FortiManager - Release Notes

Version 6.4.12

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FortiManager 6.4.12 Release Notes
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Change Log

Date	Change Description
2023-06-08	Initial release.
2023-06-23	Updated Known Issues on page 39.
2023-06-26	Updated FortiOS/FortiOS Carrier on page 16 and Resolved Issues on page 37.
2023-07-12	Updated Special Notices on page 8.
2023-07-19	Updated Web browsers on page 16, Resolved Issues on page 37, and Known Issues on page 39.
2023-10-12	Updated Resolved Issues on page 37 and Known Issues on page 39.
2023-11-21	Updated FortiGate models on page 21.

FortiManager 6.4.12 Release

This document provides information about FortiManager version 6.4.12 build 2610.

The recommended minimum screen resolution for the FortiManager GUI is 1920 x 1080. Please adjust the screen resolution accordingly. Otherwise, the GUI may not display properly.

This section includes the following topics:

Supported models

FortiManager version 6.4.12 supports the following models:

FortiManager	FMG-200F, FMG-200G, FMG-300E, FMG-300F, FMG-400E, FMG-400G, FMG-1000F, FMG-2000E, FMG-3000F, FMG-3000G, FMG-3700F, FMG-3700G, FMG-3900E, and FMG-4000E.
FortiManager VM	FMG-VM64, FMG-VM64-Ali, FMG-VM64-AWS, FMG-VM64-AWSOnDemand, FMG-VM64-Azure, FMG-VM64-GCP, FMG-VM64-HV (including Hyper-V 2016, 2019), FMG-VM64-KVM, FMG-VM64-OPC, FMG-VM64-XEN (for both Citrix and Open Source Xen).

FortiManager VM subscription license

The FortiManager VM subscription license supports FortiManager version 6.4.1 and later. For information about supported firmware, see FortiManager VM firmware on page 12.

See also Appendix B - Default and maximum number of ADOMs supported on page 42.

You can use the FortiManager VM subscription license with new FMG-VM installations.

For existing FMG-VM installations, you cannot upgrade to a FortiManager VM subscription license. Instead, you must migrate data from the existing FMG-VM to a new FMG-VM with subscription license.

Management extension applications

The following section describes supported models and minimum system requirements for management extension applications (MEA) in FortiManager 6.4.12.

FortiManager uses port TCP/4443 to connect to the Fortinet registry and download MEAs. Ensure that the port is also open on any upstream FortiGates. For more information about incoming and outgoing ports, see the FortiManager 6.4 Ports and Protocols Guide.

Supported models for MEA

You can use any of the following FortiManager models as a host for management extension applications:

FortiManager	FMG-3000F, FMG-3000G, FMG-3700F, FMG-3700G, FMG-3900E, and FMG-4000E.
FortiManager VM	FMG-VM64, FMG-VM64-Ali, FMG-VM64-AWS, FMG-VM64-AWSOnDemand, FMG-VM64-Azure, FMG-VM64-GCP, FMG-VM64-HV (including Hyper-V 2016, 2019), FMG-VM64-KVM, FMG-VM64-OPC, FMG-VM64-XEN (for both Citrix and Open Source Xen).

Minimum system requirements

Some management extension applications supported by FortiManager 6.4.12 have minimum system requirements. See the following table:

Management Extension Application	Minimum system requirement
SD-WAN Orchestrator	At least 12GB of memory is recommended to support SD-WAN Orchestrator MEA.
Wireless Manager (WLM)	A minimum of 4 CPU cores and 8 GB RAM is typically required. Depending on the number of running applications, the allocated resources should be increased.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in 6.4.12.

Trusted Hosts

In FortiManager 6.4.11 and higher, when you set trusted hosts for all administrators, the FortiManager unit cannot be pinged from any other hosts. For more information, see Trusted Hosts the FortiManager Administration Guide.

FortiManager creates faulty dynamic mapping for VPN manager interface during PP import

If policy changes are made directly on the FortiGates, the subsequent PP import creates faulty dynamic mappings for VPN Manager.

It is strongly recommended to create a fresh backup of the FortiManager's configuration prior to this workaround. Perform the following command to check & repair the FortiManager's configuration database:

```
diagnose cdb check policy-packages <adom>
```

After executing this command, FortiManager will remove the invalid mappings of vpnmgr interfaces.

View Mode is disabled in policies when policy blocks are used

When policy blocks are added to a policy package, the *View Mode* option is no longer available, and policies in the table cannot be arranged by *Interface Pair View*. This occurs because policy blocks typically contain multiple policies using different incoming and outgoing interfaces, however, *View Mode* is still disabled even when policy blocks respect the interface pair.

Custom signature filenames

Custom signature filenames are limited to a maximum of 50 characters because FortiManager appends the VDOM suffix to custom signature filenames when FortiGate uses VDOMs.

SDN fabric connectors

According to the current design, SDN fabric connectors are installed on all FortiGates in an ADOM, even if the fabric connectors are not in use. See also bug ID 496870 in Known Issues on page 39.

Workaround: Place FortiGates in another ADOM when you do not want to install SDN fabric connectors to the devices.

ADOM version enforcement

Starting in FortiManager 6.4.6, ADOM versions are enforced. ADOM version N and N+1 are allowed, and the enforcement affects policy package installation.

For example, if you have ADOM version 6.0, and it contains a FortiGate running FortiOS 6.4, you cannot install a version 6.0 policy package to the FortiGate. The policy package installation fails with the following error message: `Device preparation failed: version mismatched,adom:6.0; dev:6.4.`

Management Extension Applications (MEA) and upgrade

Upgrading FortiManager when Management Extension Applications (MEA) are enabled may reset your *System Settings* to the default settings.

To prevent your *System Settings* from being lost, please disable all Management Extension Applications (MEA) prior to upgrading FortiManager.

Policy Hit Count on unused policy

FortiManager 6.4.3 and later no longer displays policy hit count information on the *Policy & Objects* > *Policy Packages* pane. However, you can view hit count information by using the *Unused Policies* feature and clearing the *Unused Only* checkbox. For more information, see the FortiManager 6.4 New Features Guide.

Wireless Manager (FortiWLM) not accessible

If Wireless Manager was enabled in FortiManager 6.4.0, you can no longer access it in the FortiManager GUI when you upgrade FortiManager to 6.4.2. When you try to access FortiWLM, you are redirected to the FortiManager dashboard.

SD-WAN Orchestrator not accessible

If SD-WAN Orchestrator was enabled in FortiManager 6.4.1, you can no longer access it in the FortiManager GUI after upgrading to FortiManager 6.4.2.

To workaround this issue, run the following CLI command to manually trigger an update of SD-WAN Orchestrator to 6.4.1 r2:

```
diagnose docker upgrade sdwancontroller
```

Support for FortiOS 6.4 SD-WAN Zones

In 6.4 ADOMs, SD-WAN member interfaces are grouped into SD-WAN zones. These zones can be imported as normalized interfaces and used in firewall policies.

Customers upgrading FortiGates from FortiOS 6.2 to 6.4 who cannot upgrade the ADOM are advised to temporarily disable SD-WAN central management until they can upgrade the ADOM to 6.4. This is to prevent FortiManager from attempting to delete the newly created SD-WAN zones on the FortiGate.

FortiGuard Rating Services with FortiGate 6.4.1 or Later

FortiManager 6.4.1 or later is the supported version to provide FortiGuard rating services to FortiGate 6.4.1 or later.

Citrix XenServer default limits and upgrade

Citrix XenServer limits ramdisk to 128M by default. However the FMG-VM64-XEN image is larger than 128M. Before updating to FortiManager 6.4, increase the size of the ramdisk setting on Citrix XenServer.

To increase the size of the ramdisk setting:

1. On Citrix XenServer, run the following command:
   ```
   xenstore-write /mh/limits/pv-ramdisk-max-size 536,870,912
   ```
2. Confirm the setting is in effect by running `xenstore-ls`.
   ```
   ----------------------
   limits = ""
   pv-kernel-max-size = "33554432"
   pv-ramdisk-max-size = "536,870,912"
   boot-time = ""
   ---------------------------
   ```
3. Remove the pending files left in `/run/xen/pygrub`.

The ramdisk setting returns to the default value after rebooting.

Multi-step firmware upgrades

Prior to using the FortiManager to push a multi-step firmware upgrade, confirm the upgrade path matches the path outlined on our support site. To confirm the path, please run:

```
dia fwmanager show-dev-upgrade-path <device name> <target firmware>
```

Alternatively, you can push one firmware step at a time.

Hyper-V FortiManager-VM running on an AMD CPU

A Hyper-V FMG-VM running on a PC with an AMD CPU may experience a kernel panic. Fortinet recommends running VMs on an Intel-based PC.

SSLv3 on FortiManager-VM64-AWS

Due to known vulnerabilities in the SSLv3 protocol, FortiManager-VM64-AWS only enables TLSv1 by default. All other models enable both TLSv1 and SSLv3. If you wish to disable SSLv3 support, please run:

```
config system global
set ssl-protocol t1sv1
end
```

Upgrade Information

You can upgrade FortiManager 6.2.0 or later directly to 6.4.12.

For other upgrade paths and details about upgrading your FortiManager device, see the *FortiManager Upgrade Guide*.

This section contains the following topics:

Downgrading to previous firmware versions

FortiManager does not provide a full downgrade path. You can downgrade to a previous firmware release via the GUI or CLI, but doing so results in configuration loss. In addition the local password is erased.

A system reset is required after the firmware downgrading process has completed. To reset the system, use the following CLI commands via a console port connection:

```
execute reset {all-settings | all-except-ip}
execute format {disk | disk-ext4 | disk-ext3}
```

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*.

FortiManager VM firmware

Fortinet provides FortiManager VM firmware images for Amazon AWS, Citrix and Open Source XenServer, Linux KVM, Microsoft Hyper-V Server, and VMware ESX/ESXi virtualization environments.

Aliyun

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

Amazon Web Services

- The 64-bit Amazon Machine Image (AMI) is available on the AWS marketplace.

Citrix XenServer and Open Source XenServer

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.OpenXen.zip`: Download the 64-bit package for a new FortiManager VM installation. This package contains the QCOW2 file for the Open Source Xen Server.
- `.out.CitrixXen.zip`: Download the 64-bit package for a new FortiManager 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 FortiManager VM installation.
- `.out.kvm.zip`: Download the 64-bit package for a new FortiManager VM installation. This package contains QCOW2 that can be used by qemu.

Microsoft Azure

The files for Microsoft Azure have AZURE in the filenames, for example `FMG_VM64_AZURE-v<number>-build<number>-FORTINET.out.hyperv.zip`.

- `.out`: Download the firmware image to upgrade your existing FortiManager VM installation.

Microsoft Hyper-V Server

The files for Microsoft Hyper-V Server have HV in the filenames, for example, `FMG_VM64_HV-v<number>-build<number>-FORTINET.out.hyperv.zip`.

- `.out`: Download the firmware image to upgrade your existing FortiManager VM installation.
- `.hyperv.zip`: Download the package for a new FortiManager VM installation. This package contains a Virtual Hard Disk (VHD) file for Microsoft Hyper-V Server.

Microsoft Hyper-V 2016 is supported.

VMware ESX/ESXi

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

For more information see the FortiManager Data Sheet available on the Fortinet web site. VM installation guides are available in the Fortinet Document Library.

SNMP MIB files

You can download the *FORTINET-FORTIMANAGER-FORTIANALYZER.mib* MIB file in the firmware image file folder. The Fortinet Core MIB file is located in the main FortiManager version 5.00 file folder.

Product Integration and Support

This section lists FortiManager 6.4.12 support of other Fortinet products. It also identifies what FortiManager features are supported for managed platforms and what languages FortiManager supports. It also lists which Fortinet models can be managed by FortiManager.

The section contains the following topics:

FortiManager 6.4.12 support

This section identifies FortiManager 6.4.12 product integration and support information:

To confirm that a device model or firmware version is supported by the current firmware version running on FortiManager, run the following CLI command:

```
diagnose dvm supported-platforms list
```

Always review the Release Notes of the supported platform firmware version before upgrading your device.

Web browsers

This section lists FortiManager 6.4.12 product integration and support for web browsers:

- Microsoft Edge 114
- Mozilla Firefox version 91
- Google Chrome version 114

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

FortiOS/FortiOS Carrier

This section lists FortiManager 6.4.12 product integration and support for FortiOS/FortiOS Carrier:

- 6.4.0 to 6.4.14
- 6.2.0 to 6.2.15
- 6.0.0 to 6.0.17

FortiADC

This section lists FortiManager 6.4.12 product integration and support for FortiADC:

- 6.0.1
- 5.4.4

FortiAnalyzer

This section lists FortiManager 6.4.12 product integration and support for FortiAnalyzer:

- 6.4.0 and later
- 6.2.0 and later
- 6.0.0 and later
- 5.6.0 and later
- 5.4.0 and later

FortiAuthenticator

This section lists FortiManager 6.4.12 product integration and support for FortiAuthenticator:

- 6.0. to 6.3
- 5.0 to 5.5
- 4.3

FortiCache

This section lists FortiManager 6.4.12 product integration and support for FortiCache:

- 4.2.9
- 4.1.6
- 4.0.4

FortiClient

This section lists FortiManager 6.4.12 product integration and support for FortiClient:

- 6.4.0 and later
- 6.2.1 and later
- 6.0.0 and later
- 5.6.0 and later
- 5.4.0 and later

FortiDDoS

This section lists FortiManager 6.4.12 product integration and support for FortiDDoS:

- 5.4.2
- 5.3.1
- 5.2.0
- 5.1.0
- 5.0.0
- 4.7.0
- 4.6.0
- 4.5.0
- 4.4.2
- 4.3.2
- 4.2.3

Limited support. For more information, see Feature support on page 19.

FortiFirewall and FortiFirewallCarrier

This section lists FortiManager 6.4.12 product integration and support for FortiFirewall and FortiFirewallCarrier:

- 6.4 or later

FortiMail

This section lists FortiManager 6.4.12 product integration and support for FortiMail:

- 6.4.0 and later
- 6.2.0 and later
- 6.0.10 and later

- 5.4.12
- 5.3.13

FortiSandbox

This section lists FortiManager 6.4.12 product integration and support for FortiSandbox:

- 4.0.2
- 3.2.2
- 3.1.4
- 3.0.6
- 2.5.2
- 2.4.1
- 2.3.3
- 2.2.2

FortiSOAR

This section lists FortiManager 6.4.12 product integration and support for FortiSOAR:

- 6.4.0 and later
- 6.0.0 and later

FortiSwitch ATCA

This section lists FortiManager 6.4.12 product integration and support for FortiSwitch ATCA:

- 5.2.3
- 5.0.0 and later

FortiTester

This section lists FortiManager 6.4.12 product integration and support for FortiTester:

- 3.9
- 3.8
- 3.7

FortiWeb

This section lists FortiManager 6.4.12 product integration and support for FortiWeb:

- 6.3.15
- 6.2.5
- 6.1.2
- 6.0.7

- 5.9.1
- 5.8.6
- 5.7.2
- 5.6.1
- 5.5.6
- 5.4.1

Virtualization

This section lists FortiManager 6.4.12 product integration and support for virtualization:

- Amazon Web Services (AWS)
- Citrix XenServer 6.0+ and Open Source Xen 4.1+
- Linux KVM
- Microsoft Azure
- Microsoft Hyper-V 2008 R2, 2012, 2012 R2, 2016, and 2019
- VMware ESX/ESXi 6.5 and later
- Nutanix AHV (AOS 5.10.5)
- Google Cloud (GCP)
- Oracle Cloud Infrastructure (OCI)
- Alibaba Cloud (AliCloud)

Feature support

The following table lists FortiManager feature support for managed platforms.

Platform	Management Features	FortiGuard Update Services	Reports	Logging
FortiGate	✓	✓	✓	✓
FortiCarrier	✓	✓	✓	✓
FortiADC		✓		
FortiAnalyzer			✓	✓
FortiAuthenticator				✓
FortiCache			✓	✓
FortiClient		✓	✓	✓
FortiDDoS			✓	✓
FortiMail		✓	✓	✓

Platform	Management Features	FortiGuard Update Services	Reports	Logging
FortiSandbox		✓	✓	✓
FortiSOAR		✓		
FortiSwitch ATCA	✓			
FortiWeb		✓	✓	✓
Syslog				✓

Language support

The following table lists FortiManager language support information.

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

To change the FortiManager language setting, go to *System Settings* > *Admin* > *Admin Settings*, in *Administrative Settings* > *Language* select the desired language on the drop-down menu. The default value is *Auto Detect*.

Russian, Hebrew, and Hungarian are not included in the default report languages. You can create your own language translation files for these languages by exporting a predefined language from FortiManager, modifying the text to a different language, saving the file as a different language name, and then importing the file into FortiManager. For more information, see the *FortiAnalyzer Administration Guide*.

Supported models

The following tables list which FortiGate, FortiCarrier, FortiDDoS, FortiAnalyzer, FortiMail, FortiSandbox, FortiSwitch ATCA, FortiWeb, FortiCache, FortiProxy, and FortiAuthenticator models and firmware versions that can be managed by a FortiManager or send logs to a FortiManager running version 6.4.12.

Software license activated LENC devices are supported, if their platforms are in the supported models list. For example, support of FG-3200D indicates support of FG-3200D-LENC.

This section contains the following topics:

FortiGate models

Model	Firmware Version
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-DSL, FortiGate-60E-DSLJ, FortiGate-60E-POE, FortiGate-60F, FortiGate-61E, FortiGate-61F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-80F-POE, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-81F-POE, FortiGate-90E, FortiGate-91E, FortiGate-100D, FortiGate-100E, FortiGate-100EF, FortiGate-100F, FortiGate-101E, FortiGate-101F, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-200F, FortiGate-201E, FortiGate-201F, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D, FortiGate-900D, FortiGate-1000D, FortiGate-1100E, FortiGate-1101E, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-1800F, FortiGate-1801F, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-2600F, FortiGate-2601F, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3810D, FortiGate-3815D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F	6.4

Model	Firmware Version
FortiGate 5000 Series: FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1 **FortiGate DC:** FortiGate-401E-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3810D-DC, FortiGate-3815D-DC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC **FortiGate Hardware Low Encryption:** FortiGate-100D-LENC **FortiWiFi:** FortiWiFi-40F, FortiWiFi-40F-3G4G, FortiWiFi-60E, FortiWiFi-60E-DSL, FortiWiFi-60E-DSLJ, FortiWiFi-61E, FortiWiFi-60F, FortiWiFi-61E, FortiWiFi-61F **FortiGate VM:** FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-AWS, FortiGate-VM64-AZURE, FortiGate-VM64-AZUREONDEMAND, FortiGate-VM64-GCP, FortiGate-VM64-GCPONDEMAND, FortiGate-VM64-HV,FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-Xen, FortiGate-VMX-Service-Manager, FortiGate-VM64-IBM **FortiOS:** FortiOS-VM64, FortiOS-VM64-HV, FortiOS-VM64-KVM, FortiOS-VM64-Xen **FortiGateRugged:** FortiGateRugged-60F, FortiGateRugged-60F-3G4G	
FortiGate: FortiGate-30E, FortiGate-30E-3G4G-INTL, FortiGate-30E-3G4G-NAM, FortiGate-40F, FortiGate-40F-3G4G, FortiGate-50E, FortiGate-51E, FortiGate-52E, FortiGate-60E, FG-60E-DSL, FortiGate-60E-POE, FortiGate-61E, FortiGate-60F, FortiGate-61F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-90E, FortiGate-91E, FortiGate-92D, FortiGate-100D, FortiGate-100E, FortiGate-100EF, FortiGate-101E, FortiGate-100F, FortiGate-101F, FortiGate-140D, FortiGate-140D-POE, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-201E, FortiGate-300D, FortiGate-300E, FortiGate-301E, FortiGate-400D, FortiGate-400E, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-601E, FortiGate-800D, FortiGate-900D, FortiGate-1000D, FortiGate-1200D, FortiGate-1500D, FortiGate-1500DT, FortiGate-1100E, FortiGate-1101E, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-3000D, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3810D, FortiGate-3815D, FortiGate-3960E, FortiGate-3980E **FortiGate 5000 Series:** FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1 **FortiGate DC:** FortiGate-80C-DC, FortiGate-401E-DC, FortiGate-600C-DC, RortiGate-800C-DC, FortiGate-800D-DC, FortiGate-1000C-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-3000D-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3240C-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3810D-DC, FortiGate-3815D-DC, FortiGate-3960E-DC, FortiGate-3980E-DC **FortiGate Hardware Low Encryption:** FortiGate-80C-LENC, FortiGate-600C-LENC, FortiGate-1000C-LENC	6.2

Model	Firmware Version
FortiWiFi: FortiWiFi-30E, FortiWiFi-30E-3G4G-INTL, FortiWiFi-30E-3G4G-NAM, FortiWiFi-40F, FortiWiFi-40F-3G4G, FortiWiFi-50E, FortiWiFi-50E-2R, FortiWiFi-51E, FortiWiFi-60E, FortiWiFi-60E-DSL, FortiWiFi-60E-DSLJ, FortiWiFi-60F, FortiWiFi-61E, FortiWiFi-61F, FortiWiFi-80F-2R, FortiWiFi-81F-2R, FortiWiFi-81F-2R-POE **FortiGate-VM:** FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-ALIONDEMAND, FortiGate-VM64-AWS, FortiGate-VM64-AWSONDEMAND, FortiGate-VM64-AZUREONDEMAND, FortiGate-VM64-Azure, FortiGate-VM64-GCP, FortiGate-VM64-GCPONDEMAND, FortiGate-VM64-HV, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-Xen, FortiGate-VMX-Service-Manager **FortiGate Rugged:** FortiGateRugged-30D, FortiGateRugged-30D-ADSL-A, FortiGateRugged-35D, FortiGateRugged-60F, FortiGateRugged-60F-3G4G **FortiOS:** FortiOS-VM64, FortiOS-VM64-HV, FortiOS-VM64-KVM, FortiOS-VM64-Xen	
FortiGate: 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, FortiGate-60F, FortiGate-61F, 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-91E, 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-240-POE, FG-280D-POE, FG300D, FG-300E, FG-301E, FG-400D, FG-400E, FG-401E, FG-500D, FG-500E, FG-501E, FG-600D, FG-800D, FG-900D, FG-1000D, FG-1200D, FG-1500D, FG-1500DT, FG-2000E, FG-2500E, FG-3000D, FG-3100D, FG-3200D,FortiGate-3600E, FortiGate-3601E, FG-3700D, FG-3800D, FG-3810D, FG-3815D, FG-3960E, FG-3980E **FortiGate 5000 Series:** FG-5001D, FG-5001E, FG-5001E1 **FortiGate 7000 Series:** FortiGate-7000F, FortiGate-7121F **FortiGate DC:** FG-401E-DC, FG1500D-DC, FG-3000D-DC, FG-3100D-DC, FG-3200D-DC, FG-3600E-DC, FG-3700D-DC, FG-3800D-DC, FG-3810D-DC, FG-3815D-DC **FortiGate Hardware Low Encryption:** FG-100D-LENC, FG-600C-LENC **Note:** All license-based LENC is supported based on the FortiGate support list. **FortiWiFi:** 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-60F, FWF-61E, FWF-90D, FWF-90D-POE, FWF-92D **FortiGate VM:** FG-VM64, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-GCP,VM64-GCPONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VM64-OPC, FG-VM64-XEN, FG-VMX-Service-Manager, FOS-VM64, FOS-VM64-KVM, FOS-VM64-Xen **FortiGate Rugged:** FGR-30D, FGR-35D, FGR-60D, FGR-90D	6.0

FortiGate special branch models

The following FortiGate models are released on special branches of FortiOS. FortiManager version 6.4.12 supports these models on the identified FortiOS version and build number.

For information about supported FortiGate models released with FortiOS firmware, see FortiGate models on page 21.

FortiOS 6.4

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-400F FortiGate-401F	6.4.12	5429
FortiGate-600F FortiGate-601F	6.4.12	5429
FortiGate-3500F	6.4.6	5886
FortiGate-3501F	6.4.6	6132
FortiGate-6000F FortiGate-6300F FortiGate-6300F-DC FortiGate-6301F FortiGate-6301F-DC FortiGate-6500F FortiGate-6500F-DC FortiGate-6501F FortiGate-6501F-DC	6.4.13	1926
FortiGate-7000E FortiGate-7030E FortiGate-7040E FortiGate-7060E FortiGate-7060E-8-DC	6.4.13	1926
FortiGate-7000F FortiGate-7121F FortiGate-7121F-2 FortiGate-7121F-2-DC FortiGate-7121F-DC	6.4.13	1926
FortiWiFi-80F-2R-3G4G-DSL	6.4.7	5003

FortiOS 6.2

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-80D	6.2.13	5238
FortiGate-200F FortiGate-201F	6.2.13	7249
FortiGate-1800F FortiGate-1800F-DC	6.2.9	7197

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-1801F FortiGate-1801F-DC		
FortiGate-2600F FortiGate-2600F-DC FortiGate-2601F FortiGate-2601F-DC	6.2.9	7197
FortiGate-4200F FortiGate-4200F-DC FortiGate-4201F FortiGate-4201F-DC	6.2.9	7197
FortiGate-4400F FortiGate-4400F-DC FortiGate-4401F FortiGate-4401F-DC	6.2.9	7197
FortiGate-6000F FortiGate-6300F FortiGate-6300F-DC FortiGate-6301F FortiGate-6301F-DC FortiGate-6500F FortiGate-6500F-DC FortiGate-6501F FortiGate-6501F-DC	6.2.13	1271
FortiGate-7000E FortiGate-7030E FortiGate-7040E FortiGate-7060E FortiGate-7060E-8-DC	6.2.13	1271
FortiGate-7000F FortiGate-7121F FortiGate-7121F-2 FortiGate-7121F-2-DC FortiGate-7121F-DC	6.2.13	1271
FortiWiFi-80F-2R-3G4G-DSL FortiWiFi-81F-2R-3G4G-DSL	6.2.6	7219
FortiWiFi-81F-2R-3G4G-POE	6.2.6	7099

FortiOS 6.0

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-30E-3G4G-GBL	6.0.13	5486
FortiGate-40F FortiGate-40F-3G4G	6.0.13	6887
FortiGate-41F	6.0.6	6445
FortiGate-41F-3G4G	6.0.6	6674
FortiGate-60F FortiGate-61F	6.0.13	6890
FortiGate-100F FortiGate-101F	6.0.13	6890
FortiGate-1100E FortiGate-1100E-DC	6.0.13	6886
FortiGate-1800F FortiGate-1800F-DC FortiGate-1801F FortiGate-1801F-DC	6.0.13	6889
FortiGate-2200E FortiGate-2201E FortiGate-2201E-ACDC	6.0.13	6888
FortiGate-3300E FortiGate-3301E	6.0.13	6888
FortiGate-6000F FortiGate-6300F FortiGate-6300F-DC FortiGate-6301F FortiGate-6301F-DC FortiGate-6500F FortiGate-6500F-DC FortiGate-6501F FortiGate-6501F-DC	6.0.16	0417
FortiGate-7000E FortiGate-7030E FortiGate-7040E FortiGate-7060E FortiGate-7060E-8-DC	6.0.16	0417
FortiGate-VM64-AZUREONDEMAND	6.0.13	5485

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-VM64-Azure		
FortiGate-VM64-RAXONDEMAND	6.0.13	9418
FortiWiFi-40F FortiWiFi-40F-3G4G	6.0.13	6887
FortiWiFi-41F	6.0.6	6674
FortiWiFi-41F-3G4G	6.0.6	6445
FortiWiFi-61F	6.0.13	6890

FortiCarrier models

Model	Firmware Version
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3400E, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-4200F, FortiCarrier-4201F, FortiCarrier-4400F, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1 **FortiCarrier-DC:** FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC, FortiCarrier-4200F-DC, FortiCarrier-4201F-DC, FortiCarrier-4400F-DC **FortiCarrier-VM:** FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	6.4
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1 **FortiCarrier-DC:** FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC **FortiCarrier-VM:** FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	6.2
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-5001D, FortiCarrier-5001E **FortiCarrier 7000 Series:** FortiCarrier-7000F, FortiCarrier-7121F, FortiCarrier-7121F-DC, FortiCarrier-7121F-2-DC	6.0

Model	Firmware Version
FortiCarrier-DC: FortiCarrier-3000D-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3960E-DC, FGT-3980E-DC **FortiCarrier-VM:** FortiCarrier-VM, FortiCarrier-VM64, FortiCarrier-VM64-AWS, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	

FortiCarrier special branch models

The following FortiCarrier models are released on special branches of FortiOS Carrier. FortiManager version 6.4.12 supports these models on the identified FortiOS Carrier version and build number.

For information about supported FortiCarrier models released with FortiOS Carrier firmware, see FortiCarrier models on page 27.

FortiCarrier 6.4

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-3500F	6.4.6	5886
FortiCarrier-3501F	6.4.6	6132
FortiCarrier-6000F FortiCarrier-6300F FortiCarrier-6300F-DC FortiCarrier-6301F FortiCarrier-6301F-DC FortiCarrier-6500F FortiCarrier-6500F-DC FortiCarrier-6501F FortiCarrier-6501F-DC	6.4.13	1926
FortiCarrier-7000E FortiCarrier-7030E FortiCarrier-7040E FortiCarrier-7060E FortiCarrier-7060E-8-DC	6.4.13	1926
FortiCarrier-7000F FortiCarrier-7121F FortiCarrier-7121F-2 FortiCarrier-7121F-2-DC FortiCarrier-7121F-DC	6.4.13	1926

FortiCarrier 6.2

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-4200F FortiCarrier-4200F-DC FortiCarrier-4201F FortiCarrier-4201F-DC	6.2.9	7197
FortiCarrier-4400F FortiCarrier-4400F-DC FortiCarrier-4401F FortiCarrier-4401F-DC	6.2.9	7197
FortiCarrier-6000F FortiCarrier-6300F FortiCarrier-6300F-DC FortiCarrier-6301F FortiCarrier-6301F-DC FortiCarrier-6500F FortiCarrier-6500F-DC FortiCarrier-6501F FortiCarrier-6501F-DC	6.2.13	1271
FortiCarrier-7000E FortiCarrier-7030E FortiCarrier-7040E FortiCarrier-7060E FortiCarrier-7060E-8-DC	6.2.13	1271
FortiCarrier-7000F FortiCarrier-7121F FortiCarrier-7121F-2 FortiCarrier-7121F-2-DC FortiCarrier-7121F-DC	6.2.13	1271

FortiCarrier 6.0

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-6000F FortiCarrier-6300F FortiCarrier-6300F-DC FortiCarrier-6301F FortiCarrier-6301F-DC	6.0.16	0417

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-6500F FortiCarrier-6500F-DC FortiCarrier-6501F FortiCarrier-6501F-DC		
FortiCarrier-7000E FortiCarrier-7030E FortiCarrier-7040E FortiCarrier-7060E FortiCarrier-7060E-8-DC	6.0.16	0417
FortiCarrier-VM64-Azure	6.0.13	5485

FortiADC models

Model	Firmware Version
FortiADC-100F, FortiADC-200D, FortiADC-200F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-4000D, FortiADC-4000F, FortiADC-5000F, FortiADC-VM	6.0
FortiADC-100F, FortiADC-200D, FortiADC-200F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-4000D, FortiADC-4000F, FortiADC-5000F, FortiADC-VM	5.4

FortiAnalyzer models

Model	Firmware Version
FortiAnalyzer: FortiAnalyzer-200F, FortiAnalyzer-300F, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-1000E, FortiAnalyzer-1000F, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3700F, FortiAnalyzer-3900E **FortiAnalyzer VM:** FortiAnalyzer-VM64, FortiAnalyzer-VM64-ALI, FortiAnalyzer-VM64-ALI-OnDemand, FortiAnalyzer-VM64-AWS, FortiAnalyzer-VM64-AWSOnDemand, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-Azure-OnDemand, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-GCP-OnDemand,FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-KVM-CLOUD, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	6.4
FortiAnalyzer: FAZ-200F, FAZ-300F, FAZ-400E, FAZ-800F, FAZ-1000E, FAZ-2000E, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, FAZ-3700F and FAZ-3900E. **FortiAnalyzer VM:** FAZ-VM64, FAZ-VM64-Ali, FAZ-VM64-AWS, FAZ-VM64-AWS-OnDemand, FAZ-VM64-Azure, FAZ-VM64-GCP, FAZ-VM64-HV, FAZ-VM64-KVM, FAZ-VM64-OPC, and FAZ-VM64-XEN (Citrix XenServer and Open Source Xen).	6.2

Model	Firmware Version
FortiAnalyzer: FAZ-200D, FAZ-300D, FAZ-400E, FAZ-1000D, FAZ-1000E, FAZ-2000B, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, and FAZ-3900E. **FortiAnalyzer VM:** FAZ-VM64, FAZ-VM64-AWS, FMG-VM64-Azure, FAZ-VM64-HV, FAZ-VM64-KVM, and FAZ-VM64-XEN (Citrix XenServer and Open Source Xen).	6.0
FortiAnalyzer: FAZ-200D, FAZ-300D, FAZ-400E, FAZ-1000D, FAZ-1000E, FAZ-2000B, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, and FAZ-3900E. **FortiAnalyzer VM:** FAZ-VM64, FAZ-VM64-AWS, FMG-VM64-Azure, FAZ-VM64-HV, FAZ-VM64-KVM, and FAZ-VM64-XEN (Citrix XenServer and Open Source Xen).	5.6
FortiAnalyzer: FAZ-200D, FAZ-300D, FAZ-400E, FAZ-1000D, FAZ-1000E, FAZ-2000B, FAZ-2000E, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, FAZ-3900E, and FAZ-4000B. **FortiAnalyzer VM:** FAZ-VM64, FMG-VM64-Azure, FAZ-VM64-HV, FAZ-VM64-XEN (Citrix XenServer and Open Source Xen), FAZ-VM64-KVM, and FAZ-VM64-AWS.	5.4
FortiAnalyzer: FAZ-100C, FAZ-200D, FAZ-300D, FAZ-400C, FAZ-400E, FAZ-1000C, FAZ-1000D, FAZ-1000E, FAZ-2000B, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, FAZ-3900E, FAZ-4000B **FortiAnalyzer VM:** FAZ-VM, FAZ-VM-AWS, FAZ-VM64, FAZ-VM64-Azure, FAZ-VM64-HV, FAZ-VM64-KVM, FAZ-VM64-XEN	5.2
FortiAnalyzer: FAZ-100C, FAZ-200D, FAZ-300D, FAZ-400B, FAZ-400C, FAZ-400E, FAZ-1000B, FAZ-1000C, FAZ-1000D, FAZ-1000E, FAZ-2000A, FAZ-2000B, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, FAZ-4000A, FAZ-4000B **FortiAnalyzer VM:** FAZ-VM, FAZ-VM64, FAZ-VM64-AWS, FAZ-VM64-Azure, FAZ-VM64-HV, FAZ-VM-KVM, FAZ-VM-XEN	5.0

FortiAuthenticator models

Model	Firmware Version
FortiAuthenticator: FAC-200D, FAC-200E, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-2000E, FAC-3000D, FAC-3000E **FortiAuthenticator VM:** FAC-VM	6.0 to 6.3
FortiAuthenticator: FAC-200D, FAC-200E, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-2000E, FAC-3000B, FAC-3000D, FAC-3000E **FortiAuthenticator VM:** FAC-VM	5.0 to 5.5
FortiAuthenticator: FAC-200D, FAC-200E, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-3000B, FAC-3000D, FAC-3000E **FortiAuthenticator VM:** FAC-VM	4.3

FortiCache models

Model	Firmware Version
FortiCache: FCH-400C, FCH-400E, FCH-1000C, FCH-1000D, FCH-3000C, FCH-3000D, FCH-3000E, FCH-3900E **FortiCache VM:** FCH-VM64, FCH-KVM	4.0, 4.1, 4.2

FortiDDoS models

Model	Firmware Version
FortiDDoS: FortiDDoS-200B, FortiDDoS-400B, FortiDDoS-600B, FortiDDoS-800B, FortiDDoS-900B, FortiDDoS-1000B, FortiDDoS-1200B, FortiDDoS-1500E, FortiDDoS-2000B, FortiDDoS-2000E	5.2, 5.3
FortiDDoS: FI-200B, FI-400B, FI-600B, FI-800B, FI-900B, FI-1000B, FI-1200B, FI-1500B, FI-2000B, FI-2000E	5.1
FortiDDoS: FI-1500E, FI-2000E	5.0
FortiDDoS: FI-200B, FI400B, FI-600B, FI-800B, FI-900B, FI-1000B, FI-1200B, FI-2000B, FI-3000B	4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.7

FortiFirewall and FortiFirewallCarrier models

Model	Firmware Version
FortiFirewall: FortiFirewall-3980E, FortiFirewall-4200F, FortiFirewall-4400F **FortiFirewallCarrier**: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.4

FortiFirewall and FortiFirewallCarrier special branch models

The following FortiFirewall and FortiFirewallCarrier models are released on a special branch. FortiManager supports these models.

Model	Firmware Version
FortiFirewall: FortiFirewall-1801F, FortiFirewall-2600F, FortiFirewall-4401F **FortiFirewallCarrier**: FortiFirewallCarrier-4401F	6.4

FortiMail models

Model	Firmware Version
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-3000D, FE-3000E, FE-3200E, FE-VM	6.4
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-3000D, FE-3000E, FE-3200E, FE-VM	6.2
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-3000D, FE-3000E, FE-3200E, FE-VM	6.0
FortiMail: FE-60D, FE-200D, FE-200E, FE-400C, FE-400E, FE-1000D, FE-2000B, FE-2000E, FE-3000C, FE-3000E, FE-3200E **FortiMail Low Encryption:** FE-3000C-LENC	5.4
FortiMail: FE-60D, FE-200D, FE-200E, FE-400C, FE-400E, FE-1000D, FE-2000B, FE-2000E, FE-3000C, FE-3000D, FE-3000E, FE-3200E, FE-5002B **FortiMail Low Encryption:** FE-3000C-LENC **FortiMail VM:** FE-VM64, FE-VM64-HV, FE-VM64-XEN	5.3

FortiProxy models

Model	Firmware Version
FortiProxy: FPX-400E, FPX-2000E, FPX-4000E **FortiProxy VM:** FPX-KVM, FPX-VM64	1.0, 1.1, 1.2

FortiSandbox models

Model	Firmware Version
FortiSandbox: FSA-500F, FSA-1000F, FSA-2000E, FSA-3000E, FSA-3000F **FortiSandbox-VM:** FSA-AWS, FSA-VM	4.0
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox-VM:** FSA-AWS, FSA-VM	3.2
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox-VM:** FSA-AWS, FSA-VM	3.1
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox VM:** FSA-AWS, FSA-VM	3.0
FortiSandbox: FSA-1000D, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D	2.5.2

Model	Firmware Version
FortiSandbox VM: FSA-KVM, FSA-VM	
FortiSandbox: FSA-1000D, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox VM:** FSA-VM	2.4.1 2.3.3
FortiSandbox: FSA-1000D, FSA-3000D, FSA-3500D **FortiSandbox VM:** FSA-VM	2.2.0

FortiSOAR models

Model	Firmware Version
FortiSOAR VM: FSR-VM	6.4
FortiSOAR VM: FSR-VM	6.0

FortiSwitch ATCA models

Model	Firmware Version
FortiController: FTCL-5103B, FTCL-5902D, FTCL-5903C, FTCL-5913C	5.2.0
FortiSwitch-ATCA: FS-5003A, FS-5003B **FortiController:** FTCL-5103B, FTCL-5903C, FTCL-5913C	5.0.0
FortiSwitch-ATCA: FS-5003A, FS-5003B	4.3.0 4.2.0

FortiTester models

Model	Firmware Version
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-4000E **FortiTester VM:** FortiTester-VM, FortiTester-VM-ALI-BYOL	3.9
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-4000E **FortiTester VM:** FortiTester-VM, FortiTester-VM-ALI-BYOL	3.8
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-4000E **FortiTester VM:** FortiTester-VM, FortiTester-VM-ALI-BYOL	3.7

FortiWeb models

Model	Firmware Version
FortiWeb: FortiWeb-100D, FortiWeb-400C, ortiWeb-400D, FortiWeb-600D, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-2000E, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E **FortiWeb VM:** FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XENServer	6.2, 6.3
FortiWeb: FortiWeb-100D, FortiWeb-400C, FortiWeb-400D, FortiWeb-600D, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-1000E, FortiWeb-2000E, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E **FortiWeb VM:** FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-Docker, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XenServer	6.1
FortiWeb: FWB-100D, FWB-400C, FWB-400D, FWB-600D, FWB-1000D, FWB-1000E, FWB-2000E, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E **FortiWeb VM:** FWB-VM, FWB-HYPERV, FWB-XENOPEN, FWB-XENSERVER	6.0
FortiWeb: FWB-1000D, FWB-1000E, FWB-100D, FWB-2000E, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E, FWB-400C, FWB-400D, FWB-600D **FortiWeb VM:** FWB-Azure, FWB-CMINTF, FWB-HYPERV, FWB-KVM, FWB-KVM-PAYG, FWB-VM, FWB-VM-PAYG, FWB-XENAWS, FWB-XENAWS-Ondemand, FWB-XENOPEN	5.9
FortiWeb: FWB-1000C, FWB-1000D, FWB-1000E, FWB-100D, FWB-2000E, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E, FWB-400C, FWB-400D, FWB-600D **FortiWeb VM:** FWB-Azure, FWB-Azure-Ondemand, FWB-CMINTF, FWB-HYPERV, FWB-KVM, FWB-KVM-PAYG, FWB-VM, FWB-VM-PAYG, FWB-XENAWS, FWB-XENAWS-Ondemand, FWB-XENOPEN	5.8
FortiWeb: FWB-1000C, FWB-1000D, FWB-100D, FWB-2000E, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E, FWB-400C, FWB-400D, FWB-600D **FortiWeb VM:** FWB-Azure, FWB-HYPERV, FWB-KVM, FWB-OS1, FWB-VM, FWB-XENAWS, FWB-XENAWS-Ondemand, FWB-XENOPEN	5.7
FortiWeb: FWB-1000C, FWB-1000D, FWB-100D, FWB-2000E, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E, FWB-400C, FWB-400D, FWB-600D **FortiWeb VM:** FWB-Azure, FWB-HYPERV, FWB-KVM, FWB-VM, FWB-XENAWS, FWB-XENAWS-Ondemand, FWB-XENOPEN	5.6

Model	Firmware Version
FortiWeb: FWB-100D, FWB-400C, FWB-400D, FWB-1000C, FWB-1000D, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-3010E, FWB-4000C, FWB-4000D, FWB-4000E **FortiWeb VM:** FWB-VM-64, FWB-XENAWS, FWB-XENOPEN, FWB-XENSERVER, FWB-HYPERV, FWB-KVM, FWB-AZURE	5.5
FortiWeb: FWB-100D, FWB-400C, FWB-1000C, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-4000C, FWB-4000D, FWB-4000E **FortiWeb VM:** FWB-VM64, FWB-XENAWS, FWB-XENOPEN, FWB-XENSERVER, FWB-HYPERV	5.4

Resolved Issues

The following issues have been fixed in 6.4.12. To inquire about a particular bug, please contact Customer Service & Support.

Device Manager

Bug ID	Description
804142	Creating the "EMACVLAN" type Interface on FortiManager displays an error, "VLAN ID is required".
817346	Editing interface with normalized interface mapping displays some unnecessary messages for mapping change.
836206	Devices aren't showing up on the *Device Manager* GUI.
899350	Promote button is missing for Fortigate 80F Clusters.

Others

Bug ID	Description
832351	FortiManager does not allow users to enter to the "root" ADOM; it displays the "ADOM license was expired..." message.
840395	FortiManager does not support the FGT/FOS 6.4.11 Syntax.
871608	Unable to retrieve routing information from FortiGate via FortiManager when there is a large routing table.
919088	GUI may not work properly in Google Chrome and Microsoft Edge version 114.

Policy and Objects

Bug ID	Description
726105	CLI Only Objects may not be able to select FSSO interface.
774058	Rule list order may not be saved under File Filter Profile.
803460	"User Definitions" entries under the "User & Authentication" cannot be removed from

Bug ID	Description
	FortiManager.
827416	FortiManager does not display any copy failure errors when utilized objects do not have any default values or per-device mapping.
870800	Even though each interface is mapped to be used in specific vdoms, the already mapped interface still can be selected for other VDOMs.
889563	FortiManager, for ADOM version 6.4, does not support Creating, Importing, and Inserting Above or Below actions for a deny policy with a "Log Violation Traffic" disabled.

Revision History

Bug ID	Description
738376	Config revision diff check may highlight the differences in config even though the both revision are exactly same

Common Vulnerabilities and Exposures

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

Bug ID	CVE references
841029	FortiManager 6.4.12 is no longer vulnerable to the following CVE Reference: • CVE-2023-25607
850883	FortiManager 6.4.12 is no longer vulnerable to the following CVE Reference: • CVE-2023-36638
862266	FortiManager 6.4.12 is no longer vulnerable to the following CVE Reference: • CVE-2023-25606
866168	FortiManager 6.4.12 is no longer vulnerable to the following CVE Reference: • CVE-2023-25609
889979	FortiManager 6.4.12 is no longer vulnerable to the following CVE Reference: • CVE-2023-41679

Known Issues

The following issues have been identified in 6.4.12. To inquire about a particular bug or to report a bug, please contact Customer Service & Support.

AP Manager

Bug ID	Description
892773	Assigning AP Profile returns invalid value.

Device Manager

Bug ID	Description
692669	Browser may display a message, 'A webpage is slowing down your browser', while checking revision difference.
768289	There is a discrepancy in the usage of quotation marks ("") when configuring DHCP relay from FortiManager or retrieving it from FortiGate.
910391	When FortiManager operates in a non-default workspace mode, it may attempt to purge the configuration of the FortiGate devices due to database corruption.
917810	FortiManager displays an event log with the "update temp cachedb failed" error message when changing the FortiGate management VDOM to mgmt-vdom.

Others

Bug ID	Description
921233	Azure Fabric Connector Credential does not push to the Azure VM FortiGate, when Azure Fabric connector is created on FortiManager without a managed identity.

Policy & Objects

Bug ID	Description
855073	The "where used" feature does not function properly.
902298	FortiManager does not generate error messages when invalid or obsolete application IDs are used in the policy. Instead, it allows installation and sets the category to "pass" or "monitor".

Revision History

Bug ID	Description
801614	FortiManager might display an error message, "Failed to create a new revision." for some FortiGates, when retrieving their configurations.

System Settings

Bug ID	Description
848934	SNMPv3 does not work properly on FortiManager and FortiAnalyzer.

VPN Manager

Bug ID	Description
784385	If policy changes are made directly on the FortiGates, the subsequent PP import creates faulty dynamic mappings for VPN Manager. **Workaround**: It is strongly recommended to create a fresh backup of the FortiManager's configuration prior to the workaround. Perform the following command to check & repair the FortiManager's configuration database. `diagnose cdb check policy-packages <adom>` After running this command, FortiManager will remove the invalid mappings of vpnmgr interfaces.

Appendix A - FortiGuard Distribution Servers (FDS)

In order for the FortiManager to request and retrieve updates from FDS, and for FortiManager to serve as a FDS, please configure the necessary settings on all devices between FortiManager and FDS, or between FortiManager and FortiGate devices based on the items listed below:

- FortiManager accesses FDS for antivirus and attack updates through TCP/SSL port 443.
- If there is a proxy server between FortiManager and FDS, FortiManager uses port 80 to communicate with the proxy server by default and connects to the proxy server using HTTP protocol.
- If FortiManager manages a FortiGate device located behind a proxy server, the proxy server permits TCP/SSL traffic to pass through via port 443.

FortiGuard Center update support

You can configure FortiManager as a local FDS to provide FortiGuard updates to other Fortinet devices and agents on your network. The following table lists which updates are available per platform/version:

Platform	Antivirus	WebFilter	Vulnerability Scan	Software
FortiClient (Windows)	✓	✓	✓	✓
FortiClient (Mac OS X)	✓		✓	
FortiMail	✓			
FortiSandbox	✓			
FortiWeb	✓			

To enable FortiGuard Center updates for FortiMail version 4.2 enter the following CLI command:

```
config fmupdate support-pre-fgt-43
set status enable
end
```

Appendix B - Default and maximum number of ADOMs supported

This section identifies the supported number of ADOMs for FortiManager hardware models and virtual machines.

Hardware models

The following table identifies the default number of ADOMs supported for FortiManager hardware models G series and later. It also identifies the hardware models that support the ADOM subscription license and the maximum number of ADOMs supported.

FortiManager Platform	Default number of ADOMs	ADOM license support?	Maximum number of ADOMs
3000G Series	4000	✓	8000

For FortiManager F series and earlier, the maximum number of ADOMs is equal to the maximum devices/VDOMs as described in the FortiManager Data Sheet.

Virtual Machines

FortiManager VM subscription license includes five (5) ADOMs. Licenses are non-stackable. Additional ADOMs can be purchased with an ADOM subscription license.

For FortiManager VM perpetual license, the maximum number of ADOMs is equal to the maximum number of Devices/VDOMs listed in the FortiManager Data Sheet.