FortiSwitch Devices Managed by FortiOS Release Notes

Version 6.4.2

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Change log

Date	Change Description
July 30, 2020	Initial document release for FortiOS 6.4.2
August 17, 2020	Updated the “Upgrade information” section.
August 18, 2020	Updated the “Upgrade information” section.
September 1, 2021	Updated the “Support of FortiLink features” section.
September 2, 2021	Updated the “Support of FortiLink features” section.

Introduction

This document provides the following information for FortiSwitch 6.4.2 devices managed by FortiOS 6.4.2 build 1723.

See the Fortinet Document Library for FortiSwitch documentation.

NOTE: FortiLink is not supported in transparent mode.

The maximum number of supported FortiSwitch units depends on the FortiGate model:

FortiGate Model Range	Number of FortiSwitch Units Supported
FortiGate 91E, FortiGate-VM01	8
FortiGate 6xE, 8xE, 90E	16
FortiGate 100D, FortiGate-VM02	24
FortiGate 100E, 100EF, 101E, 140E, 140E-POE	32
FortiGate 200E, 201E	64
FortiGate 300D to 500D	48
FortiGate 300E to 500E	72
FortiGate 600D to 900D and FortiGate-VM04	64
FortiGate 600E to 900E	96
FortiGate 1000D to 15xxD	128
FortiGate 1100E to 25xxE	196
FortiGate-3*xxx* and up and FortiGate-VM08 and up	300

Supported models

Refer to the FortiLink Compatibility table to find which FortiSwitchOS versions support which FortiOS versions.

New models (NPI releases) might not support FortiLink. Contact Customer Service & Support to check support for FortiLink.

What's new in FortiOS 6.4.2

The following list contains new managed FortiSwitch features added in FortiOS 6.4.2:

- FortiLink mode now supports FortiGate units in separate sites running in HA mode.
- The 802.1x-authenticated user name is now reported in the FortiGate traffic log.
- You can now use SNMP to retrieve the switch and port status:
  - OID: 1.3.6.1.4.1.12356.101.24.1.1.1
    FORTINET-FORTIGATE-MIB:fortinet.fnFortiGateMib.fgSw.fgSwDeviceInfo.fgSwDeviceTable.fgSwDeviceEntry
  - OID 1.3.6.1.4.1.12356.101.24.2.1.1
    FORTINET-FORTIGATE-MIB:fortinet.fnFortiGateMib.fgSw.fgSwPortInfo.fgSwPortTable.fgSwPortEntry
- When you create a link aggregation group (LAG) in FortiLink mode, you can now select the aggregation mode for the trunk when the trunk is in LACP mode. Ports can be grouped into the aggregator with the largest bandwidth or the aggregator with the most ports. Use the following CLI commands:

```
config switch-controller managed-switch
   edit <FortiSwitch_serial_number>
      config ports
         edit <trunk_name>
            set type trunk
            set mode {lacp-passive | lacp-active}
            set aggregator-mode {bandwidth | count}
            set members <port1 port2 ...>
         next
      end
   end
end
```

- Explicit congestion notification (ECN) is now supported in FortiLink mode when the drop policy is weighted random early detection (WRED). Use the following CLI commands:

```
config switch-controller qos queue-policy
   edit <QoS_egress_policy_name>
      config cos-queue
         edit queue-<number>
            set drop-policy weighted-random-early-detection
            set ecn enable
         next
      end
   next
end
```

- The RADIUS Service-Type attribute now supports sending multiple values in FortiLink mode.

```
config user radius
   edit <RADIUS_server_name>
      set switch-controller-service-type {administrative | authenticate-only |
          callback-administrative | callback-framed | callback-login | callback-
          nas-prompt | call-check | framed | login | nas-prompt | outbound}
   next
end
```

- The Precision Time Protocol (PTP) transparent-clock mode is now supported in FortiLink mode.
- The new *Diagnostics and Tools* form reports the general health of the FortiSwitch unit, displays details about the FortiSwitch unit, and allows you to run diagnostic tests.
- Interoperation with per-VLAN Rapid Spanning Tree Protocol (also known as Rapid PVSP or RPVST) is now supported on managed FortiSwitch units.
- When you define a FortiSwitch NAC policy, you can now specify a FortiClient EMS tag as the matching condition, which allows the NAC policy to match devices with the MAC address.
- The number of FortiSwitch units supported by the FGT-1100E and FGT-1101E models has been increased from 128 to 196.
- FortiLink mode now offers automated detection of conditions observed in the switch-controller and FortiSwitch network. Administrators can accept the configuration recommendations and have them automatically applied.

Special notices

Support of FortiLink features

The following table lists the FortiSwitch models supported by FortiLink features.

FortiLink Features	FortiSwitch Models
Centralized VLAN Configuration	D-series, E-series
Switch POE Control	D-series, E-series
Link Aggregation Configuration	D-series, E-series
Spanning Tree Protocol (STP)	D-series, E-series
LLDP/MED	D-series, E-series
IGMP Snooping	Not supported on FSR-112D-POE
802.1x Authentication (Port-based, MAC-based, MAB)	D-series, E-series
Syslog Collection	D-series, E-series
DHCP Snooping	D-series, E-series
Device Detection	D-series, E-series
Support FortiLink FortiGate in HA Cluster	D-series, E-series
LAG support for FortiLink Connection	D-series, E-series
Active-Active Split MLAG from FortiGate to FortiSwitch units for Advanced Redundancy	Not supported on FS-1xx Series
sFlow	Not supported on FS-1xxE Series
Dynamic ARP Inspection (DAI)	D-series, E-series
Port Mirroring	D-series, E-series
RADIUS Accounting Support	Not supported on FS-1xxE Series
Centralized Configuration	D-series, E-series

FortiLink Features	FortiSwitch Models
Access VLAN	D-series, E-series
STP BDPU Guard, Root Guard, Edge Port	D-series, E-series
Loop Guard	D-series, E-series
Switch admin Password	D-series, E-series
Storm Control	D-series, E-series
802.1x-Authenticated Dynamic VLAN Assignment	D-series, E-series
Host Quarantine on Switch Port	D-series, E-series
QoS	Not supported on FS-1xxE Series or FSR-112D-POE
Centralized Firmware Management	D-series, E-series
Automatic network detection and configuration	D-series, E-series
Dynamic VLAN assignment by group name	D-series, E-series
Sticky MAC addresses	D-series, E-series
NetFlow and IPFIX flow tracking and export	D-series, E-series
FortiSwitch split ports	FS-524D, FS-524D-FPOE, FS-548D, FS-548D-FPOE, FS-1048E, FS-3032D
Encapsulated remote switched port analyzer (ERSPAN)	FS-2xx and higher
MSTP instances **NOTE:** In FortiLink mode, the FortiGate unit supports 1-14 instances for all platforms.	D-series, E-series
QoS statistics	D-series, E-series
Configuring SNMP through FortiLink	D-series, E-series
IPv4 source guard	FSR-124D, FS-224D-FPOE, FS-248D, FS-424D-POE, FS-424D-FPOE, FS-448D-POE, FS-448D-FPOE, FS-424D, FS-448D, and FS-2xxE
Integrated FortiGate network access control (NAC) function	D-series, E-series
FortiGuard IoT identification	D-series, E-series

FortiLink Features	FortiSwitch Models
Point-to-point layer-2 network supported	Not supported on FS-108E, FS-108E-POE, FS-108E-FPOE, FS-124E, FS-124E-POE, FS-124E-FPOE, FS-148E, and FS-148E-POE
Dynamic detection of LLDP neighbor devices	D-series, E-series
Explicit congestion notification (ECN)	FS-1024D, FS-1048D, FS-1048E, FS-3032D, FS-3032E, FS-4xxE, and FS-5xxD
Aggregation mode selection for trunk members	D-series, E-series
Multiple attribute values sent in a RADIUS Access-Request	D-series, E-series
PTP transparent-clock mode	FS-1048E, FS-224D, FS-224E, FS-3032D, FS-3032E, FS-424D, FS-4xxE, and FS-5xxD
Rapid PVST interoperation	D-series, E-series
Support of matching EMS tags in NAC policies	D-series, E-series
Flash port LEDs	D-series, E-series
Cable diagnostics	Not supported on FSR-112D-POE, FS-1024D, FS-1048D, FS-1048E, FS-3032D, or FS-3032E
Automated detection and recommendations	D-series, E-series

Upgrade information

FortiSwitch 6.4.2 supports upgrading from FortiSwitch 3.5.0 and later.

To determine a compatible FortiOS version, check the FortiLink Compatibility matrix (https://docs.fortinet.com/document/fortiswitch/6.4.2/fortilink-compatibility).

Within the Security Fabric, the FortiSwitch upgrade is done after the FortiGate upgrade. Refer to the latest *FortiOS Release Notes* for the complete Security Fabric upgrade order. See https://docs.fortinet.com/document/fortigate/6.4.2/fortios-release-notes.

Product integration and support

FortiSwitch 6.4.2 support

The following table lists 6.4.2 product integration and support information.

Web browser	• Mozilla Firefox version 52 • Google Chrome version 56 Other web browsers may function correctly, but are not supported by Fortinet.
FortiOS (FortiLink Support)	Refer to the FortiLink Compatibility table to find which FortiSwitchOS versions support which FortiOS versions.

Resolved issues

The following issues have been fixed in 6.4.2. For inquiries about a particular bug, please contact Customer Service & Support.

Bug ID	Description
577991	Dotted line shown between FortiGate and second tier switch in managed FortiSwitch topology.
633842	FortiLink down with LACP mode set to active.

Known issues

The following known issues have been identified with 6.4.2. For inquiries about a particular bug or to report a bug, please contact Fortinet Customer Service & Support.

Bug ID	Description
298348, 298994	Enabling the `hw-switch-ether-filter` command on the FG-92D model (the default setting) causes FortiSwitch devices to not be discovered.
527695	Starting in FortiOS 6.4.0, VLAN optimization is enabled by default (`set vlan-optimization enable` under `config switch-controller global`). On a network running FortiSwitchOS earlier than 6.0.0, this change results in a synchronization error, but the network still functions normally. If you have FortiSwitchOS 6.0.x, you can upgrade to remove the synchronization error or disable VLAN optimization. On a network with `set allowed-vlans-all enable` configured (under `config switch-controller vlan-policy`), the setting reverts to the default, which is disabled, when upgrading to FortiOS 6.4.0. If you want to maintain the allowed-vlans-all behavior, you can restore it after the upgrade.
586801	NetBIOS stops working when proxy ARP is configured and the access VLAN is enabled because FortiGate units do not support NetBIOS proxy.
607753	CAPWAP is not updated to be a Fabric connection after upgrading from 6.4.0 Beta1 build 1519 to build 1538.
621785	`user.nac-policy[].switch-scope` might contain a data reference to `switch-controller.managed-switch`. When this reference is set by an admin, the admin needs to remove this reference before deleting the `managed-switch`.