



FortiSwitch Release Notes

Version 6.0.3

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FortiSwitch Release Notes

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Change log

Date	Change Description
January 22, 2019	Initial release for FortiSwitchOS 6.0.3
February 5, 2019	Added bug 535736 to the “Known issues” section.
February 12, 2019	Added bug 510776 to the “Resolved issues” section.
June 11, 2019	Added bug 528983 to the “Known issues” section.
July 22, 2019	Added bug 572052 to the “Known issues” section.
September 22, 2019	Updated the feature matrix (TDR and split port rows).

Introduction

This document provides the following information for FortiSwitch 6.0.3 build: 0052.

- Supported models on page 5
- Special notices on page 6
- Upgrade information on page 13
- Product integration and support on page 14
- Resolved issues on page 15
- Known issues on page 17

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

Supported models

FortiSwitch 6.0.3 supports the following models:

FortiSwitch	FSW-108E, FSW-108E-POE, FSW-108E-FPOE, FSW-124E, FSW-124E-POE, FSW-124E-FPOE, FSW-224D-FPOE, FSW-224E, FSW-224E-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
FortiSwitch Rugged	FSR-112D-POE, FSR-124D

What's new in FortiSwitchOS 6.0.3

Release 6.0.3 provides the following new features:

- You can now configure access lists for RIP routing in the GUI.
- A notification is displayed on the *System > Dashboard* page when the FortiSwitch unit is in FortiLink mode.
- The FortiSwitch unit now supports up to 20 devices per port for 802.1x MAC-based authentication. System-wide, the FortiSwitch unit now supports a total of 10 times the number of interfaces for 802.1x MAC-based authentication.
- A new column on the Physical Switch Ports page (*Switch > Port > Physical*) shows the traffic for each port over the last day.

Special notices

Supported features for FortiSwitchOS 6.0

The following table lists the FortiSwitch features in Release 6.0 that are supported on each series of FortiSwitch models. All features are available in Release 6.0.0, unless otherwise stated.

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Management and Configuration							
CPLD software upgrade support for OS	—	—	—	—	—	1024D 1048D	—
Firmware image rotation (dual-firmware image support) (release 3.6.0)	—	✓	—	✓	✓	✓	✓
HTTP REST APIs for configuration and monitoring	—	✓	✓	✓	✓	✓	✓
Support for switch SNMP OID	✓	✓	✓	✓	✓	✓	✓
IP conflict detection and notification	✓	✓	✓	✓	✓	✓	✓
Security and Visibility							
802.1x port mode	✓	✓	✓	✓	✓	✓	✓
802.1x MAC-based security mode	✓	✓	✓	✓	✓	✓	✓
User-based (802.1x) VLAN assignment	✓	✓	—	✓	✓	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
802.1x enhancements, including MAB (release 3.5.1)	✓	✓	✓	✓	✓	✓	✓
MAB reauthentication disabled (release 3.6.4)	—	✓	—	✓	✓	✓	✓
open-auth mode (release 6.0.0)	✓	✓	✓	✓	✓	✓	✓
Support of the RADIUS accounting server (release 3.6.3)	Partial	✓	—	✓	✓	✓	✓
Support of RADIUS CoA and disconnect messages (release 3.6.3)	—	✓	—	✓	✓	✓	✓
EAP Pass-Through (release 3.6.3)	✓	✓	—	✓	✓	✓	✓
Network device detection (release 3.6.2)	—	—	—	✓	✓	✓	✓
IP-MAC-Binding	✓	—	—	—	✓	✓	✓
sFlow	✓	✓	—	✓	✓	✓	✓
ACL	—	—	—	✓	✓	✓	✓
Multistage ACL (release 6.0.0)	—	—	—	—	✓	✓	✓
DHCP snooping	✓	✓	✓	✓	✓	✓	✓
DHCP blocking (release 6.0.0)	—	—	—	✓	—	—	—
Dynamic ARP inspection (release 3.6.0)	✓	—	—	✓	✓	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
ARP timeout value (release 6.0.0)	—	✓	✓	✓	✓	✓	✓
Access VLANs (See Note 5.)	—	—	—	✓	✓	✓	✓
VLAN tag by ACL	—	—	—	✓	✓	✓	✓
Layer 2							
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)
LAG min-max-bundle	—	✓	✓	✓	✓	✓	✓
IGMP snooping	✓	—	—	✓	✓	✓	✓
IGMP querier (release 3.6.4)	—	—	—	✓	✓	✓	✓
LLDP transmit	—	✓	—	✓	✓	✓	✓
LLDP-MED	—	✓	✓	✓	✓	✓	✓
Per-port max for learned MACs	—	—	✓	✓	✓	—	—
MAC learning limit (release 3.6.0) (See Note 4.)	—	—	✓	✓	✓	—	—
Learning limit violation log (release 3.6.4) (See Note 4.)	—	—	—	✓	✓	—	—
set mac-violation-timer (release 6.0.0)	—	✓	—	✓	✓	✓	✓
Sticky MAC (releases 3.6.0 and 6.0.0)	✓	✓	✓	✓	✓	✓	✓
Total MAC entries (release 6.0.0)	—	✓	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
MSTP	—	✓	✓	✓	✓	✓	✓
STP root guard (release 3.6.2)	—	✓	✓	✓	✓	✓	✓
STP BPDU guard (release 3.6.2)	—	✓	✓	✓	✓	✓	✓
'forced-untagged' or 'force-tagged' setting on switch interfaces (release 3.6.0)	—	✓	—	✓	✓	✓	✓
Private VLANs	✓	—	—	✓	✓	✓	✓
Multi-stage load balancing (release 3.5.1)	—	—	—	—	—	✓	✓
Priority-based flow control (release 6.0.0)	—	—	—	—	—	✓	✓
Storm control	✓	✓	✓	✓	✓	✓	✓
MAC/IP/protocol- based VLAN assignment	✓	✓	✓	✓	✓	✓	✓
Virtual wire	✓	—	—	✓	✓	✓	✓
Loop guard	✓	✓	✓	✓	✓	✓	✓
Percentage rate control (release 6.0.0)	✓	—	—	✓	✓	✓	✓
Layer 3							
Static L3/hardware- based routing	✓	—	—	✓	✓	✓	✓
Software routing only	✓	✓	✓	—	—	—	—
OSPF (release 3.6.0) (See Note 3.)	✓	—	—	✓	✓	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
RIP (release 3.6.0) (See Note 3.)	✓	—	—	✓	✓	✓	✓
VRRP (release 3.6.0) (See Note 3.)	✓	—	—	✓	✓	✓	✓
BGP (release 6.0.0)	—	—	—	—	✓	✓	✓
IS-IS (release 6.0.0)	—	—	—	—	✓	✓	✓
PIM (release 6.0.0)	—	—	—	—	✓	✓	✓
Hardware-based ECMP	—	—	—	—	✓	✓	✓
Static BFD	—	—	—	—	—	✓	✓
DHCP relay feature	✓	—	✓	✓	✓	✓	✓
High Availability							
MCLAG (multichassis link aggregation) (release 3.6.0)	Partial	—	—	✓	✓	✓	✓
STP supported in MCLAGs (release 3.6.4)	—	—	—	✓	✓	✓	✓
Quality of Service							
802.1p support, including priority queuing trunk and WRED (release 3.5.1)	✓	—	—	✓	✓	✓	✓
QoS queue counters (releases 3.6.2 and 3.6.3)	—	—	—	✓	✓	✓	✓
QoS marking (release 3.6.4)	—	—	—	✓	✓	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Summary of configured queue mappings (release 6.0.1)	✓	—	✓	✓	✓	✓	✓
Miscellaneous							
PoE-pre-standard detection (See Note 1.)	—	✓	FS-1xxE POE	✓	✓	—	—
PoE modes support: first come, first served or priority based (PoE models) (release 3.6.0)	—	✓	FS-1xxE POE	✓	✓	—	—
Control of temperature alerts (release 3.6.4)	—	✓	—	✓	✓	✓	✓
Split port	Partial	—	—	—	✓	1048E	✓
TDR (time-domain reflectometer)/cable diagnostics support (release 3.6.0)	✓	—	—	✓	✓	—	—
Auto module max speed detection and notification	✓	—	—	—	✓	✓	—
Monitor system temperature (threshold configuration and SNMP trap support) (release 3.6.0)	—	✓	—	✓	✓	✓	✓
Cut-through switching (release 3.6.4)	—	—	—	—	—	✓	✓

Feature	GUI supported	112D-POE	1xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D
Add CLI to show the details of port statistics (release 3.6.0)	—	✓	✓	✓	✓	✓	✓
Configuration of the QSFP low-power mode (release 3.6.4)	—	—	—	—	✓	1048D	✓
Energy-efficient Ethernet (release 6.0.1)	—	✓	✓	✓	✓	—	—

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 (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 6.0.3 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 6.0.3 support

The following table lists 6.0.3 product integration and support information.

Web browser	<ul style="list-style-type: none">• Microsoft Internet Explorer version 11• Mozilla Firefox version 52• Google Chrome version 56 <p>Other web browsers may function correctly, but are not supported by Fortinet.</p>
FortiOS (FortiLink Support)	FortiLink is supported on all FortiSwitch models when running FortiOS 5.4.0 and later and FortiSwitchOS 3.2.1 and later.

Resolved issues

The following issues have been fixed in 6.0.3. For inquiries about a particular bug, please contact [Customer Service & Support](#).

Bug ID	Description
488263	Users should not be able to submit requests multiple times by clicking the Edit, Update, Reset, Delete, or OK, buttons in the GUI more than once.
493485	Upgrading the FortiSwitch firmware should not disable switch ports or stop daemons during the upgrade.
498265	The Uptime and System Time values on the <i>System > Dashboard</i> page should be accurate.
510776	The 1000auto setting does not work on the 1048E model.
512597	The <i>Reset</i> button on the <i>Switch > Port > Physical</i> page should be changed to <i>POE Reset</i> .
512988	When IGMP snooping is enabled on a VLAN on some FortiSwitch units, ARP broadcast from the server does not work.
521441	The “internal” system interface does not perform hardware offloading of routes and is only software forwarding. Users can use VLAN switched virtual interfaces for full hardware offloading.
521981	The <i>Router > Monitor > Routing</i> page needs pagination.
522491	When the CLI console is closed in the GUI, the session should end.
522767	The maximum number of trunks needs to be changed from 48 to 128.
523275	When configuring OSPF routing using the CLI, the <code>set authentication</code> command is not needed and should be removed.
523411	The <code>diagnose switch poe status</code> command needs to report the correct values.
523643	The GUI and CLI should report the same values for memory used.
523757	The values for the charts on the <i>System > Dashboard</i> page should be present and not overlapping.

Bug ID	Description
529191	Going to <i>WiFi & Switch Controller > Managed FortiSwitch</i> sometimes shows a dotted line instead of a solid line between the FortiGate unit and the managed FortiSwitch unit.
529268	The Speed column on the Port Trunks page (<i>Switch > Port > Trunk</i>) should be renamed to "PSC."
529554	When editing an LLDP-MED profile, the <i>Edit</i> button should be an <i>Update</i> button.
529785	When scp-admin is enabled and a custom profile is used, the administrator cannot download the config file using the secure copy protocol (SCP).
530517	When dynamic ARP inspection (DAI) is enabled, ping does not work consistently.

Known issues

The following known issues have been identified with 6.0.3. For inquiries about a particular bug or to report a bug, please contact [Fortinet Customer Service & Support](#).

Bug ID	Description
380239	IGMP-snooped multicast groups are not immediately flushed out of the snooping table when the querier port is shut down.
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	When using DHCP, the IPv6 address cannot be configured. Also, the automatic configuration of the global address does not work.
438441	DHCP snooping and dynamic ARP inspection (DAI) do not work with private VLANs (PVLANS).
480605	When DHCP snooping is enabled on the FSR-112D-POE, the switched virtual interface (SVI) cannot get the IP address from the DHCP server.
488044	On a Protocol Independent Multicast (PIM) topology using the assert mechanism, when the assert winner lost the route to the source, no multicast route was created, and the multicast traffic stopped.
510943	When using the cable diagnostics feature on a port (with the <code>diagnose switch physical-ports cable-diag <physical port name></code> CLI command), ensure that the physical link on its neighbor port is down. You can disable the neighbor ports or physically remove the cables.
520954	When a "FortiLink mode over a layer-3 network" topology has been configured, the FortiGate GUI does not always display the complete network.
528983	When IGMP snooping is enabled on a VLAN, reserved multicast packets are forwarded twice on the 124D, 224D-FPOE, 248D, 424D, 424D-POE, 424D-FPOE, 448D, 448D-POE, 448D-FPOE, 224E, 224E-POE, 248E-POE, 248E-FPOE models.
534922	Upgrading from FortiSwitchOS 6.0.3 can cause the switch to stop responding. Workaround: Power cycle the switch.

Bug ID	Description
535736	<p>If a FortiSwitch firmware image is an even multiple of 1024 bytes, it will not upgrade properly using the default FortiLink upgrade mechanism. The following builds are known to be affected:</p> <p>version 3.x build 0415/FSW_124D_POE</p> <p>version 6.x build 0039/FSW_1048E build 0043/FSW_124E build 0141/FSW_224D_FPOE build 0052/FSW_548D_FPOE</p> <p>Workaround: Change to HTTPS mode using the following commands:</p> <pre>config switch-controller global set https-image-push enable end</pre>
572052	<p>Backup files from FortiSwitchOS 3.x that have 16-character-long passwords fail when restored on FortiSwitchOS 6.x. In FortiSwitchOS 6.x, file backups fail with passwords longer than 15 characters.</p> <p>Workaround: Use passwords with a maximum of 15 characters for FortiSwitchOS 3.x and 6.x.</p>



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