



# FortiOS - Release Notes

Version 5.6.6



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November 23, 2018 FortiOS 5.6.6 Release Notes 01-566-511054-20181123

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# **Change Log**

Date	Change Description
2018-09-13	Initial release.
2018-10-10	Deleted 304199 from <i>Known Issues</i> .  Moved 435388 from <i>Resolved Issues</i> to <i>Known Issues</i> .  Updated <i>Product Integration and Support &gt; SSL VPN standalone client</i> to specify 32-bit & 64-bit for Linux Ubuntu.  Added <i>Using FortiAnalyzer units running older versions</i> to <i>Special Notices</i> .
2018-10-24	Added 516411 to Known Issues.
2018-11-01	Added 488369 to Known Issues.
2018-11-06	Moved 435388 from Known Issues to Resolved Issues.
2018-11-14	Added 437272 to Resolved Issues.
2018-11-22	Added FG-VM64-ALI and FG-VM64-ALIONDEMAND models to <i>Introduction &gt; Supported models &gt; FortiGate VM</i> .
2018-11-23	Added 514410 to Resolved Issues.

# Introduction

This document provides the following information for FortiOS 5.6.6 build 1630:

- Special Notices
- Upgrade Information
- Product Integration and Support
- Resolved Issues
- Known Issues
- Limitations

For FortiOS documentation, see the Fortinet Document Library.

# **Supported models**

FortiOS 5.6.6 supports the following models.

FortiGate	FG-30D, FG-30E, FG-30E_3G4G_INTL, FG-30E_3G4G_NAM, FG-30D-POE, FG-50E, FG-51E, FG-52E, FG-60D, FG-60D-POE, FG-60E, FG-60E-DSL, FG-60E-POE, FG-61E, FG-70D, FG-70D-POE, FG-80C, FG-80CM, FG-80D, FG-80E, FG-80E-POE, FG-81E, FG-81E-POE, FG-90D, FG-90D-POE, FG-90E, FG-91E, FG-92D, FG-94D-POE, FG-98D-POE, FG-100D, FG-100E, FG-101E, FG-140D, FG-140D-POE, FG-140E, FG-140E-POE, FG-200D, FG-200D-POE, FG-200E, FG-201E, FG-240D, FG-240D-POE, FG-280D-POE, FG-300D, FG-301E, FG-400D, FG-500D, FG-500E, FG-501E, FG-600C, FG-600D, FG-800C, FG-800D, FG-900D, FG-1000C, FG-1000D, FG-1200D, FG-1500D, FG-1500DT, FG-2000E, FG-2500E, FG-3000D, FG-3100D, FG-3200D, FG-3240C, FG-3600C, FG-3700D, FG-3800D, FG-3815D, FG-3960E, FG-3980E, FG-5001C, FG-5001D, FG-5001E, FG-5001E1
FortiWiFi	FWF-30D, FWF-30E, FWF-30E_3G4G_INTL, FWF-30E_3G4G_NAM, FWF-30D-POE, FWF-50E, FWF-50E-2R, FWF-51E, FWF-60D, FWF-60D-POE, FWF-60E, FWF-60E-DSL, FWF-61E, FWF-80CM, FWF-81CM, FWF-90D, FWF-90D-POE, FWF-92D
FortiGate Rugged	FGR-30D, FGR-35D, FGR-60D, FGR-90D
FortiGate VM	FG-VM64, FG-VM64-ALI, FG-VM64-ALIONDEMAND, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-AZURE, FG-VM64-AZUREONDEMAND, FG-VM64-GCP, FG-VM64-GCPONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VM64-OPC, FG-SVM, FG-VMX, FG-VM64-XEN
Pay-as-you-go images	FOS-VM64, FOS-VM64-KVM, FOS-VM64-XEN
FortiOS Carrier	FortiOS Carrier 5.6.6 images are delivered upon request and are not available on the customer support firmware download page.

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# **VXLAN** supported models

The following models support VXLAN.

FortiGate	FG-30E, FG-30E-MI, FG-30E-MN, FG-50E, FG-51E, FG-52E, FG-60E, FG-60E-DLS, FG-60E-MC, FG-60E-MI, FG-60E-POE, FG-60EV, FG-61E, FG-80D, FG-80E, FG-80E-POE, FG-81E, FG-81E-POE, FG-90E, FG-91E, FG-92D, FG-100D, FG-100E, FG-100EF, FG-101E, FG-140D, FG-140D-POE, FG-140E, FG-140E-POE, FG-200E, FG-201E, FG-300D, FG-300E, FG-301E, FG-400D, FG-500D, FG-500E, FG-501E, FG-600D, FG-800D, FG-900D, FG-1000D, FG-1200D, FG-1500DT, FG-2000E, FG-2500E, FG-3000D, FG-3100D, FG-3200D, FG-3700D, FG-3800D, FG-3815D, FG-3960E, FG-3980E, FG-5001D, FG-5001E, FG-5001E1
FortiWiFi	FWF-30E, FWF-30E-MI, FWF-30E-MN, FWF-50E, FWF-50E-2R, FWF-51E, FWF-60E, FWF-60E-DSL, FWF-60E-MC, FWF-60E-MI, FWF-60EV, FWF-61E
FortiGate Rugged	FGR-30D, FGR-30D-A, FGR-35D
FortiGate VM	FG-VM64, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-AZURE, FG-VM64-AZUREONDEMAND, FG-VM64-GCP, FG-VM64-GCPONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VM64-NPU, FG-VM64-OPC, FG-VM64-SVM, FG-VM64-XEN
Pay-as-you-go images	FOS-VM64, FOS-VM64-KVM, FOS-VM64-XEN

# **Special Notices**

#### **Built-in certificate**

New FortiGate and FortiWiFi D-series and above are shipped with a built in Fortinet\_Factory certificate that uses a 2048-bit certificate with the 14 DH group.

### FortiGate and FortiWiFi-92D hardware limitation

FortiOS 5.4.0 reported an issue with the FG-92D model in the *Special Notices* > *FG-92D High Availability in Interface Mode* section of the release notes. Those issues, which were related to the use of port 1 through 14, include:

- PPPoE failing, HA failing to form.
- · IPv6 packets being dropped.
- · FortiSwitch devices failing to be discovered.
- · Spanning tree loops may result depending on the network topology.

FG-92D and FWF-92D do not support STP. These issues have been improved in FortiOS 5.4.1, but with some side effects with the introduction of a new command, which is enabled by default:

```
config global
  set hw-switch-ether-filter <enable | disable>
```

#### When the command is enabled:

- ARP (0x0806), IPv4 (0x0800), and VLAN (0x8100) packets are allowed.
- BPDUs are dropped and therefore no STP loop results.
- PPPoE packets are dropped.
- IPv6 packets are dropped.
- · FortiSwitch devices are not discovered.
- HA may fail to form depending the network topology.

#### When the command is disabled:

All packet types are allowed, but depending on the network topology, an STP loop may result.

### **FG-900D** and **FG-1000D**

CAPWAP traffic will not offload if the ingress and egress traffic ports are on different NP6 chips. It will only offload if both ingress and egress ports belong to the same NP6 chip.

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### FortiGate-VM 5.6 for VMware ESXi

Upon upgrading to FortiOS 5.6.6, FortiGate-VM v5.6 for VMware ESXi (all models) no longer supports the VMXNET2 vNIC driver.

# FortiClient profile changes

With introduction of the Fortinet Security Fabric, FortiClient profiles will be updated on FortiGate. FortiClient profiles and FortiGate are now primarily used for Endpoint Compliance, and FortiClient Enterprise Management Server (EMS) is now used for FortiClient deployment and provisioning.

The FortiClient profile on FortiGate is for FortiClient features related to compliance, such as Antivirus, Web Filter, Vulnerability Scan, and Application Firewall. You may set the *Non-Compliance Action* setting to *Block* or *Warn*. FortiClient users can change their features locally to meet the FortiGate compliance criteria. You can also use FortiClient EMS to centrally provision endpoints. The EMS also includes support for additional features, such as VPN tunnels or other advanced options. For more information, see the *FortiOS Handbook – Security Profiles*.

# Use of dedicated management interfaces (mgmt1 and mgmt2)

For optimum stability, use management ports (*mgmt1* and *mgmt2*) for management traffic only. Do not use management ports for general user traffic.

# FortiExtender support

Due to OpenSSL updates, FortiOS 5.6.6 cannot manage FortiExtender 3.2.0 or earlier. If you run FortiOS 5.6.6 with FortiExtender, you must use a newer version of FortiExtender such as 3.2.1 or later.

# Using ssh-dss algorithm to log in to FortiGate

In version 5.4.5 and later, using ssh-dss algorithm to log in to FortiGate via SSH is no longer supported.

# Using FortiAnalyzer units running older versions

When using FortiOS 5.6.6 with FortiAnalyzer units running 5.6.5 or lower, FortiAnalyzer might report increased bandwidth and session counts if there are sessions that last longer than two minutes.

For accurate bandwidth and session counts, upgrade the FortiAnalyzer unit to 5.6.6 or higher, or 6.0.2 or higher.

# **Upgrading to FortiOS 5.6.6**

Supported upgrade path information is available on the Fortinet Customer Service & Support site.

#### To view supported upgrade path information:

- **1.** Go to https://support.fortinet.com.
- 2. From the Download menu, select Firmware Images.
- 3. Check that Select Product is FortiGate.
- 4. Click the *Upgrade Path* tab and select the following:
  - Current Product
  - Current FortiOS Version
  - Upgrade To FortiOS Version
- 5. Click Go.



If you are upgrading from version 5.6.2, this caution does not apply.

Before upgrading, ensure that port 4433 is not used for admin-port or admin-sport (in config system global), or for SSL VPN (in config vpn ssl settings).

If you are using port 4433, you must change admin-port, admin-sport, or the SSL VPN port to another port number before upgrading.



After upgrading, if FortiLink mode is enabled, you must manually create an explicit firewall policy to allow RADIUS traffic for 802.1x authentication from the FortiSwitch (such as from the FortiLink interface) to the RADIUS server through the FortiGate.

# **Security Fabric upgrade**

FortiOS 5.6.6 greatly increases the interoperability between other Fortinet products. This includes:

- FortiAnalyzer 5.6.1
- FortiClient 5.6.0
- FortiClient EMS 1.2.2
- FortiAP 5.4.2 and later
- FortiSwitch 3.6.2 and later

Upgrade the firmware of each product in the correct order. This maintains network connectivity without the need to use manual steps.

Before upgrading any product, you must read the FortiOS Security Fabric Upgrade Guide.

# FortiClient profiles

After upgrading from FortiOS 5.4.0 to 5.4.1 and later, your FortiClient profiles will be changed to remove a number of options that are no longer supported. After upgrading, review your FortiClient profiles to make sure they are configured appropriately for your requirements and either modify them if required or create new ones.

The following FortiClient Profile features are no longer supported by FortiOS 5.4.1 and later:

- Advanced FortiClient profiles (XML configuration).
- Advanced configuration, such as configuring CA certificates, unregister option, FortiManager updates, dashboard Banner, client-based logging when on-net, and Single Sign-on Mobility Agent.
- · VPN provisioning.
- Advanced AntiVirus settings, such as Scheduled Scan, Scan with FortiSandbox, and Excluded Paths.
- · Client-side web filtering when on-net.
- iOS and Android configuration by using the FortiOS GUI.

With FortiOS 5.6.6, endpoints in the Security Fabric require FortiClient 5.6.0. You can use FortiClient 5.4.3 for VPN (IPsec VPN, or SSL VPN) connections to FortiOS 5.6.2, but not for Security Fabric functions.



It is recommended that you use FortiClient Enterprise Management Server (EMS) for detailed Endpoint deployment and provisioning.

### FortiGate-VM 5.6 for VMware ESXi

Upon upgrading to FortiOS 5.6.6, FortiGate-VM v5.6 for VMware ESXi (all models) no longer supports the VMXNET2 vNIC driver.

# Downgrading to previous firmware versions

Downgrading to previous firmware versions results in configuration loss on all models. Only the following settings are retained:

- operation mode
- interface IP/management IP
- static route table
- DNS settings
- VDOM parameters/settings
- admin user account
- · session helpers
- system access profiles

If you have long VDOM names, you must shorten the long VDOM names (maximum 11 characters) before downgrading:

- 1. Back up your configuration.
- 2. In the backup configuration, replace all long VDOM names with its corresponding short VDOM name.

  For example, replace edit <long\_vdom\_name>/<short\_name> with edit <short\_name>/<short\_name>.
- 3. Restore the configuration.
- 4. Perform the downgrade.

### Amazon AWS enhanced networking compatibility issue

With this new enhancement, there is a compatibility issue with older AWS VM versions. After downgrading a 5.6.6 image to an older version, network connectivity is lost. Since AWS does not provide console access, you cannot recover the downgraded image.

When downgrading from 5.6.6 to older versions, running the enhanced nic driver is not allowed. The following AWS instances are affected:

- C3
- C4
- R3
- 12
- M4
- D2

### FortiGate VM firmware

Fortinet provides FortiGate VM firmware images for the following virtual environments:

#### Citrix XenServer and Open Source XenServer

- .out: Download the 64-bit firmware image to upgrade your existing FortiGate VM installation.
- .out.OpenXen.zip: Download the 64-bit package for a new FortiGate VM installation. This package contains the QCOW2 file for Open Source XenServer.
- .out.CitrixXen.zip: Download the 64-bit package for a new FortiGate VM installation. This package contains the Citrix XenServer Virtual Appliance (XVA), Virtual Hard Disk (VHD), and OVF files.

#### Linux KVM

- .out: Download the 64-bit firmware image to upgrade your existing FortiGate VM installation.
- .out.kvm.zip: Download the 64-bit package for a new FortiGate VM installation. This package contains QCOW2 that can be used by gemu.

#### Microsoft Hyper-V

- .out: Download the 64-bit firmware image to upgrade your existing FortiGate VM installation.
- .out.hyperv.zip: Download the 64-bit package for a new FortiGate VM installation. This package contains three folders that can be imported by Hyper-V Manager on Hyper-V 2012. It also contains the file fortios.vhd in the Virtual Hard Disks folder that can be manually added to the Hyper-V Manager.

#### VMware ESX and ESXi

- out: Download either the 64-bit firmware image to upgrade your existing FortiGate VM installation.
- .ovf.zip: Download either the 64-bit package for a new FortiGate VM installation. This package contains Open
  Virtualization Format (OVF) files for VMware and two Virtual Machine Disk Format (VMDK) files used by the OVF
  file during deployment.

# Firmware image checksums

The MD5 checksums for all Fortinet software and firmware releases are available at the Customer Service & Support portal, https://support.fortinet.com. After logging in select *Download* > *Firmware Image Checksums*, enter the image file name including the extension, and select *Get Checksum Code*.

# **Product Integration and Support**

# FortiOS 5.6.6 support

The following table lists 5.6.6 product integration and support information:

Web Browsers	<ul> <li>Microsoft Edge 38</li> <li>Mozilla Firefox version 54</li> <li>Google Chrome version 59</li> <li>Apple Safari version 9.1 (For Mac OS X)</li> <li>Other web browsers may function correctly, but are not supported by Fortinet.</li> </ul>
Explicit Web Proxy Browser	<ul> <li>Microsoft Edge 40</li> <li>Microsoft Internet Explorer version 11</li> <li>Mozilla Firefox version 53</li> <li>Google Chrome version 58</li> <li>Apple Safari version 10 (For Mac OS X)</li> <li>Other web browsers may function correctly, but are not supported by Fortinet.</li> </ul>
FortiManager	See important compatibility information in Security Fabric upgrade on page 9. For the latest information, see FortiManager compatibility with FortiOS in the Fortinet Document Library.  Upgrade FortiManager before upgrading FortiGate.
FortiAnalyzer	See important compatibility information in Security Fabric upgrade on page 9. For the latest information, see FortiAnalyzer compatibility with FortiOS in the Fortinet Document Library.  Upgrade FortiAnalyzer before upgrading FortiGate.
FortiClient Microsoft Windows	See important compatibility information in Security Fabric upgrade on page 9.  • 5.6.1  If FortiClient is managed by a FortiGate, you must upgrade FortiClient before upgrading FortiGate.
FortiClient Mac OS X	See important compatibility information in Security Fabric upgrade on page 9.  • 5.6.0  If FortiClient is managed by a FortiGate, you must upgrade FortiClient before upgrading FortiGate.
FortiClient iOS	• 5.4.3 and later
FortiClient Android and FortiClient VPN Android	• 5.4.1 and later

	FortiGate-VM v5.6 for VMware ESXi (all models) no longer supports the VMXNET2 vNIC driver.	
VMware	<ul> <li>ESX versions 4.0 and 4.1</li> <li>ESXi versions 4.0, 4.1, 5.0, 5.1, 5.5, 6.0, and 6.5</li> </ul>	
Open Source	<ul><li>XenServer version 3.4.3</li><li>XenServer version 4.1 and later</li></ul>	
Microsoft	<ul> <li>Hyper-V Server 2008 R2, 2012, 2012 R2, and 2016</li> </ul>	
Linux KVM	<ul> <li>RHEL 7.1/Ubuntu 12.04 and later</li> <li>CentOS 6.4 (qemu 0.12.1) and later</li> </ul>	
Citrix	<ul><li>XenServer version 5.6 Service Pack 2</li><li>XenServer version 6.0 and later</li></ul>	
Virtualization Environments		
IPS Engine	• 3.00531	
AV Engine	• 5.00361	
FortiExtender	3.2.1 and later     See FortiExtender support on page 8.	
Fortinet Single Sign-On (FSSO)	<ul> <li>5.0 build 0271 and later (needed for FSSO agent support OU in group filters)</li> <li>Windows Server 2016 Datacenter</li> <li>Windows Server 2016 Standard</li> <li>Windows Server 2008 (32-bit and 64-bit)</li> <li>Windows Server 2008 R2 64-bit</li> <li>Windows Server 2012 Standard</li> <li>Windows Server 2012 R2 Standard</li> <li>Novell eDirectory 8.8</li> <li>FSSO does not currently support IPv6.</li> </ul>	
FortiSandbox	• 2.3.3 and later	
FortiController	<ul> <li>5.2.5 and later</li> <li>Supported models: FCTL-5103B, FCTL-5903C, FCTL-5913C.</li> </ul>	
FortiSwitch OS (FortiLink support)	• 3.6.2 and later	
FortiAP-S	<ul><li>5.4.3 and later</li><li>5.6.0</li></ul>	
FortiAP	<ul><li>5.4.2 and later</li><li>5.6.0</li></ul>	

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VM Series - SR-IOV	The following NIC chipset cards are supported:	
	<ul> <li>Intel 82599</li> </ul>	
	Intel X540	
	<ul> <li>Intel X710/XL710</li> </ul>	

# Language support

The following table lists language support information.

#### Language support

Language	GUI
English	<b>✓</b>
Chinese (Simplified)	<b>✓</b>
Chinese (Traditional)	V
French	<b>✓</b>
Japanese	V
Korean	<b>✓</b>
Portuguese (Brazil)	<b>✓</b>
Spanish	V

# **SSL VPN support**

#### **SSL VPN standalone client**

The following table lists SSL VPN tunnel client standalone installer for the following operating systems.

#### Operating system and installers

Operating System	Installer
Linux CentOS 6.5 / 7 (32-bit & 64-bit) Linux Ubuntu 16.04 (32-bit & 64-bit)	2336. Download from the Fortinet Developer Network https://fndn.fortinet.net.

Other operating systems may function correctly, but are not supported by Fortinet.

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SSL VPN standalone client no longer supports the following operating systems:

- Microsoft Windows 7 (32-bit & 64-bit)
- Microsoft Windows 8 / 8.1 (32-bit & 64-bit)
- Microsoft Windows 10 (64-bit)
- Virtual Desktop for Microsoft Windows 7 SP1 (32-bit)

#### SSL VPN web mode

The following table lists the operating systems and web browsers supported by SSL VPN web mode.

#### Supported operating systems and web browsers

Operating System	Web Browser
Microsoft Windows 7 SP1 (32-bit & 64-bit) Microsoft Windows 8 / 8.1 (32-bit & 64-bit)	Microsoft Internet Explorer version 11 Mozilla Firefox version 54 Google Chrome version 59
Microsoft Windows 10 (64-bit)	Microsoft Edge Microsoft Internet Explorer version 11 Mozilla Firefox version 54 Google Chrome version 59
Linux CentOS 6.5 / 7 (32-bit & 64-bit)	Mozilla Firefox version 54
Mac OS 10.11.1	Apple Safari version 9 Mozilla Firefox version 54 Google Chrome version 59
iOS	Apple Safari Mozilla Firefox Google Chrome
Android	Mozilla Firefox Google Chrome

Other operating systems and web browsers may function correctly, but are not supported by Fortinet.

# SSL VPN host compatibility list

It is recommended to verify the accuracy of the GUID for the software you are using for SSL VPN host check. The following Knowledge Base article at http://kb.fortinet.com/ describes how to identify the GUID for antivirus and firewall products: How to add non listed 3rd Party AntiVirus and Firewall product to the FortiGate SSL VPN Host check.

After verifying GUIDs, you can update GUIDs in FortiOS using this command:

config vpn ssl web host-check-software

Following is an example of how to update the GUID for AVG Internet Security 2017 on Windows 7 and Windows 10 by using the FortiOS CLI.



The GUIDs in this example are only for AVG Internet Security 2017 on Windows 7 and Windows 10. The GUIDs might be different for other versions of the software and other operation systems.

#### To update GUIDs in FortiOS:

- 1. Use the config vpn ssl web host-check-software command to edit the AVG-Internet-Security-AV variable to set the following GUID for AVG Internet Security 2017: 4D41356F-32AD-7C42-C820-63775EE4F413.
- **2.** Edit the AVG-Internet-Security-FW variable to set the following GUID: 757AB44A-78C2-7D1A-E37F-CA42A037B368.

The following issues have been fixed in version 5.6.6. For inquires about a particular bug, please contact Customer Service & Support.

#### Authentication

Bug ID	Description
433700	Support non-blocking LDAP authentication.
461580	Getting authentication portal by FQDN:1000/login? and /logout? does not work if using auth-redirect fqdn in policy.
474615	Not possible to allow expired certificates while blocking is revoked.
477437	authd crashes.
477856	FortiGate does not send RADIUS accounting interim updates to the configured accounting server.

#### ΑV

Bug ID	Description
459986	Repeated scanunit signal 11 crash scan_for_base64_objects.
488492	Mobile Malware Subscription missing expire date.

#### Connectivity

Bug ID	Description
463982	FortiManager IP is unset in FortiGate CM.
479607	Scheduled auto-update happens twice in 10 seconds but a log entry for the first try is not logged.

#### DLP

Bug ID	Description
496255	Some XML-based MS Office files are recognized as ZIP file.

#### **Endpoint Control**

Bug ID	Description
479672	FortiTelemetry not blocking VIP.

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#### FIPS-CC

Bug ID	Description
481535	Device suddenly goes down with FIPS error .

#### **Firewall**

Bug ID	Description
478360	IPv6 VIP does not translate IP address.
497954	Netflow gives wrong reports for long lived sessions.
498188	Dirty_session_check in FortiGate drops all established VIP64 sessions.

#### FortiSwitch-Controller

Bug ID	Description
497980	All managed FortiSwitches capwap tunnel down due to application cu_acd crashed.
498211	Connectivity fault during upgrade of FortiLink connected FSW.

#### **FortiView**

Bug ID	Description
437272	FortiView bytes Sent/Received do not match the total data of the Source when drilling down into details.
477994	Realtime FortiView > All Sessions, filtering entries by Application is not working.

#### GUI

Bug ID	Description
438183	The exemption list of a cloned AV profile with Sandbox-inspection enabled affects the list of original AV profile.
449598	Remote LDAP User Definition wizard does not pull users.
450919	IPS sensor with >= 8192 signature entries should not be created from GUI.
457378	Show Matching Logs of IPv4 Policy does not work when Implicit Firewall Policies of Feature Visibility is disabled.
462757	VPN map fails to load when using a custom management VDOM.
463539	Addresses page keep loading if nested addrgrp6 exists.

Bug ID	Description
467175	Interface Bandwidth widget in NOC type dashboard disappears due to javascript after being added and then refreshed.
471578	Should not display cached/failed log status when FortiAnalyzer is store-and-upload and test connectivity succeed.
474645	After modifying system settings in GUI, gets wrong message and FGFM status is changed.
482628	CPU. Speculative. Execution. Timing. Information. Disclosure signature can't be filtered if <i>Application</i> is selected.
485386	Adding a signature to existing IPS sensor profile gives <i>internal server error -500</i> error message on web GUI.
488563	Purging expired account or deleting account through guest admin for user group name with spaces lead to blank page.
490409	FSSO configuration not displaying if the name contains spaces.
493140	Need to see application signature names instead of LDS under Logs & Report > System event logs.
493230	SNMP GUI page Apply button doesn't work after the first time.

#### HA

Bug ID	Description
408886	Uninterrupted upgrade from B718 to tag 9702 failed with 1.5M BGP routes and 6M sessions load.
459252	Hasync, Hatalk, and a few other processes go to D state when creating firewall policy or editing interface.
465849	Wrong diagnose sys ha dump-by vcluster display when cluster is on the same LAN.
471816	Policy route setting is synced in standalone-config-sync mode.
473806	Management interface IP address replicating to slave when using standalone management VDOMs.
480195	cmdbsvr process crashes with signal 6 and signal 11 while adding devices to a large device group.
482548	Conserve mode caused by hasync consuming most of memory.
488729	Box doesn not boot up when standalone-mgmt-vdom option is enabled in HA setting and rebooted.
491311	Management port has sync'ed when creating a new NAT VDOM.
493759	When vcluster2 is removed from HA config, all active sessions are killed once session-ttl is reached.
503118	Slave unit sends several false alert emails everyday after upgrade to 5.6.

#### **IPS**

Bug ID	Description
423140	All IPS sessions lost when new custom signature added.
492193	DoS policies consume 20% more CPU than in FortiOS 5.2.
503895	Traffic drops for 15 seconds when UTM is enabled.
506234	Cannot configure IPS sensor severity or threat-weight category.

#### **IPsec VPN**

Bug ID	Description
476461	IKE does not release the mode-cfg framed-IP assigned from RADIUS.
486756	Traffic is not fragmented for IPsec VPN when Proxy-based UTM is enabled.
487946	MSS value increases when AV or WEB filter in use resulting in Packet too big message.
490066	FortiClient with IPsec with Proxy / Webfilter - Fragmentation is needed.
492046	FortiGate does not respond to INFORMATIONAL exchange message as requested by RFC.
492366	100% system CPU usage when re-keying idle IPsec tunnels.

## Log & Report

Bug ID	Description
459163	QUAD File Dropped Reason = Unknown.
462471	Found miglogd crash on FG-240D.
496058	FortiAnalyzer is not able to show logs from some VDOMs.
497357	FortiGate logs show the action as block when we use DNS filter and if a DNS query timeout happens.

## **Proxy and WebProxy**

Bug ID	Description
487096	SSL handshake fails when activate ESET application.
491417	FortiGate is dropping server hello packets when URLFILTER is enabled.
500182	UDP over SOCKS proxy.
500965	In FG-200E kernel conserve mode, WAD process consuming high memory.

Bug ID	Description
503633	Some traffic forwarded to different gateway when proxy based UTM profiles are used.
507155	System went into conserve mode due to WAD after upgrade to 5.6.5.

#### Router

Bug ID	Description
443948	High memory usage for zebos_launcher and isisd.
460959	WAN link monitor (HTTP) log issue.
465957	Backup VPN static route remains after failback when explicit proxy and NAT are configured.
490312	When we set keepalive-interval > 0 in GRE tunnel, static route to remote site becomes inactive.
491423	BGP shutdown neighbor capability-default-originate parameter always in use.
491679	FortiGate chooses higher metric OSPF E2 route for traffic under some circumstance.
505189	Kernel is missing routes.
506219	Worker blade doesn't update the FT routing cache when phase1 is bound to a loopback interface.
514410	The BGP default gateway advertised doesn't work after the upgrade without being manually reset.

#### SSL VPN

Bug ID	Description
382223	SMB/CIFS bookmark in SSL VPN portal doesn't work with DFS Microsoft file server error "Invalid HTTP request".
456027	SMB bookmark in SSL VPN portal doesn't work with dynamic user-mapping and gets Invalid HTTP request error.
466438	High CPU usage by sslvpnd.
483253	FQDN doesn't work well through SSL VPN web mode.
486918	SSL VPN web mode unable to load the page correctly.
491733	SSL VPN process taking 99% of CPU utilization (tunnel mode only).
491895	Web mode SSL VPN HTTP bookmark not working.
492066	High memory usage in SSL VPN even when there is only one connection.
492654	SSLVPND process crashes and users are disconnected from SSL VPN.
494960	SSL VPN web mode has trouble loading internal web application.

Bug ID	Description
496584	SSL VPN bad password attempt causes excessive bindRequests against LDAP and lockout of accounts.
507251	SSLVPND is continuously crashing.

#### Switch

Bug ID	Description
487444	FortiGate stops accepting traffic from any interface in a hardware switch after HA failover in 80/81E.
493685	Hardware switch flooding traffic.

# System

Bug ID	Description
414081	SMB1 support has been by default disabled under part models.
435388	The parent physical interface cannot be in zone list when VLAN interface is added to zone.
436399	snmpd crashes with signal 11 in get_fgHaStatsEntry.
463409	FG-3700D/DX issue with FQDN.
467060	Virtual Wire Pair wrongly tag the VLAN when passing from Native VLAN to Tagged VLAN.
475745	Backup password for administrator account is not working when interface is down.
478264	VPN traffic across VLAN NPU VDOM link fails after being offloaded.
484281	Asymmetric traffic issue.
491441	FWF-60D-POE: Null pointer KP happened a few times.
493052	Sometimes 5001D slave blade loses kernel static route after down/up traffic interface in 5001D/5913C SLBC system.
493747	High CPU was observed when changing the policy when large number of policies were configured.
494040	Creating or modifying security profiles generate multiple logs with misleading action.
494707	FortiGate trusthost settings not respected.
495994	Observes lots of IPS syntax errors on the console screen.
496590	FQDN address object does not accept numbers at the end.
498032	Sometimes 5001E blade crashes during traffic testing with UTM enabled in firewall policy.
499332	No error message when configuring address . 0 67 and address converted with . 55.

Bug ID	Description
501098	A specific SFP shared port's LED (port15 to 18 on FG-800C) is not lit properly.
503638	config system ipip-tunnel is lost after reboot when using pppoe interface.
505930	FG-3700D freezes when deleting VDOM.
507060	Packet loss on startup when interfaces are in bypass mode.
507061	Longer time to put interfaces in bypass mode during shutdown.

#### VM

Bug ID	Description
464979	Encounter cannot set MAC address(6) after enabling HA on FGT_VM64_XEN.
476617	FortiGate VM on AWS using C5 instance can't upgrade or downgrade image.
496951	Cannot create 802.3ad Aggregate with more than one member in KVM FGT-VM.
498653	FortiOS VM stops passing traffic after failover.
501886	Azure SDN connector does not work for some regions.
506221	azd keep crashing with signal 11.

#### VolP

Bug ID	Description
478634	Debug commands for SIP filter are not applied.
508277	Non-SIP packet send to SIP ALG gets dropped with no log.

#### Web Filter

Bug ID	Description
470650	DNS filter getting purged by FortiManager when not used in a policy because FortiGate DNS filter does not contain static entry.
476806	FortiOS incorrectly sends ICMP "Destination Unreachable" with WF/certificate inspection.
485685	Proceeding from a web filter warning page intermittently results in the BLOCK page shown instead of the expected web site.
486466	HTTPS web page is blocked after clicking <i>Proceed</i> button.
489286	Renaming web filter profile does not take effect.
504238	Incorrect log action blocked even user is "passthrough" in web filter log with warning-prompt per domain.

#### WiFi

Bug ID	Description
471638	FortiGate disconnects all clients when they roam from AP to AP.

## **Common Vulnerabilities and Exposures**

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

Bug ID	Description
450553	FortiOS5.6.6 is no longer vulnerable to the following CVE Reference:  • CVE-2017-12150  • CVE-2017-12151  • CVE-2017-12163
476125	FortiOS5.6.6 is no longer vulnerable to the following CVE Reference:  • CVE-2018-9185
478185	FortiOS5.6.6 is no longer vulnerable to the following CVE Reference:  • CVE-2017-11227  • CVE-2014-9295  • CVE-2017-9793
487421	FortiOS5.6.6 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13365

# **Known Issues**

The following issues have been identified in version 5.6.6. For inquires about a particular bug or to report a bug, please contact Customer Service & Support.

#### **Application Control**

Bug ID	Description
435951	Traffic keeps going through the DENY NGFW policy configured with URL category.
448247	Traffic-shaper in shaping policy does not work for specific application category like as P2P.
488369	DSCP/ToS is not implemented in shaping-policy yet.

#### FortiGate-90E/91E

Bug ID	Description
393139	Software switch span doesn't work on this platform.

#### FortiGate 3815D

Bug ID	Description
385860	FG-3815D does not support 1GE SFP transceivers.

### FortiSwitch-Controller/FortiLink

Bug ID	Description
357360	DHCP snooping may not work on IPv6.
369099	FortiSwitch authorizes successfully, but fails to pass traffic until you reboot FortiSwitch.
404399	FortiLink goes down when connecting to ForiSwitch 3.4.2 b192.

#### **FortiView**

Bug ID	Description
366627	FortiView Cloud Application may display incorrect drill down <i>File and Session</i> list in the <i>Applications View</i> .
368644	Physical Topology: Physical Connection of stacked FortiSwitch may be incorrect.

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Bug ID	Description
375172	FortiGate under a FortiSwitch may be shown directly connected to an upstream FortiGate.
408100	Log fields are not aligned with columns after drill down on FortiView and Log details.

#### GUI

Bug ID	Description
356174	FortiGuard updategrp read-write privilege admin cannot open FortiGuard page.
374844	Should show ipv6 address when set ipv6 mode to pppoe/dhcp on GUI > Network > Interfaces.
375383	If the policy includes the <i>wan-load-balance</i> interface, the policy list page may receive a javascript error when clicking the search box.
422413	Use API monitor to get data for FortiToken list page.
442231	Link cannot show different colors based on link usage legend in logical topology real time view.
445113	IPS engine 3.428 on Fortigate sometimes cannot detect Psiphon packets that iscan can detect.
451776	Admin GUI has limit of 10 characters for OTP.

#### НΑ

Bug ID	Description
481943	Green checkmarks indicating HA sync status on GUI only appear beside virtual cluster 1.

### Log & Report

Bug ID	Description
412649	In NGFW Policy mode, FortiGate does not create webfilter logs.

## Proxy

Bug ID	Description
454185	Specific application does not work when deep inspection is enabled.

## Security Fabric

Bug ID	Description
403229	In FortiView display from FortiAnalyzer, the upstream FortiGate cannot drill down to final level for downstream traffic.

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Bug ID	Description
411368	In FortiView with FortiAnalyzer, the combined MAC address is displayed in the <i>Device</i> field.

### SSL VPN

Bug ID	Description
405239	URL rewritten incorrectly for a specific page in application server.
477231	Unable to login to VMware vSphere Client 6.5 through SSL VPN web portal.
495304	SSL VPN web portal with a bookmark pointing you to the website http://www.uptodate.com/contents/search is not working.

### System

Bug ID	Description
295292	If private-data-encryption is enabled, when restoring config to a FortiGate, the FortiGate may not prompt the user to enter the key.
436580	PDQ_ISW_SSE drops at +/-100K CPS on FG-3700D with FOS 5.4 only.
436746	NP6 counter shows packet drops on FG-1500D. Pure firewall policy without UTM.
440411	Monitor NP6 IPsec engine status.
457096	FortiGate to FortiManager tunnel (FGFM) using the wrong source IP when multiple paths exist.
464873	RADIUS COA Disconnect-ACK message ignore RADIUS server source-ip setting.
516411	Device detection setting is inconsistent between GUI and CLI when creating VLAN or LAG interfaces.

#### VM

Bug ID	Description
441129	Certify FortiGate-VMX v5.6 with NSX v6.3 and vSphere v6.5.

# Limitations

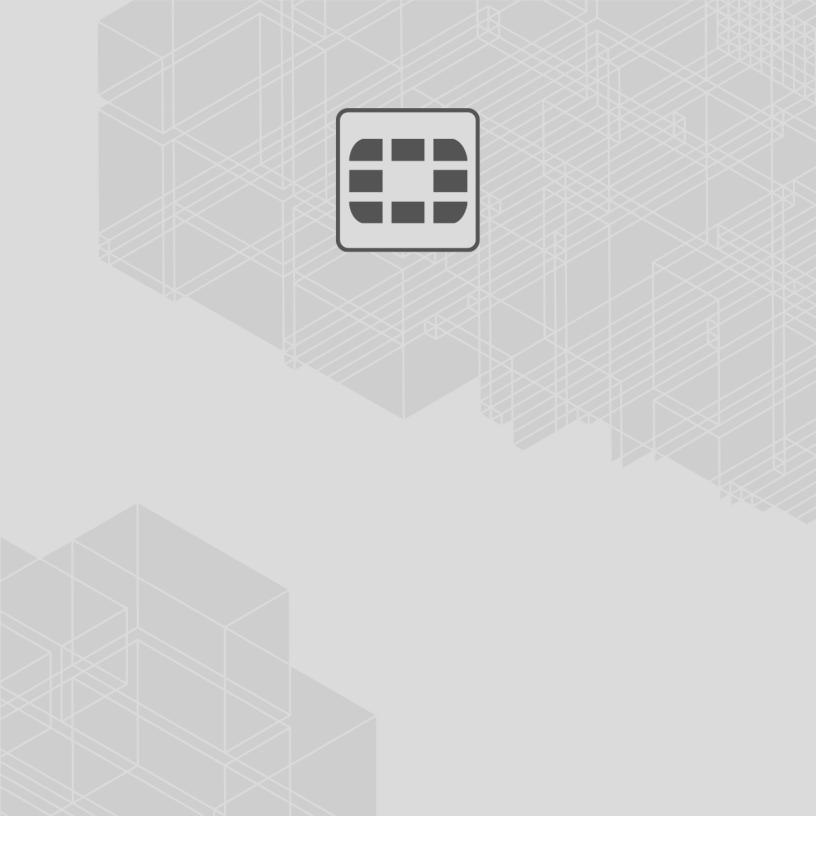
## Citrix XenServer limitations

The following limitations apply to Citrix XenServer installations:

- XenTools installation is not supported.
- FortiGate-VM can be imported or deployed in only the following three formats:
  - XVA (recommended)
  - VHD
  - OVF
- The XVA format comes pre-configured with default configurations for VM name, virtual CPU, memory, and virtual NIC. Other formats will require manual configuration before the first power on process.

# **Open source XenServer limitations**

When using Linux Ubuntu version 11.10, XenServer version 4.1.0, and libvir version 0.9.2, importing issues may arise when using the QCOW2 format and existing HDA issues.





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