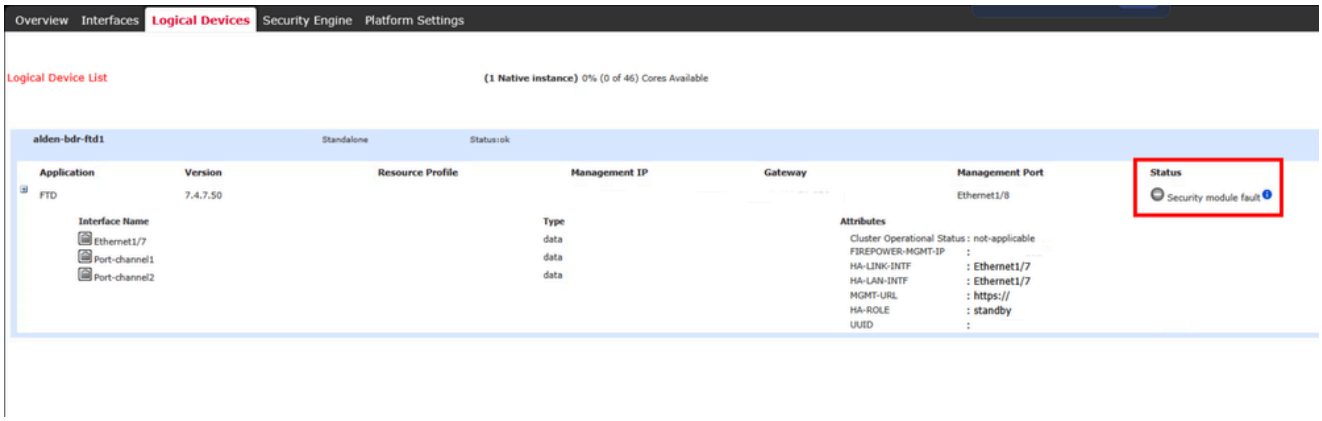
Firepower 4100 Chassis DIMM Memory Failure, Security Module Inoperable

Contents

Issue

A Cisco Firepower 4115 chassis experienced an unexpected reboot and failed to return to operational status. These symptoms were observed:

- FMC UI shows the FTD status as "Disabled."
- The Chassis Manager UI shows the logical instance with **Status: Security module fault**.



- The Chassis Manager UI displays the security engine as **Degraded**.



- Multiple related faults for DDR4/DIMM memory, security module, and storage appear in the FXOS CLI.

<#root>

```
fxos#
```

```
show fault

Severity  Code     Last Transition Time     ID       Description
--------- -------- ----------------------- -------- -----------
Critical  F1236    2026-06-26T05:50:35.387   2443029 Health LED of server 1/1 shows error. Reason:
Major     F1546    2026-06-26T22:11:30.870   2443026 Security Module 1 is in failed state. Error:
Major     F0317    2026-06-26T22:05:08.375   2443211 Server 1/1 (service profile: org-root/ls-ssp-
Major     F1761    2026-06-26T05:52:40.467   2443450 Physical memory size 180224 on server 1/1 is
Major     F0185    2026-06-26T05:31:08.858   2442844 DIMM DIMM_A1 on server 1/1 operability: inope
Info      F0461    2025-08-26T04:24:40.271   1895361 Log capacity on Management Controller on serv
```

- The Chassis server and memory status details show inoperable DIMM component.

```
<#root>

fxos#

show server status detail


Server 1/1:
    Slot Status: Equipped
    Equipped Conn Path: A
    Equipped Conn Status: A
    Equipped Managing Instance: A
    Availability: Unavailable
    Admin State: In Service
    Overall Status: Degraded
    Oper Qualifier: Memory Inoperable
    Discovery: Complete
    Current Task:
    Check Point: Discovered

fxos#

show server memory detail


Server 1/1:
    Array 1:
        CPU ID: 1
        Current Capacity (MB): 180224
        Error Correction: Undisc
        Max Capacity (MB): 9437184
        Max Devices: 24
        Populated: 12
        DIMMS:
        ID 1:
            Location: DIMM_A1
            Presence: Equipped
            Overall Status: Inoperable
            Visibility: No
            Vendor: NO DIMM
            Vendor Part Number: NO DIMM
            Vendor Serial (SN): NO DIMM
            HW Revision: 0
            Form Factor: Unknown
            Type: Unknown
            Capacity (MB): Unknown
```

```
Clock: Unknown
Latency: 291737616111656428051341980467 2.000000
Width: 14400
```

Environment

- Cisco Firepower 4100 Security Appliance (FPR-4115-K9)
- First seen on FXOS Version: 2.14(1.167)
- FTD Version: 7.4.7.50 (running), 6.4.0.102 (startup)
- High Availability Configuration with FMC Management
- Memory Configuration: 12 x 16GB DDR4 Modules at 2666 MHz
- Affected DIMM: DIMM_A1 in Memory Slot 1

Resolution

1. Perform chassis reboot to attempt memory fault recovery:

```
fxos# scope chassis
fxos /chassis # reboot
fxos /chassis* # commit-buffer
```

2. After allotting time for a full system boot, re-verify the component status fault status in the FXOS CLI and Chassis Manager UI.

3. If DIMM fault persists after full reboot, hardware replacement is required via Cisco RMA.

Cause

The diagnostics confirmed a critical memory subsystem fault where the DDR4_P1_A1_ECC sensor threshold was crossed, indicating complete module failure after an unexpected chassis reboot. The DIMM A1 reported an "Inoperable" status with all SPD (Serial Presence Detect) data unreadable, confirming

irreversible hardware failure rather than a transient error that cannot be recovered by a graceful reboot. The memory fault prevented the security module and FTD logical instance from initializing properly, resulting in the "Inoperable" chassis state that persisted after chassis reboot.

Related Content

- Replace Faulty Unit in Secure Firewall Threat Defense High Availability
- Create and Manage Logical Devices in FXOS Chassis Manager
- Cisco Firepower 4100 Hardware Installation Guide
- FXOS Troubleshooting Guide
- Cisco Technical Support & Downloads