FortiSwitch - Release Notes

Version 3.5.2

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FortiSwitch 3.5.2 Release Notes

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Change Log

Date	Change Description
2017-01-26	Initial release.
2017-02-28	Added: "As a port is "disabled" by default, you must enable IGMP-S on both the VLAN and the port."

Introduction

This document provides the following information for FortiSwitch 3.5.2 build 0265:

- Supported models
- Special Notices
- Upgrade Information
- Product Integration and Support
- Resolved Issues
- Known Issues

See the Fortinet Document Library for FortiSwitch documentation.

Supported models

FortiSwitch 3.5.2 supports the following models:

FortiSwitch	FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-FPOE, FSW-224D-POE, FSW-248D-FPOE, FSW-248D-POE,FSW-248D, FSW-424D, FSW-424D-FPOE, FSW-424D-POE, FSW-448D, FSW-448D-FPOE, FSW-448D-POE, FSW-524D-FPOE, FSW-524D, FSW-548D, FSW-548D-FPOE, FSW-1024D, FSW-1048D, FSW-3032D
FortiSwitch Rugged	FSR-112D-POE, FSR-124D

What's new in 3.5.2

FortiSwitch 3.5.2 includes the following features and enhancements:

- Quick patch for bug fixing

Special Notices

Supported Features

Features support by model.

FortiSwitch 100

Feature	FSW-108D-POE	FSR--112D-POE	FSW-124D	FSW-124D-POE	FSR-124D
48 port lag support					
801.1x port mode	✓	✓	✓	✓	✓
802.1x MAC base security mode			✓	✓	✓
ACL			✓	✓	✓
Auto module max speed detection & notification					
CPLD Software Upgrade Support for OS					
DHCP relay feature			✓	✓	✓
DHCP Snooping			✓	✓	✓
HTTP REST APIs	✓	✓	✓	✓	✓
HW based ECMP					

Feature	FSW-108D-POE	FSR--112D-POE	FSW-124D	FSW-124D-POE	FSR-124D
IGMP Snooping			✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓	✓
MAC-IP Binding					
POE-pre-standard detection	✓	✓		✓	
QOS: 802.1p support			✓	✓	✓
SFLOW	✓	✓	✓	✓	✓
Software Routing Only	✓	✓			
Static BFD			✓	✓	✓
Static L3/HW based routing			✓	✓	✓
Storm Control	✓	✓	✓	✓	✓
Virtual Wire			✓	✓	✓
vlan tag by ACL			✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓

FortiSwitch 200

Feature	FSW-224D-POE	FSW-224D-FPOE	FSW-248D	FSW-248D-POE	FSW-248D-FPOE
48 port lag support			✓	✓	✓
802.1x port mode	✓	✓	✓	✓	✓
802.1x MAC base security mode		✓	✓	✓	✓
ACL		✓	✓	✓	✓
Auto module max speed detection & notification					
CPLD Software Upgrade Support for OS					
DHCP relay feature		✓	✓	✓	✓
DHCP Snooping		✓	✓	✓	✓
HTTPS REST APIs	✓	✓	✓	✓	✓
HW based ECMP					
IGMP Snooping		✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓

Feature	FSW-224D-POE	FSW-224D-FPOE	FSW-248D	FSW-248D-POE	FSW-248D-FPOE
LLDP-MED	✓	✓	✓		✓
Loop-guard	✓	✓	✓	✓	✓
MAC-IP Binding					
POE-pre-standard detection	✓	✓		✓	✓
QOS: 802.1p support		✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓
Software Routing Only	✓				
Static BFD		✓	✓	✓	✓
Static L3/HW based routing		✓	✓	✓	✓
Storm Control	✓	✓	✓	✓	✓
Virtual Wire		✓	✓	✓	✓
vlan tag by ACL		✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓

FortiSwitch 400

Feature	FSW-424D	FSW-424D-POE	FSW-424D-FPOE	FSW-448D	FSW-448D-POE	FSW-448D-FPOE
48 port lag support						
802.1x port mode	✓	✓	✓	✓	✓	✓

Feature	FSW-424D	FSW-424D-POE	FSW-424D-FPOE	FSW-448D	FSW-448D-POE	FSW-448D-FPOE
802.1x MAC base security mode	✓	✓	✓	✓	✓	✓
ACL	✓	✓	✓	✓	✓	✓
Auto module max speed detection & notification	✓	✓	✓	✓	✓	✓
CPLD Software Upgrade Support for OS						
DHCP relay feature	✓	✓	✓	✓	✓	✓
DHCP Snooping	✓	✓	✓	✓	✓	✓
HTTP REST API	✓	✓	✓	✓	✓	✓
HW based ECMP						
IGMP Snooping	✓	✓	✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓	✓	✓
MAC-IP Binding						

Feature	FSW-424D	FSW-424D-POE	FSW-424D-FPOE	FSW-448D	FSW-448D-POE	FSW-448D-FPOE
POE-pre-standard detection		✓	✓		✓	✓
QOS: 802.1p support	✓	✓	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓	✓
Software Routing Only						
Static BFD	✓	✓	✓	✓	✓	✓
Static L3/HW based routing	✓	✓	✓	✓	✓	✓
Storm Control	✓	✓	✓	✓	✓	✓
Virtual Wire	✓	✓	✓	✓	✓	✓
vlan tag by ACL	✓	✓	✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓	✓

FortiSwitch 500

Feature	FSW-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
48 port lag support			✓	✓
802.1x port mode	✓	✓	✓	✓
802.1x MAC base security mode	✓	✓	✓	✓
ACL	✓	✓	✓	✓
Auto module max speed detection & notification	✓	✓	✓	✓
CPLD Software Upgrade Support for OS				

Feature	FSW-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
DHCP relay feature	✓	✓	✓	✓
DHCP Snooping	✓	✓	✓	✓
HTTP REST APIs	✓	✓	✓	✓
HW based ECMP	✓	✓	✓	✓
IGMP Snooping	✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓
MAC-IP Binding	✓	✓	✓	✓
POE-pre-standard detection		✓		✓
QOS: 802.1p sup-port	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓
Software Routing Only				
Static BFD	✓	✓	✓	✓
Static L3/HW based routing	✓	✓	✓	✓
Storm Control	✓	✓	✓	✓
Virtual Wire	✓	✓	✓	✓
vlan tag by ACL	✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓

FortiSwitch 1000

Feature	FSW-1024D	FSW-1048D
48 port lag support		✓
802.1x port mode	✓	✓
802.1x MAC base security mode	✓	✓
ACL	✓	✓
Auto module max speed detection & notification	✓	✓
CPLD Software Upgrade Support for OS	✓	✓
DHCP relay feature	✓	✓
DHCP Snooping	✓	✓
HTTP REST APIs	✓	✓
HW based ECMP	✓	✓
IGMP Snooping	✓	✓
IP conflict detection & notification	✓	✓
LAG min-max-bundle	✓	✓
LLDP transmit	✓	✓
LLDP-MED	✓	✓
Loop-guard	✓	✓
MAC-IP Binding	✓	✓
POE-pre-standard detection		
QOS: 802.1p support	✓	✓
SFLOW	✓	✓
Software Routing Only		
Static BFD	✓	✓
Static L3/HW based routing	✓	✓

Feature	FSW-1024D	FSW-1048D
Storm Control	✓	✓
Virtual Wire	✓	✓
vlan tag by ACL	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓

FortiSwitch 3000

Feature	FSW-3032D
48 port lag support	
802.1x port mode	✓
802.1x MAC base security mode	✓
ACL	✓
Auto module max speed detection & notification	
CPLD Software Upgrade Support for OS	
DHCP relay feature	✓
DHCP Snooping	✓
HTTP REST APIs	✓
HW based ECMP	✓
IGMP Snooping	✓
IP conflict detection & notification	✓
LAG min-max-bundle	✓
LLDP transmit	✓
LLDP-MED	✓
Loop-guard	✓
MAC-IP Binding	✓

Feature	FSW-3032D
POE-pre-standard detection	
QOS: 802.1p support	✓
SFLOW	✓
Software Routing Only	
Static BFD	✓
Static L3/HW based routing	✓
Storm Control	✓
Virtual Wire	✓
vlan tag by ACL	✓
vlan tag by MAC/IP/802.1x	✓

Default STP edge-port state changed to enabled

The default STP edge-port state on all switch interfaces is changed to **enabled**.

This change allows a port to transition directly the forwarding state, and skips the listening and learning stages. When a port is an edge port, it doesn't generate topology changes on link status changes, which results in a more stable network. These are key advantages of RSTP faster convergence and less topology changes. A STP enabled ports still transmits BPDU. When a STP enabled port receives a BPDU, it immediately loses edge port status and becomes a normal spanning tree port. A ports edge-status state can still be disabled if desired by using the following CLI commands:

```
S124DN3W14000095 # config switch interface
S124DN3W14000095 (interface) # edit port9
S124DN3W14000095 (port9) # set edge-port
disabled Disable interface as edge port.
enabled Enable interface as edge port.
```

Connecting multiple FSW-R-112D-POE switches

The FSW-R-112D-POE switch does not support interconnectivity to other FSW-R-112D-POE switches using the PoE ports. Fortinet recommends using the SFP ports to interconnect switches.

Configuring IGMP-Snooping under "vlan enable" + "port based disable"

IGMP-Snooping configured under "vlan enable" + "port based disable", does not work well; only "vlan level enable" + "port level enable" can make snooping work. So, because the port is "disabled" by default, you must enable IGMP-Snooping on both the VLAN AND the port.

Upgrade Information

FortiSwitch 3.5.2 supports upgrading from FortiSwitch 3.2.0 and later.

Cooperative Security Fabric Upgrade

FortiOS 5.4.1 greatly increases the interoperability between other Fortinet products. This includes:

- FortiClient 5.4.1
- FortiClient EMS 1.0.1
- FortiAP 5.4.1
- FortiSwitch 3.4.2

The upgrade of the firmware for each product must be completed in a precise order so the network connectivity is maintained without the need of manual steps. Customers must read the following two documents prior to upgrading any product in their network:

- *Cooperative Security Framework - Upgrade Guide*
- *FortiOS 5.4.0 to 5.4.1 Upgrade Guide for Managed FortiSwitch Devices*

  This document is available in the Customer Support Firmware Images download directory for FortiSwitch 3.4.2.

Product Integration and Support

FortiSwitch 3.5.2 support

The following table lists 3.5.2 product integration and support information.

Web browser	• Microsoft Internet Explorer version 11 • Mozilla Firefox version 49 • Google Chrome version 54 Other web browsers may function correctly, but are not supported by Fortinet.

FortiOS (FortiLink Support)	• 5.4.1 and later FortiSwitch must be upgraded first before upgrading FortiOS. Please read the *Upgrade Information > Cooperative Security Fabric Upgrade* section in this document. • 5.4.0 FortiSwitch models: FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-POE, FSW-224D-FPOE, FSW-248D-POE, FSW-248D-FPOE, FSW-424D, FSW-424D-POE, FSW-424D-FPOE, FSW-448D, FSW-448D-POE, FSW-448D-FPOE, FSW-524D, FSW-524D-FPOE, FSW-548D, FSW-548D-FPOE, FSW-1024D, FSW-1048D, FSW-3032D, FSR-112D-POE FortiGate models: FG-60D, FG-60D-POE, FG-90D, FG-90-POE, FG-100D, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200D, FG-240D, FG-280D, FG-280D-POE, FG-600C, FG-800C, FG-1000C, FG-1500D, FG-1200D, FG-3700D, FG-3700DX FortiWiFi models: FWF-60D, FWF-60D-POE, FWF-90D, FWF-90D-POE • 5.2.3 and later FortiSwitch models: FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-POE, FSW-224D-FPOE, FSR-112D-POE FortiGate models: FG-60D, FG-90D, FG-100D, FG-140D, FG-200D, FG-240D, FG-280D, FG-600C, FG-800C, FG-1000C, FG-60D-POE, FG-90D-POE, FG-140D-POE, FG-140D-POE-T1, FG-280D-POE FortiWiFi models: FWF-60D, FWF-60D-POE, FWF-90D, FWF-90D-POE • 5.2.2 FortiSwitch models: FSW-224D-POE FortiGate models: FG-90D, FG-90D-POE, FG-100D, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200D, FG-240D, FG-280D, FG-280D-POE, FG-600C, FG-800C, FG-1000C FortiWiFi models: FWF-90D, FWF-90D-POE

Resolved Issues

The following issues have been fixed in 3.5.2. For inquires about a particular bug, please contact Customer Service & Support.

Bug ID	Description
395846	FSW does not forward DHCP request packets from an IP phone when the 802.1p value in the LLDP profile is non-zero
391133	FSW does not reboot to FortiLink mode after auto-discover and auto-auth
395332	After rebooting FSW, prompt error points to fortlink trunk
395147	Log generated by link-down in multi-stage trunk can't display in the GUI
394096	End of Daylight Savings (DST) timezone Turkey/Istanbul GMT +3
395371	"mcast routing" fails hereafter once you change the igmp-snooping setting at the FSW vlan/port level
401039	"Kernel panic" results upon loading a new image on FSW1024D with a corrupted HWCFG
401277	Basic routing disabled for some switches
402302	Guest VLAN assignment remembered and MAC/Forwarding table is not updated
401286	A CLI crash occurs while upgrading BIOS
402492	IP-MAC binding fails if you use global configuration for the port
403117	Authenticated MACs do not not appear in the **diagnose switch mac-address list** command output
403898	PoE platforms may hang during boot up
400794	FAN status always "alarmed" on 448DFP and 248DFP; FAN1 speed is inconsistent with setting
403117	802.1x : authenticated MACs do not appear in the **diagnose switch mac-address list** command output
404192	FSR112P POWER LED incorrect (e.g., PWR1 LED is controlled by the PWR2 outlet; PWR2 LED is always off)

Bug ID	Description
400719	Do not use (i.e., remove) nCfg macros in os_bios.c else potential for crash
355050	Coordinated SW upgrade of stacked/tiered switches (upgrade caused for-tilink to go down)

Known Issues

The following known issues have been identified with 3.5.2. For inquires about a particular bug or to report a bug, please contact Fortinet Customer Service & Support.

Bug ID	Description
377609	PoE port does not reboot when you remove and insert the link.
393845	Newly-created static MACs are missing from the MAC address table.
393856	LLDP-MED does not time out quickly-enough on FSR124D.
393622	**get switch dhcp-snooping status** does not report correctly snoop-enabled-vlans.
383506	FSW Standalone: EAP tunnel is terminated at Authenticator(FSW) instead of at Auth-Server (FAC).

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