Troubleshoot USB Detection in ROMMON in Secure Firewall FTD

Contents

Issue

Secure Firewall FTD system reimage via USB in ROMMON mode fails to detect USB drive. Repeated attempts with

Environment

- Technology: Cisco Secure Firewall Firepower - 7.4
- Subtechnology: Firepower Threat Defense (FTD) - Platform and Device Settings-7.4
- Product family: FPRMID3 (including FPR3130)
- Software version: N/A or FTD 7.2.4.2-9 (as referenced in resolution data)
- Image reloading/reimage attempt in ROMMON mode
- USB drives formatted as FAT32, EXT2/3/4, or VFAT/FAT32
- Multiple USB drives tested for image import

Resolution

This comprehensive workflow details the recommended steps for resolving USB detection issues during a Firepower

The boot loop error is shown here for the specified default image in the Firepower console.

```
To launch ROMMON.
Time: 12/18/2025 16:57:41 (LOCAL)
********************************************************************************
Cisco System ROMMON, Version 1.2.06, RELEASE SOFTWARE
Copyright (c) 1994-2023  by Cisco Systems, Inc.
Compiled Mon 03/27/2023 11:22:12.75 by builder
********************************************************************************
Current image running: Boot ROM0
Last reset cause: ResetRequest (0x00001000)
DIMMs installed: P0 CHANNEL C P0 CHANNEL D P0 CHANNEL G P0 CHANNEL H
Platform FPR-3130 with 131072 MBytes of main memory
switch: bar0=0xd0800000 bar2=0xcc000000 bar4=0xd0000000 cmd=0x6
Switch Microinit: allocated buffer 5b630018, aligned buffer 5c000000
Mgmpt port in SGMII mode
MAC Address: d4:eb:68:51:99:80
Use BREAK or ESC to interrupt boot.
Use SPACE to begin boot immediately.

INFO: File 'FS0:.boot_string' has 59 bytes.
data:
64 69 73 6b 30 3a 69 6e 73 74 61 6c 6c 61 62 6c
Attempt autoboot: "boot disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA"
fs_boot: loadname disk0:
INFO: Could not open file 'FS0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA'.
```

```
fs_kpark_boot: Unable to load disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA
boot: error executing "boot disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA"
Attempt autoboot: "boot disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA"
fs_boot: loadname disk0:
INFO: Could not open file 'FS0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA'.
fs_kpark_boot: Unable to load disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA
boot: error executing "boot disk0:installables/switch/fxos-k8-fp3k-lfbff.2.12.1.73.SPA"
Attempt autoboot: "boot disk0:/installables/switch"
fs_boot: loadname disk0:
INFO: File 'FS0:installables/switch' has 4096 bytes.
INFO: file: FS0:installables/switch read size 84 is different than file size 4096, abort.
fs_kpark_boot: Unable to load disk0:/installables/switch
boot: error executing "boot disk0:/installables/switch"
Attempt autoboot: "boot disk0:"
fs_boot: loadname disk0:
INFO: File 'FS0:' has 4096 bytes.
INFO: file: FS0: read size 84 is different than file size 4096, abort.
fs_kpark_boot: Unable to load disk0:
boot: error executing "boot disk0:"
autoboot: All boot attempts have failed, will retry three times !
autoboot: current retry count: 3
autoboot: Restarting the system.
Checking media [Fail]
Checking media [Fail]
```

1. Power Down the Firepower Appliance via FXOS Chassis or via FTD CLISH (whichever is supported/availabl

From FXOS:

```
FXOS# scope chassis
FXOS /chassis# shutdown
FXOS /chassis*# commit-buffer
```

From FTD CLISH:

```
> shutdown
```

2. Insert a properly formatted USB drive containing the default image "fxos-k8-fp3k-lfbff.2.12.1.73.SPA" into the Firepower chassis USB slot.

3. Power on the Firepower appliance and interrupt the boot up process to enter ROMMON.

```
To launch ROMMON.
Time: 12/18/2025 16:55:58 (LOCAL)
********************************************************************************
Cisco System ROMMON, Version 1.2.06, RELEASE SOFTWARE
Copyright (c) 1994-2023  by Cisco Systems, Inc.
Compiled Mon 03/27/2023 11:22:12.75 by builder
********************************************************************************
Current image running: Boot ROM0
```

```
Last reset cause: ResetRequest (0x00001000)
DIMMs installed: P0 CHANNEL C P0 CHANNEL D P0 CHANNEL G P0 CHANNEL H
Platform FPR-3130 with 131072 MBytes of main memory
switch: bar0=0xd0800000 bar2=0xcc000000 bar4=0xd0000000 cmd=0x6
Switch Microinit: allocated buffer 5b630018, aligned buffer 5c000000
Mgmpt port in SGMII mode
MAC Address: d4:eb:68:51:99:80
Use BREAK or ESC to interrupt boot.
Use SPACE to begin boot immediately.
Boot interrupted.
rommon 1 >
```

4. Check the directories from ROMMON to ensure the USB is detected.

```
rommon 1 > dir
Devices in device table:
        id name
disk0:     NVMe SSD
usb:       External USB drive
```

5. Verify the USB contents to ensure necessary image file is present.

```
rommon 2 > dir usb:
Directory of: FS0:\
11/19/2025  21:49        1,312,262,395  cat9k_iosxe.17.12.05.SPA.bin
09/22/2025  13:16          447,821,232  fxos-k9-fp3k.7.4.2.4.9.SPA
12/11/2025  09:46          265,933,680  fxos-k8-fp3k-lfbff.2.12.1.73.SPA
12/18/2025  09:42        1,411,609,360  cisco-ftd-fp3k.7.2.8-25.SPA
          4 File(s)  3,437,626,667 bytes
          0 Dir(s)
```

6. Attempt to manually boot from the USB image which the boot loop error mentions, according to defect Cisco bug

```
rommon 3 > boot usb:fxos-k8-fp3k-lfbff.2.12.1.73.SPA
```

7. If the device enters boot loop again with the same image boot error, RMA the Firepower chassis.

Prepare and Format the USB Drive

Ensure the USB drive is formatted using a supported file system. The supported formats for FTD reimage in ROMM

```
- Use FAT32 for maximum compatibility.
- Verify that the image file is properly copied to the root directory or specified path on the USB driv
```

Insert USB Drive Prior to System Boot

For USB detection to succeed in ROMMON mode, the USB drive must be physically inserted into the device before

Access ROMMON Mode

Boot the FTD device into ROMMON (ROM Monitor) mode to perform the reimage procedure.

Verify USB Detection in ROMMON

From the ROMMON prompt, check if the USB drive is detected by the system using this command:

```
rommon 1 > dir usb:
```

Example output if the USB is not recognized:

```
usb: is not a valid disk media.
```

If the USB is detected, the directory contents are displayed. If not, confirm that the USB is formatted correctly and w

Initiate the Reimage Process if USB Is Detected

If the USB drive is successfully detected, proceed with the reimage or image boot:

```
rommon 2 > boot -b usb:/path/filename
```

Alternatively, for firmware scope, use:

```
device# scope firmware
device /firmware# download image usbA:/path/filename
```

Replace **/path/filename** with the actual location and filename of the FTD image on the USB drive.

Alternative Method Using TFTP Server

If the USB drive is consistently not detected after adhering to all previous steps, utilize a TFTP server to import the i

```
- Set up a TFTP server accessible to the FTD device.
- Place the image file on the TFTP server.
- Use the relevant ROMMON or device CLI commands to download and boot the image from TFTP.
```

Additional Troubleshooting and Verification

- Test multiple USB drives to rule out hardware incompatibility.
- Ensure USB drive size is supported for the target device.
- Check for any physical port issues on the FTD device.
- Reference the linked documentation for platform-specific requirements and troubleshooting steps.

Cause

The root cause of the issue is the failure of the FTD device to detect the inserted USB drive during ROMMON mode

- The USB drive is not formatted using a supported file system (must be FAT32, EXT2/3/4, or VFAT).
- The USB drive was inserted after the FTD device was already powered on, rather than prior to boot, which pre
- Potential hardware incompatibility or physical port issues with the USB drive or device.
- Possible unrecoverable hardware/software issue regarding the loading of factory images.

If the aforementioned causes are eliminated and the USB is still not detected, the use of an external TFTP server mus

If the image fails to load with the specified "fs_kpark_boot: Unable to load" error, attempt the workaround from defe

If the workaround does not resolve the boot issue or boot loop continues, RMA the device.

Related Content

- [Cisco Secure Firewall ASA and Threat Defense Reimage Guide](#)
- [Reimage a Secure FTD for 1000, 2100, and 3100 Series](#)
- [Cisco FXOS Troubleshooting Guide for 1000/1200/2100/3100/4200 with Threat Defense](#)
- [Reimage Cisco FTD on 1000, 2100, and 3100 Series (Video)](#)
- [Cisco Technical Support & Downloads](#)