



# FortiOS - Release Notes

Version 6.0.11

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Email: [techdoc@fortinet.com](mailto:techdoc@fortinet.com)



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# Change Log

Date	Change Description
2020-09-22	Initial release.
2020-10-06	Updated <i>Known Issues</i> and <i>Resolved Issues</i> .
2020-11-17	Updated <i>Known Issues</i> .
2020-11-23	Updated <i>Known Issues</i> .
2020-12-15	Updated <i>Known Issues</i> and <i>Resolved Issues</i> .

# Introduction

This document provides the following information for FortiOS 6.0.11 build 0387:

- [Special Notices](#)
- [Upgrade Information](#)
- [Product Integration and Support](#)
- [Resolved Issues](#)
- [Known Issues](#)
- [Limitations](#)

For FortiOS documentation, see the [Fortinet Document Library](#).

## Supported models

FortiOS 6.0.11 supports the following models.

<b>FortiGate</b>	FG-30D, FG-30D-POE, FG-30E, FG-30E_3G4G_INTL, FG-30E_3G4G_NAM, FG-50E, FG-51E, FG-52E, FG-60D, FG-60D-POE, FG-60E, FG-60E-DSL, FG-60E-DSLJ, FG-60E-POE, FG-61E, FG-70D, FG-70D-POE, FG-80D, FG-80E, FG-80E-POE, FG-81E, FG-81E-POE, FG-90D, FG-90D-POE, FG-90E, FG-92D, FG-94D-POE, FG-98D-POE, FG-100D, FG-100E, FG-100EF, 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-300E, FG-301E, FG-400D, FG-400E, FG-401E, FG-500D, FG-500E, FG-501E, FG-600D, FG-600E, FG-601E, FG-800D, FG-900D, FG-1000D, FG-1200D, FG-1500D, FG-1500DT, FG-2000E, FG-2500E, FG-3000D, FG-3100D, FG-3200D, FG-3400E, FG-3401E, FG3600E, FG-3601E, FG-3700D, FG-3800D, FG-3810D, FG-3815D, FG-3960E, FG-3980E, FG-5001D, FG-5001E, FG-5001E1
<b>FortiWiFi</b>	FWF-30D, FWF-30D-POE, FWF-30E, FWF-30E_3G4G_INTL, FWF-30E_3G4G_NAM, FWF-50E, FWF-50E-2R, FWF-51E, FWF-60D, FWF-60D-POE, FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-61E, FWF-90D, FWF-90D-POE, FWF-92D
<b>FortiGate Rugged</b>	FGR-30D, FGR-35D, FGR-60D, FGR-90D
<b>FortiGate VM</b>	FG-SVM, FG-VM64, FG-VM64-ALI, FG-VM64-ALIONDEMAND, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VMX, FG-VM64-XEN, FG-VM64-GCP, FG-VM64-OPC, FG-VM64-GCPONDEMAND
<b>Pay-as-you-go images</b>	FOS-VM64, FOS-VM64-KVM, FOS-VM64-XEN
<b>FortiOS Carrier</b>	FortiOS Carrier 6.0.11 images are delivered upon request and are not available on the customer support firmware download page.

## Special branch supported models

The following models are released on a special branch of FortiOS 6.0.11. To confirm that you are running the correct build, run the CLI command `get system status` and check that the `Branch point` field shows 0387.

<b>FG-30E-MG</b>	is released on build 5466.
<b>FG-40F</b>	is released on build 6845.
<b>FG-40F-3G4G</b>	is released on build 6845.
<b>FG-60F</b>	is released on build 6846.
<b>FG-61F</b>	is released on build 6846.
<b>FG-100F</b>	is released on build 6846.
<b>FG-101F</b>	is released on build 6846.
<b>FG-1100E</b>	is released on build 6848.
<b>FG-1101E</b>	is released on build 6848.
<b>FG-1800F</b>	is released on build 6842.
<b>FG-1801F</b>	is released on build 6842.
<b>FG-2200E</b>	is released on build 6844.
<b>FG-2201E</b>	is released on build 6844.
<b>FG-3300E</b>	is released on build 6844.
<b>FG-3301E</b>	is released on build 6844.
<b>FG-VM64-AZURE</b>	is released on build 5465.
<b>FG-VM64-AZUREONDEMAND</b>	is released on build 5465.
<b>FG-VM64-RAXONDEMAND</b>	is released on build 9108.
<b>FWF-40F</b>	is released on build 6845.
<b>FWF-40F-3G4G</b>	is released on build 6845.
<b>FWF-60F</b>	is released on build 6846.
<b>FWF-61F</b>	is released on build 6846.

# Special Notices

- WAN optimization and web caching functions
- FortiGuard Security Rating Service
- Using FortiManager as a FortiGuard server on page 9
- Built-in certificate
- FortiGate and FortiWiFi-92D hardware limitation
- FG-900D and FG-1000D
- FortiClient (Mac OS X) SSL VPN requirements
- FortiClient profile changes
- Use of dedicated management interfaces (mgmt1 and mgmt2)
- L2TP over IPsec on certain mobile devices on page 11

## WAN optimization and web caching functions

WAN optimization and web caching functions are removed from 60D and 90D series platforms, starting from 6.0.0 due to their limited disk size. Platforms affected are:

- FGT-60D
- FGT-60D-POE
- FWF-60D
- FWF-60D-POE
- FGT-90D
- FGT-90D-POE
- FWF-90D
- FWF-90D-POE
- FGT-94D-POE

Upon upgrading from 5.6 patches to 6.0.0, `diagnose debug config-error-log read` will show command parse error about `wanopt` and `webcache` settings.

## FortiGuard Security Rating Service

Not all FortiGate models can support running the FortiGuard Security Rating Service as a Fabric "root" device. The following FortiGate platforms can run the FortiGuard Security Rating Service when added to an existing Fortinet Security Fabric managed by a supported FortiGate model:

FGR-30D-A	FGT-30D	FGT-70D	FWF-30E-MN
FGR-30D	FGT-30D-POE	FGT-70D-POE	FWF-50E-2R
FGR-35D	FGT-30E	FGT-90D	FWF-50E



FGR-60D	FGT-30E-MI	FGT-90D-POE	FWF-51E
FGR-90D	FGT-30E-MN	FGT-94D-POE	FWF-60D
FGT-200D	FGT-50E	FGT-98D-POE	FWF-60D-POE
FGT-200D-POE	FGT-51E	FWF-30D	FWF-90D
FGT-240D	FGT-52E	FWF-30D-POE	FWF-90D-POE
FGT-240D-POE	FGT-60D	FWF-30E	FWF-92D
FGT-280D-POE	FGT-60D-POE	FWF-30E-MI	

## Using FortiManager as a FortiGuard server

If you use FortiManager as a FortiGuard server, and you configure the FortiGate to use a secure connection to FortiManager, you must use HTTPS with port 8888. HTTPS with port 53 is not supported.

## Built-in certificate

FortiGate and FortiWiFi D-series and above have 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.

## FortiClient (Mac OS X) SSL VPN requirements

When using SSL VPN on Mac OS X 10.8, you must enable SSLv3 in FortiOS.

## 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.

## Using FortiAnalyzer units running older versions

When using FortiOS 6.0.11 with FortiAnalyzer units running 5.6.5 or lower, or 6.0.0-6.0.2, 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 the latest version.

## L2TP over IPsec on certain mobile devices

Bug ID	Description
459996	Samsung Galaxy Tab A 8 and Android 9.0 crash after L2TP over IPsec is connected.

# Upgrade Information

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*.

## FortiGuard protocol and port number

Fortinet has updated the protocol that is used between the FortiGate unit and FortiGuard. Please read the section under *Resolved Issues > Common Vulnerabilities and Exposures*. Upon upgrading to a patched version of FortiOS, customers must manually change the protocol and port used for connecting to FortiGuard.

```
config system fortiguard
    set protocol https
    set port 8888
end
```

Once the FortiGate is upgraded to a patched version, any factory reset will change the default FortiGuard settings to those above—protocol HTTPS and port 8888.

## Fortinet Security Fabric upgrade

FortiOS 6.0.11 greatly increases the interoperability between other Fortinet products. This includes:

- FortiAnalyzer 6.0.8
- FortiClient EMS 6.0.8
- FortiClient 6.0.9
- FortiAP 5.4.4 and later
- FortiSwitch 3.6.9 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*.



If Security Fabric is enabled, then all FortiGate devices must be upgraded to 6.0.11. When Security Fabric is enabled, you cannot have some FortiGate devices running 6.0.11 and some running 5.6.x.

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## Minimum version of TLS services automatically changed

For improved security, FortiOS 6.0.11 uses the `ssl-min-proto-version` option (under `config system global`) to control the minimum SSL protocol version used in communication between FortiGate and third-party SSL and TLS services.

When you upgrade to FortiOS 6.0.11 and later, the default `ssl-min-proto-version` option is TLS v1.2. The following SSL and TLS services inherit global settings to use TLS v1.2 as the default. You can override these settings.

- Email server (`config system email-server`)
- Certificate (`config vpn certificate setting`)
- FortiSandbox (`config system fortisandbox`)
- FortiGuard (`config log fortiguard setting`)
- FortiAnalyzer (`config log fortianalyzer setting`)
- LDAP server (`config user ldap`)
- POP3 server (`config user pop3`)

## 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 6.0.11 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 6.0.11 to older versions, running the enhanced nic driver is not allowed. The following AWS instances are affected:

- C3
- C4
- R3
- I2
- 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 `qemu`.

### 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*.

## FortiGuard update-server-location setting

The FortiGuard `update-server-location` default setting is different between hardware platforms and VMs. On hardware platforms, the default is `any`. On VMs, the default is `usa`.

On VMs, after upgrading from 5.6.3 or earlier to 5.6.4 or later (including 6.0.0 or later), `update-server-location` is set to `usa`.

If necessary, set `update-server-location` to use the nearest or low-latency FDS servers.

### To set FortiGuard `update-server-location`:

```
config system fortiguard
  set update-server-location [usa|any]
end
```

## External IP not allowed to be the same as mapped IP

Traffic will be dropped when the IPS is enabled in a policy with a VIP that has the same external and mapped IP.

To avoid this, the kernel will disallow the configuration of the same `extip` and `mappedip` for VIPs in the CLI starting from FortiOS 6.0.0.

# Product Integration and Support

The following table lists FortiOS 6.0.11 product integration and support information:

<b>Web Browsers</b>	<ul style="list-style-type: none"><li>• Microsoft Edge 44</li><li>• Mozilla Firefox version 66</li><li>• Google Chrome version 73</li><li>• Apple Safari version 12.1</li></ul> <p>Other web browsers may function correctly, but are not supported by Fortinet.</p>
<b>Explicit Web Proxy Browser</b>	<ul style="list-style-type: none"><li>• Microsoft Edge 41</li><li>• Microsoft Internet Explorer version 11</li><li>• Mozilla Firefox version 59</li><li>• Google Chrome version 65</li><li>• Apple Safari version 9.1 (For Mac OS X)</li></ul> <p>Other web browsers may function correctly, but are not supported by Fortinet.</p>
<b>FortiManager</b>	<p>See important compatibility information in <a href="#">Fortinet Security Fabric upgrade on page 12</a>. For the latest information, see <a href="#">FortiManager compatibility with FortiOS</a> in the Fortinet Document Library.</p> <p>Upgrade FortiManager before upgrading FortiGate.</p>
<b>FortiAnalyzer</b>	<p>See important compatibility information in <a href="#">Fortinet Security Fabric upgrade on page 12</a>. For the latest information, see <a href="#">FortiAnalyzer compatibility with FortiOS</a> in the Fortinet Document Library.</p> <p>Upgrade FortiAnalyzer before upgrading FortiGate.</p>
<b>FortiClient:</b> <ul style="list-style-type: none"><li>• <b>Microsoft Windows</b></li><li>• <b>Mac OS X</b></li><li>• <b>Linux</b></li></ul>	<ul style="list-style-type: none"><li>• 6.0.0</li></ul> <p>See important compatibility information in <a href="#">Fortinet Security Fabric upgrade on page 12</a>.</p> <p>If you're upgrading both FortiOS and FortiClient from 5.6 to 6.0, upgrade FortiClient first to avoid compatibility issues.</p> <p>FortiClient for Linux is supported on Ubuntu 16.04 and later, Red Hat 7.4 and later, and CentOS 7.4 and later.</p> <p>If you are using FortiClient only for IPsec VPN or SSL VPN, FortiClient version 5.6.0 and later are supported.</p>
<b>FortiClient iOS</b>	<ul style="list-style-type: none"><li>• 5.6.0 and later</li></ul>
<b>FortiClient Android and FortiClient VPN Android</b>	<ul style="list-style-type: none"><li>• 5.4.2 and later</li></ul>
<b>FortiAP</b>	<ul style="list-style-type: none"><li>• 5.4.2 and later</li><li>• 5.6.0 and later</li></ul>



<b>FortiAP-S</b>	<ul style="list-style-type: none"> <li>• 5.4.3 and later</li> <li>• 5.6.0 and later</li> </ul>
<b>FortiSwitch OS (FortiLink support)</b>	<ul style="list-style-type: none"> <li>• 3.6.9 and later</li> </ul>
<b>FortiController</b>	<ul style="list-style-type: none"> <li>• 5.2.5 and later</li> </ul> Supported models: FCTL-5103B, FCTL-5903C, FCTL-5913C
<b>FortiSandbox</b>	<ul style="list-style-type: none"> <li>• 2.3.3 and later</li> </ul>
<b>Fortinet Single Sign-On (FSSO)</b>	<ul style="list-style-type: none"> <li>• 5.0 build 0292 and later (needed for FSSO agent support OU in group filters) <ul style="list-style-type: none"> <li>• Windows Server 2019 Datacenter</li> <li>• Windows Server 2019 Standard</li> <li>• Windows Server 2019 Core</li> <li>• Windows Server 2016 Datacenter</li> <li>• Windows Server 2016 Standard</li> <li>• Windows Server 2016 Core</li> <li>• Windows Server 2012 Standard</li> <li>• Windows Server 2012 R2 Standard</li> <li>• Windows Server 2012 Core</li> <li>• Windows Server 2008 (32-bit and 64-bit)</li> <li>• Windows Server 2008 R2 64-bit</li> <li>• Windows Server 2008 Core</li> <li>• Novell eDirectory 8.8</li> </ul> </li> </ul>
<b>FortiExtender</b>	<ul style="list-style-type: none"> <li>• 3.3.2, 4.0.0</li> </ul>
<b>AV Engine</b>	<ul style="list-style-type: none"> <li>• 6.00027</li> </ul>
<b>IPS Engine</b>	<ul style="list-style-type: none"> <li>• 4.00061</li> </ul>
<b>Virtualization Environments</b>	
<b>Citrix</b>	<ul style="list-style-type: none"> <li>• XenServer version 5.6 Service Pack 2</li> <li>• XenServer version 6.0 and later</li> </ul>
<b>Linux KVM</b>	<ul style="list-style-type: none"> <li>• RHEL 7.1/Ubuntu 12.04 and later</li> <li>• CentOS 6.4 (qemu 0.12.1) and later</li> </ul>
<b>Microsoft</b>	<ul style="list-style-type: none"> <li>• Hyper-V Server 2008 R2, 2012, 2012 R2, and 2016</li> </ul>
<b>Open Source</b>	<ul style="list-style-type: none"> <li>• XenServer version 3.4.3</li> <li>• XenServer version 4.1 and later</li> </ul>
<b>VMware</b>	<ul style="list-style-type: none"> <li>• ESX versions 4.0 and 4.1</li> <li>• ESXi versions 4.0, 4.1, 5.0, 5.1, 5.5, 6.0, 6.5, and 6.7</li> </ul>
<b>VM Series - SR-IOV</b>	<p>The following NIC chipset cards are supported:</p> <ul style="list-style-type: none"> <li>• Intel 82599</li> <li>• Intel X540</li> <li>• Intel X710/XL710</li> </ul>

## Language support

The following table lists language support information.

### Language support

Language	GUI
English	✓
Chinese (Simplified)	✓
Chinese (Traditional)	✓
French	✓
Japanese	✓
Korean	✓
Portuguese (Brazil)	✓
Spanish	✓

## 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)	2336. Download from the Fortinet Developer Network: <a href="https://fndn.fortinet.net">https://fndn.fortinet.net</a> .
Linux Ubuntu 16.04 (32-bit & 64-bit)	

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



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)	Mozilla Firefox version 66 Google Chrome version 73
Microsoft Windows 10 (64-bit)	Microsoft Edge Mozilla Firefox version 66 Google Chrome version 73
Linux Ubuntu 16.04 / 18.04 (32-bit & 64-bit)	Mozilla Firefox version 66
MacOS High Sierra 10.13.6	Apple Safari version 12 Mozilla Firefox version 66 Google Chrome version 72
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

The following table lists the antivirus and firewall client software packages that are supported.

### Supported Microsoft Windows XP antivirus and firewall software

Product	Antivirus	Firewall
Symantec Endpoint Protection 11	✓	✓
Kaspersky Antivirus 2009	✓	
McAfee Security Center 8.1	✓	✓
Trend Micro Internet Security Pro	✓	✓
F-Secure Internet Security 2009	✓	✓

**Supported Microsoft Windows 7 32-bit antivirus and firewall software**

Product	Antivirus	Firewall
CA Internet Security Suite Plus Software	✓	✓
AVG Internet Security 2011		
F-Secure Internet Security 2011	✓	✓
Kaspersky Internet Security 2011	✓	✓
McAfee Internet Security 2011	✓	✓
Norton 360™ Version 4.0	✓	✓
Norton™ Internet Security 2011	✓	✓
Panda Internet Security 2011	✓	✓
Sophos Security Suite	✓	✓
Trend Micro Titanium Internet Security	✓	✓
ZoneAlarm Security Suite	✓	✓
Symantec Endpoint Protection Small Business Edition 12.0	✓	✓

# Resolved Issues

The following issues have been fixed in version 6.0.11. For inquiries about a particular bug, please contact [Customer Service & Support](#).

## Firewall

Bug ID	Description
610557	FortiGate VIP object offers weak elliptic curves since VS implementation in WAD for FortiOS 6.0 and above.
644225	Challenge ACK is being dropped.

## Log & Report

Bug ID	Description
593557	Logs to syslog server configured with FQDN address fail on FortiGate when FQDN address DNS entry gets updated.
612779	Reliable syslogd session goes into bad state due to traffic shaper.

## Proxy

Bug ID	Description
568905	WAD crashes due to RCX value being null.

## SSL VPN

Bug ID	Description
564871	SSL VPN users create multiple connections.
600029	RADIUS accounting interim update messages with SSL VPN client framed-IP are delayed.

Bug ID	Description
620508	CLI command <code>get vpn ssl monitor</code> displays users from other VDOM.
624899	Log entry for tunnel stats shows wrong tunnel ID when using RDP bookmark.
637018	After the upgrade to 6.0.10/6.2.4/6.4.0, SSL VPN portal mapping/remote authentication is matching user into the incorrect group.
649130	SSL VPN log entries display users from other VDOMs.

## System

Bug ID	Description
503125	FG-100D traffic traversing port1-port16 only saturates CPU0.
541527	Changing the order of VDOM in <code>system admin</code> when connected with TACACS+ wildcard administrator is not propagated to other blades.
563956	Kernel panic and reboot on FG-2500E.
632635	Frame size option in sniffer does not work.
647159	Kernel panic on FG-600D.
665000	HA LED off issue on FG-1100E/1101E models running FOS 6.0.

## User & Device

Bug ID	Description
591170	Sessions are removed from the session table when FSSO group order is changed.

## Common Vulnerabilities and Exposures

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

Bug ID	CVE references
634975	FortiOS 6.0.11 is no longer vulnerable to the following CVE Reference: <ul style="list-style-type: none"> <li>CVE-2020-12819</li> </ul>
634978	FortiOS 6.0.11 is no longer vulnerable to the following CVE Reference: <ul style="list-style-type: none"> <li>CVE-2020-12820</li> </ul>

## Known Issues

The following issues have been identified in version 6.0.11. For inquiries about a particular bug or to report a bug, please contact [Customer Service & Support](#).

### Antivirus

Bug ID	Description
582368	URL threat detection version shows a large negative number after FortiGate reboots.
590092	Cannot clear <code>scanunit vdom-stats</code> to reset the statistics on ATP widget.

### Explicit Proxy

Bug ID	Description
564582	Explicit proxy policy treats <code>domain.tld</code> in FQDN firewall address object as wildcard.

### Firewall

Bug ID	Description
508015	Editing a policy in the GUI changes the FSSO setting to disable.
520558	Should not do passive port NAT for FTP session helper.
591731	Cannot reorder shaping policy via GUI or CLI (FG-100F).
643446	Fragmented UDP traffic is silently dropped when fragments have different ECN values.

### FortiView

Bug ID	Description
527540	On multiple pages, the <i>Quarantine Host</i> option is not clickable on a registered device.

## GUI

Bug ID	Description
467495	After enabling an inserted proxy policy, incorrect warning message appears that there is no source interface.
545900	GUI shows <i>Failed to save changes</i> when trying to reorder a policy in the list.
587673	On <i>Proxy Policy</i> page, the default view method ( <i>Interface Pair View</i> ) is not clickable.
662434	Aggregated interfaces in <i>Zone</i> are not displayed correctly.

## HA

Bug ID	Description
540600	The HA <code>hello-holddown</code> value is divided by 10 in the <code>hataalk</code> daemon, which makes the <code>hello-holddown</code> time 10 times less than the configuration.
584551	<code>hataalk</code> keeps exchanging heartbeat packet incorrectly with FortiManager.
601550	Application <code>hasync</code> crashes several times.
621583	HA status is not displayed in the GUI when HB cables reconnect.
637711	CSR on cluster primary is generating out-of-sync alerts on secondary and tertiary units.
643958	Inconsistent data from FFDB caused several <code>confsyncd</code> crashes.
651674	Long sessions lost on new primary after HA failover.

## Intrusion Prevention

Bug ID	Description
668631	<p>IPS is constantly crashing, and <code>ipshelper</code> has high CPU when IPS extended database has too many rules (more than 256) sharing the same pattern. Affected models: SoC3-based FortiGates.</p> <p><b>Workaround:</b> disable CP or disable the extended database.</p> <pre>config ips global   set database regular   set cp-accel-mode none end</pre>



## Log & Report

Bug ID	Description
551031	FortiGate lost logs to FortiAnalyzer when route was changed and without physical interface being down.
592766	Log device defaults to empty and cannot be switched on in the GUI after enabling FortiAnalyzer Cloud.
634947	rlogd signal 11 crashes.
643099	logid=0000000020 is generated even with <code>set logtraffic disable</code> in the policy.

## Proxy

Bug ID	Description
501299	WAD sometimes does not spawn any workers when configuring FG-101E after a factory reset.
584719	WAD reads <code>ftp over-limit multi-line</code> response incorrectly.
603195	Multiple WAD crashes with signal 11.
608387	WAD virtual server with HTTP multiplexing enabled causes crash after server is detached because the HTTP server object is detached from the HTTP session.
617099	WAD crashes every few minutes.
653099	Wildcard URL filter in proxy mode with <code>?</code> and <code>*</code> not always handled properly.

## Routing

Bug ID	Description
576930	Time stamps missing in routing debugs.

## SSL VPN

Bug ID	Description
548599	SSL VPN crashes on parsing some special URLs.
596273	sslvpn worker process crashes, causing a zombie tunnel session.

Bug ID	Description
599960	RADIUS user and local token push cannot log in to SSL VPN portal/tunnel when the password needs to be changed.
610995	SSL VPN web mode gets error when accessing internal website at <a href="https://st***.st***.ca/">https://st***.st***.ca/</a> .
628597	Unable to load the SSL VPN bookmark internal website, <a href="https://fi***.co.nz">https://fi***.co.nz</a> .
633114	Cannot access internal website <a href="http://pl***.fr">pl***.fr</a> using SSL VPN web mode.
633684	Host check causing macOS users to fail to connect to SSL VPN.
644506	Cannot authenticate to SSL VPN using 2FA if remote LDAP user and user within RADIUS group has same user name and password.
648433	Internal website loading issue in SSL VPN web portal.
662042	The <a href="https://outlook.office365.com">https://outlook.office365.com</a> and <a href="https://login.microsoft.com">https://login.microsoft.com</a> websites cannot be accessed in the SSL VPN web portal.
665879	When SSL VPN processes the HTTP/HTTPS response with content disposition, it will change the response body since the content type is HTML.
666855	FortiOS supports verifying client certificates with RSA-PSS series of signature algorithms, which causes problems with certain clients.
670803	Internal website, <a href="http://gd***.local/share/page?pt=login">http://gd***.local/share/page?pt=login</a> , log in page does not load in SSL VPN web mode.

## System

Bug ID	Description
508085	The address object is still created even if the user sets the invalid address.
540354	WAD high CPU usage on FortiGate models that do not support SSH proxy in FOS 5.6. After upgrading to FOS 6.0, <code>ssl-ssh-profile</code> has <code>certificate-inspection</code> profile has SSH status incorrectly set to <code>deep-inspection</code> .
571720	Using DHCP to acquire addresses for <code>mode-config</code> with certificates fails to send DHCP request.
585053	NP6 VLAN LACP-based interface RX/TX counters not increasing.
587521	VIP server load-balancing persistence HTTP cookie not refreshed after the timer.
598464	Rebooting FG-1500D in 5.6.x during upgrade causes an L2 loop on the heartbeat interface and VLAN is disabled on the switch side.
605723	FG-600E stops sending out packets on its SPF and copper port on NP6.
607565	Interface <code>emac-vlan</code> feature does not work on SoC4 platform.
611512	When a LAG is created between 10 GE SFP+ slots and 25 GE SFP28/10 GE SFP+ slots, only about 50% of the sessions can be created. Affected models: FG-110xE, FG-220xE, and FG-330xE.

Bug ID	Description
615460	GRE keep-alive reply dropped.
627629	DHCP client sent invalid DHCPREQUEST format during INIT state.
628642	Issue when packets from same session are forwarded to each LACP member when NPx offloading is enabled.
631296	Forward or local bi-directional traffic from NPU inter-VDOM links through separate VDOMs is subject to high latency.
633827	Errors during fuzzy tests on FG-1500D.
634929	NP6 SSE drops after a couple of hours in a stability test.
649729	HA sync packets are hashed to a single queue when <code>sync-packet-balance</code> is enabled.
657629	FG-101F cannot retrieve power fan status and BGP status via SNMP.
660709	The <code>sflowd</code> process has high CPU usage when application control is enabled.
666030	Empty firewall objects after pushing several policy deletes.

## User & Device

Bug ID	Description
561235	FQDN address objects resolution is failing when used in the captive web portal as walled garden rules.
567831	Local FSSO poller is regularly missing logon events.
604844	<code>auth-concurrent</code> setting in <code>user group</code> is not working as expected.
637577	Inconsistent <code>fnbamd</code> LDAP group match result.

## VM

Bug ID	Description
656701	FG-VMX service manager enters conserve mode; <code>cmdbsvr</code> has high memory utilization.

## Web Filter

Bug ID	Description
553593	Running <code>diagnose debug urlfilter test-url &lt;url&gt;</code> gives a response of <code>URL test cache miss</code> , even though the <code>test-url</code> is in the web filter rating cache.

## WiFi Controller

Bug ID	Description
579908	Tunnel mode SSID packet loss seen from FAP-U24JEV and 800 connected APs.
608717	Packet loss over CAPWAP tunneled SSID.
618456	High <code>cw_acd</code> usage upon polling a large number of wireless clients with REST API.
641042	FG-200D drops TX packet on the SSID tunnel interface.
680503	The current Fortinet_Wifi certificate will expire on 2021-02-11.

# 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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