

Troubleshoot FXOS CPU for the Firepower 4100 and 9300 series

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Introduction

This document describes how to check the Firepower eXtensible Operating System (FXOS) chassis CPU usage on the Firepower.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Knowledge of FXOS
- Knowledge of the Adaptive Security Appliance (ASA)/Firepower Threat Defense (FTD) any version and CPU processes.

Components Used

The information in this document is based on the Cisco Firepower 4110 Security Appliance version 2.10 software and hardware versions.

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, make sure that you understand the potential impact of any command.

How to Check FXOS CPU Usage

1. From the chassis CLI, connect to the FXOS CLI prompt and use command **show system resources**.

This is a sample output from the **show system resources** command.

```
<#root>
```

```
FP4K-A#
```

```
connect fxos
```

--- snip ---

FP4K-A(fxos)#

FP4K-A(fxos)#

show system resources

Load average: 1 minute: 0.44 5 minutes: 0.43 15 minutes: 0.51

Processes : 935 total, 2 running

CPU states :

5.0% user

, 0.5% kernel, 94.5% idle

<--- **THIS**

Memory usage: 8044464K total, 3800844K used, 4243620K free

2. Navigate under **scope ssa** hierarchy, to the specific slot on which you want to check the average CPU load and use command **show monitor detail**.

This is a sample output from the **show monitor detail** command.

<#root>

FP4K-A# scope ssa

FP4K-A /ssa # scope slot 1

FP4K-A /ssa/slot # show monitor detail

Monitor:

OS Version: 2.10(1.207)

CPU Total Load 1 min Avg: 92.050003

<--- **THIS**

CPU Total Load 5 min Avg: 92.050003

CPU Total Load 15 min Avg: 92.050003

Memory Total (MB): 64384

Memory Free (MB): 29739
Memory Used (MB): 12549
CPU Cores Total: 24
CPU Cores Available: 0
Memory App Total (MB): 52096
Memory App Available (MB): 0
Data Disk Total (MB): 128685
Data Disk Available (MB): 108204
Secondary Disk Total (MB): 0
Secondary Disk Available (MB): 0
Disk File System Count: 5
Blade Uptime: up 390 days, 14:33
Last Updated Timestamp: 2024-12-19T06:47:39.974

FP4K-A /ssa/slot # show clock

Thu Dec 19 06:48:27 UTC 2024

3. From the chassis CLI, connect to **local-mgmt** prompt and use command **show processes**.

This is a sample output.

<#root>

FP4K-A#

connect local-mgmt

FP4K-A (local-mgmt)# show processes

%Cpu(s): 10.0 us, 48.8 sy, 5.0 ni, 36.2 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st

MiB Mem : 8006.9 total, 3541.9 free, 2607.9 used, 1857.1 buff/cache

MiB Swap: 0.0 total, 0.0 free, 0.0 used. 3296.3 avail Mem

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
5406 root 30 10 31624 7912 6264 S 100.0 0.1 425842:25 smConLogger --x
5020 root -2 0 403296 156124 57348 S 66.7 1.9 343829:05 /isan/bin/bcm_usd
4907 root 20 0 9516 2700 2404 S 44.4 0.0 376792:04 /usr/bin/rngd -f -r /dev/tamrand
--- snip ---
```

You can also filter it for any specific process, along with the clock option for time reference.

```
FP4K-A (local-mgmt)# show processes | in bcm ; show clock
5020 root -2 0 405344 156368 57500 R 90.5 1.9 343844:53 /isan/bin/bcm_usd
Thu Dec 19 07:09:33 UTC 2024
```

```
FP4K-A (local-mgmt)# show processes | in bcm ; show clock
5020 root -2 0 405344 156368 57500 S 105.0 1.9 343844:58 /isan/bin/bcm_usd
Thu Dec 19 07:09:39 UTC 2024
```

4. In case of monitoring CPU usage by Simple Network Management Protocol (SNMP) polling, **cseSysCPUUtilization(1.3.6.1.4.1.9.9.305.1.1.1)** is available, like shown in the next example.

```
cisco@ubuntu:~$ snmpwalk -v2c -c cisco123 10.10.0.150 -On 1.3.6.1.4.1.9.9.305.1.1.1
.1.3.6.1.4.1.9.9.305.1.1.1.0 = Gauge32: 5
```

This Object Identifier (OID) is available in order to check the CPU usage rate at a specific interval (5 seconds/1 minute/5 minutes). This information cannot be confirmed with the show command.

- **cpmCPUTotal5secRev** (.1.3.6.1.4.1.9.9.109.1.1.1.1.6.1)
- **cpmCPUTotal1minRev** (.1.3.6.1.4.1.9.9.109.1.1.1.1.7.1)
- **cpmCPUTotal5minRev** (.1.3.6.1.4.1.9.9.109.1.1.1.1.8.1)