4110-04-A# show server status

Server Slot Status Overall Status Discovery

1/1 Equipped Ok Complete

顯示插槽

檢視日誌級別、管理狀態以及插槽的可操作狀態。

FPR4110-04-A# scope ssa

FPR4110-04-A /ssa # show slot

Slot:

Slot ID Log Level Admin State Oper State

1 Info Ok Online

顯示應用程式執行處理

檢視名稱、版本、作者、支援的部署型別、CSP型別，以及是否使用預設的應用程式。

```
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
```

顯示邏輯裝置

```
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
```

顯示應用程式例項

使用slot範圍下的show app-instance檢視應用程式例項的運行狀態的完整資訊。

此命令特別有助於建立或升級應用程式例項，因為它在運行狀態（如果其為「正在安裝」或「聯機」以及正在運行的軟體版本）中顯示。

```
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 Profile Name Cluster State Cluster Role
-----
ftd FTD1 Enabled Online 7.0.5-72 7.0.5-72 Native No Not Applicable None
```

顯示應用程式例項詳細資訊

```
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 #

顯示資源詳細資訊

檢視應用程式執行處理的資源配置。

```
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

機箱管理員存取

存取本機Web伺服器

預設情況下，安全防火牆威脅防禦4100/9300機箱拒絕所有對本地Web伺服器的訪問。您必須使用每個IP塊允許的服務的清單配置IP訪問清單。

IP訪問清單支援以下協定：

-

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
```

命令**enter**用於配置新條目。

```
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
```

監控介面

驗證機箱管理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 Ingress VLAN Group Entry Count (Current/Ma
```

```
-----  
A 172.16.244.72 172.16.244.65 255.255.255.192 :: :: 64 Operable 0/500 53/102
```

```
Show Mgmt-port
```

確定管理介面的狀態。

```
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可用於測試連線。

```
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)#
```

在管理介面上設定捕獲

在機箱(MIO)管理介面上啟用捕獲 (僅適用於FP41xx/FP93xx)。預設情況下，它僅捕獲10個資料包。

```
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:0b:d5:67:8c
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 172.16.244.106
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:00 Cost = 4 Port = 0x8017
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:00 Cost = 4 Port = 0x8017
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:0b:d5:67:8c
10 packets captured
Program exited with status 0
```

Ethanalyzer也可用於介面中。選項為高優先順序日誌或低優先順序日誌。

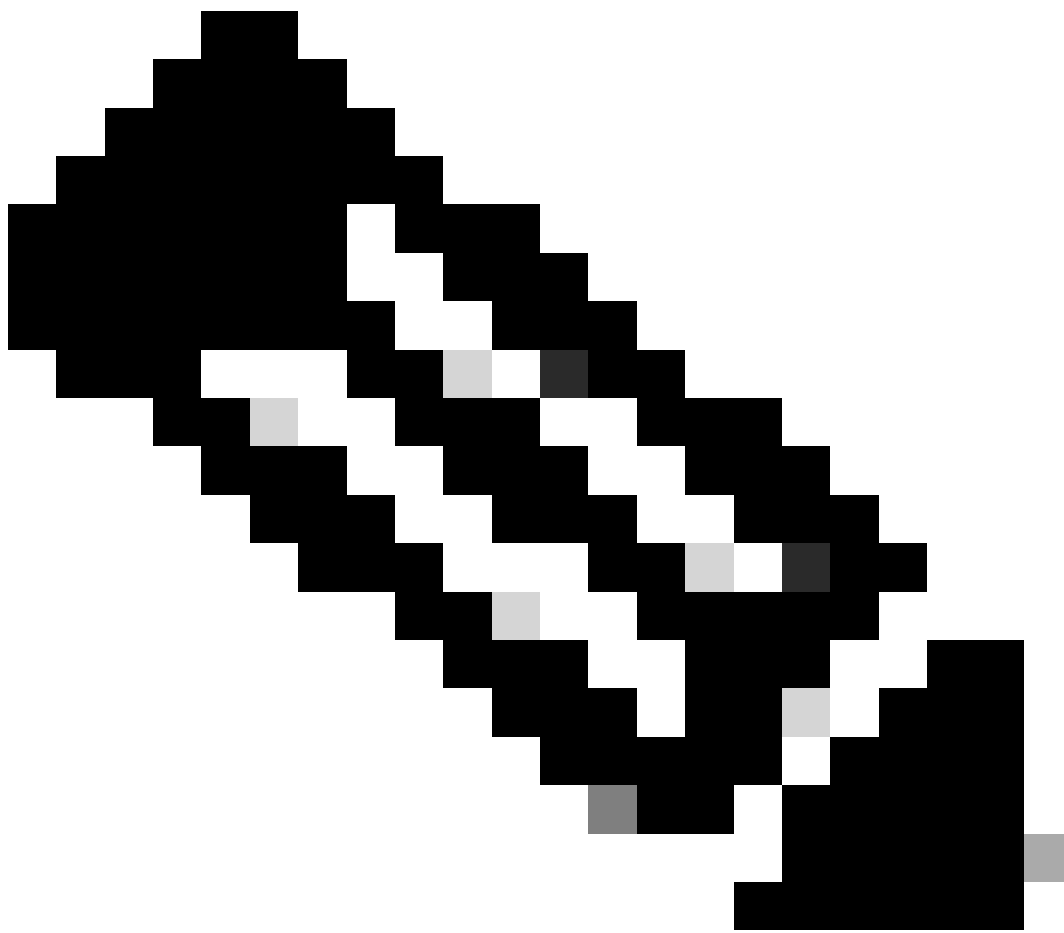
```
FPR4110-04-A(fxos)# ethanalyzer local interface ?
inbound-hi Inbound(high priority) interface
inbound-low Inbound(low priority) interface
mgmt Management interface
```

可以在捕獲上使用過濾器。

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

顯示介面

此命令顯示機箱中介面的清單和當前狀態，並簡要說明每種可操作狀態的原因。



注意：充當埠通道中埠的介面不會出現在此清單中。

```
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
```

如前所述，故障表明在安全防火牆平台上發現任何硬體問題。您可以檢查不同範圍中的故障，以縮小每個範圍中的問題範圍。本示例顯示乙太網上行鏈路中的故障。

```
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 lan Member 2/3 of Port-Channel 1 on fabric interconnect A is down, membership: down
Major F0727 2024-01-29T20:31:54.282 597023 lan Member 2/4 of Port-Channel 1 on fabric interconnect A is down, membership: down
Major F0282 2023-07-31T17:52:04.764 201600 lan port-channel 7 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:51:03.325 201446 lan port-channel 4 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:49:00.451 201281 lan port-channel 2 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:42:34.236 200638 lan port-channel 1 on fabric interconnect A oper state: failed, reason: No operational members
Major F0282 2023-07-31T17:41:34.673 200660 lan port-channel 3 on fabric interconnect A oper state: failed, reason: No operational member
```

顯示埠通道

顯示機箱中配置的埠通道數量及其一般狀態。

您可以移至特定的連線埠通道範圍以取得成員資訊。

如果您看到埠通道出現故障，請與TAC聯絡以獲取進一步幫助，因為這是一個有故障的埠通道的示例。

```
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 operational members
2 Port-channel2 Data Enabled Failed Active All No operational members
3 Port-channel3 Data Enabled Failed Active All No operational members
4 Port-channel4 Data Enabled Failed Active All No operational members
7 Port-channel7 Data Enabled Failed Active All No operational members

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

使用命令 **show port-channel summary** 檢視裝置上的所有埠通道及其成員

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 --

相關資訊

- [生成FXOS故障排除檔案](#)
- [回答Firepower可擴展作業系統\(FXOS\)常見問題](#)
- [配置Firepower裝置上的NTP設定並對其進行故障排除](#)
- [設定和驗證 Firepower 設備上的連接埠通道](#)

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。