



# FortiSwitch Release Notes

Version 6.4.10

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FortiSwitch Release Notes

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## Change log

Date	Change Description
January 10, 2022	Initial release for FortiSwitchOS 6.4.10
January 13, 2022	Removed bug 763264.

# Introduction

This document provides the following information for FortiSwitchOS 6.4.10 build 0501.

- [Supported models on page 5](#)
- [Special notices on page 7](#)
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- [Product integration and support on page 18](#)
- [Resolved issues on page 19](#)
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See the [Fortinet Document Library](#) for FortiSwitch documentation.

## Supported models

FortiSwitchOS 6.4.10 supports the following models:

<b>FortiSwitch 1xx</b>	FS-108E, FS-108E-POE, FS-108E-FPOE, FS-108F, FS-108F-POE, FS-108F-FPOE, FS-124E, FS-124E-POE, FS-124E-FPOE, FS-124F, FS-124F-POE, FS-124F-FPOE, FS-148E, FS-148E-POE, FS-148F, FS-148F-POE, FS-148F-FPOE
<b>FortiSwitch 2xx</b>	FS-224D-FPOE, FS-224E, FS-224E-POE, FS-248D, FS-248E-POE, FS-248E-FPOE
<b>FortiSwitch 4xx</b>	FS-424D, FS-424D-FPOE, FS-424D-POE, FS-424E, FS-424E-POE, FS-424E-FPOE, FS-424E-Fiber, FS-M426E-FPOE, FS-448D, FS-448D-FPOE, FS-448D-POE, FS-448E, FS-448E-POE, FS-448E-FPOE
<b>FortiSwitch 5xx</b>	FS-524D-FPOE, FS-524D, FS-548D, FS-548D-FPOE
<b>FortiSwitch 1xxx</b>	FS-1024D, FS-1048D, FS-1048E
<b>FortiSwitch 3xxx</b>	FS-3032D, FS-3032E
<b>FortiSwitch Rugged</b>	FSR-112D-POE, FSR-124D

## What's new in FortiSwitchOS 6.4.10

FortiSwitchOS 6.4.10 is a patch release only. No new features or enhancements have been implemented in this release.

## Special notices

### Supported features for FortiSwitchOS 6.4.10

The following table lists the FortiSwitch features in Release 6.4.10 that are supported on each series of FortiSwitch models. All features are available in Release 6.4.10, unless otherwise stated.

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
<b>Management and Configuration</b>									
CPLD software upgrade support for OS	—	—	—	—	—	—	—	1024D 1048D	—
Firmware image rotation (dual-firmware image support)	—	✓	✓	148E 148E-POE	✓	✓	✓	✓	✓
HTTP REST APIs for configuration and monitoring	—	✓	✓	✓	✓	✓	✓	✓	✓
Support for switch SNMP OID	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP conflict detection and notification	✓	✓	✓	✓	✓	✓	✓	✓	✓
FortiSwitch Cloud configuration	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto topology	—	✓	✓	✓	✓	✓	✓	✓	✓
<b>Security and Visibility</b>									
802.1x port mode	✓	✓	✓	✓	✓	✓	✓	✓	✓
802.1x MAC-based security mode	✓	✓	✓	✓	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
User-based (802.1x) VLAN assignment	✓	✓	✓	✓	✓	✓	✓	✓	✓
802.1x enhancements, including MAB	✓	✓	✓	✓	✓	✓	✓	✓	✓
MAB reauthentication disabled	—	✓	✓	✓	✓	✓	✓	✓	✓
open-auth mode	✓	✓	✓	✓	✓	✓	✓	✓	✓
Support of the RADIUS accounting server	Partial	✓	✓	✓	✓	✓	✓	✓	✓
Support of RADIUS CoA and disconnect messages	—	✓	✓	✓	✓	✓	✓	✓	✓
EAP Pass-Through	✓	✓	✓	✓	✓	✓	✓	✓	✓
Network device detection	—	—	✓	—	✓	✓	✓	✓	✓
IP-MAC binding (IPv4)	✓	—	—	—	—	—	✓	✓	✓
sFlow (IPv4)	✓	✓	✓	—	✓	✓	✓	✓	✓
Flow export (IPv4)	✓	—	✓	—	✓	✓	✓	✓	✓
ACL (IPv4)	✓	—	✓	✓	✓	✓	✓	✓	✓
Multistage ACL (IPv4)	✓	—	—	—	—	—	✓	✓	✓
Multiple ingress ACLs (IPv4)	✓	—	✓	—	✓	✓	✓	✓	✓
Schedule for ACLs (IPv4)	—	—	✓	✓	✓	✓	✓	✓	✓



Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
DHCP snooping	✓	✓	✓	✓	✓	✓	✓	✓	✓
DHCPv6 snooping	✓	—	—	—	✓	✓	✓	✓	✓
Allowed DHCP server list	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP source guard (IPv4)	✓	—	✓	—	✓	✓	—	—	—
IP source-guard violation log	—	—	✓	—	✓	✓	—	—	—
Dynamic ARP inspection (IPv4)	✓	—	✓	✓	✓	✓	✓	✓	✓
ARP timeout value	—	✓	✓	✓	✓	✓	✓	✓	✓
Access VLANs (See Note 8.)	—	✓	✓	✓	✓	✓	✓	✓	✓
RMON group 1	—	✓	✓	✓	✓	✓	✓	✓	✓
Reliable syslog	—	✓	✓	✓	✓	✓	✓	✓	✓
Packet capture	✓	—	✓	—	✓	✓	✓	✓	✓
MACsec (See Note 7.)	—	—	—	—	—	—	✓	—	—
<b>Layer 2</b>									
Link aggregation group size (maximum number of ports) (See Note 2.)	✓	8	8	8	8	8	24/48	24/48	24 64
LAG min-max-bundle	—	✓	✓	✓	✓	✓	✓	✓	✓
IPv6 RA guard	—	—	—	—	✓	✓	✓	✓	✓
IGMP snooping	✓	✓	✓	✓	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
IGMP proxy	✓	✓	✓	✓	✓	✓	✓	✓	✓
IGMP querier	—	✓	✓	✓	✓	✓	✓	✓	✓
MLD snooping	—	—	—	—	—	—	✓	✓	✓
MLD proxy	—	—	—	—	—	—	✓	✓	✓
MLD querier	—	—	—	—	—	—	✓	✓	✓
LLDP transmit	—	✓	✓	✓	✓	✓	✓	✓	✓
LLDP-MED	—	✓	✓	✓	✓	✓	✓	✓	✓
LLDP-MED: ELIN support	✓	✓	✓	✓	✓	✓	✓	✓	✓
Per-port max for learned MACs	—	—	✓	✓	✓	✓	✓	—	—
MAC learning limit (See Note 4.)	—	—	✓	✓	✓	✓	✓	—	—
Learning limit violation log (See Note 4.)	—	—	✓	✓	✓	✓	✓	—	—
set mac-violation-timer	—	✓	✓	✓	✓	✓	✓	✓	✓
Sticky MAC	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total MAC entries	—	✓	✓	✓	✓	✓	✓	✓	✓
MSTP instances	—	0-15	0-15	0-15	0-15	0-15	0-32	0-32	0-32
STP root guard	—	✓	✓	✓	✓	✓	✓	✓	✓
STP BPDU guard	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rapid PVST interoperoperation	—	✓	✓	✓	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
'forced-untagged' or 'force-tagged' setting on switch interfaces	—	✓	✓	✓	✓	✓	✓	✓	✓
Private VLANs	✓	—	✓	—	✓	✓	✓	✓	✓
Multi-stage load balancing	—	—	—	—	—	—	—	✓	✓
Priority-based flow control	—	—	—	—	—	—	✓	✓	✓
Ingress pause metering	—	—	—	—	✓	✓	✓	✓	3032D
Storm control	✓	✓	✓	✓	✓	✓	✓	✓	✓
Per-port storm control	✓	✓	✓	✓	✓	✓	✓	✓	✓
Global burst-size control	—	✓	✓	✓	✓	✓	✓	✓	✓
MAC/IP/protocol-based VLAN assignment	✓	✓	✓	✓	✓	✓	✓	✓	✓
Virtual wire	✓	—	✓	—	✓	✓	✓	✓	✓
Loop guard	✓	✓	✓	✓	✓	✓	✓	✓	✓
Percentage rate control	✓	—	✓	—	✓	✓	✓	✓	✓
VLAN stacking (QinQ)	—	—	✓	—	✓	✓	✓	✓	✓
VLAN mapping	—	—	✓	—	✓	✓	✓	✓	✓
SPAN	✓	✓	✓	✓	✓	✓	✓	✓	✓
RSPAN and ERSPAN (IPv4)	✓	RSPAN	✓	—	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
Flow control	—	✓	✓	✓	✓	✓	✓	✓	✓
<b>Layer 3</b>									
Link monitor (IPv4)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Static routing (IPv4/IPv6)	✓	—	✓	✓	✓	✓	✓	✓	✓
Hardware routing offload (IPv4/IPv6)	✓	—	✓	—	✓	✓	✓	✓	✓
Software routing only (IPv4/IPv6)	✓	✓	—	✓	—	—	—	—	—
OSPF (IPv4/IPv6) (See Note 3.)	✓	—	—	—	✓	✓	✓	✓	✓
OSPF database overflow protection (IPv4)	—	—	—	—	✓	✓	✓	✓	✓
OSPF graceful restart (helper mode only) (IPv4)	—	—	—	—	✓	✓	✓	✓	✓
RIP (IPv4/IPv6) (See Note 3.)	✓	—	—	—	✓	✓	✓	✓	✓
VRRP (IPv4/IPv6) (See Note 3.)	✓	—	—	—	✓	✓	✓	✓	✓
BGP (IPv4/IPv6) (See Note 3.)	—	—	—	—	—	—	✓	✓	✓
IS-IS (IPv4/IPv6) (See Note 3.)	—	—	—	—	✓	✓	✓	✓	✓
PIM (IPv4) (See Note 3.)	—	—	—	—	—	—	✓	✓	✓
Hardware-based ECMP (IPv4)	—	—	—	—	—	—	✓	✓	✓
VRF (IPv4/IPv6)	—	—	—	—	—	—	—	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
Static BFD (IPv4/IPv6)	✓	✓	✓	✓	✓	✓	✓	✓	✓
BFD for BGPv6	—	—	—	—	—	—	✓	✓	✓
BFD for RIPv6	—	—	—	—	✓	✓	✓	✓	✓
uRPF	—	—	—	—	—	—	✓	✓	✓
DHCP relay (IPv4)	✓	—	✓	✓	✓	✓	✓	✓	✓
DHCP server (IPv4)	✓	—	—	—	✓	4xx only	✓	✓	✓
<b>High Availability</b>									
MCLAG (multichassis link aggregation)	Partial	—	—	—	✓	✓	✓	✓	✓
STP supported in MLAGs	—	—	—	—	✓	✓	✓	✓	✓
IGMP snooping support in MLAG	✓	—	—	—	✓	✓	✓	✓	✓
<b>Quality of Service</b>									
802.1p support, including priority queuing trunk and WRED	✓	—	✓	✓	✓	✓	✓	✓	✓
QoS queue counters	—	—	✓	—	✓	✓	✓	✓	✓
QoS marking (IPv4/IPv6)	—	—	✓	—	✓	✓	✓	✓	✓
Summary of configured queue mappings	✓	—	✓	✓	✓	✓	✓	✓	✓
Egress priority tagging (IPv4/IPv6)	—	—	✓	—	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
ECN (IPv4/IPv6)	—	—	—	—	✓	—	✓	✓	✓
Real-time egress queue rates	—	—	—	—	—	✓	✓	✓	✓
<b>Miscellaneous</b>									
PoE-pre-standard detection (See Note 1.)	—	✓	✓	FS-1xxE POE	✓	✓	✓	—	—
PoE modes support: first come, first served or priority based (PoE models)	—	✓	✓	FS-1xxE POE	✓	✓	✓	—	—
Control of temperature alerts	—	✓	✓	—	✓	✓	✓	✓	✓
Split port (See Note 6.)	Partial	—	—	—	—	—	✓	1048E	✓
TDR (time-domain reflectometer)/cable diagnostics support	✓	—	✓	✓	✓	✓	✓	—	—
Auto module max speed detection and notification	✓	—	—	—	—	—	✓	✓	—
Monitor system temperature (threshold configuration and SNMP trap support)	—	✓	✓	FS-124E-POE FS-124E-FPOE FS-148E FS-148E-POE	✓	✓	✓	✓	✓

Feature	GUI supported	112D-POE	FSR-124D	1xxE 1xxF	4xxE	200 Series 400 Series	500 Series	1024D 1048D 1048E	3032D 3032E
Cut-through switching	—	—	—	—	—	—	—	✓	✓
Add CLI to show the details of port statistics	—	✓	✓	✓	✓	✓	✓	✓	✓
Configuration of the QSFP low-power mode	—	—	—	—	—	—	✓	1048D 1048E	✓
Energy-efficient Ethernet	✓	✓	✓	✓	✓	✓	✓	—	—
PHY Forward Error Correction (See Note 5.)	—	—	—	—	—	—	—	1048E	3032E
PTP transparent clock (IPv4/IPv6) (See Note 9.)	—	—	—	—	✓	✓	✓	1048E	✓

## Notes

- PoE features are applicable only to the model numbers with a POE or FPOE suffix.
- The 24-port LAG is applicable to FS-524D, FS-524-FPOE, FS-1024D, and FS-3032D models. The 48-port LAG is applicable to FS-548D, FS-548-FPOE, and FS-1048D models.
- To use the dynamic layer-3 protocols, you must have an advanced features license.
- The per-VLAN MAC learning limit and per-trunk MAC learning limit are not supported on the FS-448D, FS-448D-POE, FS-448D-FPOE, FS-248E-POE, FS-248E-FPOE, FS-248D series.
- Supported only in 100G mode (clause 91).
- On the FS-3032E, you can split one port at the full base speed, split one port into four sub-ports of 25 Gbps each (100G QSFP only), or split one port into four sub-ports of 10 Gbps each (40G or 100G QSFP).
- Supported on FS-5xxD 10G ports.
- The maximum number of access VLANs on the FS-1xxE models is 16; the maximum number of access VLANs on the FS-148F models is 32.
- PTP is not supported on the FS-248E, FS-248E-POE, FS-248E-FPOE, FS-448D, FS-448D-POE, and FS-448D-FPOE models.

## Connecting multiple FSR-112D-POE switches

The FSR-112D-POE switch does not support interconnectivity to other FSR-112D-POE switches using the PoE ports. Fortinet recommends using the SFP ports to interconnect switches.



# Upgrade information

FortiSwitchOS 6.4.10 supports upgrading from FortiSwitchOS 3.5.0 and later.

For FortiSwitch units managed by FortiGate units, refer to the *FortiSwitch Devices Managed by FortiOS Release Notes* for upgrade information. See <https://docs.fortinet.com/product/fortiswitch/6.4>.

# Product integration and support

## FortiSwitchOS 6.4.10 support

The following table lists FortiSwitchOS 6.4.10 product integration and support information.

<b>Web browser</b>	<ul style="list-style-type: none"><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>
<b>FortiOS (FortiLink Support)</b>	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 FortiSwitchOS 6.4.10. For inquiries about a particular bug, please contact [Customer Service & Support](#).

Bug ID	Description
746988	In a dual-home, FortiLink configuration, an FS-1024D unit caused a network outage.
748177	When the network monitor is enabled, the MCLAG trunk becomes unstable.
748317	The <code>unset allowaccess</code> command does not work for the internal interface and secondary IP address.
749483	The external sensor does not respond to the <code>monitor/system/pcb-temp</code> endpoint.
749744	Setting the 10G module's speed to 1G should not cause error messages.
752085	When the switch receives a recordAgreement, the FS-1024D sends the bridge protocol data unit (BPDU) with the proposal bit on every 2 seconds.
752121	After the port is shut down, the MAC address is not cleared.
753630	When the 802.1x port-based authentication daemon crashes, MAB does not function until the switch is restarted.
754232	The user is receiving "internal PS changes to good state" and "internal PS changes to bad state" warning messages.
760536	The SNMP trap for a failed or restored power supply is using the wrong object identifier (OID).
763953	After LDAP authentication is successful, the admin user cannot log in.
765197	Automatic topology creates an ISL trunk between two switches with the wrong value for the native VLAN.

## Common vulnerabilities and exposures

FortiSwitchOS 6.4.10 is no longer vulnerable to the following CVEs:

- CWE-190

Visit <https://fortiguard.com/psirt> for more information.

# Known issues

The following known issues have been identified with FortiSwitchOS 6.4.10. For inquiries about a particular bug or to report a bug, please contact [Fortinet Customer Service & Support](#).

Bug ID	Description
382518, 417024, 417073, 417099, 438441	DHCP snooping and dynamic ARP inspection (DAI) do not work with private VLANs (PVLANS).
414972	IGMP snooping might not work correctly when used with 802.1x Dynamic VLAN functionality.
480605	<p>When DHCP snooping is enabled on the FSR-112D-POE, the switched virtual interface (SVI) cannot get the IP address from the DHCP server.</p> <p><b>Workarounds:</b></p> <ul style="list-style-type: none"><li>—Use a static IP address in the SVI when DHCP snooping is enabled on that VLAN.</li><li>—Temporarily disable dhcp-snooping on vlan, issue the <code>execute interface dhcpclient-renew &lt;interface&gt;</code> command to renew the IP address. After the SVI gets the IP address from the DHCP server, you can enable DHCP snooping.</li></ul>
510943	<p>The time-domain reflectometer (TDR) function (cable diagnostics feature) reports unexpected values.</p> <p><b>Workaround:</b> When using the cable diagnostics feature on a port (with the <code>diagnose switch physical-ports cable-diag &lt;physical port name&gt;</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.</p>
520954	When a “FortiLink mode over a layer-3 network” topology has been configured, the FortiGate GUI does not always display the complete network.
542031	For the 5xx switches, the <code>diagnose switch physical-ports led-flash</code> command flashes only the SFP port LEDs, instead of all the port LEDs.
548783	Some models support setting the mirror destination to “internal.” This is intended only for debugging purposes and might prevent critical protocols from operating on ports being used as mirror sources.
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><b>Workaround:</b> Use passwords with a maximum of 15 characters for FortiSwitchOS 3.x and 6.x.</p>

Bug ID	Description
585550	When packet sampling is enabled on an interface, packets that should be dropped by uRPF will be forwarded.
606044	The value for cable length is wrong when running cable diagnostics on the FS-108E, FS-124E, FS-108E-POE, FS-108E-FPOE, FS-124E-POE, FS-124E-FPOE, FS-148E, and FS-148E-POE models.
609375	The FortiSwitchOS supports four priority levels (critical, high, medium, and low); however, The SNMP Power Ethernet MIB only supports three levels. To support the MIB, a power priority of medium is returned as low for the PoE MIB.
610149	The results are inaccurate for open and short cables when running cable diagnostics on the FS-108E, FS-124E, FS-108E-POE, FS-108E-FPOE, FS-124E-POE, FS-124E-FPOE, FS-148E, and FS-148E-POE models.
673433	Some 7-meter DAC cables cause traffic loss for the FS- 448E model.
682442	Do not use FCLF8521P2BTL and FCLF8522P2BTL modules. They are not supported and can cause issues on the FortiSwitch unit. To find supported modules, refer to the <a href="#">FortiSwitch-Compatible Transceivers matrix</a> .



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