



# FortiSwitch - Release Notes

3.5.6

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FortiSwitch 3.5.6 Release Notes

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# Change Log

Date	Change Description
2017-07-05	Initial release.

# Introduction

This document provides the following information for FortiSwitch 3.5.6 build: 0276.

- 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 3.5.6 supports the following models:

<b>FortiSwitch</b>	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
<b>FortiSwitch Rugged</b>	FSR-112D-POE, FSR-124D

## What's new in 3.5.6

FortiSwitch 3.5.6 is a patch release only. No new features or enhancements have been implemented in this release.

# 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-stand- ard detection		✓	✓		✓	✓
QOS: 802.1p support	✓	✓	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓	✓
Software Rout- ing 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 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 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 Flow-Control state changed to disable

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.

# Upgrade Information

FortiSwitch 3.5.6 supports upgrading from FortiSwitch 3.5.0 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 3.5.6 support

The following table lists 3.5.6 product integration and support information.

<b>Web browser</b>	<ul style="list-style-type: none"><li>• Microsoft Internet Explorer version 11</li><li>• Mozilla Firefox version 54</li><li>• Google Chrome version 59</li></ul> <p>Other web browsers may function correctly but are not supported by Fortinet.</p>
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**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 3.5.6. For inquiries about a particular bug, please contact [Customer Service & Support](#).

Bug ID	Description
377609	The 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.
393186	FortiSwitch does NOT allow timezones 00, 76, 82, and 86.
408113	The local user failed authentication when eap-passthru is enabled by default.
414802	IGMP-Snooping: Traffic flooding to newly assigned VLAN source port.
414570	802.1 does not clean up completely when adding the 802.1x interface to the trunk port.
410200	802.1x: VLAN programming received from a RADIUS server can be overwritten by CLI configuration.
401967	When you go to <b>Interface &gt; Interface</b> , the Security Mode column is missing. Also, when you go to <b>Interface &gt; Interface</b> , configuring the port security caused an error (Security group is required when security mode is selected.).
422979	The MAC address cannot be deleted from the forwarding table in the web interface but can be deleted using the CLI.
421921, 394834, 406664	newcli might become nonresponsive because of a NULL pointer dereference. Also, various Layer 2 issues were fixed.
421358	The kernel stops responding when QSFP is enabled, ports 41-48 are disabled, and a 4x10g port is not assigned.
285633	The cpsd crash log can now print to the console.
403312	When the MC-LAG trunk is created, the STP state is disabled on the trunk interface; however, the member link remains in the discarding state for an STP instance.
423070, 424263	freetype support was added to libgd to fix the traffic history widget.

Bug ID	Description
433900	Excessive pause frames cause the FortiSwitch to stop sending STP, LLDP, and LACP packets to other ports of the switch.
435206	A segmentation fault with the snmpd process was encountered after MC-LAG configuration.
436671	Self-imported certificates are missing after an image has been upgraded or downgraded.
422002, 436604	The 1048D QSFP 40G port does not work with the Chelsio card when connected with the HP JG326A DAC 1-meter 40GbE QSFP+ cable.
435469	For IGMP snooping, the MAC learned on the fortilink trunk and isl trunks is toggling between the physical port (a member of the fortilink/isl trunk) and the fortilink/isl trunk.
434015	The default setting for flow control should be 'disable'.

# Known Issues

The following known issues have been identified with 3.5.6. For inquiries about a particular bug or to report a bug, please contact [Fortinet Customer Service & Support](#).

Bug ID	Description
393622	The <b>get switch dhcp-snooping status</b> command does not report snoop-enabled VLANs correctly.
423576	The xCAT platform has an OS Flash corruption issue. <b>Workaround:</b> Use the <b>exec restore</b> command.
412091	Although the FSW-224D-POE device can act as PSE (Power Sourcing Equipment) and a PD (Powered Device), Fortinet does <b>not</b> recommend using FSW-224D-POE as a PD because it might damage the connecting hardware or the FSW-224D-POE itself.  Fortinet recommends <b>not</b> connecting the FSW-224D-POE Power over Ethernet (PoE) ports to another PSE. If you must connect FSW-224D-POE PoE ports to another PSE, manually disable the PoE (PSE) function on the connected port.



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