

Cisco Firepower 4100/9300 FXOS Release Notes, 2.12(1)

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This document contains release information for Cisco Firepower eXtensible Operating System (FXOS) 2.12.0.

Use these Release Notes as a supplement with the other documents listed in the documentation roadmap:

- <http://www.cisco.com/go/firepower9300-docs>
- <http://www.cisco.com/go/firepower4100-docs>



Note The online versions of the user documentation are occasionally updated after the initial release. As a result, the information contained in the documentation on Cisco.com supersedes any information contained in the context-sensitive help included with the product.

Introduction

The Cisco security appliance is a next-generation platform for network and content security solutions. The security appliance is part of the Cisco Application Centric Infrastructure (ACI) Security Solution and provides an agile, open, secure platform that is built for scalability, consistent control, and simplified management.

The security appliance provides the following features:

- Modular chassis-based security system—Provides high performance, flexible input/output configurations, and scalability.
- Firewall Chassis Manager—Graphical user interface provides a streamlined, visual representation of the current chassis status and allows for simplified configuration of chassis features.
- FXOS CLI—Provides command-based interface for configuring features, monitoring chassis status, and accessing advanced troubleshooting features.
- FXOS REST API—Allows users to programmatically configure and manage their chassis.

What's New

New Features in FXOS 2.12.1.95

Fixes for various problems (see [Resolved bugs in FXOS 2.12.1.95, on page 19](#)).

New Features in FXOS 2.12.1.84

Fixes for various problems (see [Resolved bugs in FXOS 2.12.1.84, on page 16](#)).

New Features in FXOS 2.12.1.72

Fixes for various problems (see [Resolved bugs in FXOS 2.12.1.72, on page 15](#)).

New Features in FXOS 2.12.1.48

Fixes for various problems (see [Resolved bugs in FXOS 2.12.1.48, on page 14](#)).

New Features in FXOS 2.12.1.29

Fixes for various problems (see [Resolved bugs in FXOS 2.12.1.29, on page 12](#)).

New Features in FXOS 2.12.0.498

Fixes for various problems (see [Resolved bugs in FXOS 2.12.0.498, on page 10](#)).

New Features in FXOS 2.12.0.467

Fixes for various problems (see [Resolved Bugs in FXOS 2.12.0.467](#)).

New Features in FXOS 2.12.0.450

Fixes for various problems (see [Resolved Bugs in FXOS 2.12.0.450](#)).

New Features in FXOS 2.12.0.432

Fixes for various problems (see [Resolved Bugs in FXOS 2.12.0.432](#)).

New Features in FXOS 2.12.0.31

Fixes for various problems (see [Resolved Bugs in FXOS 2.12.0.31](#)).

Cisco FXOS 2.12.0 introduces the following new features:

Table 1: New Features in FXOS 2.12.0

Feature	Description
QOS CLIs	You can now use the Show interface ethernet <slot> <port> match statistics CLI to track the intermediate drops happening on the TCAM You can now police the traffic queues using the Show interface ethernet <slot> <port> policer statistics police CLI to prevent the exorbitant traffic rates going through strict priority queues You can now control the traffic rates using the show queuing interface ethernet <slot> <port> CLI during congestion to prevent loss of data packets
Switch packet path	You can now debug switch packet path issue for the Secure Firewall 3100 devices
ASA and FTD SNMP Unification	You can now configure the Admin Instance drop-down menu for SNMP unification of ASA and FTD devices.

Software Download

You can download software images for FXOS and supported applications from one of the following URLs:

- Firepower 9300 — <https://software.cisco.com/download/type.html?mdfid=286287252>
- Firepower 4100 — <https://software.cisco.com/download/navigator.html?mdfid=286305164>

For information about the applications that are supported on a specific version of FXOS, see the *Cisco FXOS Compatibility* guide at this URL:

<https://www.cisco.com/c/en/us/td/docs/security/firepower/fxos/compatibility/fxos-compatibility.html>

Important Notes

- In FXOS 2.4(1) or later, if you are using an IPSec secure channel in FIPS mode, the IPSec peer entity must support RFC 7427.
- When you configure Radware DefensePro (vDP) in a service chain on a currently running Firewall Threat Defense application on a Firepower 4110 or 4120 device, the installation fails with a fault alarm. As a workaround, stop the Firewall Threat Defense application instance before installing the Radware DefensePro application.



Note This issue and workaround apply to all supported releases of Radware DefensePro service chaining with Firewall Threat Defense on Firepower 4110 and 4120 devices.

- **Firmware Upgrade**—We recommend upgrading your Firepower 4100/9300 security appliance with the latest firmware. For information about how to install a firmware update and the fixes included in each update, see <https://www.cisco.com/c/en/us/td/docs/security/firepower/fxos/firmware-upgrade/fxos-firmware-upgrade.html>.
- When you upgrade a network or security module, certain faults are generated and then cleared automatically. These include a “hot swap not supported” fault or a “module removed when in online state” fault. If you have followed the appropriate procedures, as described in the [Cisco Firepower 9300 Hardware Installation Guide](#) or [Cisco Firepower 4100 Series Hardware Installation Guide](#), the fault(s) are cleared automatically and no additional action is required.

System Requirements

- You can access the Firewall Chassis Manager using the following browsers:
 - Mozilla Firefox—Version 42 and later
 - Google Chrome—Version 47 and later
 - Microsoft Internet Explorer—Version 11 and later

We tested FXOS 2.12.0 using Mozilla Firefox version 42, Google Chrome version 47, and Internet Explorer version 11. Other versions of these browsers are expected to work. However, if you experience any browser-related issues, we suggest you use one of the tested versions.

Upgrade Instructions

You can upgrade your Firepower 9300 or Firepower 4100 series security appliance directly to FXOS 2.12.0 if it is currently running FXOS version 2.2(2) or later. Before you upgrade your Firepower 9300 or Firepower 4100 series security appliance to FXOS 2.12.0, first upgrade to FXOS 2.2(2), or verify that you are currently running FXOS 2.2(2).

For upgrade instructions, see the [Cisco Firepower 4100/9300 Upgrade Guide](#).

Installation Notes

- An upgrade to FXOS 2.12.0 can take up to 45 minutes. Plan your upgrade activity accordingly.
- If you are upgrading a Firepower 9300 or Firepower 4100 series security appliance that is running a standalone logical device or if you are upgrading a Firepower 9300 security appliance that is running an intra-chassis cluster, traffic does not traverse through the device while it is upgrading.
- If you are upgrading a Firepower 9300 or a Firepower 4100 series security appliance that is part of an inter-chassis cluster, traffic does not traverse through the device being upgraded while it is upgrading. However, the other devices in the cluster continue to pass traffic.
- Downgrade of FXOS images is not officially supported. The only Cisco-supported method of downgrading an image version of FXOS is to perform a complete re-image of the device.

Resolved and Open Bugs

The resolved and open bugs for this release are accessible through the Cisco Bug Search Tool. This web-based tool provides you with access to the Cisco bug tracking system, which maintains information about bugs and vulnerabilities in this product and other Cisco hardware and software products.



Note You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. If you do not have one, you can [Cisco.com](#).

For more information about the Cisco Bug Search Tool, see the [Bug Search Tool Help & FAQ](#).

Open Bugs in FXOS 2.12.0.31

The following table lists the open bugs in FXOS 2.12.0.31:

Caveat ID Number	Description
CSCwc03242	BC01_IBMC01_showTechSupport_log core generated while collecting techsupport logs

Resolved bugs in FXOS 2.12.0.31

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.0.31:

Caveat ID Number	Description
CSCvy83696	ENH: FPR 4100/9300 bcm_usd process logs to support possible RCA

Caveat ID Number	Description
CSCwa03285	Upgrade to 2.10.1.166 causes degraded SM - Unrecognized Firmware format
CSCwa85297	Multi-instance internal portchannel VLANs may be misprogrammed causing traffic loss
CSCvu36664	FXOS Operational State:Thermal-problem intermittently
CSCvx76651	ENH: Prevent CCL IP addressing on the 169.254.x.x subnet on cluster creation
CSCvz01271	Need show command to see the details of transceiver of FXOS mgmt port via CLI
CSCvz94217	App-instance startup version is ignored and set to running-version after copy config
CSCwa52215	Uploading firmware triggers data port-channel to flap
CSCwb84638	Portmanager/LACP improvement to capture logging events on external event restarts
CSCvz72467	Cisco FXOS and NX-OS Software Cisco Discovery Protocol Service Denial of Service
CSCwa55772	FPR 4100 saw an unexpected reload with reason "Reset triggered due to HA policy of Reset"
CSCvu76180	Serviceability Request - Add error message that FXOS firmware is not fully activated
CSCvy83657	FXOS process core pruned/deleted from system files (no validation)
CSCvz14640	FXOS System temporary directory usage is unexpectedly high
CSCvz50201	FXOS may display fault F1256 about missing local disk 0
CSCvy48764	SSH access with public key authentication requires user password
CSCvy95497	Chassis SSD firmware upgrade may be prevented improperly
CSCvy80380	Disk utilization increasing /var/tmp in FPR4150-ASA chassis
CSCvz01285	Need show command to see the details of FPGA version on Firepower devices
CSCvz94740	FXOS traceback and reload due Service "ascii-cfg" sent SIGABRT for not setting heartbeat.
CSCwb74357	FXOS is not rotating log files for partition opt_cisco_platform_logs
CSCvz71282	FXOS high Align-Err counter on port-channel48
CSCvz91266	FXOS A crafted request uri-path can cause mod_proxy to forward the request to an origin server...
CSCvt13808	ENH: FP 4100/9300 - FTD and FXOS SNMP unification
CSCvx04995	Fault F0736 should not be generated due to unreachable default gateway
CSCvy81369	ENH: Include dmesg -T command output in FXOS show-tech files

Caveat ID Number	Description
CSCwb15170	RM 1120 Port state going down, speed is 100/10 and duplex full/Half, speed and duplex mismatch present
CSCwb73356	nvrlog logs consistently written every 2 seconds causing high disk utilization

Resolved bugs in FXOS 2.12.0.432

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.0.432:

Caveat ID Number	Description
CSCvy99348	Shutdown command reboots instead of shutting the FP1k device down.
CSCwb49416	ASA snmpd Traceback & cores on an active unit
CSCwb90940	Data interfaces are not coming up on KP device after deploying 9.18.0.114 image
CSCwc03510	Kilburn Park freezes / crashes on netboot system load
CSCwb62059	Unable to login on FTD using external authentication after upgrade from 7.0.1--->7.2.-1947
CSCwb70030	MIO: No blade reboot during CATERR if fault severity is non-Severe or CATERR sensor is different
CSCwb93924	sfp-detect not working correctly on fixed and epm ports
CSCwc02133	Root shell injection in security module "support fileview" command
CSCwc41590	Upgrade fail & App Instance fail to start with err "CSP_OP_ERROR. CSP signature verification error."
CSCvz74356	FDM 1010 device management interface not reflecting the correct status
CSCwa90735	ASAconsole.log files fail to rotate
CSCwa99171	Chassis and application sets the time to Jan 1, 2010 after reboot
CSCwb83756	TPK netmod OIR fills log with error messages until complete
CSCwc08094	Update CiscoSSL to 1.1.1o.7.3sp.143
CSCwb58007	FTDv on Azure - Traceback on Thread PTHREAD
CSCwa71071	Update certificate bundle for 7.2 release
CSCwb25246	ASAv SSH session getting terminated with ospf network command using Azure / Azure Stack hub
CSCwc45356	FXOS: Support a single PID type for FPR3100 platforms
CSCwa88148	ENH: Fail-to-Wire feature switching standby/bypass from CLI

Caveat ID Number	Description
CSCwb10884	WM11xx: Getting "ERROR: waiting for fxos_log_shutdown" during shutdown.
CSCwb94573	3140 - Platform fault - Code: F1374 - Severity: Critical
CSCwb97486	FPR3100: 25G optic may show link up on some 1/10G capable only fiber ports
CSCwb27099	FXOS: Third-party interop between Ciena Waveserver with firepower chassis.
CSCwb84638	Portmanager/LACP improvement to capture logging events on external event restarts
CSCwb01633	FXOS misses logs to diagnose root cause of module show-tech file generation failure
CSCwb12465	FIPS self-tests must be run when CC mode is enabled - files are missing
CSCwb74357	FXOS is not rotating log files for partition opt_cisco_platform_logs
CSCwb95787	FPR1010 - No ARP on switchport VLAN interface after portmanager DIED event
CSCwb57988	The smConLogger traceback is caused by memory leak.
CSCwb85516	Update the entity mib with new EPM details for WA-B/TPK
CSCwb89065	Warn when TPK borough/temple fpga versions are below minimum
CSCwc37196	FPR3100: 8x1G copper netmod may incorrectly report obsolete firmware on boot
CSCwb02689	FXOS should check reference clock stratum instead of NTP server's local clock stratum
CSCwb40662	ENH: FCM should include option for modifying the interface 'link debounce time'
CSCwb46385	REST API Support for debounce time configuration
CSCwb85391	TPK Ctrl-FPGA version check broken

Resolved bugs in FXOS 2.12.0.450

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.0.450:

Caveat ID Number	Description
CSCwb24367	Evaluation of ssp for Dirty Pipe vulnerability
CSCwc30692	TPK 3140 Maryland: %ERROR% - Switch device not found! during reboot
CSCwc75082	25G-SR should default to RS-FEC (IEEE CL108) instead of FC-FEC
CSCwb84967	Firepower 9300 chassis troubleshoot file caused outage
CSCwc69036	In TPK 3110, baseline boot from rommon failed as "unable to unlock or revert SED"
CSCwb83166	Upgrade to CiscoSSL FOM 7.3sp and CiscoSSL 1.1.1o.7.3sp.143-fips in SSP MIO
CSCwc03393	Lina traceback and core file size is beyond 40G and compression fails on FTD

Caveat ID Number	Description
CSCwc08374	Azure ASA NIC MAC address for Gigeth 0/1 and 0/2 become out of order when adding interfaces
CSCwd07413	FMC - Editing member interfaces on port-channel is stuck on "Updating interface" window
CSCvz19364	FXOS does not send any syslog messages when the duplex changes to "Half Duplex"
CSCwb21037	FCM smart license error when smart licensing reports synced
CSCwb80108	FP2100/FP1000: Built-in RJ45 ports randomly not coming up after portmanager restart events
CSCwb95383	KP FDM-HA is in suspended state with no failover after reverting from 7.3 to 7.1
CSCwc25523	Registering the device for Telemetry is failing in DEV images due to missing security certificates
CSCwc31619	TPK: DME error for invalid card id with SwitchCardPowerCtrlModule
CSCwc47386	vFMC WebUI inaccessible after CC mode was enabled in 7.3.0-1553: ERR_CONNECTION_REFUSED
CSCwc51827	Getting portmanager Died Error after installing 7.3.x build on wm1010
CSCwc61106	Unable to configure domain\username under cfg-export-policy in FXOS
CSCwc75061	FMC allows shell access for user name with "." but external authentication will fail
CSCwc76195	Fail-To-Wire interfaces flaps intermittently due to watchdog timeout in KP platform
CSCwd08626	FTW: port pairs unexpectedly going to bypass due to failure
CSCwd09546	WA: portmanager sfp OIR routine uses insufficient table for module debounce
CSCvz42084	Update msmtplib driver to fix FMC SMTP email send failures
CSCvz44638	FXOS changes for CSCvy86319 - Data are not getting destroy after formatting disk0 on ISA3K
CSCwb57524	FTD upgrade fails - not enough disk space from old FXOS bundles in distributables partition
CSCwb73678	/var/tmp partition fullness warning on FXOS
CSCwb88090	FXOS:after fxos config import new port-channel creation causing existing port-channel flap
CSCwb94573	3140 - Platform fault - Code: F1374 - Severity: Critical
CSCwb94980	TPK: SFP insertion events are missed for base fiber ports including mgmt port.
CSCwc08683	The interface's LED remains green blinking when the optical fiber is unplugged on FPR1150

Caveat ID Number	Description
CSCwc29384	KP - Add DMA memory segments to corefile generated by livecore
CSCwc37061	SNMP: FMC doesn't reply to OID 1.3.6.1.2.1.25.3.3.1.2
CSCwc41591	[IMS_7_3_0] core.portmgr_ipc found on WM1010 during redeploy all policies
CSCwc46847	FXOS partition opt_cisco_platform_logs on FP1K/FPR2K may go Full due to ucssh_*.log
CSCwc60463	FXOS is not rotating log messages files for partition opt_cisco_platform_logs
CSCwc94062	[FTDv/Kenton/ISA3k - FXOS] Add sshd monitor capability to restart sshd in case it fails.
CSCwc94670	TPK svc_sam_statsAG memory leak
CSCvz77202	RMU read stale entries on the int ctrl link between x86 Denverton CPU and Marvel 88E6390X switch
CSCwb77818	Telemetry stays in enabled state even after SL is deregistered from CLI
CSCwc77879	Autopsy Uncore utility support for Vermont branch
CSCwc32584	WM 1150: Upgrade to asa image "99.16.4.24-198" fails on Wm1150 platform
CSCwb48166	FXOS upgrade to 2.11 is stuck
CSCwb66175	MIO is not able to register. appAG process issue
CSCwc76849	link state propagation stops working when performing full chassis reboot
CSCwc26489	ENH - Setting the zmqio sched policy and priority for MIO heartbeat channel
CSCwc74905	FXOS: FPR-X-NM-8X10G ports 7 and 8 are unconfigurable.

Resolved bugs in FXOS 2.12.0.467

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.0.467:

Caveat ID Number	Description
CSCwc37695	In addition to the c_rehash shell command injection identified in CVE-2022-1292
CSCwc82169	FPR4100/9300 Blade discovery may hang due to internal communication failure with blade adapter
CSCwd31427	FMC allowing explicit format version of EC parameters with syslog over TLS in CC mode
CSCwb89257	Remote user login via SSH access with password authentication method fails after FXOS upgrade

Caveat ID Number	Description
CSCwc57204	FXOS not responding to SSH connection
CSCwc87441	for system processes limit the CPUs used to the number of system CPUs
CSCwd06758	No input validation for logical device DNS servers in bootstrap configuration on chassis manager
CSCwd37560	Adding forceReboot option for bundle install REST API
CSCwd45784	FXOS SWIMS Engine update to version 3.0.4
CSCwd45904	Livecore does not return proper error code when there is no space
CSCwd47340	Potential memory leak in svc_sam_envAG process
CSCwb52656	SNM trace logs have incorrect timestamps

Resolved bugs in FXOS 2.12.0.498

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.0.498:

Caveat ID Number	Description
CSCwc07734	ASA goes to failsafe mode after FXOS upgrade
CSCwb24306	Duplicate log entry for /mnt/disk0/log/asa_snmp.log
CSCwc49353	QP MI FTD HA pair goes to disabled state
CSCwc83495	Add abort in switch_driver to crash portmanager in case udbs are corrupted
CSCwd58188	Inline-pair's state could not able to auto recover from hardware-bypass to standby mode.
CSCwd68346	ASA MIO-blade heartbeat failure due to kernel crash, leads to MEZZ core
CSCwd72680	FXOS: FP2100 FTW timeout triggered by high CPU usage during FTD Access Control Policy deploy.
CSCwd74839	30+ seconds data loss when unit re-join cluster
CSCwd89349	WR6, WR8, LTS18 and LTS21 commit id update in CCM layer (seq 42)
CSCwd95415	The Standby device going in failed state due to snort heartbeat failure
CSCwd96766	41xx: Blade does not capture or log a reboot signal
CSCwd99885	Bad code change to portmgr_ipc.c
CSCwc14619	The standby device going in failed state due to snort heartbeat failure(Precommit Build Failure)
CSCwc20714	7.4.0-1603 WA/TPK-HA Traffic doesn't work for non static mac address interface

Caveat ID Number	Description
CSCwe24532	Multiple instances of nvram.out log rotated files under /opt/cisco/platform/logs/
CSCwe25025	8x10Gb netmod fails to come online
CSCwe30653	FTD upgrade failure at "999_finish/999_zz_install_bundle.sh" due to bad key cert
CSCwe32394	ssp abort/reload: terminate called after throwing an instance of 'Stb::bad_alloc' from overload.cpp
CSCwe51412	Port-channel down with Suspended status on member-ports
CSCvx71936	FXOS: Fault "The password encryption key has not been set." displayed on FPR1000 and FPR2100 devices
CSCwa75392	Missing warning message when upgrading FXOS
CSCwb30042	SA for msglyr and switch/src/HAL_Layer code
CSCwc10545	system_pid_specific_misc_defs.json has incorrect system cores for TPK
CSCwc12719	Modify tech-support to capture additional debug info (show portmanager switch vlans)
CSCwc34801	[IMS_7_3_0]REST_API:Network::getMTU [ERROR] when setting network information during firstboot
CSCwc69977	Null pointer check missing in sfp display routine
CSCwc83851	OIR errors in portmgr.out
CSCwd10139	Ping to ipv6 gw with system fails, works without it
CSCwd12978	WA-B: ASA show env command displays PSU information incorrectly
CSCwd43666	Analyze why there is no logrotate for /opt/cisco/config/var/log/ASAconsole.log
CSCwd53448	FPR3100: 4x40 network module LEDs do not blink with traffic
CSCwd56266	KP- FTP under local-mgmt not working
CSCwd56462	LLDP:Neighbors not getting discovered on the first breakout port without deleting the lldp config
CSCwd68159	LLDP::Removing a member port from the port channel completely removes the lldp neighbors
CSCwd82787	Upgrade request errors flood portmgr.out after netmod removal
CSCwd92804	FAN LED flashing amber on FPR2100
CSCwd95063	npu accel - nam_client ipc_recv_timeouts - effects FXOS npu-accel local-mgmt, lina stats calls
CSCwe02421	FPR-X-NM-6X1SX-F not recognized on FP3100 or FP4200

Caveat ID Number	Description
CSCwe13577	Audit log is missing for Mgmt port change
CSCwe18145	Interface speed is not updated on FTD
CSCwe21569	Improve CLI options for management IP with dhcp option
CSCwe22302	Partition "/opt/cisco/config" gets full due to wtmp file not getting logrotated
CSCwe32972	stdout_env_manager.log is full of unknown board type 3 messages
CSCwe33910	sr_build.log has the same three messages repeated every minute
CSCwe33943	svc_sam_serviceOrchAG.log is filled with repeating worthless messages every minute
CSCwe36758	3105: F78672 after a reboot
CSCwe48918	LTS18 CCM Sequence number 44 to update the libjitterentropy to version 3.4.1
CSCwe63794	Reduce fault severity level for RAID degrade due to disk is still in spare state
CSCwb88729	FTD - %FTD-3-199015: port-manager: Error: DOM Block Read failure, port X, st = X log false/positive
CSCwe24440	disk-controller remove/remove-secure description doesn't match
CSCwe34512	JENT: Add JENT library to fxos to support KP.
CSCwd35074	Telemetry registration is failing in 2.13.
CSCwd99813	Supervisor does not reboot unresponsive module/blade due to CATERR with minor severity sensor ID 50
CSCwe33130	Supervisor does not reboot unresponsive module/blade due to IERR with minor severity sensor ID 79
CSCvx62999	Non-zero input discards in MI CCL interface
CSCwb40008	Sometimes device goes for reboot, when powering on of alperton netmod in 4100 device
CSCwb80881	CSSMGR_log core found while testing snmp trap on 2.8.1.184
CSCwc79216	Update Broadcom SDK patch for field alert notification for Trident2
CSCwe22152	SNMPD cores seen in in snmp_sess_close and notifyTable_register_notifications
CSCwe19968	Enhance to log FTW kicking delay and compensate the delay for kicking
CSCwc49180	Statsclient hap reset and boot loop after enabling SNMP unification in 92.13

Resolved bugs in FXOS 2.12.1.29

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.1.29:

Identifier	Headline
CSCwb75786	Deploy failure seen as "argument content is null" in 730.
CSCwd34288	FP1000 - During boot process in LINA mode, broadcasts leaked between interfaces resulting in storm.
CSCwd94183	Blade not coming up after FXOS update support on multi-instance due to ssp_ntp.log log rotation prob.
CSCwe30867	Workaround to set hwclock from ntp logs on low end platforms.
CSCwe74916	Interface remains DOWN in an Inline-set with propagate link state.
CSCwe88600	vFTD sshd silent crash, possibly due to probes in Azure with LB.
CSCwe93802	WR6, LTS18 and LTS21 commit id update in CCM layer (Seq 46).
CSCwf08515	FPR3100: ASA/FTD High traffic impact on all data interfaces with high counter of "demux drops".
CSCwf014729	Need to use CiscoSSL with FOM 7.3 for Intel Builds.
CSCwfl7858	node is leaving TPK cluster due to interface health check failure.
CSCwc76419	Unnecessary FAN error logs needs to be removed from thermal file.
CSCwd67101	FPR1150 : Exec format error seen and the device hung until reload when erase secure all is executed.
CSCwd81123	High CPU Utilization on FXOS for processes smConlogger.
CSCwe50993	SNMP on SFR module goes down and won't come back up.
CSCwe70472	Upgrade third-party component rng-tools to latest 6.16 version.
CSCwe90524	Enh: Add timestamp in interface IPC message.
CSCwf03490	portmanager.sh outputting continuous bash warnings to log files.
CSCwfl6278	TPK 2.12 MGMT Port not able to ping gateway after application installation.
CSCwf22483	SSH to Chassis allows a 3-way handshake for IPs that are not allowed by the config.
CSCwf37871	Attempt go 1.19.4 in LTS18 Branches but go back to 1.12.12 release.
CSCwf40113	TPK/WA - OSPF packets land in multiple RX rings.
CSCwfl8647	Brentwood and Maryland squelch settings modification missing from _X netmod variants.
CSCvz91293	ENH: Include exported chassis configuration in chassis show-tech file.
CSCwc12716	modify tech-support to capture additional debug info (control link register details).
CSCwd34920	ENH: Need to preserve topout.log to contain data of last 5 days minimum.

Identifier	Headline
CSCwe45653	ENH: FXOS need to track Security Module for Disk quota exceeded related issue.
CSCwe79517	ENH: TPK show portmanager counters to dump counters for default drop rules.
CSCwe64773	core.svc_sam_dcosAG file seen on device after erase configuration
CSCwe83544	After upgrade ha interface remains down on one node.
CSCwa98094	MI information is missing in tech-support
CSCwf16886	Universal p4tickets are in plaintext in source code
CSCvz69950	Include output of 'show storage detail command in FPR3100 FPRM/tech_support_brief file
CSCwb06934	Include output of 'show slot expand detail' command in FPR3100 tech_support_brief file

Resolved bugs in FXOS 2.12.1.48

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.1.48:

Caveat ID Number	Description
CSCwe87745	FXOS CLI to show last programming changes
CSCwf57856	FXOS Traceback and reload caused by leak on MTS buffer queue
CSCwh22888	FXOS: Remove enforcement of blades going into degraded state after multiple DIMM correctable errors
CSCwb71519	ENH: F1661 More details on failure reason and log location
CSCwh82859	SSHd cores found after Azure VPN Performance test
CSCvx44261	SNMPv3: Special characters used in FXOS SNMPv3 configuration causes authentication errors
CSCwf82279	Excessive logging of ssp-multi-instance-mode messages to /opt/cisco/platform/logs/messages
CSCwa65801	"show ntp all" logs are not clear enough and lead to uncertainty and confusion
CSCwh04730	ASA/FTD HA checkheaps crash where memory buffers are corrupted
CSCwe81841	FXOS needs to provide a command that will display the total power on hours of chassis/blade
CSCwf36066	WM/TPK/WA "FTD only": Packet drops observed after removing PC member from Port-channel

Caveat ID Number	Description
CSCwh54477	The FMC is showing "The password encryption key has not been set" alert for a Firepower 1100/2100 and Secure Firewall 3100 series devices
CSCwh55178	FXOS: svc_sam_dcosAG process getting crashed repeatedly on FirePower 4100
CSCwc48701	Secure Firewall 3100 MI: ftd instance failed to come online after chassis reboot
CSCwf95288	Firepower 1000 Switchport passing CDP traffic
CSCwh17366	Upgrade to CiscoSSH 1.12.39 in FXOS
CSCwh18967	Include "show env tech" in FXOS FPRM troubleshoot
CSCwh24321	FXOS: Alpertion 100G NetMod not being acknowledged properly
CSCwf44354	JENT: Expand JENT library support to CiscoSSL for all FXOS targets
CSCwf55654	Secure Firewall 3100/4200 - Incorrect 'Management1/l' interface status on Lina & FTD
CSCwf63589	FTD snmpd process traceback and restart
CSCwh09113	FPR1010 in HA failed to send or receive to GARP/ARP with error "edsa_rcv: out_drop"
CSCwb97626	FXOS should display ROMMON logs
CSCwf35500	FXOS/SSP: System should provide better visibility of DIMM Correctable error events
CSCwf88124	Switch ports in Trunk mode do not pass vlan traffic after power loss

Resolved bugs in FXOS 2.12.1.72

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.1.72:

Caveat ID Number	Description
CSCvx69675	FXOS Major Faults about adapter host and virtual interface being down.
CSCwf99303	Management UI presents self-signed certificate rather than custom CA signed one after upgrade.
CSCwi60249	Firepower 1010E standby fails to re-join HA with msg "CD App Sync error is SSP Config Generation Failure".
CSCwi22296	Logical app will trigger a boot in failsafe mode due to a large configuration.
CSCwi13134	Hardware bypass not working as expected in FP3140.
CSCwi34600	SSH key-based login is not working in ASAv loaded with default configuration on GCP.
CSCwi10927	Secure Firewall 3100 devices: unable to copy techsupport/ts/core files to the server.

Caveat ID Number	Description
CSCwf11877	Secure Firewall 3110 - Firmware version MISMATCH after upgrade to 7.2.4-144.
CSCwe93736	ASA not updating Timezone despite taking commands.
CSCwh53276	Upgrade to CiscoSSL 1.1.1v.7.3.338-fips in SSP MIO.
CSCwi90399	FTD/ASA system clock resets to year 2023.
CSCwf62228	Timezone not working correctly on 9300/4100 platforms

Resolved bugs in FXOS 2.12.1.84

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.1.84:

Identifier	Headline
CSCwj14927	FTD: Primary takes active role after reloading
CSCwe82107	health alert for [FSM:STAGE:FAILED]: external aaa server configuration
CSCwk64418	NTP is not synchronising when using SHA-1 authentication
CSCwi24007	An issue was discovered in the Linux kernel before 6.3.3. There is an
CSCwi84615	some stdout logs not rotated by logrotate
CSCwi56743	MSP Quota setting for instances is not correct
CSCwi24116	Twisted is an event-based framework for internet applications. Prior t
CSCwb02701	FXOS does not retry NTP sync with servers
CSCvx74133	App-instance showing as Started instead of Online
CSCwk44245	In the Linux kernel, the following vulnerability has been resolved: i
CSCwk44246	In the Linux kernel, the following vulnerability has been resolved: i
CSCwi78370	41xx/93xx : Update CiscoSSH (Chassis Manager FXOS) to address CVE-2023-48795
CSCvz59859	FXOS fault F1758 description should not be specific to subinterfaces
CSCwj89050	Faulty input validation in the core of Apache allows malicious or expl
CSCwj89051	In GNU tar before 1.35, mishandled extension attributes in a PAX archi
CSCwj89054	An attacker may cause an HTTP/2 endpoint to read arbitrary amounts of
CSCwj43466	A heap-buffer-overflow vulnerability was found in LibTIFF, in extractI
CSCwj08023	Certain DNSSEC aspects of the DNS protocol (in RFC 4033, 4034, 4035, 6
CSCwj08021	The DNS message parsing code in 'named' includes a section whose compu

Identifier	Headline
CSCwk59458	21xx: debug log process hangs preventing recovery from stuck writing operations
CSCwj89404	In the Linux kernel, the following vulnerability has been resolved: b
CSCwj89402	In the Linux kernel, the following vulnerability has been resolved: n
CSCwh94193	urllib3 is a user-friendly HTTP client library for Python. urllib3 doe
CSCwi78191	An issue was discovered in drivers/input/input.c in the Linux kernel b
CSCwi78193	An issue was discovered in the Linux kernel before 6.6.8. do_vcc_ioctl
CSCwj89447	less through 653 allows OS command execution via a newline character i
CSCwj89445	The iconv() function in the GNU C Library versions 2.39 and older may
CSCwf64429	Unable to upload FTD version image to FCM
CSCwk64709	FXOS upgrade failure due to insufficient free space in /mnt/pss (isan.log consumes most of space)
CSCwi01323	SNMP OID ifOutDiscards on MIO are always zero despite show interface are non-zero
CSCwj09999	FP 3100 MTU change on management interface is NOT persistent across reboots (returns to default MTU)
CSCwh48776	An issue was discovered in Python before 3.8.18, 3.9.x before 3.9.18,
CSCwi36244	In buc Traceroute 2.0.12 through 2.1.2 before 2.1.3, the wrapper scrip
CSCwi92932	copy_params in drivers/md/dm-ioctl.c in the Linux kernel through 6.7.1
CSCwi92930	linux-pam (aka Linux PAM) before 1.6.0 allows attackers to cause a den
CSCwk25759	In the Linux kernel, the following vulnerability has been resolved: B
CSCwk25756	Requests is a HTTP library. Prior to 2.32.0, when making requests thro
CSCwj89434	wall in util-linux through 2.40, often installed with setgid tty permi
CSCwk25755	In the Linux kernel, the following vulnerability has been resolved: n
CSCwj43355	A bug in QEMU could cause a guest I/O operation otherwise addressed to
CSCwe21884	Write wrapper around "kill" command to log who is calling it
CSCwi85951	A use-after-free flaw was found in the __ext4_remount in fs/ext4/super
CSCwi85953	In rds_recv_track_latency in net/rds/af_rds.c in the Linux kernel thro
CSCwj69632	Default Hashing Algorithm is SHA1 for Firepower Chassis Manager Certificate on 4110
CSCwj12924	A flaw was found in the Netfilter subsystem in the Linux kernel. The i

Identifier	Headline
CSCwk62296	Address SSP OpenSSH regreSSHion vulnerability
CSCwi92924	A memory leak problem was found in ctnetlink_create_contrack in net/n
CSCwi92927	A use-after-free vulnerability in the Linux kernel's netfilter: nf_tab
CSCwi36311	use kill tree function in SMA instead of SIGTERM
CSCwj89425	In the Linux kernel, the following vulnerability has been resolved: B
CSCwh19613	ASA crashed with Saml scenarios
CSCwk75035	Vulnerability in core of Apache HTTP Server 2.4.59 and earlier are vul
CSCwk75033	In MIT Kerberos 5 (aka krb5) before 1.21.3, an attacker can cause inva
CSCwh81366	[Multi-Instance] Second Hard Drive (FPR-MSP-SSD) not in use
CSCwh43230	Strong Encryption license is not getting applied to ASA firewalls in HA.
CSCwh94029	A flaw was found in the Netfilter subsystem in the Linux kernel. The n
CSCwj08153	An out-of-memory flaw was found in libtiff that could be triggered by
CSCwk14685	FTD : Management interface showing down despite being up and operational
CSCwk62297	Evaluation of ssp for OpenSSH regreSSHion vulnerability
CSCwh27886	Chassis Manager shows HTTP 500 Internal Server error in specific cases
CSCwj89417	In the Linux kernel, the following vulnerability has been resolved: d
CSCwb02741	Time sync status and error message do not elaborate NTP server rejection case
CSCwi79120	some ssh sessions not timing out, leading to ssh and console unable to connect to the FXOS CLI
CSCwk50044	The various Is methods (IsPrivate, IsLoopback, etc) did not work as ex
CSCwj08083	An issue was discovered in libxml2 before 2.11.7 and 2.12.x before 2.1
CSCwj89315	HTTP Response splitting in multiple modules in Apache HTTP Server allo
CSCwj08066	A denial of service vulnerability due to a deadlock was found in sctp_
CSCwj38928	High latency observed on FPR3120
CSCwf99434	Failed to transfer new image file to FPR2130 and traceback was observed
CSCwk22993	In the Linux kernel, the following vulnerability has been resolved: t
CSCwf27337	KP: Cleanup/Reformat the second (MSP) disk on FTD reinstall
CSCwj89406	In the Linux kernel, the following vulnerability has been resolved: b

Identifier	Headline
CSCwk25764	In the Linux kernel, the following vulnerability has been resolved: H
CSCwk25762	In the Linux kernel, the following vulnerability has been resolved: i
CSCwk25761	In the Linux kernel, the following vulnerability has been resolved: b
CSCwi78206	A vulnerability was found in GnuTLS, where a cockpit (which uses gnuTL
CSCwi78200	A vulnerability was found in GnuTLS. The response times to malformed c
CSCwk75036	null pointer dereference in mod_proxy in Apache HTTP Server 2.4.59 and
CSCwk50055	url.c in GNU Wget through 1.24.5 mishandles semicolons in the userinfo
CSCwi04351	FTD upgrade failling on script 999_finish/999_zz_install_bundle.sh
CSCwk75030	The IPv6 implementation in the Linux kernel before 6.3 has a net/ipv6/
CSCwk05828	nsd: netgroup cache may terminate daemon on memory allocation failure
CSCwk05826	nsd: Stack-based buffer overflow in netgroup cache If the Name Servi
CSCwi59271	Suppress "End of script output before headers" syslog on FXOS
CSCwj49958	Crypto IPSEC Negotiation Failing At "Failed to compute a hash value"
CSCwi31480	Alert: Decommission failed, reason: Internal error is not cleared from FCM or CLI after acknowledge
CSCwk84221	FPR3100 : 25G SFP Interfaces not coming up after reboot
CSCwh94116	A flaw was found in the Netfilter subsystem in the Linux kernel. The x
CSCwi23964	Python 3.x through 3.10 has an open redirection vulnerability in lib/h
CSCwh71262	A flaw was found in glibc. In an uncommon situation, the gai_h_inet fun
CSCwi53987	SSL protocol settings does not modify the FDM GUI certificate configuration or disable TLSv1.1
CSCwi00713	A memory leak flaw was found in Libtiff's tiffcrop utility. This issue

Resolved bugs in FXOS 2.12.1.95

The following table lists the previously release-noted and customer-found bugs that were resolved in FXOS 2.12.1.95:

Identifier	Headline
CSCvz84535	Secuere Firewall 3100 :ERROR: Account setup incomplete. System busy - after erase configuration.
CSCwb77894	Firepower 1000/2100 may boot to rommon mode.

Identifier	Headline
CSCwc57500	Remove bootlogd package from FXOS to avoid ASA boot log problems.
CSCwe79924	HAP Reset during FXOS baseline in licensing.
CSCwf04983	Secure Firewall 3100 unit failed to join the cluster with error "configured object (sys/switch-A/slot-2) not found".
CSCwi05709	File system driver bug causes kernel panic and reboot event.
CSCwi21051	Secure Firewall 4200 threat defense-HA failed to join HA. Failed to apply SSP config on standby.
CSCwj16119	Firepower 2110: When leaving On-Box (Device Manager) Mode Platform API Fails.
CSCwj43379	Libexpat through 2.6.1 allows an XML entity expansion attack when there is isolated use of external parsers.
CSCwj98872	eth0i s properly initialized after reboot.
CSCwk28108	Hostname is getting transmitted when data-privacy is set to false.
CSCwk42676	ASA/Threat Defense virtual may crash in the thread PTHREAD .
CSCwk67859	Threat Defense and FXOS: RADIUS Protocol spoofing vulnerability.
CSCwk71227	Threat Defense running on Firepower 2100 with LDAP skips backslash when updating ldap.conf .
CSCwm06393	Changes in port-channel membership or member status may cause periodic OSPF/EIGRP adjacency flaps.
CSCwm12757	In the linux kernel, for tcp_metrics: validate source addr length.
CSCwm12882	Improper Certificate Validation in Node.js 10, 12, and 13 causes the p.
CSCwm12884	HTTP request smuggling in Node.js 10, 12, and 13 causes malicious pay1.
CSCwm12885	Including trailing white space in HTTP header values in Nodejs 10 and 12.
CSCwm12896	Node.js versions before 10.23.1, 12.20.1, 14.15.4, and 15.5.1 are vulnerable to a use-after-free bug in its TLS implementation.
CSCwm12898	Node.js before 10.24.0, 12.21.0, 14.16.0, and 15.10.0 is vulnerable to a denial of service attack when too many connection attempts with an 'unknownProtocol' are established.
CSCwm12901	Node.js before 10.24.0, 12.21.0, 14.16.0, and 15.10.0 is vulnerable to DNS rebinding attacks.
CSCwm12902	Accepting arbitrary Subject Alternative Name (SAN) types, unless a PKI.
CSCwm29876	Substitution encoding issue in mod_rewrite in Apache HTTP server 2.4.5.
CSCwm33529	FXOS MTU Handling for front panel and uplink ports on firepower devices require improvement.

Identifier	Headline
CSCwm35751	Secure Firewall 3100: Interface may go to half duplex speed is hardcoded to 100mbps
CSCwm49154	FXOS fault F1738 in multi-instance deployem. Error: CSP_OP_ERROR. CSP signature verification error.
CSCwm87853	FXOS add require_message_authenticator flag into pam module file:/etc/pam.d/system_auth.
CSCwm96280	Threat Defense device stuck in rommon mode after pressing reset button.
CSCwn02968	Secure Firewall devices:\\"fd aaa radius\\ exception during SSH login.
CSCwn13187	ASA upgrade failing from 9.20.2.21 to the target version 9.20.3.4.
CSCwn23848	Mandatory upgrade of high risk bind component.
CSCwn50854	Firepower 1010 ssh login is working with legacy radius server with the option enabling the message authenticator.
CSCvj85665	Appliance hostname or ip address should be included in FXOS syslogs.
CSCwh23124	Secondary/Standby node shows flapping between Ready & Failed when mgmt interface is shutdown.
CSCwh80012	Chassis Manager: Smart Transport proxy url is showing null on save when it is empty
CSCwj08030	libexpat through 2.5.0 allows a resource consumption denial of service event.
CSCwj08031	libexpat through 2.5.0 allows recursive XML Entity Expansion if XML_DT.
CSCwj89432	HTTP/2 incoming headers exceeding the limit are temporarily buffered.
CSCwk33387	SNMP for mgmt0/diagnostic outgoing traffic is missing.
CSCwm12751	In the Linux kernel, for ata: libata-core: Fix null pointer dereference on error.
CSCwm12897	Node.js versions before 10.23.1, 12.20.1, 14.15.4, and 15.5.1 allows two header fields in an HTTP request.
CSCwm12905	Node.js versions before 12.22.9, 14.18.3, 16.13.2, and 17.3.1 converts SANs.
CSCwm12907	Node.js versions before 12.22.9, 14.18.3, 16.13.2, and 17.3.1 did not handle multi-value relative distinguished names correctly.
CSCwm16492	Integrate newer version of pam radius module in Wind River.
CSCwm30872	Insufficient input validation vulnerability.
CSCwm30886	Insufficient input validation vulnerability.
CSCwm51747	SSH access with public key authentication fails after FXOS upgrade.
CSCwm51874	FXOS: messages rotates every 40 minutes due to Notification Daemon messages' being spammed

Identifier	Headline
CSCwm52264	Not able to remove or clear Fault - The password encryption key has not been set.
CSCwm57062	In the Linux kernel, for usb: xhci: check endpoint is valid before dereferencing it when the host controller is not responding.
CSCwm57472	In the Linux kernel, for filelock: remove locks reliably when fcntl/close race is detected.
CSCwm57484	In the Linux kernel, within mm: avoid overflows in throttling logic.
CSCwm58723	Finish integration of newer version of pam radius module from Wind River.
CSCwm75696	In the Linux kernel, for dma: fix call order in dmam_free_coherent dmam_free_coherent().
CSCwm75710	Fix a Linux kernel file access permissions access check error .
CSCwm75719	Fix linux kernel divide by zero error when calling ioctl TIOCSSERIAL with bad baud rate.
CSCwn02735	Need to disable FPGA related IOCTL and debug logs.
CSCwn15589	Need unified package/fix for pseq and associated rommon fix for pseq upgrade failure.
CSCwm33541	Update for corona JSON script.
CSCwe65207	SmartAgent upgrade to support PLR 3.0.
CSCwh21364	Add support for smart transport in Firepower 9300/4100.
CSCwh74045	Address the upgrade scenario for the smart transport feature.

Related Documentation

For additional information on the Firepower 9300 or 4100 series security appliance and FXOS, see [Navigating the Cisco FXOS Documentation](#).

Online Resources

Cisco provides online resources to download documentation, software, and tools, to query bugs, and to open service requests. Use these resources to install and configure FXOS software and to troubleshoot and resolve technical issues.

- Cisco Support & Download site: <https://www.cisco.com/c/en/us/support/index.html>
- Cisco Bug Search Tool: <https://tools.cisco.com/bugsearch/>
- Cisco Notification Service: <https://www.cisco.com/cisco/support/notifications.html>

Access to most tools on the Cisco Support & Download site requires a Cisco.com user ID and password.

Contact Cisco

If you cannot resolve an issue using the online resources listed above, contact Cisco TAC:

- Email Cisco TAC: tac@cisco.com
- Call Cisco TAC (North America): 1.408.526.7209 or 1.800.553.2447
- Call Cisco TAC (worldwide): [Cisco Worldwide Support Contacts](#)

Communications, Services, and Additional Information

- To receive timely, relevant information from Cisco, sign up at [Cisco Profile Manager](#).
- To get the business impact you're looking for with the technologies that matter, visit [Cisco Services](#).
- To submit a service request, visit [Cisco Support](#).
- To discover and browse secure, validated enterprise-class apps, products, solutions and services, visit [Cisco Marketplace](#).
- To obtain general networking, training, and certification titles, visit [Cisco Press](#).
- To find warranty information for a specific product or product family, access [Cisco Warranty Finder](#).