FortiSwitch - Release Notes

VERSION 3.5

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Change Log

Date	Change Description
2016-09-14	Initial release.
2017-01-11	Added LLDP-MED support to FSW-R-112D-POE, FSW-108D-POE, and FSW-224D-POE.

Introduction

This document provides the following information for FortiSwitch 3.5 build 0248:

- 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 supports the following models:

FortiSwitch	FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-POE, FSW-224D-FPOE, FSW-248D, 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
FortiSwitch Rugged	FSW-R-112D-POE, FSW-R-124D

What's new in 3.5

FortiSwitch 3.5 includes the following features and enhancements:

- IGMP Snooping
- QOS: 802.1p support
- DHCP Snooping
- DHCP relay feature
- LLDP-MED
- Implement Switch SNMP OID
- QSFP to 4*SFP splitter cable
- Per port MAC-limit
- Added a diagnose command to show which port is up when both of RJ45 and SFP port are connected
- Added private VLAN support on FSR-112D-POE, FSW-108D-POE and FSW-224D-POE
- Added GUI for link monitor

Special Notices

Supported Features

Features support by model.

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Feature	FSW-108D-POE	FSW-R-112D-POE	FSW-124D	FSW-124D-POE	FSW-R-124D
48 port lag support					
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			✓	✓	✓

Feature	FSW-108D-POE	FSW-R-112D-POE	FSW-124D	FSW-124D-POE	FSW-R-124D
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	✓	✓	✓	✓	✓

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Feature	FSW-224D-POE	FSW-224D-FPOE	FSW-248D	FSW-248D-POE	FSW-248D-FPOE
48 port lag support			✓	✓	✓
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	✓	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓	✓

Feature	FSW-224D-POE	FSW-224D-FPOE	FSW-248D	FSW-248D-POE	FSW-248D-FPOE
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	✓	✓	✓	✓	✓

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

Feature	FSW-424D	FSW-424D-POE	FSW-424D-FPOE	FSW-448D	FSW-448D-POE	FSW-448D-FPOE
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						
POE-pre-standard detection		✓	✓		✓	✓
QOS: 802.1p support	✓	✓	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓	✓

Feature	FSW-424D	FSW-424D-POE	FSW-424D-FPOE	FSW-448D	FSW-448D-POE	FSW-448D-FPOE
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	✓	✓	✓	✓	✓	✓

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Feature	FSW-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
48 port lag support			✓	✓
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-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
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		✓

Feature	FSW-1024D	FSW-1048D
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	✓	✓
Storm Control	✓	✓
Virtual Wire	✓	✓
vlan tag by ACL	✓	✓

Feature	FSW-1024D	FSW-1048D
vlan tag by MAC/IP/802.1x	✓	✓

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Feature	FSW-3032D
48 port lag support	
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	

Feature	FSW-3032D
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.

Upgrade Information

FortiSwitch 3.5 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 support

The following table lists 3.5 product integration and support information.

Web browser	- Microsoft Internet Explorer version 11 - Mozilla Firefox version 42 - Google Chrome version 46 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. For inquires about a particular bug, please contact Customer Service & Support.

Bug ID	Description
380786	Switch may hang after running a few hours.
379991	RPS LED may not work on FS224D-FPOE.
379841	LACP-passive mode trunk link should be down.
374660	Trunk member is up even though no LACP packets are received.
369610:	Dhcpcd may crash when in FortiLink mode.
368625	Failed to configure STP/VLAN and other settings from Fortilink if https is not allowed.
365856	Priority and weight setting do not take effect.
365551	You may not be able to enter more than 36 characters for allowed VLANs in the GUI.
363637	Speed of QSFP may be set to Auto when connected to a FortiGate.
356764	802.1x VLAN assignment should not get tagged.

Common Vulnerabilities and Exposures

Bug ID	Description
384292	FortiSwitch 3.5 is no longer vulnerable to the following CVE References: • 2016-6909 Please visit https://fortiguard.com/psirt for more information.

Known Issues

The following known issues have been identified with 3.5. For inquires about a particular bug or to report a bug, please contact Fortinet Customer Service & Support.

Bug ID	Description
382245	DHCP client may not get IP when ip-mac binding is enabled globally.
381809	Client drops DHCP offer packet when both DHCP relay and Snooping are enabled.
377609	POE port does not come back up when you remove and insert the link.
367235	Oversubscribe destination port causes STP packets to get dropped.

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