



FortiSwitch - Release Notes

VERSION 3.5

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FortiSwitch 3.5 Release Notes

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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.

FortiSwitch 100

| 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 | ✓ | ✓ | ✓ | ✓ | ✓ |

FortiSwitch 200

| 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 Bind- ing | | | | | |
| 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 400

| Feature | FSW-424D | FSW-424D- POE | FSW-424D- FPOE | FSW-448D | FSW-448D- POE | FSW-448D- FPOE |
|-------------------------------------|----------|------------------|-------------------|----------|------------------|-------------------|
| 48 port lag sup- port | | | | | | |
| 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 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

FortiSwitch 500

| 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 | ✓ | ✓ |

FortiSwitch 3000

| 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 | <ul style="list-style-type: none">• Microsoft Internet Explorer version 11• Mozilla Firefox version 42• Google Chrome version 46 <p>Other web browsers may function correctly, but are not supported by Fortinet.</p> |
|--------------------|---|

**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 inquiries 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: | Dhcpd 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: <ul style="list-style-type: none">• 2016-6909 Please visit https://fortiguard.com/psirt for more information. |

Known Issues

The following known issues have been identified with 3.5. For inquiries 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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