



# FortiSwitch Release Notes

**Version 3.6.5**

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November 8, 2019

FortiSwitch 3.6.5 Release Notes

11-365-474762-20191108

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# Change log

Date	Change Description
February 26, 2018	Initial release
April 5, 2018	Added note 5 to the feature matrix.
May 2, 2018	Added bug 481661 to the known issues.  Added 1048E to “Supported models” and “Supported features for FortiSwitchOS 3.6.”
May 4, 2018	Updated “Supported features for FortiSwitchOS 3.6.”
May 11, 2018	Updated the “Supported models” section.
September 18, 2018	Added bug 510943 to the “Known Issues” section.
November 8, 2019	Added bug 593993 to the “Known Issues” section.

# Introduction

This document provides the following information for FortiSwitch 3.6.5 build: 0403.

- Supported models on page 5
- Special notices on page 6
- Upgrade information on page 12
- Product integration and support on page 13
- Resolved issues on page 15
- Known issues on page 16

See the [Fortinet Document Library](#) for FortiSwitch documentation.

## Supported models

FortiSwitch 3.6.5 supports the following models:

<b>FortiSwitch</b>	FSW-108D-POE, FSW-108E, FSW-108E-POE, FSW-108E-FPOE, FSW-124D, FSW-124D-POE, FSW-124E, FSW-124E-POE, FSW-124E-FPOE, FSW-224D-FPOE, FSW-224D-POE, FSW-224E, FSW-224E-POE, FSW-248D-FPOE, FSW-248D-POE, FSW-248D, FSW-248E-POE, FSW-248E-FPOE, 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-1048E, FSW-3032D
<b>FortiSwitch Rugged</b>	FSR-112D-POE, FSR-124D

## What's new in 3.6.5

FortiSwitch 3.6.5 is a patch release only. No new features or enhancements have been implemented in this release.

## Special notices

### Supported features for FortiSwitchOS 3.6

The following table lists the FortiSwitch features in Release 3.6 that are supported on each series of FortiSwitch models. All features are available in Release 3.6.0, unless otherwise stated.

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Link aggregation group size (maximum number of ports) (See Note 2.)	✓	8	8	8	24/48	24/48	24 (3.5.0) 64 (3.5.1)
Auto module max speed detection and notification	✓	—	—	—	✓	✓	—
IP conflict detection and notification	—	✓	✓	✓	✓	✓	✓
IP-MAC binding	✓	—	—	—	✓	✓	✓
Static BFD	—	—	—	—	—	✓	✓
Hardware-based ECMP	—	—	—	—	✓	✓	✓
Private VLANs	✓	—	—	✓	✓	✓	✓
LLDP transmit	—	✓	—	✓	✓	✓	✓
Loop guard	✓	✓	✓	✓	✓	✓	✓
LAG min-max-bundle	—	✓	✓	✓	✓	✓	✓
sFlow	✓	✓	—	✓	✓	✓	✓
Storm control	✓	✓	✓	✓	✓	✓	✓
ACL	—	—	—	✓	✓	✓	✓
Static L3/hardware-based routing	✓	—	—	✓	✓	✓	✓

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Software routing only	✓	✓	✓	—	—	—	—
CPLD software upgrade support for OS	—	—	—	—	—	1024D 1048D	—
PoE-pre-standard detection (See Note 1.)	✓	✓	FS-1xxE POE	✓	✓	—	—
VLAN tag by ACL	—	—	—	✓	✓	✓	✓
ACL redirect to mirror destination as trunk/LAG	—	—	—	✓	✓	✓	✓
MAC/IP/protocol-based VLAN assignment	✓	✓	—	✓	✓	✓	✓
802.1x port mode	✓	✓	✓	✓	✓	✓	✓
802.1x MAC-based security mode	✓	✓	✓	✓	✓	✓	✓
User-based (802.1x) VLAN assignment	✓	✓	—	✓	✓	✓	✓
Virtual wire	✓	—	—	✓	✓	✓	✓
HTTP REST APIs for configuration and monitoring	—	✓	✓	✓	✓	✓	✓
Split port	—	—	—	—	✓	—	✓
IGMP snooping	—	—	—	✓	✓	✓	✓
Per-port max for learned MACs	—	—	✓	✓	✓	—	—
802.1p support, including priority queuing trunk and WRED (release 3.5.1)	—	—	—	✓	✓	✓	✓
DHCP snooping	—	—	—	✓	✓	✓	✓
LLDP-MED	—	✓	✓	✓	✓	✓	✓

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
DHCP relay feature	—	—	✓	✓	✓	✓	✓
Support for switch SNMP OID	—	✓	✓	✓	✓	✓	✓
Access VLANs (See Note 5.)	—	—	—	✓	✓	✓	✓
802.1x enhancements, including MAB (release 3.5.1)	✓	✓	✓	✓	✓	✓	✓
Multi-stage load balancing (release 3.5.1)	—	—	—	—	—	✓	✓
MCLAG (multichassis link aggregation)(release 3.6.0)	—	—	—	✓ (not on 124D/124D- POE)	✓	✓	✓
Dynamic layer-3 protocols (OSPF, RIP, and VRRP) (release 3.6.0) (See Note 3.)	✓	—	—	✓ (not on 124D/124D- POE)	✓	✓	✓
Dynamic ARP inspection (release 3.6.0)	—	—	—	✓	✓	✓	✓
Firmware image rotation (dual-firmware image sup- port) (release 3.6.0)	—	✓ (not on 108D-POE)	—	✓	✓	✓	✓
TDR (time-domain reflec- tometer)/cable diagnostics support (release 3.6.0)	✓	—	—	✓	✓	✓	✓
MAC learning limit (release 3.6.0) (See Note 4.)	—	—	✓	✓	✓	—	—
Sticky MAC on switch inter- faces (release 3.6.0)	—	—	—	✓	✓	✓	✓

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
PoE modes support: first come, first served or priority based (PoE models) (release 3.6.0)	—	✓	FS-1xxE POE	✓	✓	—	—
ACL: egress mask action support (release 3.6.0)	—	—	—	✓	✓	✓	✓
Monitor system temperature (threshold configuration and SNMP trap support) (release 3.6.0)	—	✓	—	✓	✓	✓	✓
'forced-untagged' or 'force-tagged' setting on switch interfaces (release 3.6.0)	—	✓	—	✓	✓	✓	✓
Selective packet sampling to CPU (useful diagnostic tool) (release 3.6.0)	—	—	—	✓	✓	✓	3.6.1
Add CLI to show the details of port statistics (release 3.6.0)	—	✓	✓	✓	✓	✓	✓
Display progress (%) during firmware upgrade (release 3.6.0)	✓	✓	✓	✓	✓	✓	✓
STP root guard (release 3.6.2)	—	✓	✓	✓	✓	✓	✓
STP BPDU guard (release 3.6.2)	—	✓	✓	✓	✓	✓	✓
IGMP snooping: static multicast groups (release 3.6.2)	—	—	—	✓	✓	✓	✓
DHCP snooping: entry limit per port (release 3.6.2)	—	—	—	✓	✓	✓	✓
Network device detection (release 3.6.2)	—	—	—	✓	✓	✓	✓

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
QoS queue counters (releases 3.6.2 and 3.6.3)	—	—	—	✓	✓	✓	✓
Support of the RADIUS accounting server (release 3.6.3)	—	✓	—	✓	✓	✓	✓
Support of RADIUS CoA and disconnect messages (release 3.6.3)	—	✓	—	✓	✓	✓	✓
802.1x authentication: EAP-TLS support (release 3.6.3)	—	✓	—	✓	✓	✓	✓
DHCP snooping: CLI for DHCP-snooping server database (release 3.6.3)	—	—	—	✓	✓	✓	✓
Unicast hashing (release 3.6.4)	—	—	—	✓	✓	✓	✓
STP supported in MCLAGs (release 3.6.4)	—	—	—	✓ (not on 124D/124D- POE)	✓	✓	✓
QoS marking (release 3.6.4)	—	—	—	✓	✓	✓	✓
MAB reauthentication disabled (release 3.6.4)	—	✓	—	✓	✓	✓	✓
Cut-through switching (release 3.6.4)	—	—	—	—	—	✓	✓
Control of temperature and PoE alerts (release 3.6.4)	—	✓	—	✓	✓	✓	✓
IGMP querier (release 3.6.4)	—	—	—	✓	✓	✓	✓
Configuration of the QSFP low-power mode (release 3.6.4)	—	—	—	—	✓	1048D	✓
Learning limit violation log (release 3.6.4) (See Note 4.)	—	—	—	✓	✓	—	—

Feature	GUI supported	108D-POE 112D-POE 224D-POE	1xxE	124D 124D-POE 200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Sticky MAC addresses saved to static MAC table (release 3.6.4)	—	—	—	✓	✓	✓	✓
Enabling packet forwarding to CPU (release 3.6.4)	—	—	—	✓	—	—	—

### Notes

- PoE features are applicable only to the model numbers with a POE or FPOE suffix.
- 24-port LAG is applicable to 524D, 524\_FPOE, 1024D, and 3032D models. 48-port LAG is applicable to 548D, 548\_FPOE, and 1048D models.
- To use the dynamic layer-3 protocols, you must have an advanced features license.
- The per-VLAN learning limit and per-trunk learning limit are not supported on dual-chip platforms (248 and 448 series).
- Access VLANs are not supported on 108D-POE, 224D-POE, or 112D-POE.

## 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 3.6.5 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 3.6.5 support

The following table lists 3.6.5 product integration and support information.

<b>Web browser</b>	
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- |   |
|---|
| <ul style="list-style-type: none"><li>• Microsoft Internet Explorer version 11</li><li>• Mozilla Firefox version 52</li><li>• Google Chrome version 56</li></ul> <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 3.6.5. For inquiries about a particular bug, please contact [Customer Service & Support](#).

Bug ID	Description
0468452	A FortiSwitch interface does not respond to SNMP queries.
0467494	MAC learning on a multichassis LAG (MCLAG) inter-chassis link (ICL) trunk slows down when there are more than 7,000 hosts.
0470278	A FortiSwitch unit with an MCLAG ICL trunk configured issues a warning about one or more trunk members having access control lists (ACLs) configured.
0465207	A 424D FortiSwitch unit in FortiLink mode could not be changed back to standalone mode.
0472778	MAC authentication bypass (MAB) does not work on some FortiSwitch models.
0466223	The FortiSwitch unit reports that the temperature sensor has exceeded the warning threshold.
0463404	After the FortiSwitch unit has been restarted, the system does not synchronize immediately with a Network Time Protocol (NTP) server.
0470933	When a FortiGate unit is managing multiple FortiSwitch units and the FortiSwitch units have MCLAG and Spanning Tree Protocol (STP) configured, the FortiGate unit loses connectivity with the directly attached FortiSwitch units.
0299505, 0458050, 0458189, 0467770	STP has performance issues.

# Known issues

The following known issues have been identified with 3.6.5. For inquiries about a particular bug or to report a bug, please contact [Fortinet Customer Service & Support](#).

Bug ID	Description
391607	Switch does not send gratuitous ARP for IP conflict when the system boots up and adds a new switch virtual interface (SVI).
414972	IGMP snooping might not work correctly when used with 802.1x Dynamic VLAN functionality.
416655	IGMP snooping might not work correctly when used with 802.1x Dynamic VLAN functionality.
417024, 438441	DHCP client lease time on PVLAN is inaccurate.
417073, 438441	DHCP MAC address client is learned on Primary VLAN instead of the isolated VLAN.
417099, 438441	The system shows no DAI stats entry on PVLAN ports.
423940	In some cases, the MAC address and VLAN ID are shown (diagnostic command) twice on the same interface after splitting ports.
380239	IGMP-snooped multicast groups are not immediately flushed out of the snooping table when the querier port is shut down.
460999	When you enable Energy Efficiency Ethernet (EEE) on an Apple Thunderbolt to Gigabit Ethernet Adapter, the FortiSwitch port might flap continuously.  <b>Workaround:</b> If you are using MacBook with the Apple Thunderbolt to Gigabit Ethernet Adapter, disable EEE on the Apple Thunderbolt to Gigabit Ethernet Adapter when connecting to the FortiSwitch.
481661	Ports 53 and 54 of the 1048E model are disabled.
510943	When using the cable diagnostics feature on a port (with the <code>diagnose switch physical-ports cable-diag &lt;physical port name&gt; CLI command</code> ), ensure that the physical link on its neighbor port is down. You can disable the neighbor ports or physically remove the cables.
593993	When the <code>switch-controller.global.https-image-upgrade</code> is enabled, the FS-108D-POE/FS-224D-POE might fail to upgrade.  <b>Workaround:</b> Disable <code>https-image-upgrade</code> .



*High Performance Network Security*



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