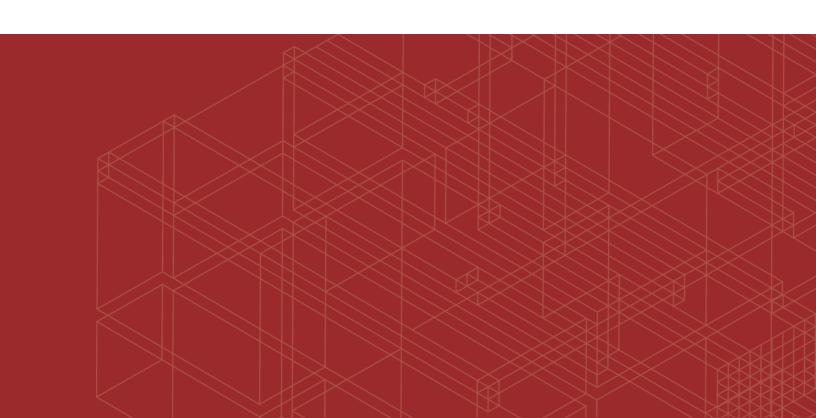




## FortiOS - Release Notes

Version 5.6.8



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April 25, 2019 FortiOS 5.6.8 Release Notes 01-568-535659-20190425

## TABLE OF CONTENTS

| Change Log   | 4  |
|--|----|
| Introduction   | 5  |
| Supported models   | 5  |
| Special branch supported models  | 6  |
| VXLAN supported models   | 6  |
| Special Notices  | 7  |
| FortiGates in an SLBC cluster can go out of sync after a FortiGuard update | 7  |
| Built-in certificate   |    |
| FortiGate and FortiWiFi-92D hardware limitation                            | 8  |
| FG-900D and FG-1000D   | 8  |
| FortiGate-VM 5.6 for VMware ESXi   | 8  |
| FortiClient profile changes  |    |
| Use of dedicated management interfaces (mgmt1 and mgmt2)                   |    |
| FortiExtender support  |    |
| Using ssh-dss algorithm to log in to FortiGate                             |    |
| Using FortiAnalyzer units running older versions                           |    |
| BGP metric attribute   | 10 |
| Upgrade Information  | 11 |
| Upgrading to FortiOS 5.6.8   | 11 |
| Security Fabric upgrade  | 11 |
| FortiClient profiles   |    |
| FortiGate-VM 5.6 for VMware ESXi   |    |
| Downgrading to previous firmware versions                                  |    |
| Amazon AWS enhanced networking compatibility issue                         |    |
| FortiGate VM firmware  |    |
| Firmware image checksums   |    |
| Product Integration and Support  |    |
| FortiOS 5.6.8 support  |    |
| Language support   |    |
| SSL VPN support  |    |
| SSL VPN standalone client  |    |
| SSL VPN web mode   |    |
| •  |    |
| Resolved Issues  |    |
| Known Issues   | 24 |
| Limitations  | 27 |
| Citrix XenServer limitations   | 27 |
| Open source XenServer limitations  | 27 |

## **Change Log**

| Date       | Change Description   |
|------------|--|
| 2019-01-31 | Initial release.   |
| 2019-02-04 | Moved 531575 and 534346 from <i>Known Issues</i> to <i>Resolved Issues</i> .  Updated <i>Product Integration and Support &gt; FortiOS 5.6.8 support &gt; Fortinet Single Sign-On (FSSO)</i> to build 0275. |
| 2019-02-14 | Added model FGR-30D to Introduction > Supported models.  Added 496642 to Resolved Issues > Common Vulnerabilities and Exposures.   |
| 2019-02-28 | Deleted 503897 from Resolved Issues.   |
| 2019-03-04 | Added 534442 to Resolved Issues.   |
| 2019-04-17 | Added 539155 to Known Issues.  |
| 2019-04-25 | Added 546145 to Known Issues.  |

## Introduction

This document provides the following information for FortiOS 5.6.8 build 1672:

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

For FortiOS documentation, see the Fortinet Document Library.

## **Supported models**

FortiOS 5.6.8 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-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-POE, FG-200D, FG-200D-POE, FG-200E, FG-201E, FG-240D, FG-240D-POE, FG-280D-POE, FG-300D, FG-300E, FG-301E, FG-400D, FG-500D, FG-501E, FG-600C, FG-600D, FG-800C, FG-800D, FG-900D, FG-1000C, FG-100D, FG-1200D, FG-1500D, FG-1500DT, FG-200E, FG-2500E, FG-3000D, FG-3100D, FG-3200D, FG-3240C, FG-3600C, FG-3700D, FG-3800D, FG-3810D, 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-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   |
| FortiOS Carrier  | FortiOS Carrier 5.6.8 images are delivered upon request and are not available on the customer support firmware download page.  |

FortiOS Release Notes

Introduction 6

## Special branch supported models

The following models are released on a special branch of FortiOS 5.6.8. To confirm that you are running the correct build, run the CLI command get system status and check that the Branch point field shows 1672.

| FG-60E-DSL   | is released on build 4211. |
|--------------|----------------------------|
| FG-60E-DSLJ  | is released on build 4211. |
| FWF-60E-DSL  | is released on build 4211. |
| FWF-60E-DSLJ | is released on build 4211. |

## **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-1200D, FG-1500D, FG-1500DT, FG-2000E, FG-2500E, FG-3000D, FG-3100D, FG-3200D, FG-3700D, FG-3800D, FG-3810D, 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-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-NPU, FG-VM64-OPC, FG-VM64-SVM, FG-VM64-VMX, FG-VM64-XEN  |
| Pay-as-you-go<br>images | FOS-VM64, FOS-VM64-KVM, FOS-VM64-XEN   |

# FortiGates in an SLBC cluster can go out of sync after a FortiGuard update

When operating normally, FortiOS uses a collection of CAs (called a CA bundle) for various certificate-related functions. FortiOS normally gets the latest CA bundle from FortiGuard.

FortiOS firmware images come with their own CA bundle. Immediately after a firmware upgrade, all of the FortiGates in a Session-aware Load Balancing Cluster (SLBC) will have the CA bundle that comes with the firmware image. When the first automatic or manual FortiGuard update occurs, the primary FortiGate in the SLBC downloads the latest CA bundle from FortiGuard and synchronizes it to the other FortiGates in the cluster. Due to a known issue with FortiOS 5.6.7 and earlier, this synchronization step may fail, resulting in a synchronization problem with the cluster.

You can avoid this issue by using the following steps to upgrade the firmware of the FortiGates in an SLBC cluster, perform a FortiGuard update, and manually re-synchronize the configuration:

1. Log into the primary FortiGate, and enter the following command to disable graceful-upgrade:

```
config system elbc
   set graceful-upgrade disable
end
```

- 2. Use the normal firmware upgrade procedure to upgrade the SLBC firmware.
- **3.** After all of the FortiGates have restarted and joined the cluster, log into the primary FortiGate, and use the diagnose sys confsync status command to verify that the primary FortiGate can communicate with all of the FortiGates in the cluster.
- **4.** Enter diagnose autoupdate versions | grep -A2 'Bundle' to check the version of CA bundle on the primary FortiGate.
  - For FOS v5.6.7, the bundle version should be 1.00012.
- 5. Start a FortiGuard update on the primary FortiGate.
  - For example, use the execute update-now command.
- **6.** Wait a few minutes, then enter diagnose autoupdate versions | grep -A2 'Bundle' to verify that a new CA bundle has been installed.
- 7. Back up the configuration of the primary FortiGate.
- 8. Restore the configuration of the primary FortiGate.
  - The primary FortiGate should synchronize this configuration to all of the other FortiGates in the cluster. After a few minutes, all of the FortiGates in the cluster should restart and their configurations should be synchronized.
- **9.** Use the diagnose sys confsync status command to verify that the cluster is synchronized.

## **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.

## FortiGate-VM 5.6 for VMware ESXi

Upon upgrading to FortiOS 5.6.8, 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 5.6.8 cannot manage FortiExtender 3.2.0 or earlier. If you run FortiOS 5.6.8 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 5.6.8 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.

### **BGP** metric attribute

The BGP metric attribute does not work when manipulated by route-map. For self-generated default origin route, do not use route-map-out. Use default-originate-routemap instead. For example:

```
config router bgp
config neighbor
  edit "1.1.1.1"
  set capability-graceful-restart enable
     set capability-default-originate enable
     set ebgp-enforce-multihop enable
     set remote-as 65001
                                                (delete this line)
     set route-map-out "Default"
     set default-originate-routemap "Default" (add this line)
  next
end
You must also delete match-ip-address. For example:
config router route-map
  edit "Default"
     config rule
        edit 1
           set match-ip-address "0.0.0.0/0" (delete this line)
           set set-metric 100
        next
     end
  end
end
```

## **Upgrading to FortiOS 5.6.8**

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 5.6.8 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 5.6.8, 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 5.6.8, 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 5.6.8 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 5.6.8 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 5.6.8 support

The following table lists 5.6.8 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 11. 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 11. For the latest information, see FortiAnalyzer compatibility with FortiOS in the Fortinet Document Library.  Upgrade FortiAnalyzer before upgrading FortiGate.   |
| FortiClient Microsoft<br>Windows                | See important compatibility information in Security Fabric upgrade on page 11.  • 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 11.  • 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  |

| FortiAP                               | <ul><li>5.4.2 and later</li><li>5.6.0</li></ul>   |  |
|---------------------------------------|---|--|
| FortiAP-S                             | <ul><li>5.4.3 and later</li><li>5.6.0</li></ul>   |  |
| FortiSwitch OS<br>(FortiLink support) | 3.6.2 and later   |  |
| FortiController                       | <ul> <li>5.2.5 and later</li> <li>Supported models: FCTL-5103B, FCTL-5903C, FCTL-5913C.</li> </ul>  |  |
| FortiSandbox                          | • 2.3.3 and later   |  |
| Fortinet Single Sign-On (FSSO)        | <ul> <li>5.0 build 0275 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> |  |
| FortiExtender                         | 3.2.1 and later     See FortiExtender support on page 9.  |  |
| AV Engine                             | 5.00361   |  |
| IPS Engine                            | 3.00539   |  |
| Virtualization Environments           |   |  |
| Citrix                                | <ul><li>XenServer version 5.6 Service Pack 2</li><li>XenServer version 6.0 and later</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>   |  |
| Microsoft                             | <ul> <li>Hyper-V Server 2008 R2, 2012, 2012 R2, and 2016</li> </ul>   |  |
| Open Source                           | <ul><li>XenServer version 3.4.3</li><li>XenServer version 4.1 and later</li></ul>   |  |
| 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> <li>FortiGate-VM v5.6 for VMware ESXi (all models) no longer supports the VMXNET2 vNIC driver.</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               | V        |
| Chinese (Simplified)  | V        |
| Chinese (Traditional) | V        |
| French                | V        |
| Japanese              | V        |
| Korean                | V        |
| 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)<br>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<br>Mozilla Firefox<br>Google Chrome  |
| Android  | Mozilla Firefox<br>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 5.6.8. For inquires about a particular bug, please contact Customer Service & Support.

### **Explicit Proxy**

| Bug ID | Description   |
|--------|---|
| 477289 | Proxy is unexpectedly sending FIN packet (FTP over HTTP traffic). |
| 521344 | Explicit FTP proxy doesn't work with second IP address.           |

#### **Firewall**

| Bug ID | Description  |
|--------|--|
| 441176 | SNMP trap failed to send when LDB real server is down.   |
| 479577 | Firewall policy should not allow to config dstaddr to "any" which doesn't exist.               |
| 492034 | Traffic not matching expected sessions and getting denied.                                     |
| 525995 | Session marked dirty when routing table updated for route which is not related to the session. |

#### GUI

| Bug ID | Description  |
|--------|--|
| 516295 | Error connecting to FortiCloud message while trying to access Forticloud Reports in GUI.                   |
| 525666 | Deleting an object in a non-root VDOM via Reference column deletes the related ID object in the root VDOM. |

#### НА

| Bug ID | Description  |
|--------|--|
| 488383 | Cluster fails to sync after adding a new VDOM and rebooting with switch-controller disabled. |
| 494029 | After failover, cannot connect to management-IP of backup device.                            |
| 517537 | Slave out-of-sync. Unable to log into slave unit.  |
| 525182 | WLAN guest user in VDOM makes the cluster out of sync.                                       |

FortiOS Release Notes Fortinet Technologies Inc.

#### **IPsec VPN**

| Bug ID | Description            |
|--------|------------------------|
| 493918 | Memory leak with IKED. |

## Log & Report

| Bug ID | Description                                     |
|--------|---|
| 477393 | Negative values in 'Load Balance' monitor logs. |

## **Proxy and WebProxy**

| Bug ID | Description  |
|--------|--|
| 470407 | IPv6-Happy-Eyeballs-Mechanism not working with proxy-based Webfilter-Profile.  |
| 491675 | FTP Server is not accessible when AV profile is set to proxy based inspection.   |
| 512936 | SSL certificate inspection in proxy mode doesn't use CN from Valid Certificate for categorization when SNI is not present. |
| 526667 | FGT doesn't forward Request:port command after 0byte file transmission.  |
| 531575 | Website access failure due to OCSP check in WAD + Deep SSL inspection.   |
| 534346 | WAD memory leak on OCSP certificate caching.   |
| 534442 | WAD memory still increasing after upgrade to 5.6.7 by 'malloc info'.   |

### Routing

| Bug ID | Description  |
|--------|--|
| 518655 | IPv6 doesn't respond to neighbor solicitation request. |

#### **SSL VPN**

| Bug ID | Description   |
|--------|---|
| 500901 | SSL VPN web portal connect to FMG (5.6.3) unable to view Managed devices and policy packages.   |
| 518406 | Unable to load WebPage through SSL VPN webmode.   |
| 523647 | Search result gives empty output upon accessing the url <a href="https://ieeexplore.ieee.org">https://ieeexplore.ieee.org</a> via SSL VPN bookmark. |
| 530833 | Synology NAS login page stuck after login when accessing by SSL VPN Web portal.   |

#### **Switch Controller**

| Bug ID | Description  |
|--------|--|
| 525450 | Managed FSWs details always opened at top of screen. |

## System

| Bug ID | Description  |
|--------|--|
| 370151 | CPU doesn't remove dirty flag when returns session back to NP6.  |
| 461370 | Auto MDIX does not work when interface is set to 10full/100full. It only works when interface is set to auto.                  |
| 466805 | Adding USB Host devices to a virtual machine connected by USB to FortiGate 500D causes the units to restart in loop.           |
| 482497 | Running diagnose npu np6lite session in FG-201E results in high CPU and system instability.                                    |
| 495378 | Port2 goes down after running for right days on FG-800D.   |
| 508304 | IP is not updating in DDNS with 60D models.  |
| 513419 | High CPU on some cores of CPU & packet drops around 2-3%.  |
| 519246 | ipmc_sensord process not checking sensors due to pending jobs.   |
| 519493 | If remote-side change systemID, only one port goes down, the other remains up.   |
| 526252 | High memory caused by updated daemon.  |
| 524422 | Merge br_6-0_sp back to 6.0 and 6.2.   |
| 524915 | 5.6 FortiOS replies with wrong numbers for SNMP <code>ifSpeed</code> and <code>ifHighSpeed</code> OIDs when interface is down. |
| 526168 | SLBC: System went into out-of-sync after FortiGuard update.  |
| 533287 | FortiGate lost VLAN tag when using virtual wire pair.  |

#### **User and Device**

| Bug ID | Description   |
|--------|---|
| 437117 | Single Sign-on, multiple FSSO polling servers with the same AD (LDAP) server, cannot select the same user or group. |
| 525929 | LDAPS requests fail with fnbamd stop error "Not enough bytes". LDAP works fine. Additional timeout observed.        |

#### VM

| Bug ID | Description                             |
|--------|---|
| 528405 | FortiMeter Consumption is not accurate. |

## **Common Vulnerabilities and Exposures**

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

| Bug ID | Description   |
|--------|---|
| 452730 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2017-14186 |
| 495090 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13366 |
| 496642 | FortiOS5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13371  |
| 502940 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13374 |
| 529353 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13380 |
| 529377 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13379 |
| 529712 | FortiOS 5.6.8 is no longer vulnerable to the following CVE Reference:  • CVE-2018-13381 |

## **Known Issues**

The following issues have been identified in version 5.6.8. 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. |

#### **Firewall**

| Bug ID | Description   |
|--------|---|
| 546145 | If the firewall policy includes a nonexistent ISDB ID on updated ISDB version, the firewall policy is not read and reflected. |

#### 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  |
|--------|--|
| 304199 | Using HA with FortiLink can encounter traffic loss during failover.                          |
| 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.                                |

Known Issues 25

#### **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.   |
| 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.         |
| 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.                 |
| 539155 | HA master does not send SNMP trap when plugging cable into interface that is set as ha-mgmt-interfaces. |

## Log & Report

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

### **Security Fabric**

| Bug ID | Description  |
|--------|--|
| 403229 | In FortiView display from FortiAnalyzer, the upstream FortiGate cannot drill down to final level for downstream traffic. |
| 411368 | In FortiView with FortiAnalyzer, the combined MAC address is displayed in the <i>Device</i> field.                       |

Known Issues 26

#### SSL VPN

| Bug ID | Description  |
|--------|--|
| 405239 | URL rewritten incorrectly for a specific page in application server. |

## 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.  |

#### VM

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

## Limitations

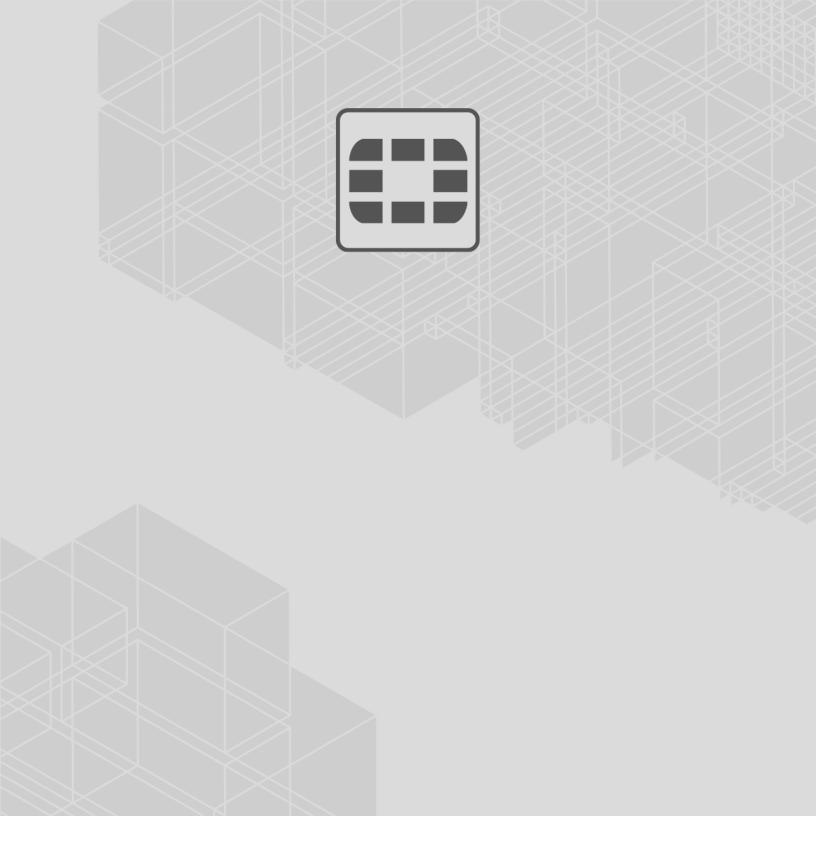
## Citrix XenServer limitations

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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