

# Release Notes

FortiOS 7.4.12



**FORTINET DOCUMENT LIBRARY**

<https://docs.fortinet.com>

**FORTINET VIDEO LIBRARY**

<https://video.fortinet.com>

**FORTINET BLOG**

<https://blog.fortinet.com>

**CUSTOMER SERVICE & SUPPORT**

<https://support.fortinet.com>

**FORTINET TRAINING & CERTIFICATION PROGRAM**

<https://www.fortinet.com/training-certification>

**FORTINET TRAINING INSTITUTE**

<https://training.fortinet.com>

**FORTIGUARD LABS**

<https://www.fortiguard.com>

**END USER LICENSE AGREEMENT**

<https://www.fortinet.com/doc/legal/EULA.pdf>

**FEEDBACK**

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



May 7, 2026

FortiOS 7.4.12 Release Notes

01-7412-1284770-20260507

# TABLE OF CONTENTS

<b>Change Log</b> .....	<b>6</b>
<b>Introduction and supported models</b> .....	<b>7</b>
Supported models .....	7
Special branch supported models .....	8
FortiGate 6000 and 7000 support .....	8
<b>Special notices</b> .....	<b>9</b>
Hyperscale incompatibilities and limitations .....	9
FortiGate 6000 and 7000 incompatibilities and limitations .....	9
SMB drive mapping with ZTNA access proxy .....	9
Local out traffic using ECMP routes could use different port or route to server .....	10
Hyperscale NP7 hardware limitation .....	10
SAML certificate verification .....	10
Changes to NP7 traffic shaping .....	11
GUI cannot be accessed when using a server certificate with an RSA 1024 bit key ..	12
SSL VPN not supported on FortiGate G-series Entry-Level models .....	12
Policy check required for hairpin traffic .....	12
<b>Changes in default behavior</b> .....	<b>13</b>
<b>New features or enhancements</b> .....	<b>14</b>
Security Fabric .....	14
System .....	14
<b>Upgrade information</b> .....	<b>15</b>
Fortinet Security Fabric upgrade .....	15
Downgrading to previous firmware versions .....	17
Firmware image checksums .....	17
FortiGate 6000 and 7000 upgrade information .....	17
FortiGate 5001E primary blade failed to install image .....	18
IPS-based and voipd-based VoIP profiles .....	19
GUI firmware upgrade does not respect upgrade path in previous versions .....	20
2 GB RAM FortiGate models no longer support FortiOS proxy-related features .....	20
FortiGate VM memory and upgrade .....	20
Managed FortiSwitch do not permit empty passwords for administrator accounts ..	21
Policies that use an interface show missing or empty values after an upgrade .....	21
Statistics for traffic shaping using QTM .....	22
Loopback-based VIPs cannot pass traffic after upgrade .....	22
FIPS-CC mode no longer supports TACACS+ .....	22
<b>Product integration and support</b> .....	<b>23</b>
Virtualization environments .....	24
Language support .....	24
SSL VPN support .....	25
SSL VPN web mode .....	25
FortiExtender modem firmware compatibility .....	25

<b>Resolved issues</b> .....	<b>28</b>
Application Control .....	28
DNS Filter .....	28
Explicit Proxy .....	28
File Filter .....	29
Firewall .....	29
FortiGate 6000/7000 Platform .....	29
GUI .....	29
HA .....	30
HyperScale .....	30
IPsec VPN .....	31
Intrusion Prevention .....	31
Log and Report .....	32
Proxy .....	32
Routing .....	32
SD-WAN .....	32
SSL-VPN .....	33
Security Fabric .....	33
Switch Controller .....	33
System .....	34
Upgrade .....	35
User and Authentication .....	35
VM .....	36
VoIP .....	36
Web Filter .....	37
WiFi Controller .....	37
ZTNA .....	37
<b>Known issues</b> .....	<b>38</b>
New known issues .....	38
Existing known issues .....	38
Explicit Proxy .....	38
Firewall .....	38
FortiGate 6000/7000 Platform .....	39
FortiView .....	40
GUI .....	40
HA .....	40
HyperScale .....	41
IPsec VPN .....	43
Proxy .....	43
REST API .....	43
Routing .....	43
Security Fabric .....	44
Switch Controller .....	44
System .....	44
Upgrade .....	45
User and Authentication .....	45

---

VM .....	46
WiFi Controller .....	46
ZTNA .....	47
<b>Built-in AV Engine .....</b>	<b>48</b>
<b>Built-in IPS Engine .....</b>	<b>49</b>
Resolved engine issues .....	49
<b>Limitations .....</b>	<b>50</b>
Citrix XenServer limitations .....	50
Open source XenServer limitations .....	50
Limitations on HA cluster formation between different FortiGate Rugged 60F and 60F 3G4G models .....	50

# Change Log

Date	Change Description
2026-05-07	Initial release.

# Introduction and supported models

This guide provides release information for FortiOS 7.4.12 build 2902.

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

## Supported models

FortiOS 7.4.12 supports the following models.

<b>FortiGate</b>	FG-30G, FG-31G, FG-40F, FG-40F-3G4G, FG-50G, FG-50G-5G, FG-50G-DSL, FG-50G-SFP, FG-50G-SFP-POE, FG-51G, FG-51G-5G, FG-51G-SFP-POE, FG-60E, FG-60E-DSL, FG-60E-DSLJ, FG-60E-POE, FG-60F, FG-61E, FG-61F, FG-70F, FG-70G, FG-70G-POE, FG-71F, FG-71G, FG-71G-POE, FG-80E, FG-80E-POE, FG-80F, FG-80F-BP, FG-80F-DSL, FG-80F-POE, FG-81E, FG-81E-POE, FG-81F, FG-81F-POE, FG-90E, FG-91E, FG-90G, FG-91G, FG-100F, FG-101F, FG-120G, FG-121G, FG-140E, FG-140E-POE, FG-200E, FG-200F, FG-201E, FG-201F, FG-200G, FG-201G, FG-300E, FG-301E, FG-400E, FG-400E-BP, FG-401E, FG-400F, FG-401F, FG-500E, FG-501E, FG-600E, FG-601E, FG-600F, FG-601F, FG-700G, FG-701G, FG-900G, FG-901G, FG-1000F, FG-1001F, FG-1100E, FG-1101E, FG-1800F, FG-1801F, FG-2000E, FG-2200E, FG-2201E, FG-2500E, FG-2600F, FG-2601F, FG-3000F, FG-3001F, FG-3200F, FG-3201F, FG-3300E, FG-3301E, FG-3400E, FG-3401E, FG-3500F, FG-3501F, FG-3600E, FG-3601E, FG-3700F, FG-3701F, FG-3960E, FG-3980E, FG-4200F, FG-4201F, FG-4400F, FG-4401F, FG-4800F, FG-4801F, FG-5001E, FG-5001E1, FG-6000F, FG-7000E, FG-7000F
<b>FortiWiFi</b>	FWF-30G, FWF-31G, FWF-40F, FWF-40F-3G4G, FWF-50G, FWF-50G-5G, FWF-50G-DSL, FWF-50G-SFP, FWF-51G, FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-70G, FWF-71G, FWF-70G-POE, FWF-80F-2R, FWF-80F-2R-3G4G-DSL, FWF-81F-2R, FWF-81F-2R-3G4G-DSL, FWF-81F-2R-POE, FWF-81F-2R-3G4G-POE
<b>FortiGate Rugged</b>	FGR-50G-5G, FGR-60F, FGR-60F-3G4G, FGR-70F, FGR-70F-3G4G, FGR-70G, FGR-70G-5G-Dual
<b>FortiFirewall</b>	FFW-1801F, FFW-2600F, FFW-3001F, FFW-3501F, FFW-3980E, FFW-4200F, FFW-4400F, FFW-4401F, FFW-4801F, FFW-VM64, FFW-VM64-KVM
<b>FortiGate VM</b>	FG-ARM64-AWS, FG-ARM64-AZURE, FG-ARM64-GCP, FG-ARM64-KVM, FG-ARM64-OCI, FG-VM64, FG-VM64-ALI, FG-VM64-AWS, FG-VM64-AZURE, FG-VM64-GCP, FG-VM64-HV, FG-VM64-IBM, FG-VM64-KVM, FG-VM64-OPC, FG-VM64-RAXONDEMAND, FG-VM64-XEN

## Special branch supported models

The following models are released on a special branch of FortiOS 7.4.12. To confirm that you are running the correct build, run the CLI command `get system status` and check that the `Branch point` field shows 2902.

<b>FG-3800G</b>	is released on build 6849.
-----------------	----------------------------

<b>FG-3801G</b>	is released on build 6849.
-----------------	----------------------------

## FortiGate 6000 and 7000 support

FortiOS 7.4.12 supports the following FG-6000F, FG-7000E, and FG-7000F models:

<b>FG-6000F</b>	FG-6001F, FG-6300F, FG-6301F, FG-6500F, FG-6501F
-----------------	--------------------------------------------------

<b>FG-7000E</b>	FG-7030E, FG-7040E, FG-7060E
-----------------	------------------------------

<b>FG-7000F</b>	FG-7081F, FG-7121F
-----------------	--------------------

# Special notices

- [Hyperscale incompatibilities and limitations on page 9](#)
- [FortiGate 6000 and 7000 incompatibilities and limitations on page 9](#)
- [SMB drive mapping with ZTNA access proxy on page 9](#)
- [Local out traffic using ECMP routes could use different port or route to server on page 10](#)
- [Hyperscale NP7 hardware limitation on page 10](#)
- [SAML certificate verification on page 10](#)
- [Changes to NP7 traffic shaping on page 11](#)
- [GUI cannot be accessed when using a server certificate with an RSA 1024 bit key on page 12](#)
- [SSL VPN not supported on FortiGate G-series Entry-Level models on page 12](#)
- [Policy check required for hairpin traffic on page 12](#)

## Hyperscale incompatibilities and limitations

See [Hyperscale firewall incompatibilities and limitations](#) in the Hyperscale Firewall Guide for a list of limitations and incompatibilities with FortiOS 7.4.12 features.

## FortiGate 6000 and 7000 incompatibilities and limitations

See the following links for information about FortiGate 6000 and 7000 limitations and incompatibilities with FortiOS 7.4.12 features.

- [FortiGate 6000 incompatibilities and limitations](#)
- [FortiGate 7000E incompatibilities and limitations](#)
- [FortiGate 7000F incompatibilities and limitations](#)

## SMB drive mapping with ZTNA access proxy

In FortiOS 7.4.1 and later, SMB drive mapping on a Windows PC made through a ZTNA access proxy becomes inaccessible after the PC reboots when access proxy with TCP forwarding is configured as FQDN. When configured with an IP for SMB traffic, same issue is not observed.

One way to solve the issue is to enter the credentials into Windows Credential Manager in the form of `domain\username`.

Another way to solve the issue is to leverage the KDC proxy to issue a TGT (Kerberos) ticket for the remote user. See [ZTNA access proxy with KDC to access shared drives](#) for more information. This way, there is no reply in Credential Manager anymore, and the user is authenticated against the DC.

## Local out traffic using ECMP routes could use different port or route to server

Starting from version 7.4.1, when there is ECMP routes, local out traffic may use different route/port to connect out to server. For critical traffic which is sensitive to source IP addresses, it is suggested to specify the interface or SD-WAN for the traffic since FortiOS has implemented `interface-select-method` command for nearly all local-out traffic.

```
config system fortiguard
  set interface-select-method specify
  set interface "wan1"
end
```

## Hyperscale NP7 hardware limitation

Because of an NP7 hardware limitation, for CGN traffic accepted by a hyperscale firewall policy that includes an overload with port block allocation (overload PBA) IP Pool, only one block is allocated per client. The setting of the hyperscale firewall policy `cgn-resource-quota` option is ignored.

Because of this limitation, under certain rare conditions (for example, only a single server side IP address and port are being used for a large number of sessions), port allocation may fail even if the block usage of the client is less than its quota. In cases such as this, if the client has traffic towards some other servers or ports, additional port allocation can become successful. You can also work around this problem by increasing the IP Pool block size (`cgn-block-size`).

## SAML certificate verification

For security purposes, in previous versions, FortiGate required a signature verification for both the SAML response message and the SAML assertion carried inside the SAML response. This means that the SAML response must have a valid signature, and the SAML assertion must also have a valid signature. If the Identity Provider (IdP) provides an invalid signature, or fails to sign one of these, the FortiGate will reject the SAML response.

This has now been loosened with the following configuration:

```

config user saml
  edit <name>
    set require-signed-resp-and-asrt <enable | disable>
  next
end

```

Option	Description
enable	Both response and assertion must be signed and valid.
disable	At least one of response or assertion must be signed and valid (default).

By default, the setting is disabled, which only requires one of the response or assertion to be signed and valid.

For more information, see [Identify Providers](#).

## Changes to NP7 traffic shaping

The following known issues for the Queuing based Traffic Management (QTM) module on NP7 are fixed:

- Incorrect checksum for fragments after QTM.
- Packets longer than 6000 bytes cause QTM to hang.
- Refreshing causes QTM to hang.
- MTU is not honored after QTM, so the packet is not fragmented.

As a result of these changes, you can no longer use the following command to change QoS type used for traffic shaping for sessions offloaded to NP7 processors:

```

config system npu
  set default-qos-type {policing | shaping}
end

```

Instead, `default-qos-type` can only be set to `policing`.

For NP7 sessions, policy traffic shaping, per-IP shaping, and regular port shaping (outbandwidth enabled on an interface without a shaping profile) always use the NP7 accounting and traffic shaping module (called the TPE module). This is the same as changing the `default-qos-type` to `policing`.

For NP7 sessions, shaping profiles on interfaces now only use QTM for traffic shaping (equivalent to setting `default-qos-type` to `shaping`). Shaping profiles on interfaces are also called Multiclass shaping (MCS). The interface can be a physical interface, LAG interface, and VLAN interface (over physical or LAG). The FortiGate supports shaping profiles on a maximum of 100 interfaces.

## GUI cannot be accessed when using a server certificate with an RSA 1024 bit key

The GUI cannot be accessed when using an admin server certificate with an RSA 1024 bit key after upgrading to FortiOS 7.6.1, 7.4.8, or 7.2.11. An RSA key of at least 2048 bits is required. Certificates that are using an RSA key of less than 2048 bits are no longer supported.

## SSL VPN not supported on FortiGate G-series Entry-Level models

The SSL VPN web and tunnel mode feature will not be available from the GUI or the CLI on the FortiGate G-Series Entry-Level models, including 50G, 70G, 90G and variants. Settings will not be upgraded from previous versions.

Consider migrating to using IPsec Dialup VPN for remote access. See [FortiOS 7.4 SSL VPN to IPsec VPN migration](#).

## Policy check required for hairpin traffic

In FortiOS 7.4.10, the default setting for `allow-traffic-redirect` and `ipv6-allow-traffic-redirect` changed from `enable` to `disable`:

```
config system global
  set allow-traffic-redirect disable
  set ipv6-allow-traffic-redirect disable
end
```

Upon upgrade, both of these settings will be changed to `disable`, even if they were enabled before.

Disabling this setting ensures that hairpin traffic arriving at an interface and redirected out on the same interface requires a firewall policy to explicitly allow the traffic. If you want to redirect traffic without the need for a policy based only on routing decision, then manually enable these settings.

# Changes in default behavior

Bug ID	Description																						
1240706	In NGFW policy-based mode, traffic may be bypassed when the IPS engine is not running such as when FortiGate first boots up, the IPS engine is upgrading or when it is manually stopped with debug commands. Instead, NGFW policy mode VDOMs will now drop traffic when IPS sockets are not available.																						
1245249	Additional commands are allowed before device registration to accommodate users that require configuring the device for central management, ZTP and LTP.																						
	<table border="1"><thead><tr><th>Command</th><th>Description</th></tr></thead><tbody><tr><td><code>config firewall policy</code></td><td>Configure IPv4/IPv6 policies.</td></tr><tr><td><code>config router setting</code></td><td>Configure router settings.</td></tr><tr><td><code>config router static</code></td><td>Configure IPv4 static routing tables.</td></tr><tr><td><code>config router static6</code></td><td>Configure IPv6 static routing tables.</td></tr><tr><td><code>config system admin</code></td><td>Configure admin users.</td></tr><tr><td><code>config system central-management</code></td><td>Configure central management.</td></tr><tr><td><code>config system dns</code></td><td>Configure DNS.</td></tr><tr><td><code>config system interface</code></td><td>Configure interfaces.</td></tr><tr><td><code>config system pppoe-interface</code></td><td>Configure the PPPoE interfaces.</td></tr><tr><td><code>config system settings</code></td><td>Configure VDOM settings.</td></tr></tbody></table>	Command	Description	<code>config firewall policy</code>	Configure IPv4/IPv6 policies.	<code>config router setting</code>	Configure router settings.	<code>config router static</code>	Configure IPv4 static routing tables.	<code>config router static6</code>	Configure IPv6 static routing tables.	<code>config system admin</code>	Configure admin users.	<code>config system central-management</code>	Configure central management.	<code>config system dns</code>	Configure DNS.	<code>config system interface</code>	Configure interfaces.	<code>config system pppoe-interface</code>	Configure the PPPoE interfaces.	<code>config system settings</code>	Configure VDOM settings.
Command	Description																						
<code>config firewall policy</code>	Configure IPv4/IPv6 policies.																						
<code>config router setting</code>	Configure router settings.																						
<code>config router static</code>	Configure IPv4 static routing tables.																						
<code>config router static6</code>	Configure IPv6 static routing tables.																						
<code>config system admin</code>	Configure admin users.																						
<code>config system central-management</code>	Configure central management.																						
<code>config system dns</code>	Configure DNS.																						
<code>config system interface</code>	Configure interfaces.																						
<code>config system pppoe-interface</code>	Configure the PPPoE interfaces.																						
<code>config system settings</code>	Configure VDOM settings.																						

# New features or enhancements

More detailed information is available in the [New Features Guide](#).

## Security Fabric

See [Security Fabric](#) in the New Features Guide for more information.

Feature ID	Description
1250003	Introduces a new default automation stitch (Firmware Upgrade Complete), a new automation trigger (Auto Firmware Upgrade Complete), and a new automation action (Auto Upgrade Complete Email Notification); additionally, the firmwareupgrade email notification has been improved for greater clarity, and the previous default automation stitch (Firmware Upgrade Notification) has been disabled.

## System

See [System](#) in the New Features Guide for more information.

Feature ID	Description
1127168	FortiGate now lets users dismiss specific firmware upgrade prompts for extension devices, reducing unnecessary notifications. Upgrade logs have been improved with distinct IDs to differentiate auto-upgrades from manual ones, and email alerts now include detailed status updates. Additionally, after disabling auto-upgrade and updating, the login GUI prompts users to manually confirm their auto-upgrade preference.
1256067	The FortiGate FortiGuard communication protocol (FCPC) is enhanced to accept a new ForcedUpdate flag as well as the major.minor.patch-build versioning from the FortiGate. When a FortiGate observes its firmware license is invalid, it will send FortiGuard a firmware upgrade message with the ForcedUpdate flag and its versioning. In turn, FortiGuard server will ignore license check for that device and parse its firmware version. If the major and minor version on the upgrade-from and upgrade-to firmware are the same, the upgrade will be allowed.  Furthermore, logs, notifications, and automation stitches are improved to provide clearer indication of auto-upgrade and required-upgrade within its messaging.

# Upgrade information

Supported upgrade path information is available on the [Fortinet Customer Service & Support site](#).

FortiGate	Upgrade option	Details
Individual FortiGate devices	Manual update	Use the procedure in this topic. See also <a href="#">Upgrading individual devices</a> in the FortiOS Administration Guide.
	Automatic update based on FortiGuard upgrade path	See <a href="#">Enabling automatic firmware updates</a> in the FortiOS Administration Guide for details
Multiple FortiGate devices in a Fortinet Security Fabric	Manual, immediate or scheduled update based on FortiGuard upgrade path	See <a href="#">Fortinet Security Fabric upgrade on page 15</a> and <a href="#">Upgrading Fabric or managed devices</a> in the FortiOS Administration Guide.

## 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*.

## Fortinet Security Fabric upgrade

FortiOS 7.4.12 greatly increases the interoperability between other Fortinet products. This includes:

<b>FortiAnalyzer</b>	• 7.4.10
<b>FortiManager</b>	• 7.4.10
<b>FortiExtender</b>	• 7.4.0 and later

<b>FortiSwitch OS (FortiLink support)</b>	<ul style="list-style-type: none"><li>• 6.4.6 build 0470 and later</li></ul>
<b>FortiAP</b>	<ul style="list-style-type: none"><li>• 7.2.2 and later</li></ul>
<b>FortiAP-U</b>	<ul style="list-style-type: none"><li>• 6.2.5 and later</li></ul>
<b>FortiAP-W2</b>	<ul style="list-style-type: none"><li>• 7.2.2 and later</li></ul>
<b>FortiClient* EMS</b>	<ul style="list-style-type: none"><li>• 7.0.3 build 0229 and later</li></ul>
<b>FortiClient* Microsoft Windows</b>	<ul style="list-style-type: none"><li>• 7.0.3 build 0193 and later</li></ul>
<b>FortiClient* Mac OS X</b>	<ul style="list-style-type: none"><li>• 7.0.3 build 0131 and later</li></ul>
<b>FortiClient* Linux</b>	<ul style="list-style-type: none"><li>• 7.0.3 build 0137 and later</li></ul>
<b>FortiClient* iOS</b>	<ul style="list-style-type: none"><li>• 7.0.2 build 0036 and later</li></ul>
<b>FortiClient* Android</b>	<ul style="list-style-type: none"><li>• 7.0.2 build 0031 and later</li></ul>
<b>FortiSandbox</b>	<ul style="list-style-type: none"><li>• 2.3.3 and later for post-transfer scanning</li><li>• 4.2.0 and later for post-transfer and inline scanning</li></ul>

\* If you are using FortiClient only for IPsec VPN or SSL VPN, FortiClient version 6.0 and later are supported.

When upgrading your Security Fabric, devices that manage other devices should be upgraded first.



When using FortiClient with FortiAnalyzer, you should upgrade both to their latest versions. The versions between the two products should match. For example, if using FortiAnalyzer 7.4.0, use FortiClient 7.4.0.

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

1. FortiAnalyzer
2. FortiManager
3. FortiGate devices
4. Managed FortiExtender devices
5. Managed FortiSwitch devices
6. Managed FortiAP devices
7. FortiClient EMS
8. FortiClient
9. FortiSandbox
10. FortiMail
11. FortiWeb
12. FortiNAC
13. FortiVoice
14. FortiDeceptor
15. FortiNDR
16. FortiTester

## 17. FortiMonitor



If Security Fabric is enabled, then all FortiGate devices must be upgraded to 7.4.12. When Security Fabric is enabled in FortiOS 7.4.12, all FortiGate devices must be running FortiOS 7.4.12.

---

## 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
- admin user account
- session helpers
- system access profiles

## 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, go to *Support > Firmware Image Checksums* (in the *Downloads* section), enter the image file name including the extension, and click *Get Checksum Code*.

## FortiGate 6000 and 7000 upgrade information

Upgrade FortiGate 6000 firmware from the management board GUI or CLI. Upgrade FortiGate 7000 firmware from the primary FIM GUI or CLI. The FortiGate 6000 management board and FPCs or the FortiGate 7000 FIMs and FPMs all run the same firmware image. Upgrading the firmware copies the firmware image to all components, which then install the new firmware and restart. A FortiGate 6000 or 7000 firmware upgrade can take a few minutes, the amount of time depending on the hardware and software configuration and whether DP or NP7 processor software is also upgraded.

On a standalone FortiGate 6000 or 7000, or an HA cluster with `uninterruptible-upgrade` disabled, the firmware upgrade interrupts traffic because all components upgrade in one step. These firmware upgrades should be done during a quiet time because traffic can be interrupted for a few minutes during the upgrade process.

Fortinet recommends running a graceful firmware upgrade of a FortiGate 6000 or 7000 FGCP HA cluster by enabling `uninterruptible-upgrade` and `session-pickup`. A graceful firmware upgrade only causes minimal traffic interruption.

---



Fortinet recommends that you review the services provided by your FortiGate 6000 or 7000 before a firmware upgrade and then again after the upgrade to make sure that these services continue to operate normally. For example, you might want to verify that you can successfully access an important server used by your organization before the upgrade and make sure that you can still reach the server after the upgrade and performance is comparable. You can also take a snapshot of key performance indicators (for example, number of sessions, CPU usage, and memory usage) before the upgrade and verify that you see comparable performance after the upgrade.

---

### To perform a graceful upgrade of your FortiGate 6000 or 7000 to FortiOS 7.4.12:

1. Use the following command to set the `upgrade-mode` to `uninterruptible` to support HA graceful upgrade:

```
config system ha
    set uninterruptible-upgrade enable
end
```



When upgrading from FortiOS 7.4.1 to a later version, use the following command to enable `uninterruptible` upgrade:

```
config system ha
    set upgrade-mode uninterruptible
end
```

2. Download the FortiOS 7.4.12 FG-6000F, FG-7000E, or FG-7000F firmware from <https://support.fortinet.com>.
3. Perform a normal upgrade of your HA cluster using the downloaded firmware image file.
4. When the upgrade is complete, verify that you have installed the correct firmware version. For example, check the FortiGate dashboard or use the `get system status` command.
5. Confirm that all components are synchronized and operating normally. For example, open the Cluster Status dashboard widget to view the status of all components, or use `diagnose sys confsync status` to confirm that all components are synchronized.

## FortiGate 5001E primary blade failed to install image

SLBC FortiGate 5001E primary blade failed to install image, even though `graceful-upgrade` was disabled.

## IPS-based and voipd-based VoIP profiles

In FortiOS 7.4.0 and later, the new IPS-based VoIP profile allows flow-based SIP to complement SIP ALG while working together. There are now two types of VoIP profiles that can be configured:

```
config voip profile
  edit <name>
    set feature-set {ips | voipd}
  next
end
```

A voipd-based VoIP profile is handled by the voipd daemon using SIP ALG inspection. This is renamed from proxy in previous FortiOS versions.

An ips-based VoIP profile is handled by the IPS daemon using flow-based SIP inspection. This is renamed from flow in previous FortiOS versions.

Both VoIP profile types can be configured at the same time on a firewall policy. For example:

```
config firewall policy
  edit 1
    set voip-profile "voip_sip_alg"
    set ips-voip-filter "voip_sip_ips"
  next
end
```

Where:

- voip-profile can select a voip-profile with feature-set voipd.
- ips-voip-filter can select a voip-profile with feature-set ips.

The VoIP profile selection within a firewall policy is restored to pre-7.0 behavior. The VoIP profile can be selected regardless of the inspection mode used in the firewall policy. The new ips-voip-filter setting allows users to select an IPS-based VoIP profile to apply flow-based SIP inspection, which can work concurrently with SIP ALG.

Upon upgrade, the feature-set setting of the voip profile determines whether the profile applied in the firewall policy is voip-profile or ips-voip-filter.

Before upgrade	After upgrade
<pre>config voip profile   edit "ips_voip_filter"     set feature-set flow   next   edit "sip_alg_profile"     set feature-set proxy   next end</pre>	<pre>config voip profile   edit "ips_voip_filter"     set feature-set ips   next   edit "sip_alg_profile"     set feature-set voipd   next end</pre>

Before upgrade	After upgrade
<pre> config firewall policy   edit 1     set voip-profile "ips_voip_filter"   next   edit 2     set voip-profile "sip_alg_profile"   next end </pre>	<pre> config firewall policy   edit 1     set ips-voip-filter "ips_voip_filter"   next   edit 2     set voip-profile "sip_alg_profile"   next end </pre>

## GUI firmware upgrade does not respect upgrade path in previous versions

When performing a firmware upgrade from 7.4.0 - 7.4.3 that requires multiple version jumps, the *Follow upgrade path* option in the GUI does not respect the recommended upgrade path, and instead upgrades the firmware directly to the final version. This can result in unexpected configuration loss. To upgrade a device in the GUI, upgrade to each interim version in the upgrade path individually.

For example, when upgrading from 7.0.7 to 7.0.12 the recommended upgrade path is 7.0.7 -> 7.0.9 -> 7.0.11 -> 7.0.12. To ensure that there is no configuration loss, first upgrade to 7.0.9, then 7.0.11, and then 7.0.12.

## 2 GB RAM FortiGate models no longer support FortiOS proxy-related features

As part of improvements to enhance performance and optimize memory usage on FortiGate models with 2 GB RAM or less, starting from version 7.4.4, FortiOS no longer supports proxy-related features.

This change impacts the FortiGate/FortiWiFi 40F, 50G, 60E, 60F, 80E, and 90E series devices, along with their variants, and the FortiGate-Rugged 60F (2 GB versions only). See [Proxy-related features no longer supported on FortiGate 2 GB RAM models](#) for more information.

## FortiGate VM memory and upgrade

FortiGate virtual machines (VMs) are not constrained by memory size and will continue to support all available features after upgrading to FortiOS 7.6.0. However, it is recommended to setup VMs with at least 4 GB of RAM for optimal performance.

## Managed FortiSwitch do not permit empty passwords for administrator accounts

Starting from FortiOS version 7.4.6, a managed FortiSwitch no longer permits empty passwords for the admin account. If a FortiSwitch unit was previously authorized without an admin password, the FortiGate will automatically generate a random admin password for the FortiSwitch upon upgrading to 7.4.6 or later. This change will cause the admin to lose access.

To regain access, configure a password override on the FortiGate device using the following commands:

```
config switch-controller switch-profile
  edit default
    set login-passwd-override enable
    set login-passwd <passwd>
  next
end
```



FortiSwitch units with an existing admin password will not be affected by this change.

---

## Policies that use an interface show missing or empty values after an upgrade

If local-in policy used an interface in version 7.4.5 GA, or any previous GA version that was part of the SD-WAN zone, these policies will be deleted or show empty values after upgrading to version 7.4.6 or later.

This issue is resolved in FortiOS 7.4.8 with mantis 1104649.

After following the upgrade path to FortiOS 7.4.8, you must manually recreate these policies and assign them to the appropriate SD-WAN zone.



Although not recommended, you can skip the upgrade path and upgrade directly to FortiOS 7.4.8, and the policies remain untouched. Skipping upgrade steps might cause devices to miss other important FortiOS checks and changes and is not recommended.

---

## Statistics for traffic shaping using QTM

Statistics for traffic shaping using QTM, and the `egress-shaping-profile offload` command for SoC5, have been added.

## Loopback-based VIPs cannot pass traffic after upgrade

For users upgrading from versions 7.4.5, 7.4.6, and 7.4.7 to version 7.4.8 or later and employing loopback-based VIPs (external IP = loopback IP + `extintf "any"`), the following policy adjustments are recommended to maintain uninterrupted traffic flow if not already configured:

1. Create an entry firewall policy:
  - From external interfaces (for example, wan1) to the loopback interface
2. Add an exit firewall policy:
  - From the loopback interface to real-server interfaces (for example, port4, port5)

See also [Technical Tip: How to configure VIP with loopback on FortiOS 7.4.8](#).

## FIPS-CC mode no longer supports TACACS+

Starting in FortiOS 7.4.8, TACACS+ is no longer supported in FIPS-CC mode.

Because the TACACS+ protocol is now 30 years old, it uses MD5 for encryption and is insecure. MD5 is not an approved FIPS cipher.

After upgrading to FortiOS 7.4.8 or later, use RADIUS or another authentication method instead of TACAS+. Please note that FortiOS 7.6.0 and later only supports RADIUS over TLS.

# Product integration and support

The following table lists FortiOS 7.4.12 product integration and support information:

<b>FortiManager and FortiAnalyzer</b>	See the <a href="#">FortiOS Compatibility Tool</a> for information about FortiOS compatibility with FortiManager and FortiAnalyzer.
<b>Web browsers</b>	<ul style="list-style-type: none"><li>• Microsoft Edge 135</li><li>• Mozilla Firefox version 138</li><li>• Google Chrome version 136</li></ul> <p>Other browser versions have not been tested, but may fully function. 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 135</li><li>• Mozilla Firefox version 138</li><li>• Google Chrome version 136</li></ul> <p>Other browser versions have not been tested, but may fully function. Other web browsers may function correctly, but are not supported by Fortinet.</p>
<b>FortiController</b>	<ul style="list-style-type: none"><li>• 5.2.5 and later</li></ul> <p>Supported models: FCTL-5103B, FCTL-5903C, FCTL-5913C</p>
<b>Fortinet Single Sign-On (FSSO)</b>	<ul style="list-style-type: none"><li>• 5.0 build 0332 and later (needed for FSSO agent support OU in group filters)<ul style="list-style-type: none"><li>• Windows Server 2025 Standard</li><li>• Windows Server 2025 Datacenter</li><li>• Windows Server 2025 Core</li><li>• Windows Server 2022 Standard</li><li>• Windows Server 2022 Datacenter</li><li>• Windows Server 2019 Standard</li><li>• Windows Server 2019 Datacenter</li><li>• Windows Server 2019 Core</li><li>• Windows Server 2016 Standard</li><li>• Windows Server 2016 Datacenter</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>• Novell eDirectory 8.8</li></ul></li></ul>
<b>AV Engine</b>	<ul style="list-style-type: none"><li>• 7.00049</li></ul>
<b>IPS Engine</b>	<ul style="list-style-type: none"><li>• 7.00604</li></ul>

See also:

- [Virtualization environments on page 24](#)
- [Language support on page 24](#)
- [SSL VPN support on page 25](#)
- [FortiExtender modem firmware compatibility on page 25](#)

## Virtualization environments

The following table lists hypervisors and recommended versions.

Hypervisor	Recommended versions
<b>Citrix Hypervisor</b>	<ul style="list-style-type: none"> <li>• 8.2 Express Edition, CU1</li> </ul>
<b>Linux KVM</b>	<ul style="list-style-type: none"> <li>• Ubuntu 22.04.3 LTS</li> <li>• Red Hat Enterprise Linux release 9.4</li> <li>• SUSE Linux Enterprise Server 12 SP3 release 12.3</li> </ul>
<b>Microsoft Windows Server</b>	<ul style="list-style-type: none"> <li>• Windows Server 2019</li> </ul>
<b>Windows Hyper-V Server</b>	<ul style="list-style-type: none"> <li>• Microsoft Hyper-V Server 2019</li> </ul>
<b>Open source XenServer</b>	<ul style="list-style-type: none"> <li>• Version 3.4.3</li> <li>• Version 4.1 and later</li> </ul>
<b>VMware ESXi</b>	<ul style="list-style-type: none"> <li>• Versions 6.5, 6.7, 7.0, and 8.0.</li> </ul>

## Language support

The following table lists language support information.

### Language support

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

Language	GUI
Portuguese (Brazil)	✓
Spanish	✓

## SSL VPN support

### 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 138 Google Chrome version 136
Microsoft Windows 10 (64-bit)	Microsoft Edge 135 Mozilla Firefox version 138 Google Chrome version 136
Ubuntu 20.04 (64-bit)	Mozilla Firefox version 138 Google Chrome version 136
macOS Ventura 13.1	Apple Safari version 18 Mozilla Firefox version 137 Google Chrome version 136
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.

## FortiExtender modem firmware compatibility

The following table lists the modem firmware file name and version for each FortiExtender model and its compatible geographical region.

FortiExtender model	Modem firmware image name	Modem firmware file on Support site	Geographical region
FEX-101F-AM	FEM_EM06A-22-1-1	FEM_EM06A-22.1.1-build0001.out	America
FEX-101F-EA	FEM_EM06E-22-01-01	FEM_EM06E-22.1.1-build0001.out	EU
	FEM_EM06E-22.2.2	FEM_EM06E-22.2.2-build0002.out	EU
FEX-201E	FEM_06-19-0-0-AMEU	FEM_06-19.0.0-build0000-AMEU.out	America and EU
	FEM_06-19-1-0-AMEU	FEM_06-19.1.0-build0001-AMEU.out	America and EU
	FEM_06-22-1-1-AMEU	FEM_06-22.1.1-build0001-AMEU.out	America and EU
	FEM_06-22-1-2-AMEU	FEM_06-22.1.2-build0001-AMEU.out	America and EU
FEX-201F-AM	FEM_07A-22-1-0-AMERICA	FEM_07A-22.1.0-build0001-AMERICA.out	America
	FEM_07A-22-2-0-AMERICA	FEM_07A-22.2.0-build0002-AMERICA.out	America
FEX-201F-EA	FEM_07E-22-0-0-WRLD	FEM_07E-22.0.0-build0001-WRLD.out	World
	FEM_07E-22-1-1-WRLD	FEM_07E-22.1.1-build0001-WRLD.out	World
FEX-202F-AM	FEM_07A-22-1-0-AMERICA	FEM_07A-22.1.0-build0001-AMERICA.out	America
	FEM_07A-22-2-0-AMERICA	FEM_07A-22.2.0-build0002-AMERICA.out	America
FEX-202F-EA	FEM_07E-22-1-1-WRLD	FEM_07E-22.1.1-build0001-WRLD.out	World
FEX-211E	FEM_12-19-1-0-WRLD	FEM_12-19.1.0-build0001-WRLD.out	World
	FEM_12-19-2-0-WRLD	FEM_12-19.2.0-build0002-WRLD.out	World
	FEM_12-22-1-0-AMEU	FEM_12-22.0.0-build0001-AMEU.out	America and EU
	FEM_12-22-1-1-WRLD	FEM_12-22.1.1-build0001-WRLD.out	World

FortiExtender model	Modem firmware image name	Modem firmware file on Support site	Geographical region
FEV-211F_AM	FEM_12_EM7511-22-1-2-AMERICA	FEM_12_EM7511-22.1.2-build0001-AMERICA.out	America
FEV-211F	FEM_12-22-1-0-AMEU	FEM_12-22.1.0-build0001-AMEU.out	World
FEX-211F-AM	FEM_12_EM7511-22-1-2-AMERICA	FEM_12_EM7511-22.1.2-build0001-AMERICA.out	America
FEX-212F	FEM_12-19-2-0-WRLD	FEM_12-19.2.0-build0002-WRLD.out	World
	FEM_12-22-1-1-WRLD	FEM_12-22.1.1-build0001-WRLD.out	World
FEX-311F	FEM_EM160-22-02-03	FEM_EM160-22.2.3-build0001.out	World
	FEM_EM160-22-1-2	FEM_EM160-22.1.2-build0001.out	World
FEX-511F	FEM_RM502Q-21-2-2	FEM_RM502Q-21.2.2-build0003.out	World
	FEM_RM502Q-22-03-03	FEM_RM502Q-22.3.3-build0004.out	World
	FEM_RM502Q-22-04-04-AU	FEM_RM502Q-22.4.4-build0005_AU.out	Australia
	FEM_RM502Q-22-1-1	FEM_RM502Q-22.1.1-build0001.out	World
	FEM_RM502Q-22-2-2	FEM_RM502Q-22.2.2-build0002.out	World

The modem firmware can also be uploaded manually by downloading the file from the Fortinet Customer Service & Support site. The firmware file names are listed in the third column of the table.

#### To download the modem firmware:

1. Go to <https://support.fortinet.com/Download/FirmwareImages.aspx>.
2. From the *Select Product* dropdown, select *FortiExtender*.
3. Select the *Download* tab.
4. Click *MODEM-Firmware*.
5. Select the FortiExtender model and image name, then download the firmware file.

# Resolved issues

The following issues have been fixed in version 7.4.12. To inquire about a particular bug, please contact [Customer Service & Support](#).

## Application Control

Bug ID	Description
1156066	Communication breaks when application control is used in policy over EMAC VLAN interfaces
1260248	Protocol Enforcement fails to block DNS over TCP traffic when non-DNS TCP traffic uses port 53

## DNS Filter

Bug ID	Description
1243152	Incorrect client and server cookies are returned for cached DNS entries when conditional forwarding with EDNS cookies is configured
1254680	DNS-over-TLS fails when configured on FortiGate 201E with FortiOS 7.4.10

## Explicit Proxy

Bug ID	Description
1076355	An error condition in WAD occurs when handling multiple responses from an upstream server
1247518	HTTP 303 Redirect Loop occurs when accessing websites with SWG SSO connection
1257127	Unexpected behavior in explicit proxy occurs when video filter is enabled and there are multiple requests to the same video ID
1272260	An error condition in WAD occurs when handling server responses with 100 Continue and 200 OK status codes.
1279480	CPU usage issues caused by SAML authentication with SWG and a large number of users

## File Filter

Bug ID	Description
1219051	MSI files are not blocked when downloaded in flow mode

## Firewall

Bug ID	Description
1157120	Traffic failure occurs when GRE pass-through has a tunnel key set to zero during offload.
1240706	In NGFW policy-based mode, traffic may be bypassed when the IPS engine is not running such as when FortiGate first boots up, the IPS engine is upgrading or when it is manually stopped with debug commands
1256278	Packet loss occurs when asic-offloading is enabled on FortiGate

## FortiGate 6000/7000 Platform

Bug ID	Description
1253034	VLAN interface counters show zero Receive/Transmit Bytes and Packets when fastpath is disabled
1272827	Traffic forwarding fails when FGT7081F Primary FPM does not send GARP to connected switch after HA failover.

## GUI

Bug ID	Description
793029	Unexpected behavior occurs on some FortiGate models when a FortiClient lacks a required MAC address attribute.
1191076	Interface bandwidth data is not displayed when LAG is upgraded from 2x40G to 2x100G ports

Bug ID	Description
1249169	Incorrect Japanese translation occurs when prompted for one-time upgrade when critical vulnerability detected
1249302	An error condition in Node.JS occurs when handling undefined properties.
1251014	Incorrect interface stats occur when master FIM miscalculates bandwidth and throughput on SLBC platforms
1278206	HTTPS GUI access fails when using a Low Encryption license after upgrading to FortiOS 7.4.11

## HA

Bug ID	Description
1165361	CPU usage issues observed during HA led optimization with child process forking
1216459	Verification failure occurs when BIOS security level is set to High during HA image upgrade
1220647	RX drops occur on HA1 and HA2 ports when upgrading the i40e driver
1221816	Network instability when FIM is rebooted on primary after failover using 'diag sys ha reset-uptime'.
1235313	Traffic disruption occurs when a large number of firewall policies are installed after a failover during an upgrade in a FortiGate cluster
1237317	No Rx packets occur when unicast-hb is enabled on FortiGate-VM64 with SRIOV.
1240288	Packets are sent using the cluster MAC address by the secondary cluster member after failover
1271901	Authentication issues occur when Azure SDN connectors reuse incorrect tenant tokens after HA failover
1274545	Both nodes respond to ARP requests when the HA table is edited in config sys ha.
1275737	License Status: Warning occurs when root VDOM is active on the primary in a FortiGate-VM HA A/P cluster with VDOMs and virtual clustering enabled.

## HyperScale

Bug ID	Description
1245165	ICMPv6 type 2 packets are dropped when SIP ALG and Hyperscale are activated

## IPsec VPN

Bug ID	Description
1201212	Reply traffic is dropped when anti-spoof check fails
1209759	IKEv2 connection fails with "gw validation failed" error when the peer's ASN1DN ID contains multiple OU fields
1211532	Traffic drop occurs when anti-spoof check fails due to mismatched source IP and selector range in IPsec VPN
1218530	Error condition occurs when using Duo Proxy LDAP application with MFA
1229448	IKEv2 peer selection fails when using AES256GCM-PRFSHAxxx encryption proposal.
1246635	IPsec tunnel disruption occurs when Phase-2 rekey completes with incorrect CHILD-SA deletion.
1257646	High CPU usage occurs when using IPsec over TCP and receiving an RST packet
1264833	SAML IPSEC VPN connection fails when connected to a WiFi network via Tunnel SSID

## Intrusion Prevention

Bug ID	Description
983372	An error condition in IPS engine occurs when accessing safebrowsing.google.com
1157469	Disabling nTurbo acceleration causes traffic outage for existing sessions due to sessions not being marked as dirty
1197659	An error condition in IPS engine occurs when processing HTTP traffic
1249177	High CPU usage occurs when IPSEngine scans SMB traffic
1259235	An error condition in ipsengine occurs during upgrade to 7.4.11
1269354	An error condition in IPS engine occurs when handling unusual TLS 1.3 stacks.
1273729	Error condition in IPS occurs when handling high volumes of application traffic through FortiGate

## Log and Report

Bug ID	Description
1240481	IPS log-packet files are not cleaned up when retention time exceeds maximum-log-age
1266492	Secondary unit logs are not received by FortiAnalyzer Cloud when running FortiOS 7.4.9 and above in a FortiGate HA cluster
1272019	An error condition occurs in the GeolIP database during updates

## Proxy

Bug ID	Description
1189141	An error condition in WAD occurs when handling large query responses.
1233546	Intermittent email updates occur when Inline IPS is enabled
1245569	Empty response occurs when pageSize exceeds 105 in FortiGate HTTPS Virtual Server
1257158	An error condition in WAD occurs during Proxy WF SSL stress tests

## Routing

Bug ID	Description
1151848	IPv6 BGP flap occurs when FortiGate FGSP cluster connects to Dell Sonic
1243609	Route flapping occurs when external routes are redistributed into BGP

## SD-WAN

Bug ID	Description
1203917	SD-WAN interface status becomes Unknown when Health Check SLA is good

## SSL-VPN

Bug ID	Description
1214345	High memory usage occurs when multiple VDOMs are configured with SSLVPN.
1216477	Blocked IP addresses are cleared when login-block-time is not reached in multiple VDOMs with different login-block-time settings.
1240901	PCI scan fails when using HTTP/1.0 on the SSLVPN port
1241533	An error condition in sslvpnd occurs when handling firewall policy schedules during peer user authentication.
1272207	Authentication failure occurs when username and OTP are concatenated during SSLVPN login on FortiOS 7.4.11

## Security Fabric

Bug ID	Description
1076439	Security fabric Asset Identity Center shows "Failed to load user device store data"
1210303	APIC device overload occurs when FortiGate logs in multiple times without proper logout.

## Switch Controller

Bug ID	Description
1232304	FortiSwitches go offline when upgrading FortiGate from 7.2.10 to 7.4.x
1239751	FortiSwitches go offline when upgrading FortiGate from 7.2.10 to 7.4.x
1269920	Firmware download failure occurs when FortiGate makes API calls to FDS.

## System

Bug ID	Description
1107623	A warning occurs during disk scan when executing a factory reset
1138155	DNS(TCP853) fails until idle timeout when link monitor failover occurs in dual internet connection
1157402	Modem disconnects occur when using Verizon SIM with a strong signal
1160683	Windows Wi-Fi clients unable to obtain DHCP IP due to dropped fragmented CAPWAP packets on virtual switch interface.
1167271	Link LEDs on FortiGate 401F are lit when no cables are attached.
1170933	MTU inconsistency occurs when creating a new LACP interface without a member interface and then adding a member interface later.
1179827	Hardware switch configuration limitations occur when adding Wan1 and Wan2 on FortiGate
1197529	Unable to free memory local user authentication until fnbamd restarted
1198350	MTU inconsistency occurs when using redundant interface with Jumbo MTU
1211374	High memory usage occurs when HTTP2 is enabled on the firewall VIP and the real server only supports HTTP1.1.
1211873	Device connection state is not updated when connected to FortiGate integrated hardware switch on platforms with no logdisk.
1214384	Unexpected behavior in FortiGate occurs when processing IPv6 traffic with invalid destination entries.
1214950	Batch mode configuration of system admin is allowed without specifying admin credentials
1215120	BLE light blinks blue when FortiGate is set up with FortiZTP without CLI login
1217366	Port speed mismatch occurs when setting speed to 1000MB on port1~port8
1217924	Packet size issues occur when 802.1AD interface is based on a LACP interface with MTU set to 9216.
1229804	Unexpected behavior occurs in the system when handling ICMPv6 host unreachable error messages after IPv6 neighbor entry expires
1232383	Unexpected behavior in the kernel occurs when running stressful multicast traffic through VXLAN in switch interface
1239336	Central management configuration issues occur when using FortiGate GUI for Forticare registration
1244037	Limited speed options occur on 1G RJ45 ports of FortiGate 200F and 201F.
1246914	Unexpected behavior in the kernel occurs when forwarding ICMP error messages from NAF devices

Bug ID	Description
1254396	BLE LED continuously blinks Light Blue when using FortiZTP setup without CLI login
1255091	Bluetooth remains active when configured with FortiZTP without CLI login
1260308	High memory usage occurs when SYN FLOOD attack behavior is detected
1263001	IPsec dial-up instability occurs over WWAN interface on FortiGate 51G after upgrading from 7.4.9 to 7.4.11
1264495	Throughput drops to 0 during netperf testing on FGT200G and FGT201G.
1265180	Memory usage issues caused by logging on FortiCarrier-4400F
1267635	An error condition occurs in the system during disk scan execution
1268947	High CPU usage occurs when creating or editing a VLAN interface via the web UI

## Upgrade

Bug ID	Description
1135049	An error condition in ips_load_json_gzfile occurs during FortiOS same image upgrade
1252663	On FortiGate D-series devices running older BIOS versions, the serial number changes to FGT0000000000001 after upgrading to FortiOS 7.4.10,7.4.11,7.6.5,7.6.6.
1256067	Required automatic upgrade may not complete successfully when device is unlicensed or end-of-support.

## User and Authentication

Bug ID	Description
1215197	An error condition in fnbamd occurs when downloading intermediate CAs through multiple AIA links
1218458	Hardware token activation fails when CMDB write permission is enforced.
1227685	An error condition in fnbamd occurs when FortiGate attempts to download intermediate CAs through multiple AIA links
1228793	Certificate auto-enrollment via CMPv2 fails when using an intermediate CA cert after upgrading
1237504	An error condition in fnbamd occurs when processing DNS responses with multiple IP addresses

Bug ID	Description
1239951	Hardtoken activation fails when CMDB write permission is enforced
1244268	Fnbamd error when downloading intermediate CAs through multiple AIA links
1253914	TACACS+ accounting logs are not generated when setting up a connection to the Tacacs+Accounting server with per VDOM interfaces configured.
1257281	TLS negotiation fails when FortiGate initiates a connection to an OpenLDAP server over LDAPS with TLS 1.3 and PQC parameters.
1259154	Authentication failure occurs when certificate rotation happens on Standalone HA primary FortiGate

## VM

Bug ID	Description
1041341	Error condition occurs when using vlink0 with HTTPS on FGT-VM-AZURE
1244347	FGT_VM64_AZURE failed trusted launch on Azure
1245936	FGT-VM failed to validate vm license from FortiManager with ipv6 address
1260183	License validation occurs when FortiGate is connected to FortiManager in an air-gapped AWS environment
1274753	License status warning occurs when secondary FortiGate validates VM License after upgrading to v7.4.11 or v7.4.10

## VoIP

Bug ID	Description
1227757	Unexpected RTP stream closure occurs when provisional-invite-expiry-time is reached

## Web Filter

Bug ID	Description
1214017	Memory usage issues occur when adding an external threat feed with a large number of similar patterns
1227049	YouTube channel main page cannot be blocked by channel filter when proxy-inline-ips is enabled
1232698	Antiphish fails to block usernames with '.' character when enabled.
1261505	Video Filter fails to effectively block videos after YouTube updated its API.
1268027	Video blocking issues occur when accessing YouTube from the main page with channel filters

## WiFi Controller

Bug ID	Description
1213368	AP information is missing from forward traffic logs (of captive-portal SSID)
1232763	WiFi clients experience initial connectivity and packet-loss during roaming only on WPA2-Enterprise SSID with External RADIUS
1256821	The class attribute fails to restore when a Wi-Fi client roams between FortiGate access points using 802.11r.
1257588	WiFi clients experience random disconnections on WPA3-Enterprise SSID with External RADIUS
1265860	Reduced Wi-Fi throughput occurs when upgrading from FortiOS 7.4.8 to 7.4.9 or 7.4.10 on FortiGate FWF-50G

## ZTNA

Bug ID	Description
1089157	An error condition in WAD occurs when adding a ztna-ems-tag to a proxy policy with an active ZTNA session

# Known issues

Known issues are organized into the following categories:

- [New known issues on page 38](#)
- [Existing known issues on page 38](#)

To inquire about a particular bug or report a bug, please contact [Customer Service & Support](#).

## New known issues

There are currently no new issues that have been identified in version 7.4.12.

## Existing known issues

The following issues have been identified in a previous version of FortiOS and remain in FortiOS 7.4.12.

### Explicit Proxy

Bug ID	Description
1026362	Web pages do not load when persistent-cookie is disabled for session-cookie-based authentication with captive-portal.

### Firewall

Bug ID	Description
959065	On the Policy & Objects > Traffic Shaping page, when deleting or creating a shaper, the counters for the other shapers are cleared.
1114635	In the GUI, cannot filter Address objects correctly when using CIDR notation.

## FortiGate 6000/7000 Platform

Bug ID	Description
911244	FortiGate 7000E IPv6 routes may not be synchronized correctly among FIMs and FPMs.
1006759	After an HA failover, there is no IPsec route in the kernel. <b>Workaround:</b> Bring down and bring up the tunnel
1026665	On the FortiGate 7000F platform with virtual clustering enabled and syslog logging configured. When running the diagnose log test command from a primary vcluster VDOM, some FPMs may not send log messages to the configured syslog servers.
1048808	If the secondary reboots, after it rejoins the cluster SIP sessions are not resynchronized.
1070365	<p>FGCP HA session synchronization may stop working as expected on a FortiGate 7000F cluster managed by FortiManager. This happens if the HA configuration uses management interfaces as session synchronization interfaces by configuring the <code>session-sync-dev</code> option, for example:</p> <pre>config system ha   set session-sync-dev 1-M1 1-M2 end</pre> <p>The problem occurs when FortiManager updates the configuration of the FortiGate 7000Fs in the cluster. When this happens, FortiManager may incorrectly change the VDOM of the management interfaces added to the <code>session-sync-dev</code> command from <code>vsys_ha</code> to <code>mgmt-vdom</code> and the interfaces stop working as session sync interfaces.</p> <p>You can work around the problem by re-configuring the <code>session-sync-dev</code> option on the FortiGate 7000F cluster (this resets the VDOM of the session sync interfaces to <code>vsys_ha</code>) and then retrieving the FortiGate configuration from FortiManager. This synchronizes the correct configuration to FortiManager.</p>
1078532	<p>when upgrading the FG6001F platform, in some instances the slave chassis fails to sync FPC subscription license from master chassis.</p> <p>workaround: execute <code>update-now</code></p>
1092728	FGT7000F/2718: IPv6 Fragment traffic fail randomly
1153360	Counter values fail to match totals and may overflow during continuous clearing in certain FortiGate models.
1170524	SSH login attempts via special ports fail for VDOM admin users with access to 'mgmt-vdom' on SLBC FortiController models.
1183170	6kf/v7.4.9/sdwan: Sdwan is not working in mgmt vdom
1185528	<p>Issue description: subscription license on the secondary chassis is missing after the graceful upgrade from 7.2.10 to 7.2.12</p> <p>workaround: run "execute update-now" again</p>

## FortiView

Bug ID	Description
1123502	FortiView Threats: drill down to malicious website entry return Failed to retrieve FortiView data from disk

## GUI

Bug ID	Description
853352	When viewing entries in slide-out window of the Policy & Objects > Internet Service Database page, users cannot scroll down to the end if there are over 100K entries.
885427	On the Network > Interfaces page, the SFP port is grayed out on the faceplate diagram even though the port is working. This is purely a GUI display issue and does not affect system operation. <b>Workaround:</b> View the SFP port information and status using the interface list in the CLI.
1024000	v7.0.10 - FortiGate 4400F seeing TB on 2 x 100Gig VLAN Interface bandwidth widget
1071907	There is no setting for the type option on the GUI for npu_vlink interface.
1145907	Bandwidth widget do not report the traffic correctly when backup vlan interface
1153294	Custom HTML content does not render correctly on login pages when configured through the FortiGate web interface or CLI.
1237136	Dynamic VLANs are not visible on the GUI when a port-security-policy is applied

## HA

Bug ID	Description
781171	When performing HA upgrade via the GUI, if the secondary unit takes several minutes to bootup, the GUI may show a misleading error message "Image upgrade failed" due to premature timeout. This is just a GUI display issue and the HA upgrade can still complete without issue.
1135376	When HA members are not registered under the same FortiCare account, the HA cluster cannot obtain contract info of all members from FortiGuard servers.
1210147	HA out-of-sync occurs due to certificate
1226122	System > HA: There is no "upgrade" button on secondary GUI page when HA in "local-only" or "secondary-only" MVC upgrade mode <b>Workaround:</b> is to upgrade the secondary via the command line

Bug ID	Description
1231480	LACPDU transmission issues occur when HA failover is triggered by a monitoring port disconnect

## HyperScale

Bug ID	Description
817562	lpmf fails to correctly handle different VRFs, treating all as vrf 0, causing improper route management and affecting network traffic isolation.
896203	NPD parse errors occur after system reboot when running with multiple VDOMs and large address groups.
961328	Port selection remains in direct mode despite setting pba-port-select-mode to random, causing non-random port allocation for NAT sessions.
977376	FortiGate 4201F has -10% Performance drop for CPS test case with Dos Policy
1025908	Session count on peer device is 50% less during fgsp testing in new setups using VRRP-based configuration.
1027251	4401f: Logs are not sent out from FortiGate with log2host setting when log-server becomes reachable and it has correct dmac
1034685	4401f:Log cache is not cleared and holding the wrong dmac for unreachable gateway
1042151	/FortiOS/v7.00/images/build3380/: syslog over TCP not working
1058477	sentb and rcvdb show -ve value for end session syslog message.
1069044	Unable to clear/purge npu-session when src filter is set
1069531	diag sys session stat' command shows incorrect session_count
1072076	/build2693/: New HA master send syslog session-end log packet using wrong mac address after failover
1072247	/build2693/: New HA master not send syslog session-end log packet after failover
1078916	/build2699/: Log rate on GUI is double of real log rate
1091244	3440: hypersale hw-session-sync-dev should print properly error message when set members over 8
1091815	hw session doesn't sync when one of multiple interface hw-session-sync-dev is down
1095593	Count for dropping arpmiss exception packets is too high
1101562	hyperscale hw-session-sync-dev LAG members can exceed 2*number of NP
1119021	Sessionsync daemon makes hw-session-sync dev up even it's physically down, no such issue with sw session sync dev

Bug ID	Description
1119031	4201:HW sessions are not synced to slave when one of the hw-session-sync-dev members is down
1128155	FGT1801F log-transport TCP should be hidden for log servers under L2host and Netflow on CLI
1135433	IPv6 entries appear in the output of pba list, after reaching max PBA limit for ippool
1138823	FGT1801F non-hyperscale vdom shows incorrect output of "diag firewall ippool get-pub/priv" commands
1140493	config should be blocked when user tries to set same interface as hw-session-sync-dev and monitor.
1141632	After HA failover, syslog packets not sent out from new HA master when using NAT46/NAT64 policies
1143144	Both HW log(ps) rate and log(pm) rate showing in dia sys npu-session stat when set log-mode per-nat-mapping
1144290	2771/Log rate show 0 when using TCP for syslog
1150863	Unintended session deletion may occur after FGSP failover due to a dirty Rsession.
1184045	IPv6 TCP/UDP traffic fails to pass through when a threat feed object is integrated into an IPv6 High Security policy due to an internal state handling issue, which erroneously disables IPv6 functionality.
1197891	when unsupported ports are configured for hw-session-sync-dev it results in hardware session sync not functioning correctly. workaround: change interface and reboot as simply fixing the config does not restore the proper configuration
1199557	Unsupported network interfaces are permitted as members of a Link Aggregation Group (LAG) when the LAG is configured for hardware session synchronization, leading to potential configuration errors.
1200885	Renaming an ippool in a FortiGate setup with VDOMs results in unintended behavior affecting network traffic.
1201968	4401f:Memory leak/ leak to log2host tbl can be seen when there are ~60M cc with log2host setting after couple of failovers
1202268	4401f:Not all the HW sessions are synced to new slave after a failover
1203844	Upgrade: cgn-log-server-grp config is missing after upgrade from 7.2.12. to 7.4.9

## IPsec VPN

Bug ID	Description
866413	traffic over GRE tunnel over IPsec tunnel or traffic over IPsec tunnel with GRE encapsulation is not offloaded on NP7 based units.
897871	GRE over IPsec doesn't work in transport-mode (b8591)
970703	6K7K do not support ipsec-vpn over vdom-link / npu-vlink
1036262	Tunnel traffic is encrypted as FortiGate-ESP packets when transport is UDP and FortiGate-ESP is enabled. <b>Workaround:</b> Disable fortinet-esp when transport is set to udp.

## Proxy

Bug ID	Description
1035490	The firewall policy works with proxy-based inspection mode on FortiGate models with 2GB RAM after an upgrade. <b>Workaround:</b> After an upgrade, reboot the FortiGate.

## REST API

Bug ID	Description
1154124	Adding dynamic fabric addresses via the FortiNAC REST API fails due to an issue with HTTP header validation.

## Routing

Bug ID	Description
903444	Command 'diagnose ip rtcache list' is no longer supported in FortiOS 4.19 kernel
1040655	From 7.4.1, when there is ECMP routes, local out traffic may use different route/port to connect out to server, for critical traffic which is sensitive to source IP address, suggest customer set specify interface or SD-WAN for the traffic since FortiOS has implemented "interface-select-method" command for nearly all local-out traffic. e.g.  config system fortiguard

Bug ID	Description
	<pre> set interface-select-method specify set interface "wan1" end </pre>
1133796	ipv6 routes are stuck on kernel routing table
1150878	The IPoE tunnel interface cannot be selected in the Interface Bandwidth widget.

## Security Fabric

Bug ID	Description
1156006	SFTP backup fails when triggered through automation stitch on a FortiGate in an HA cluster using Windows-style paths.

## Switch Controller

Bug ID	Description
1150215	Offline FSWs are offline in the GUI topology view, but shown as online in the list view.
1153175	Intermittent issues configuring allowed VLANs on the MCLAG interface via FortiGate GUI & CLI
1153905	FortiSwitch client page keeps loading

## System

Bug ID	Description
912383	FGR-70F and FGR-70F-3G4G failed to perform regular reboot process (using 'exe reboot' command) with SD card inserted
1021903	The le-switch member list does not update when the role of an interface is changed in a lan-extension environment.
1078541	FortiFirewall 2600F models may become stuck after a fresh image burn. Upgrading from a previous version stills works. <b>Workaround:</b> power cycle the unit.
1085407	FortiGate unresponsive when default-qos-type is set to shaping.
1105321	4201F NP7 EIF0_IQR and EIF1_IQR usage are stuck at 100%, and host softirq is stuck at 99% after running the iptunnel traffic

Bug ID	Description
1114298	FortiGate Cloud remote login triggers 2 admin login events (1 successful and 1 unsuccessful for PKI admin)
1136616	2731: no graphs on some vlan interfaces in dashboard interface widget
1164332	NP7 stops forwarding traffic after reassembling large packet in DFR
1179259	TCP traffic is impacted over VXLAN when auto-asic-offload and UTM both enabled under the policy. <b>Workaround:</b> Disable auto-asic-offload on the impacted policy
1203193	FGR-70G and FGR-70G-5G-Dual do not support CLI for automation-stitch notifications when DIO module alarm functionality is activated, namely, 'set condition-type input' is not available under 'config system automation-condition'.
1213236	On v7.2.x, FGT700G/701G interface wan1/2 and lan1-6 default speed is 5000auto, but it actually working at auto mode and will negotiate to 1G if peer side speed is 1G. But on V7.4.9, the default speed setting changed to auto and 5000auto can only work at 5000M speed. So in upgrade scenario, customer may notice interface down due to speed setting not match. <b>Workaround:</b> Manually change port speed to auto.
1227167	Memory usage issues caused by the node process <b>Workaround:</b> Enable web-svc-auto-restart by running the command:  <pre>config system global     set web-svc-auto-restart enable end</pre>

## Upgrade

Bug ID	Description
1114550	FortiExtender shows as offline after upgrading FortiGate from V7.4.5GA to V7.4.6GA. <b>Workaround:</b> Reboot FortiExtender manually.

## User and Authentication

Bug ID	Description
884462	NTLM auth does not work with Chrome
972391	RADIUS group usage not displayed correctly in GUI when used for firewall admin authentication.

Bug ID	Description
1082800	When performing LDAP user search from the GUI against a LDAP server with large number of users (more than 100K), the FortiGate may experience slowness and freeze due to HTTPSD process consumes too much memory. User may need to kill the HTTPSD process or perform a reboot to recover. <b>Workaround:</b> User can perform LDAP user search via the CLI.
1148767	FSSO users are showing in small letters, filtering of users are not working and PIE charts are also not visible
1157003	Agentless FSSO connector issues occur when using Windows 2025 due to MS introduced additional restrictions to remote Event log reading.

## VM

Bug ID	Description
978021	In FTP passive mode with GWLB setup, Geneve header VNI lengths are zero in syn-ack packets, leading to retransmission issues.
1125437	The "set distance" option under interface configured as dhcp client doesn't work o vm

## WiFi Controller

Bug ID	Description
814541	GUI issue - When there are extra large number of managed FortiAP devices (500+) and large number of WiFi clients (5000+), the "Managed FortiAP" page and "FortiAP Status" widget can take a long time to load. This issue does not impact FortiAP operation.
964757	The FortiGate fails to generate debug/sniffer logs for a user when connecting to a specific SSID despite showing station logs with radius requests and challenges, while other SSIDs function correctly.
972093	RADIUS Accounting data usage is different between bridge and tunnel VAP
1080094	Offline station data consumes excessive memory when the sta-offline-cleanup or max-sta-offline settings are not configured
1144969	Mismatch IP address details in 'WiFi Client' GUI page

## ZTNA

Bug ID	Description
819987	Mapped drives become inaccessible after laptop reboots when using FortiGate ZTNA access proxy with FQDN destinations.

# Built-in AV Engine

AV Engine 7.00049 is released as the built-in AV Engine.

# Built-in IPS Engine

IPS Engine 7.00604 is released as the built-in IPS Engine.

## Resolved engine issues

Bug ID	Description
1116920	IPS engine crashing after upgrading from 7.0.8 to 7.4.6 (IPSE 07.004.559)
1197659	An error condition in IPS engine occurs when processing HTTP traffic
1219051	MSI files are not blocked when downloaded in flow mode Workaround:Use proxy mode inspection as a workaround.
1249177	High CPU usage occurs when IPSEngine scans SMB traffic Workaround:Disable UTM on the SMB Firewall Policy
1259235	An error condition in ipseengine occurs during upgrade to 7.4.11
1260248	Protocol Enforcement fails to block DNS over TCP traffic when non-DNS TCP traffic uses port 53
1260751	FortiGate on KVM fails to boot after upgrading from 7.2.12 to 7.4.11.
1263949	Frequent IPS Engine crash - *** signal 11 (Segmentation fault) received ***    7.00599
1269354	An error condition in IPS engine occurs when handling unusual TLS 1.3 stacks.
983372	An error condition in IPS engine occurs when accessing safebrowsing.google.com

# 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.

## Limitations on HA cluster formation between different FortiGate Rugged 60F and 60F 3G4G models

FortiGate Rugged 60F and 60F 3G4G models have various generations defined as follows:

- Gen1
- Gen2 = Gen1 + TPM
- Gen3 = Gen2 + Dual DC-input
- Gen4 = Gen3 + GPS antenna
- Gen5 = Gen4 + memory

The following HA clusters can be formed:

- Gen1 and Gen2 can form an HA cluster.
- Gen4 and Gen5 can form an HA cluster.

- Gen1 and Gen2 cannot form an HA cluster with Gen3, Gen4, or Gen5 due to differences in the config system `vin-alarm` command.



[www.fortinet.com](http://www.fortinet.com)

Copyright© 2026 Fortinet, Inc. All rights reserved. Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variables, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet's Chief Legal Officer, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet's internal lab tests. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.