

Release Notes

FortiManager 7.2.8



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



November 22, 2024

FortiManager 7.2.8 Release Notes

02-728-1089427-20241122

TABLE OF CONTENTS

Change Log	6
FortiManager 7.2.8 Release	7
Supported models	7
FortiManager VM subscription license	7
Management extension applications	7
Supported models for MEA	8
Minimum system requirements	8
Special Notices	10
Shell access has been removed	10
Enable fcp-cfg-service for Backup Mode ADOMs	10
Custom certificate name verification for FortiGate connection	10
Configuration backup requires a password	11
Additional configuration required for SSO users	11
When using VPN Manager, IPSEC VPN CA certificates must be re-issued to all devices after upgrade	11
Apache-mode changed from prefork to event	12
FortiGuard web filtering category v10 update	12
Install On column for policies	12
FortiManager 7.2.3 and later firmware on FortiGuard	13
Option to enable permission check when copying policies	13
Management Extensions visibility in the GUI	13
FortiManager creates faulty dynamic mapping for VPN manager interface during PP import	13
SD-WAN Orchestrator removed in 7.2	14
Changes to FortiManager meta fields	14
Setup wizard requires FortiCare registration	14
Access lists as ADOM-level objects	14
View Mode is disabled in policies when policy blocks are used	15
Reconfiguring Virtual Wire Pairs (VWP)	15
Fortinet verified publisher docker image	15
Scheduling firmware upgrades for managed devices	16
Modifying the interface status with the CLI	17
SD-WAN with upgrade to 7.0	17
Citrix XenServer default limits and upgrade	17
Multi-step firmware upgrades	18
Hyper-V FortiManager-VM running on an AMD CPU	18
SSLv3 on FortiManager-VM64-AWS	18
Upgrade Information	19
Downgrading to previous firmware versions	19
Firmware image checksums	19
FortiManager VM firmware	20

SNMP MIB files	21
FortiManager instances on Azure Stack	21
Product Integration and Support	22
Supported software	22
Web browsers	23
FortiOS and FortiOS Carrier	23
FortiADC	23
FortiAnalyzer	23
FortiAnalyzer-BigData	24
FortiAuthenticator	24
FortiCache	24
FortiClient	24
FortiDDoS	24
FortiDeceptor	25
FortiFirewall and FortiFirewallCarrier	25
FortiMail	25
FortiPAM	25
FortiProxy	25
FortiSandbox	26
FortiSOAR	26
FortiSwitch ATCA	26
FortiTester	26
FortiWeb	27
Virtualization	27
Feature support	28
Language support	28
Supported models	29
FortiGate models	30
FortiGate special branch models	33
FortiCarrier models	35
FortiCarrier special branch models	36
FortiADC models	38
FortiAnalyzer models	38
FortiAnalyzer-BigData models	39
FortiAuthenticator models	39
FortiCache models	39
FortiDDoS models	39
FortiDeceptor models	40
FortiFirewall models	40
FortiFirewallCarrier models	41
FortiMail models	42
FortiPAM models	43
FortiProxy models	43
FortiSandbox models	43
FortiSOAR models	44
FortiSwitch ATCA models	44
FortiTester models	44
FortiWeb models	45

Compatibility with FortiOS Versions	46
FortiManager 7.2.8 and FortiOS 7.0.16 compatibility issues	46
Resolved Issues	47
Common Vulnerabilities and Exposures	47
Known issues	48
New known issues	48
Existing known issues	48
AP Manager	48
Device Manager	48
Others	49
Policy & Objects	50
Script	51
System Settings	51
VPN Manager	51
Appendix A - FortiGuard Distribution Servers (FDS)	52
FortiGuard Center update support	52
Appendix B - Default and maximum number of ADOMs supported	53
Hardware models	53
Virtual Machines	53

Change Log

Date	Change Description
2024-10-18	Initial release.
2024-10-22	Updated FortiOS and FortiOS Carrier on page 23. Added FortiManager 7.2.8 and FortiOS 7.0.16 compatibility issues on page 46.
2024-10-23	Updated Resolved Issues on page 47.
2024-10-25	Added 1078947 to Known issues on page 48.
2024-10-30	Updated Known issues on page 48 Updated FortiGate special branch models on page 33.
2024-11-14	Updated FortiGate models on page 30 and Known issues on page 48.
2024-11-22	Updated Known issues on page 48.

FortiManager 7.2.8 Release

This document provides information about FortiManager version 7.2.8 build 1634.



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 on page 7](#)
- [FortiManager VM subscription license on page 7](#)
- [Management extension applications on page 7](#)

Supported models

FortiManager version 7.2.8 supports the following models:

FortiManager	FMG-200F, FMG-200G, FMG-300F, FMG-400E, FMG-400G, FMG-410G, FMG-1000F, FMG-1000G, FMG-2000E, FMG-3000F, FMG-3000G, FMG-3100G, FMG-3700F, and FMG-3700G.
FortiManager VM	FMG_DOCKER, FMG_VM64, FMG_VM64_ALI, FMG_VM64_AWS, FMG_VM64_AWSOnDemand, FMG_VM64_Azure, FMG_VM64_GCP, FMG_VM64_IBM, FMG_VM64_HV (including Hyper-V 2016, 2019, and 2022), 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 20](#).

See also [Appendix B - Default and maximum number of ADOMs supported on page 53](#).

Management extension applications

The following section describes supported models and minimum system requirements for management extension applications (MEA) in FortiManager 7.2.8.



FortiManager uses port TCP/443 or 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 7.0 Ports Guide](#).

Supported models for MEA

As of FortiManager 7.2.3, the *Management Extensions* pane is only visible in the GUI when docker status is enabled and at least one MEA is enabled and downloaded. For more information about enabling and using the MEAs, see the Management Extensions documentation in the [FortiManager Documents Library](#).

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

FortiManager	FMG-3000F, FMG-3000G, FMG-3100G, FMG-3700F, and FMG-3700G.
FortiManager VM	FMG_VM64, FMG_VM64_ALI, FMG_VM64_AWS, FMG_VM64_AWSOnDemand, FMG_VM64_Azure, FMG_VM64_GCP, FMG_VM64_IBM, FMG_VM64_HV (including Hyper-V 2016, 2019, and 2022), FMG_VM64_KVM, FMG_VM64_OPC, FMG_VM64_XEN (for both Citrix and Open Source Xen).

Minimum system requirements

By default FortiManager VMs use the following system resource settings:

- 4 vCPU
- 16 GB RAM
- 500 GB disk space

Starting with FortiManager 7.0.0, RAM and CPU is capped at 50% for MEAs. (Use the `config system docker` command to view the setting.) If FortiManager has 8 CPUs and 16 GB RAM, then only 4 CPUs and 8 GB RAM are available to MEAs by default, and the 4 CPUs and 8 GB RAM are used for all enabled MEAs.

Some management extension applications have minimum system requirements that require you to increase system resources. The following table identifies the minimum requirements for each MEA as well as the recommended system resources to function well in a production environment.

MEA minimum system requirements apply only to the individual MEA and do not take into consideration any system requirements for resource-sensitive FortiManager features or multiple, enabled MEAs. If you are using multiple MEAs, you must increase the system resources to meet the cumulative need of each MEA.

Management Extension Application	Minimum system requirements	Recommended system resources for production*
FortiAIOps	<ul style="list-style-type: none"> • 8 vCPU • 32 GB RAM • 500 GB disk storage 	No change
FortiSigConverter	<ul style="list-style-type: none"> • 4 vCPU • 8 GB RAM 	No change

Management Extension Application	Minimum system requirements	Recommended system resources for production*
FortiSOAR	<ul style="list-style-type: none"> • 4 vCPU • 8 GB RAM • 500 GB disk storage 	<ul style="list-style-type: none"> • 16 vCPU • 64 GB RAM • No change for disk storage
Policy Analyzer	<ul style="list-style-type: none"> • 4 vCPU • 8 GB RAM 	No change
Universal Connector	<ul style="list-style-type: none"> • 1 GHZ vCPU • 2 GB RAM • 1 GB disk storage 	No change
Wireless Manager (FortiWLM)	<ul style="list-style-type: none"> • 4 vCPU • 8 GB RAM 	No change

*The numbers in the *Recommended system resources for production* column are a combination of the default system resource settings for FortiManager plus the minimum system requirements for the MEA.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in 7.2.8.

Shell access has been removed

As of FortiManager 7.2.6, shell access has been removed.

The following CLI variables have been removed, which were previously used to enable shell access:

```
config system admin setting
    set shell-access {enable | disable}
    set shell-password <passwd>
```

The following CLI command has been removed, which was previously used to access shell when enabled:

```
execute shell
```

Enable fcp-cfg-service for Backup Mode ADOMs

When performing a configuration backup from the CLI of FortiGates managed by FortiManager in Backup Mode ADOMs, you must enable the "fcp-cfg-service" using the following command on the FortiManager:

```
config system global
    set fcp-cfg-service enable
end
```

Custom certificate name verification for FortiGate connection

FortiManager 7.2.5 introduces a new verification of the CN or SAN of a custom certificate uploaded by the FortiGate admin. This custom certificate is used when a FortiGate device connects to a FortiManager unit. The FortiGate and FortiManager administrators may configure the use of a custom certificate with the following CLI commands:

FortiGate-related CLI:

```
config system central-management
    local-cert Certificate to be used by FGFM protocol.
    ca-cert CA certificate to be used by FGFM protocol.
```

FortiManager-related CLI:

```
config system global
    fgfm-ca-cert set the extra fgfm CA certificates.
    fgfm-cert-exclusive set if the local or CA certificates should be used exclusively.
    fgfm-local-cert set the fgfm local certificate.
```

Upon upgrading to FortiManager 7.2.5, FortiManager will request that the FortiGate certificate must contain the FortiGate serial number either in the CN or SAN. The tunnel connection may fail if a matching serial number is not found. If the tunnel connection fails, the administrator may need to re-generate the custom certificates to include serial number.

Alternatively, FortiManager 7.2.5 provides a new CLI command to disable this verification. Fortinet recommends to keep the verification enabled.

```
config system global
    fgfm-peercert-withoutasn set if the subject CN or SAN of peer's SSL certificate sent in
    FGFM should include the serial number of the device.
```

When the CLI setting `fgfm-peercert-withoutasn` is disabled (default), the FortiGate device's certificate must include the FortiGate serial number in the subject CN or SAN. When the CLI setting `fgfm-peercert-withoutasn` is enabled, the FortiManager unit does not perform the verification serial number in subject CN or SAN.

Configuration backup requires a password

As of FortiManager 7.2.5, configuration backup files are automatically encrypted and require you to set a password. The password is required for scheduled backups as well.

In previous versions, the encryption and password were optional.

For more information, see the [FortiManager Administration Guide](#).

Additional configuration required for SSO users

Beginning in 7.2.5, additional configuration is needed for FortiManager Users declared as wildcard SSO users.

When configuring Administrators as wildcard SSO users, the `ext-auth-accprofile-override` and/or `ext-auth-adom-override` features, under *Advanced Options*, should be enabled if the intent is to obtain the ADOMs list and/or permission profile from the SAML IdP.

When using VPN Manager, IPSEC VPN CA certificates must be re-issued to all devices after upgrade

When FortiManager is upgraded to 7.2.5 or later, it creates a new CA `<ADOM Name>_CA3` certificate as part of a fix for resolved issue 796858. See [Resolved Issues in the FortiManager 7.2.5 Release Notes](#). These certificates are installed to the FortiGate devices on the next policy push. As a result, the next time any IPSEC VPNs which use certificates rekey, they will fail authentication and be unable to re-establish.

The old CA `<ADOM Name>_CA2` cannot be deleted, as existing certificates rely on it for validation. Similarly, the new CA `<ADOM Name>_CA3` cannot be deleted as it is required for the fix. Therefore, customers affected by this change must follow the below workaround after upgrading FortiManager to v7.2.5 or later.

A maintenance period is advised to avoid IPSEC VPN service disruption.

Workaround:

Re-issue *all* certificates again to *all* devices, and then delete the old CA <ADOM Name>_CA2 from all devices. Next, regenerate the VPN certificates.

To remove CA2 from FortiManager, *Policy & Objects > Advanced > CA Certificates* must be enabled in feature visibility.

Apache-mode changed from prefork to event

Before version 7.2.3, the default "apache-mode" utilized the "prefork" mode. However, starting from version 7.2.4, the default configuration switches to the "event" mode.

This change is aimed at supporting the HTTP/2.0 protocol. With HTTP/2.0, there is no limit on the maximum concurrency of HTTP requests, potentially leading to slower GUI performance if the client's environment imposes restrictions, whether network or implementation-related. HTTP/2 may face issues such as head-of-line blocking and resource prioritization, leading to slower performance compared to HTTP/1. Additionally, server push and intermediaries struggling with encrypted headers can further complicate matters. Implementing HTTP/2 requires more computational resources, which may affect response times. These complexities highlight scenarios where HTTP/1 might outperform HTTP/2.

If customers experience GUI slowness, they have the option to revert to the "prefork" mode using the following commands:

```
config system global
(global)# set apache-mode prefork
(global)# end
```

FortiGuard web filtering category v10 update

Fortinet has updated its web filtering categories to v10, which includes two new URL categories for AI chat and cryptocurrency web sites. In order to use the new categories, customers must upgrade their Fortinet products to one of the versions below.

- FortiManager - Fixed in 6.0.12, 6.2.9, 6.4.7, 7.0.2, 7.2.0, 7.4.0.
- FortiOS - Fixed in 7.2.8 and 7.4.1.
- FortiClient - Fixed in Windows 7.2.3, macOS 7.2.3, Linux 7.2.3.
- FortiClient EMS - Fixed in 7.2.1.
- FortiMail - Fixed in 7.0.7, 7.2.5, 7.4.1.
- FortiProxy - Fixed in 7.4.1.

Please read the following CSB for more information to caveats on the usage in FortiManager and FortiOS.

<https://support.fortinet.com/Information/Bulletin.aspx>

Install On column for policies

Prior to version 7.2.3, the 'Install-on' column for policies in the policy block had no effect. However, starting from version 7.2.3, the 'Install-on' column is operational and significantly impacts the behavior and installation process of policies. It's

important to note that using 'Install-on' on policies in the policy block is not recommended. If required, this setting can only be configured through a script or JSON APIs.

FortiManager 7.2.3 and later firmware on FortiGuard

Starting in FortiManager 7.2.1, a setup wizard executes to prompt the user for various configuration steps and registration with FortiCare. During the execution, the FortiManager unit attempts to communicate with FortiGuard for a list of FortiManager firmware images currently available on FortiGuard – older and newer.

In the case of FortiManager 7.2.2, a bug in the GUI prevents the wizard from completing and prevents the user from accessing the FortiManager unit. The issue has been fixed in 7.2.3 and later and a CLI command has been added to bypass the setup wizard at login time.

```
config system admin setting
    set firmware-upgrade-check disable
end
```

Fortinet has not uploaded FortiManager 7.2.3 and later firmware to FortiGuard in order to work around the GUI bug, however, the firmware is available for download from the [Fortinet Support website](#).

Option to enable permission check when copying policies

As of 7.2.3, a new command is added in the CLI:

```
config system global
    set no-copy-permission-check {enable | disable}
end
```

By default, this is set to `disable`. When set to `enable`, a check is performed when copying policies to prevent changing global device objects if the user does not have permission.

Management Extensions visibility in the GUI

As of FortiManager 7.2.3, the *Management Extensions* pane is only visible in the GUI when docker status is enabled and at least one management extension application (MEA) is enabled and downloaded. For more information about enabling and using the MEAs, see the Management Extensions documentation in the [FortiManager Documents Library](#).

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.

SD-WAN Orchestrator removed in 7.2

Starting in 7.2.0, the SD-WAN Orchestrator is no longer available in FortiManager. Instead, you can use the *SD-WAN Overlay Template* wizard to configure your SD-WAN overlay network.

For more information, see [SD-WAN Overlay Templates](#) in the FortiManager Administration Guide.

Changes to FortiManager meta fields

Beginning in 7.2.0, FortiManager supports policy object metadata variables.

When upgrading from FortiManager 7.0 to 7.2.0 and later, FortiManager will automatically create ADOM-level metadata variable policy objects for meta fields previously configured in System Settings that have per-device mapping configurations detected. Objects using the meta field, for example CLI templates, are automatically updated to use the new metadata variable policy objects.

Meta fields in *System Settings* can continue to be used as comments/tags for configurations.

For more information, see [ADOM-level meta variables for general use in scripts, templates, and model devices](#).

Setup wizard requires FortiCare registration

Starting in FortiManager 7.2.1, the FortiManager Setup wizard requires you to complete the *Register with FortiCare* step before you can access the FortiManager appliance or VM. Previously the step was optional.

For FortiManager units operating in a closed environment, contact customer service to receive an entitlement file, and then load the entitlement file to FortiManager by using the CLI.

Access lists as ADOM-level objects

Starting in 7.2.0, FortiManager supports IPv4 and IPv6 access list firewall policies as ADOM-level object configurations from FortiGate. Previously, these access lists were controlled by the device database/FortiGate configuration.

After upgrading to 7.2.0 from an earlier release, the next time you install changes to a FortiGate device with an IPv4 or IPv6 access list firewall policy (`config firewall acl/acl6`), FortiManager will purge the device database/FortiGate configuration which may have previously contained the access list.

To address this, administrators can re-import the FortiGate policy configuration to an ADOM's policy package or re-create the IPv4/IPv6 access list firewall policy in the original package.

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 policies with multiple interfaces, however, *View Mode* is still disabled even when policy blocks respect the interface pair.

Reconfiguring Virtual Wire Pairs (VWP)

A conflict can occur between the ADOM database and device database when a Virtual Wire Pair (VWP) is installed on a managed FortiGate that already has a configured VWP in the device database. This can happen when an existing VWP has been reconfigured or replaced.

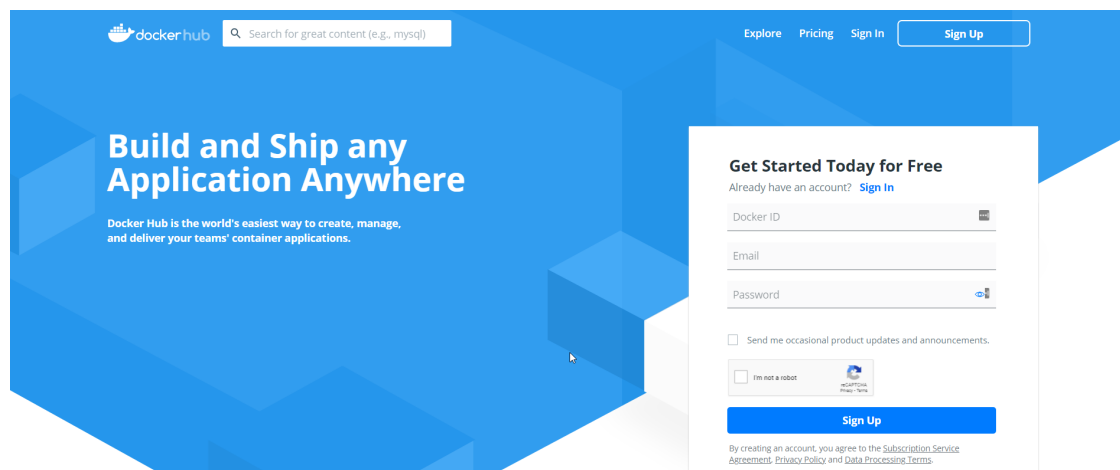
Before installing the VWP, you must first remove the old VWP from the device's database, otherwise a policy and object validation error may occur during installation. You can remove the VWP from the device database by going to *Device Manager > Device & Groups*, selecting the managed device, and removing the VWP from *System > Interface*.

Fortinet verified publisher docker image

FortiManager docker images are available for download from Fortinet's Verified Publisher public repository on dockerhub.

To download the FortiManager image from dockerhub:

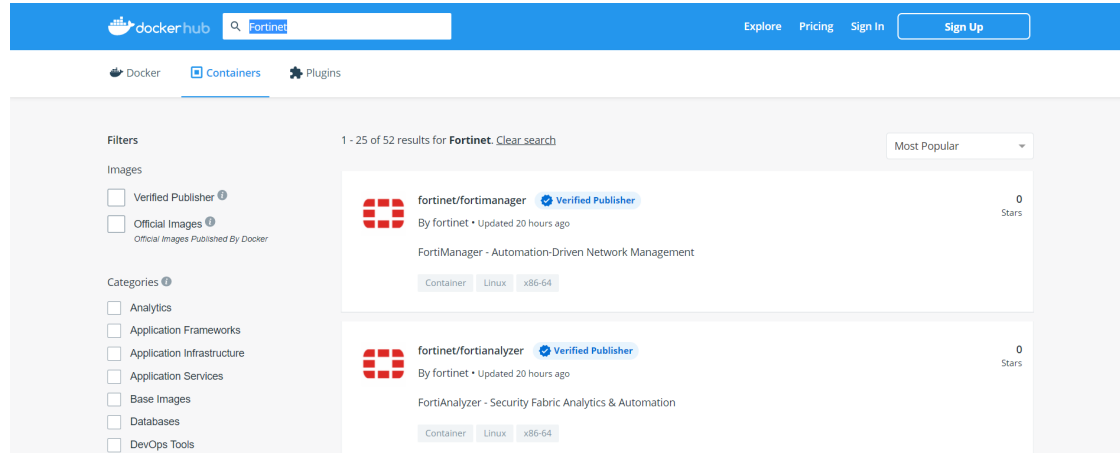
1. Go to dockerhub at <https://hub.docker.com/>.
The dockerhub home page is displayed.



2. In the banner, click *Explore*.

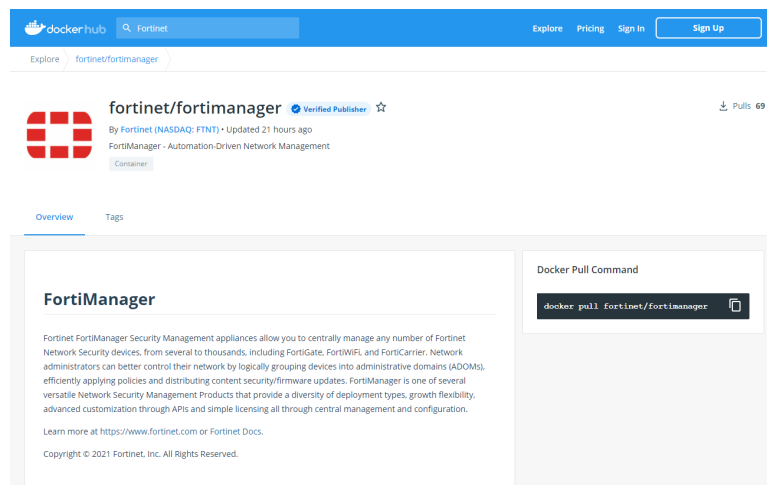
3. In the search box, type *Fortinet*, and press *Enter*.

The *fortinet/fortimanager* and *fortinet/fortianalyzer* options are displayed.



4. Click *fortinet/fortimanager*.

The *fortinet/fortimanager* page is displayed, and two tabs are available: *Overview* and *Tags*. The *Overview* tab is selected by default.



5. On the *Overview* tab, copy the docker pull command, and use it to download the image.

The CLI command from the *Overview* tab points to the latest available image. Use the *Tags* tab to access different versions when available.

Scheduling firmware upgrades for managed devices

Starting in FortiManager 7.0.0, firmware templates should be used to schedule firmware upgrades on managed FortiGates. Attempting firmware upgrade from the FortiManager GUI by using legacy methods may ignore the *schedule upgrade* option and result in FortiGates being upgraded immediately.

Modifying the interface status with the CLI

Starting in version 7.0.1, the CLI to modify the interface status has been changed from `up/down` to `enable/disable`.

For example:

```
config system interface
  edit port2
    set status <enable/disable>
  next
end
```

SD-WAN with upgrade to 7.0

Due to design change with SD-WAN Template, upgrading to FortiManager 7.0 may be unable to maintain dynamic mappings for all SD-WAN interface members. Please reconfigure all the missing interface mappings after upgrade.

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 tlsv1
end
```

Upgrade Information



Prior to upgrading your FortiManager, please review the FortiManager Upgrade Guide in detail as it includes all of the necessary steps and associated details required to upgrade your FortiManager device or VM.

See [FortiManager 7.2.8 Upgrade Guide](#).

You can upgrade FortiManager 7.0.1 or later directly to 7.2.8.



Before upgrading FortiManager, check ADOM versions. Check the ADOM versions supported by the destination firmware and the current firmware. If the current firmware uses ADOM versions not supported by the destination firmware, upgrade ADOM versions in FortiManager before upgrading FortiManager to the destination firmware version.

For example, FortiManager 7.0 supports ADOM versions 6.2, 6.4, and 7.0, but FortiManager 7.2 supports ADOM versions 6.4, 7.0, and 7.2. Before you upgrade FortiManager 7.0 to 7.2, ensure that all ADOM 6.2 versions have been upgraded to ADOM version 6.4 or later. See [FortiManager 7.2.8 Upgrade Guide](#).

This section contains the following topics:

- [Downgrading to previous firmware versions on page 19](#)
- [Firmware image checksums on page 19](#)
- [FortiManager VM firmware on page 20](#)
- [SNMP MIB files on page 21](#)
- [FortiManager instances on Azure Stack on page 21](#)

Downgrading to previous firmware versions

FortiManager does not provide a full downgrade path. You can downgrade to a previous firmware release by using the GUI or CLI, but doing so results in configuration loss. A system reset is required after the firmware downgrade 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, go to *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, Amazon AWSOnDemand, Citrix and Open Source XenServer, Linux KVM, Microsoft Hyper-V Server, and VMware ESX/ESXi virtualization environments.

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.

Google Cloud Platform

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.gcp.zip`: Download the 64-bit package for a new FortiManager VM installation.

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 `<product>_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, `<product>_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.

Oracle Private Cloud

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiManager VM installation.
- `.out.opc.zip`: Download the 64-bit package for a new FortiManager VM installation.

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.

FortiManager instances on Azure Stack

After upgrading FortiManager on Azure Stack from version 7.2.3 to 7.2.4, the instance will become unreachable. To re-establish connectivity, dissociate the Public IP of the instance and then re-associate it via the Azure Stack client portal.

Product Integration and Support

This section lists FortiManager 7.2.8 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:

- [Supported software on page 22](#)
- [Feature support on page 28](#)
- [Language support on page 28](#)
- [Supported models on page 29](#)

Supported software

FortiManager 7.2.8 supports the following software:

- [Web browsers on page 23](#)
- [FortiOS and FortiOS Carrier on page 23](#)
- [FortiADC on page 23](#)
- [FortiAnalyzer on page 23](#)
- [FortiAnalyzer-BigData on page 24](#)
- [FortiAuthenticator on page 24](#)
- [FortiCache on page 24](#)
- [FortiClient on page 24](#)
- [FortiDDoS on page 24](#)
- [FortiDeceptor on page 25](#)
- [FortiFirewall and FortiFirewallCarrier on page 25](#)
- [FortiMail on page 25](#)
- [FortiPAM on page 25](#)
- [FortiProxy on page 25](#)
- [FortiSandbox on page 26](#)
- [FortiSOAR on page 26](#)
- [FortiSwitch ATCA on page 26](#)
- [FortiTester on page 26](#)
- [FortiWeb on page 27](#)
- [Virtualization on page 27](#)



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

FortiManager 7.2.8 supports the following web browsers:

- Microsoft Edge 114
- Mozilla Firefox version 96
- Google Chrome version 114

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

FortiOS and FortiOS Carrier



The *FortiManager Release Notes* communicate support for FortiOS versions that are available at the time of the FortiManager 7.2.8 release. For additional information about other supported FortiOS versions, please refer to the FortiManager compatibility chart in the [Fortinet Document Library](#).

See [FortiManager compatibility with FortiOS](#).

FortiManager 7.2.8 supports the following versions of FortiOS and FortiOS Carrier:

- 7.2.0 to 7.2.10
 - 7.0.0 to 7.0.16
 - 6.4.0 to 6.4.15
-



Some FortiOS versions are supported with compatibility issues. For more details, see [Compatibility with FortiOS Versions on page 46](#).

FortiADC

FortiManager 7.2.8 supports the following versions of FortiADC:

- 7.2.0 and later
- 7.1.0 and later
- 7.0.0 and later

FortiAnalyzer

FortiManager 7.2.8 supports the following versions of FortiAnalyzer:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiAnalyzer-BigData

FortiManager 7.2.8 supports the following versions of FortiAnalyzer-BigData:

- 7.2.0 and later
- 7.0.0 and later

FortiAuthenticator

FortiManager 7.2.8 supports the following versions of FortiAuthenticator:

- 6.6.0 and later
- 6.5.0 and later
- 6.4.0 and later
- 6.3.0 and later
- 6.2.0 and later

FortiCache

FortiManager 7.2.8 supports the following versions of FortiCache:

- 4.2.0 and later
- 4.1.0 and later
- 4.0.0 and later

FortiClient

FortiManager 7.2.8 supports the following versions of FortiClient:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later
- 6.2.1 and later

FortiDDoS

FortiManager 7.2.8 supports the following versions of FortiDDoS:

- 7.0.0 and later
- 6.6.0 and later
- 6.5.0 and later
- 6.4.0 and later

- 6.3.0 and later
- 6.2.0 and later

Limited support. For more information, see [Feature support on page 28](#).

FortiDeceptor

FortiManager 7.2.8 supports the following versions of FortiDeceptor:

- 5.3.0 and later
- 5.2.0 and later
- 5.1.0 and later
- 5.0.0 and later
- 4.3.0 and later
- 4.2.0 and later

FortiFirewall and FortiFirewallCarrier

FortiManager 7.2.8 supports the following versions of FortiFirewall and FortiFirewallCarrier:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiMail

FortiManager 7.2.8 supports the following versions of FortiMail:

- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

FortiPAM

FortiManager 7.2.8 supports the following versions of FortiPAM:

- 1.1.0 and later
- 1.0.0 and later

FortiProxy

FortiManager 7.2.8 supports configuration management for the following versions of FortiProxy:

- 7.2.9
- 7.2.7
- 7.2.6

- 7.2.3
- 7.2.2
- 7.0.12 to 7.0.17
- 7.0.7 to 7.0.10



Configuration management support is identified as *Management Features* in these release notes. See [Feature support on page 28](#).

FortiManager 7.2.8 supports logs from the following versions of FortiProxy:

- 7.2.0 to 7.2.9
- 7.0.0 to 7.0.17
- 2.0.0 to 2.0.5
- 1.2.0 to 1.2.13
- 1.1.0 to 1.1.6
- 1.0.0 to 1.0.7

FortiSandbox

FortiManager 7.2.8 supports the following versions of FortiSandbox:

- 4.4.0 and later
- 4.2.0 and later
- 4.0.0 and 4.0.1
- 3.2.0 and later

FortiSOAR

FortiManager 7.2.8 supports the following versions of FortiSOAR:

- 7.3.0 and later
- 7.2.0 and later
- 7.0.0 and later

FortiSwitch ATCA

FortiManager 7.2.8 supports the following versions of FortiSwitch ATCA:

- 5.2.0 and later
- 5.0.0 and later
- 4.3.0 and later

FortiTester

FortiManager 7.2.8 supports the following versions of FortiTester:

- 7.3.0 and later
- 7.2.0 and later
- 7.1.0 and later
- 7.0.0 and later
- 4.2.0 and later

FortiWeb

FortiManager 7.2.8 supports the following versions of FortiWeb:

- 7.4.0 and later
- 7.2.0 and later
- 7.0.0 and later
- 6.4.0 and later

Virtualization

FortiManager 7.2.8 supports the following virtualization software:

Public Cloud

- Amazon Web Service AMI, Amazon EC2, Amazon EBS
- Alibaba Cloud
- Google Cloud Platform
- IBM Cloud
- Microsoft Azure
- Oracle Cloud Infrastructure

Private Cloud

- Citrix XenServer 7.2
- OpenSource XenServer 4.2.5
- Microsoft Hyper-V Server 2016, 2019, and 2022
- Nutanix
 - AHV 20220304 and later
 - AOS 6.5 and later
 - NCC 4.6 and later
 - LCM 3.0 and later
- RedHat 9.1
 - Other versions and Linux KVM distributions are also supported
- VMware ESXi versions 6.5 and later

Feature support

The following table lists FortiManager feature support for managed platforms.

Platform	Management Features	FortiGuard Update Services	VM License Activation	Reports	Logging
FortiGate	✓	✓	✓	✓	✓
FortiCarrier	✓	✓	✓	✓	✓
FortiADC		✓	✓		
FortiAnalyzer			✓	✓	✓
FortiAuthenticator					✓
FortiCache			✓	✓	✓
FortiClient		✓		✓	✓
FortiDDoS			✓	✓	✓
FortiDeceptor		✓			
FortiFirewall	✓				✓
FortiFirewall Carrier	✓				✓
FortiMail		✓	✓	✓	✓
FortiPAM		✓	✓	✓	✓
FortiProxy	✓	✓	✓	✓	✓
FortiSandbox		✓	✓	✓	✓
FortiSOAR		✓	✓		
FortiSwitch ATCA	✓				
FortiTester		✓			
FortiWeb		✓	✓	✓	✓
Syslog					✓

Language support

The following table lists FortiManager language support information.

Language	GUI	Reports
English	✓	✓

Language	GUI	Reports
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 *FortiManager 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 7.2.8.



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 on page 30](#)
- [FortiGate special branch models on page 33](#)
- [FortiCarrier models on page 35](#)
- [FortiCarrier special branch models on page 36](#)
- [FortiADC models on page 38](#)
- [FortiAnalyzer models on page 38](#)
- [FortiAnalyzer-BigData models on page 39](#)
- [FortiAuthenticator models on page 39](#)
- [FortiCache models on page 39](#)
- [FortiDDoS models on page 39](#)
- [FortiDeceptor models on page 40](#)
- [FortiFirewall models on page 40](#)
- [FortiFirewallCarrier models on page 41](#)
- [FortiMail models on page 42](#)

- [FortiPAM models on page 43](#)
- [FortiProxy models on page 43](#)
- [FortiSandbox models on page 43](#)
- [FortiSOAR models on page 44](#)
- [FortiSwitch ATCA models on page 44](#)
- [FortiTester models on page 44](#)
- [FortiWeb models on page 45](#)

FortiGate models

The following FortiGate models are released with FortiOS firmware. For information about supported FortiGate models on special branch releases of FortiOS firmware, see [FortiGate special branch models on page 33](#).

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-70F, FortiGate-71F, FortiGate-80E, FortiGate-80E-POE, FortiGate-80F, FortiGate-80F-Bypass, FortiGate-80F-DSL, FortiGate-80F-POE, FortiGate-81E, FortiGate-81E-POE, FortiGate-81F, FortiGate-81F-POE, FortiGate-90E, FortiGate-90G, FortiGate-91E, FortiGate-91G, FortiGate-100E, FortiGate-100EF, FortiGate-100F, FortiGate-101E, FortiGate-101F, FortiGate-120G, FortiGate-121G, FortiGate-140E, FortiGate-140E-POE, FortiGate-200E, FortiGate-200F, FortiGate-201E, FortiGate-201F, FortiGate-300E, FortiGate-301E, FortiGate-400E, FortiGate-400F, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-401F, FortiGate-500E, FortiGate-501E, FortiGate-600E, FortiGate-600F, FortiGate-601E, FortiGate-601F, FortiGate-800D, FortiGate-900D, FortiGate-900G, FortiGate-901G, FortiGate-1000D, FortiGate-1000F, FortiGate-1001F, FortiGate-1100E, FortiGate-1101E, FortiGate-1500D, FortiGate-1500DT, FortiGate-1800F, FortiGate-1801F, FortiGate-2000E, FortiGate-2200E, FortiGate-2201E, FortiGate-2500E, FortiGate-2600F, FortiGate-2601F, FortiGate-3000D, FortiGate-3000F, FortiGate-3001F, FortiGate-3100D, FortiGate-3200D, FortiGate-3200F, FortiGate-3201F, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3500F, FortiGate-3501F, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3700F, FortiGate-3701F, FortiGate-3800D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F, FortiGate-4800F, FortiGate-4801F FortiGate 5000 Series: FortiGate-5001E, FortiGate-5001E1 FortiGate 6000 Series: FortiGate-6000F, FortiGate-6001F, FortiGate-6300F, FortiGate-6300F-DC, FortiGate-6301F, FortiGate-6301F-DC, FortiGate-6500F, FortiGate-6500F-DC, FortiGate-6501F, FortiGate-6501F-DC FortiGate 7000 Series: FortiGate-7000E, FortiGate-7000F, FortiGate-7030E, FortiGate-7040E, FortiGate-7060E, FortiGate-7060E-8-DC, FortiGate-7081F, FortiGate-7081F-2-DC, FortiGate-7081F-DC, FortiGate-7121F, FortiGate-7121F-2, FortiGate-7121F-2-DC, FortiGate-7121F-DC	7.2

Model	Firmware Version
FortiGate DC: FortiGate-400F-DC, FortiGate-401E-DC, FortiGate-401F-DC, FortiGate-800D-DC, FortiGate-900G-DC, FortiGate-901G-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3000F-ACDC, FortiGate-3000F-DC, FortiGate-3001F-ACDC, FortiGate-3001F-DC, FortiGate-3100D-DC, FortiGate-3200D-DC, FortiGate-3400E-DC, FortiGate-3401E-DC, FortiGate-3600E-DC, FortiGate-3700D-DC, FortiGate-3800D-DC, FortiGate-3960E-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC, FortiGate-4800F-DC, FortiGate-4801F-DC FortiWiFi: FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-DSL, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE FortiGate VM: FortiGate-ARM64-AWS, FortiGate-ARM64-Azure, FortiGate-ARM64-GCP, FortiGate-ARM64-KVM, FortiGate-ARM64-OCI, FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-AWS, FortiGate-VM64-Azure, FortiGate-VM64-GCP, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager FortiOS-VM: FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen FortiGate Rugged: FGR-60F, FGR-60F-3G4G, FGR-70F, FGR-70F-3G4G	
FortiGate: FortiGate-40F, FortiGate-40F-3G4G, FortiGate-60E, FortiGate-60E-DSL, FortiGate-60E-DSLJ, FortiGate-60E-POE, FortiGate-60F, FortiGate-61E, FortiGate-61F, FortiGate-70F, FortiGate-71F, 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-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-400F, FortiGate-400E-Bypass, FortiGate-401E, FortiGate-401F, FortiGate-500D, FortiGate-500E, FortiGate-501E, FortiGate-600D, FortiGate-600E, FortiGate-600F, FortiGate-601E, FortiGate-601F, 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-3000F, FortiGate-3001F, FortiGate-3100D, FortiGate-3200D, FortiGate-3300E, FortiGate-3301E, FortiGate-3400E, FortiGate-3401E, FortiGate-3500F, FortiGate-3501F, FortiGate-3600E, FortiGate-3601E, FortiGate-3700D, FortiGate-3800D, FortiGate-3810D, FortiGate-3815D, FortiGate-3960E, FortiGate-3980E, FortiGate-4200F, FortiGate-4201F, FortiGate-4400F, FortiGate-4401F,	7.0
FortiGate 5000 Series: FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1	

Model	Firmware Version
<p>FortiGate DC: FortiGate-400F-DC, FortiGate-401E-DC, FortiGate-401F-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, FortiGate-2600F-DC, FortiGate-2601F-DC, FortiGate-3000D-DC, FortiGate-3000F-ACDC, FortiGate-3000F-DC, FortiGate-3001F-ACDC, FortiGate-3001F-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-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC</p> <p>FortiWiFi: FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE</p> <p>FortiGate VM: FortiGate-ARM64-AWS, FortiGate-ARM64-KVM, FortiGate-ARM64-OCI, FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-AWS, FortiGate-VM64-Azure, FortiGate-VM64-GCP, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager</p> <p>FortiOS-VM: FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen</p> <p>FortiGate Rugged: FGR-60F, FGR-60F-3G4G</p>	
<p>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,</p> <p>FortiGate 5000 Series: FortiGate-5001D, FortiGate-5001E, FortiGate-5001E1</p> <p>FortiGate DC: FortiGate-401E-DC, FortiGate-800D-DC, FortiGate-1100E-DC, FortiGate-1500D-DC, FortiGate-1800F-DC, FortiGate-1801F-DC, FortiGate-2201E-ACDC, 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-ACDC, FortiGate-3960E-DC, FortiGate-3980E-DC, FortiGate-4200F-DC, FortiGate-4201F-DC, FortiGate-4400F-DC, FortiGate-4401F-DC</p> <p>FortiGate Hardware Low Encryption: FortiGate-100D-LENC</p>	6.4

Model	Firmware Version
FortiWiFi: FWF-40F, FWF-40F-3G4G, FWF-60E, FWF-60E-DSL, FWF-60E-DSLJ, FWF-60F, FWF-61E, FWF-61F, FWF-80F-2R, FWF-81F-2R, FWF-81F-2R-3G4G-POE, FWF-81F-2R-POE	
FortiGate VM: FortiGate-VM64, FortiGate-VM64-ALI, FortiGate-VM64-ALIONDEMAND, FortiGate-VM64-AWS, FortiGate-VM64-AZUREONDEMAND, FortiGate-VM64-Azure, FortiGate-VM64-GCP, VM64-GCPONDEMAND, FortiGate-VM64-HV, FortiGate-VM64-IBM, FortiGate-VM64-KVM, FortiGate-VM64-OPC, FortiGate-VM64-RAXONDEMAND, FortiGate-VM64-XEN, FortiGate-VMX-Service-Manager	
FortiOS-VM: FOS-VM64, FOS-VM64-HV, FOS-VM64-KVM, FOS-VM64-Xen	
FortiGate Rugged: FGR-60F, FGR-60F-3G4G	

FortiGate special branch models

The following FortiGate models are released on special branches of FortiOS. FortiManager version 7.2.8 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 30](#).

FortiOS 7.2

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-30G	7.2.8	6390
FortiGate-200G, FortiGate-201G	7.2.8	6397
FortiWiFi-30G	7.2.8	6390

FortiOS 7.0

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-50G-DSL	7.0.12	7353
FortiGate-50G-SFP	7.0.12	7192
FortiGate-50G-SFP-POE	7.0.12	7257
FortiGate-51G-SFP-POE	7.0.12	7257
FortiGate-80F-DSL	7.0.15	7272
FortiGate-90G, FortiGate-91G	7.0.15	7288
FortiGate-120G, FortiGate-121G	7.0.15	7277
FortiGate-900G, FortiGate-900G-DC, FortiGate-901G, FortiGate-901G-DC	7.0.15	7266

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-1000F, FortiGate-1001F	7.0.15	7267
FortiGate-3200F	7.0.15	7278
FortiGate-3201F	7.0.15	7273
FortiGate-3700F, FortiGate-3701F	7.0.15	7286
FortiGate-4800F, FortiGate-4800F-DC	7.0.15	7286
FortiGate-4801F, FortiGate-4801F-DC	7.0.15	7286
FortiGate-6000F, FortiGate-6001F, FortiGate-6300F, FortiGate-6300F-DC, FortiGate-6301F, FortiGate-6301F-DC, FortiGate-6500F, FortiGate-6500F-DC, FortiGate-6501F, FortiGate-6501F-DC	7.0.15	0247
FortiGate-7000E, FortiGate-7030E, FortiGate-7040E, FortiGate-7060E, FortiGate-7060E-8-DC	7.0.15	0247
FortiGate-7000F, FortiGate-7081F, FortiGate-7081F-2-DC, FortiGate-7081F-DC, FortiGate-7121F, FortiGate-7121F-2, FortiGate-7121F-2-DC, FortiGate-7121F-DC	7.0.15	0247
FortiGateRugged-70F, FortiGateRugged- 70F-3G4G	7.0.15	7284
FortiGateRugged-70G-5G-Dual	7.0.12	7151
FortiWiFi-50G-5G	7.0.12	7192
FortiWiFi-50G-DSL	7.0.12	7353
FortiWiFi-50G-SFP	7.0.12	7192
FortiWiFi-80F-2R-3G4G-DSL, FortiWiFi-81F- 2R-3G4G-DSL	7.0.15	7272

FortiOS 6.4

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-400F, FortiGate-400F-DC, FortiGate-401F, FortiGate-401F-DC	6.4.13	5455
FortiGate-600F, FortiGate-601F	6.4.13	5455
FortiGate-3500F	6.4.6	5886
FortiGate-3501F	6.4.6	6132

FortiGate Model	FortiOS Version	FortiOS Build
FortiGate-6000F, FortiGate-6001F, 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-7081F, FortiGate-7081F-2-DC, FortiGate-7081F-DC, 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

FortiCarrier models

The following FortiCarrier models are released with FortiCarrier firmware.

For information about supported FortiCarrier models on special branch releases of FortiCarrier firmware, see [FortiCarrier special branch models on page 36](#).

Model	Firmware Version
FortiCarrier: FortiCarrier-2600F, FortiCarrier-2601F, FortiCarrier-3000D, FortiCarrier-3000F, FortiCarrier-3001F, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3200F, FortiCarrier-3201F, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3700F, FortiCarrier-3701F, FortiCarrier-3800D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-4200F, FortiCarrier-4201F, FortiCarrier-4400F, FortiCarrier-4401F, FortiCarrier-4800F, FortiCarrier-4801F, FortiCarrier-5001E, FortiCarrier-5001E1 FortiCarrier 6000 Series: FortiCarrier-6000F, FortiCarrier-6001F, FortiCarrier-6300F, FortiCarrier-6300F-DC, FortiCarrier-6301F, FortiCarrier-6301F-DC, FortiCarrier-6500F, FortiCarrier-6500F-DC, FortiCarrier-65001F, FortiCarrier-6501F-DC FortiCarrier 7000 Series: FortiCarrier-7000E, FortiCarrier-7000F, FortiCarrier-7030E, FortiCarrier-7040E, FortiCarrier-7060E, FortiCarrier-7060E-8-DC, FortiCarrier-7081F, FortiCarrier-7081F-2, FortiCarrier-7081F-2-DC, FortiCarrier-7081F-DC, FortiCarrier-7121F, FortiCarrier-7121F-2, FortiCarrier-7121F-2-DC, FortiCarrier-7121F-DC FortiCarrier-DC: FortiCarrier-2600F-DC, FortiCarrier-2601F-DC, FortiCarrier-3000D-DC, FortiCarrier-3000F-ACDC, FortiCarrier-3000F-DC, FortiCarrier-3001F-ACDC, FortiCarrier-3001F-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC, FortiCarrier-4200F-DC, FortiCarrier-4201F-DC, FortiCarrier-4400F-DC, FortiCarrier-4401F-DC	7.2

Model	Firmware Version
FortiCarrier-VM: FortiCarrier-ARM64-AWS, FortiCarrier-ARM64-Azure, FortiCarrier-ARM64-GCP, FortiCarrier-ARM64-KVM, FortiCarrier-ARM64-OCI, FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen	
FortiCarrier: FortiCarrier-2600F, FortiCarrier-2601F, FortiCarrier-3000D, FortiCarrier-3000F, FortiCarrier-3001F, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1	7.0
FortiCarrier-DC: FortiCarrier-2600F-DC, FortiCarrier-2601F-DC, FortiCarrier-3000D-DC, FortiCarrier-3000F-ACDC, FortiCarrier-3000F-DC, FortiCarrier-3001F-ACDC, FortiCarrier-3001F-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC	
FortiCarrier-VM: FortiCarrier-ARM64-AWS, FortiCarrier-ARM64-KVM, FortiCarrier-ARM64-OCI, FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, FortiCarrier-VM64-KVM, FortiCarrier-VM64-OPC, FortiCarrier-VM64-Xen, FortiCarrier-ARM64-KVM	
FortiCarrier: FortiCarrier-3000D, FortiCarrier-3100D, FortiCarrier-3200D, FortiCarrier-3300E, FortiCarrier-3301E, FortiCarrier-3400E, FortiCarrier-3401E, FortiCarrier-3500F, FortiCarrier-3501F, FortiCarrier-3600E, FortiCarrier-3601E, FortiCarrier-3700D, FortiCarrier-3800D, FortiCarrier-3810D, FortiCarrier-3815D, FortiCarrier-3960E, FortiCarrier-3980E, FortiCarrier-5001D, FortiCarrier-5001E, FortiCarrier-5001E1	6.4
FortiCarrier-DC: FortiCarrier-3000D-DC, FortiCarrier-3000F-DC, FortiCarrier-3001F-DC, FortiCarrier-3100D-DC, FortiCarrier-3200D-DC, FortiCarrier-3400E-DC, FortiCarrier-3401E-DC, FortiCarrier-3600E-DC, FortiCarrier-3700D-DC, FortiCarrier-3800D-DC, FortiCarrier-3810D-DC, FortiCarrier-3815D-DC, FortiCarrier-3960E-DC, FortiCarrier-3980E-DC	
FortiCarrier-VM: FortiCarrier-VM64, FortiCarrier-VM64-ALI, FortiCarrier-VM64-AWS, FortiCarrier-VM64-Azure, FortiCarrier-VM64-GCP, FortiCarrier-VM64-HV, FortiCarrier-VM64-IBM, 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 7.2.8 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 35](#).

FortiCarrier 7.0

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-3200F	7.0.15	7278
FortiCarrier-3201F	7.0.15	7273
FortiCarrier-3700F, FortiCarrier-3701F	7.0.15	7331
FortiCarrier-4800F, FortiCarrier-4800F-DC	7.0.15	7286
FortiCarrier-4801F, FortiCarrier-4801F-DC	7.0.15	7286
FortiCarrier-6000F, FortiCarrier-6001F, FortiCarrier-6300F, FortiCarrier-6300F-DC, FortiCarrier-6301F, FortiCarrier-6301F-DC, FortiCarrier-6500F, FortiCarrier-6500F-DC, FortiCarrier-65001F, FortiCarrier-6501F-DC	7.0.15	0247
FortiCarrier-7000E, FortiCarrier-7030E, FortiCarrier-7040E, FortiCarrier-7060E, FortiCarrier-7060E-8-DC	7.0.15	0247
FortiCarrier-7000F, FortiCarrier-7081F, FortiCarrier-7081F-2, FortiCarrier-7081F-2- DC, FortiCarrier-7081F-DC, FortiCarrier- 7121F, FortiCarrier-7121F-2, FortiCarrier- 7121F-2-DC, FortiCarrier-7121F-DC	7.0.15	0247

FortiCarrier 6.4

FortiCarrier Model	FortiCarrier Version	FortiCarrier Build
FortiCarrier-3500F	6.4.6	5886
FortiCarrier-3501F	6.4.6	6132
FortiCarrier-6000F, FortiCarrier-6001F, FortiCarrier-6300F, FortiCarrier-6300F-DC, FortiCarrier-6301F, FortiCarrier-6301F-DC, FortiCarrier-6500F, FortiCarrier-6500F-DC, FortiCarrier-65001F, 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-7081F, FortiCarrier-7081F-2, FortiCarrier-7081F-2- DC, FortiCarrier-7081F-DC, FortiCarrier- 7121F, FortiCarrier-7121F-2, FortiCarrier- 7121F-2-DC, FortiCarrier-7121F-DC	6.4.13	1926

FortiADC models

Model	Firmware Version
FortiADC: FortiADC-100F, FortiADC-120F, FortiADC-200D, FortiADC-200F, FortiADC-220F, FortiADC-300D, FortiADC-300F, FortiADC-400D, FortiADC-400F, FortiADC-700D, FortiADC-1000F, FortiADC-1200F, FortiADC-1500D, FortiADC-2000D, FortiADC-2000F, FortiADC-2200F, FortiADC-4000D, FortiADC-4000F, FortiADC-4200F, FortiADC-5000F FortiADC VM: FortiADC-VM	7.0, 7.1, 7.2

FortiAnalyzer models

Model	Firmware Version
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-810G, FortiAnalyzer-1000F, FortiAnalyzer-1000G, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3100G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3510G, FortiAnalyzer-3700F, FortiAnalyzer-3700G, FortiAnalyzer-3900E FortiAnalyzer VM: FortiAnalyzer-DOCKER, FortiAnalyzer-VM64, FortiAnalyzer-VM64-ALI, FortiAnalyzer-VM64-AWS, FortiAnalyzer-VM64-AWS-OnDemand, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-Azure-OnDemand, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-IBM, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	7.2
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-200F, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-810G, FortiAnalyzer-1000F, FortiAnalyzer-1000G, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3100G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3510G, FortiAnalyzer-3700F, FortiAnalyzer-3700G, FortiAnalyzer-3900E FortiAnalyzer VM: FortiAnalyzer-DOCKER, FortiAnalyzer-VM64, FortiAnalyzer-VM64-ALI, FortiAnalyzer-VM64-ALI-OnDemand, FortiAnalyzer-VM64-AWS, FortiAnalyzer-VM64-Azure, FortiAnalyzer-VM64-Azure-OnDemand, FortiAnalyzer-VM64-GCP, FortiAnalyzer-VM64-GCP-OnDemand, FortiAnalyzer-VM64-HV, FortiAnalyzer-VM64-IBM, FortiAnalyzer-VM64-KVM, FortiAnalyzer-VM64-OPC, FortiAnalyzer-VM64-Xen	7.0
FortiAnalyzer: FortiAnalyzer-150G, FortiAnalyzer-200F, FortiAnalyzer-300F, FortiAnalyzer-300G, FortiAnalyzer-400E, FortiAnalyzer-800F, FortiAnalyzer-800G, FortiAnalyzer-1000E, FortiAnalyzer-1000F, FortiAnalyzer-2000E, FortiAnalyzer-3000E, FortiAnalyzer-3000F, FortiAnalyzer-3000G, FortiAnalyzer-3500E, FortiAnalyzer-3500F, FortiAnalyzer-3500G, FortiAnalyzer-3700F, FortiAnalyzer-3700G, FortiAnalyzer-3900E FortiAnalyzer VM: FortiAnalyzer-DOCKER, 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-OPC, FortiAnalyzer-VM64-Xen	6.4

FortiAnalyzer-BigData models

Model	Firmware Version
FortiAnalyzer-BigData: FortiAnalyzer-BigData-4500F FortiAnalyzer-BigData VM: FortiAnalyzer-BigData-VM64	7.2
FortiAnalyzer-BigData: FortiAnalyzer-BigData-4500F FortiAnalyzer-BigData VM: FortiAnalyzer-BigData-VM64	7.0

FortiAuthenticator models

Model	Firmware Version
FortiAuthenticator: FAC-200D, FAC-200E, FAC-300F, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-2000E, FAC-3000D, FAC-3000E, FAC-3000F FortiAuthenticator VM: FAC-VM	6.4, 6.5, 6.6
FortiAuthenticator: FAC-200D, FAC-200E, FAC-300F, FAC-400C, FAC-400E, FAC-800F, FAC-1000C, FAC-1000D, FAC-2000E, FAC-3000D, FAC-3000E FortiAuthenticator VM: FAC-VM	6.2, 6.3

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

FortiDDoS models

Model	Firmware Version
FortiDDoS: FortiDDoS-200F, FortiDDoS-1500F, FortiDDoS-2000F, FortiDDoS-3000F FortiDDoS VM: FortiDDoS-VM	6.4, 6.5, 6.6, 7.0
FortiDDoS: FortiDDoS-200F, FortiDDoS-1500F, FortiDDoS-2000F FortiDDoS VM: FortiDDoS-VM	6.3
FortiDDoS: FortiDDoS-200F, FortiDDoS-1500F FortiDDoS VM: FortiDDoS-VM	6.2

FortiDeceptor models

Model	Firmware Version
FortiDeceptor: FDC-100G, FDC-1000F, FDC-1000G FortiDeceptor Rugged: FDCR-100G FortiDeceptor VM: FDC-VM	5.0, 5.1, 5.2, 5.3
FortiDeceptor: FDC-1000F, FDC-1000G FortiDeceptor Rugged: FDCR-100G FortiDeceptor VM: FDC-VM	4.3
FortiDeceptor: FDC-1000F, FDC-1000G FortiDeceptor Rugged: FDCR-100G FortiDeceptor VM: FDC-VM	4.2

FortiFirewall models

Some of the following FortiFirewall models are released on special branches of FortiFirewall firmware. FortiManager version 7.2.8 supports these models on the identified FortiFirewall firmware version and build number.

FortiFirewall 7.2

Model	Firmware Version
FortiFirewall: FortiFirewall-1801F, FortiFirewall-2600F, FortiFirewall-3980E, FortiFirewall-4200F, FortiFirewall-4400F, FortiFirewall-4401F, FortiFirewall-4801F FortiFirewall DC: FortiFirewall-1801F-DC, FortiFirewall-2600F-DC, FortiFirewall-4200F-DC, FortiFirewall-4401F-DC FortiFirewall-VM: FortiFirewall-VM64, FortiFirewall-VM64-KVM	7.2

FortiFirewall 7.0

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewall: FortiFirewall-3001F	7.0.10	4955
FortiFirewall: FortiFirewall-3501F	7.0.10	4940
FortiFirewall: FortiFirewall-3980E FortiFirewall DC: FortiFirewall-3980E-DC FortiFirewall-VM: FortiFirewall-VM64, FortiFirewall-VM64-KVM	7.0	

FortiFirewall 6.4

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewall: FortiFirewall-1801F, FortiFirewall-2600F FortiFirewall DC: FortiFirewall-1801F-DC, FortiFirewall-2600F-DC	6.4.12	5423
FortiFirewall: FortiFirewall-3980E FortiFirewall DC: FortiFirewall-3980E-DC	6.4	
FortiFirewall: FortiFirewall-4200F, FortiFirewall-4400F	6.4	1999
FortiFirewall: FortiFirewall-4401F FortiFirewall DC: FortiFirewall-4401F-DC	6.4.12	5423
FortiFirewall-VM: FortiFirewall-VM64, FortiFirewall-VM64-KVM	6.4	

FortiFirewallCarrier models

Some of the following FortiFirewallCarrier models are released on special branches of FortiFirewallCarrier firmware. FortiManager version 7.2.8 supports these models on the identified FortiFirewallCarrier firmware version and build number.

FortiFirewallCarrier 7.2

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewallCarrier: FortiFirewallCarrier-1801F FortiFirewallCarrier-DC: FortiFirewallCarrier-1801F-DC	7.2.6	4609
FortiFirewallCarrier: FortiFirewallCarrier-2600F, FortiFirewallCarrier-3980E, FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F, FortiFirewallCarrier-4401F, FortiFirewallCarrier-4801F FortiFirewallCarrier-DC: FortiFirewallCarrier-4200F-DC, FortiFirewallCarrier-4401F-DC FortiFirewallCarrier-VM: FortiFirewallCarrier-VM64, FortiFirewallCarrier-VM64-KVM	7.2	

FortiFirewallCarrier 7.0

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewallCarrier: FortiFirewallCarrier-3001F	7.0.10	4955
FortiFirewallCarrier: FortiFirewallCarrier-3501F	7.0.10	4940
FortiFirewallCarrier: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.4	
FortiFirewallCarrier: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.2.7	5148
FortiFirewallCarrier: FortiFirewallCarrier-4401F	6.4.9	5318
FortiFirewallCarrier-VM: FortiFirewallCarrier-VM64, FortiFirewallCarrier-VM64-KVM	7.0	

FortiFirewallCarrier 6.4

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewallCarrier: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.4	
FortiFirewallCarrier: FortiFirewallCarrier-4401F	6.4.9	5318

FortiFirewallCarrier 6.2

Model	Firmware Version	Firmware Build (for special branch)
FortiFirewallCarrier: FortiFirewallCarrier-4200F, FortiFirewallCarrier-4400F	6.2.7	5148

FortiMail models

Model	Firmware Version
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-2000F, FE-3000F	7.2
FortiMail: FE-60D, FE-200D, FE-200E, FE-200F, FE-400E, FE-400F, FE-900F, FE-1000D, FE-2000E, FE-2000F, FE-3000D, FE-3000E, FE-3000F, FE-3200E	7.0

Model	Firmware Version
FortiMail VM: FML-VM, FortiMail Cloud	
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	6.4
FortiMail VM: FML-VM, FortiMail Cloud	

FortiPAM models

Model	Firmware Version
FortiPAM: FortiPAM-1000G, FortiPAM-3000G	1.0, 1.1
FortiPAM VM: FortiPAM-AWS, FortiPAM-Azure, FortiPAM-GCP, FortiPAM-HyperV, FortiPAM-KVM, FortiPAM-VM64	

FortiProxy models

Model	Firmware Version
FortiProxy: FPX-400E, FPX-400G, FPX-2000E, FPX-2000G, FPX-4000E, FPX-4000G	7.0, 7.2
FortiProxy VM: FortiProxy-AliCloud, FortiProxy-AWS, FortiProxy-Azure, FortiProxy-GCP, FortiProxy-HyperV, FortiProxy-KVM, FortiProxy-VM64	
FortiProxy: FPX-400E, FPX-2000E, FPX-4000E	1.0, 1.1, 1.2, 2.0
FortiProxy VM: FortiProxy-KVM, FortiProxy-VM64	

FortiSandbox models

Model	Firmware Version
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3000F, FSA-3500D	4.4
FortiSandbox DC: FSA-1000F-DC	
FortiSandbox-VM: FortiSandbox-AWS, FortiSandbox-Cloud, FSA-VM	
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3000F, FSA-3500D	4.2
FortiSandbox DC: FSA-1000F-DC	
FortiSandbox-VM: FortiSandbox-AWS, FortiSandbox-Cloud, FSA-VM	
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3000F, FSA-3500D	4.0
FortiSandbox DC: FSA-1000F-DC	
FortiSandbox-VM: FortiSandbox-AWS, FortiSandbox-Cloud, FSA-VM	

Model	Firmware Version
FortiSandbox: FSA-500F, FSA-1000D, FSA-1000F, FSA-2000E, FSA-3000D, FSA-3000E, FSA-3500D	3.2
FortiSandbox DC: FSA-1000F-DC	
FortiSandbox-VM: FortiSandbox-AWS, FSA-VM	

FortiSOAR models

Model	Firmware Version
FortiSOAR VM: FortiSOAR-VM	7.0, 7.2, 7.3

FortiSwitch ATCA models

Model	Firmware Version
FortiController: FTCL-5103B, FTCL-5903C, FTCL-5913C	5.2
FortiSwitch-ATCA: FS-5003A, FS-5003B	5.0
FortiController: FTCL-5103B	
FortiSwitch-ATCA: FS-5003A, FS-5003B	4.3

FortiTester models

Model	Firmware Version
FortiTester: FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2000F, FortiTester-2500E, FortiTester-3000E, FortiTester-4000E,	7.2, 7.3
FortiTester VM: FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-IBM-BYOL, FortiTester-VM-IBM-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2000F, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F	7.1
FortiTester VM: FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-IBM-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	

Model	Firmware Version
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2000F, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F FortiTester VM: FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-IBM-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	7.0
FortiTester: FortiTester-60F, FortiTester-100F, FortiTester-2000D, FortiTester-2000E, FortiTester-2500E, FortiTester-3000E, FortiTester-3000F, FortiTester-4000E, FortiTester-4000F FortiTester VM: FortiTester-VM, FortiTester-VM-ALI-BYOL, FortiTester-VM-ALI-PAYG, FortiTester-VM-AWS-BYOL, FortiTester-VM-AWS-PAYG, FortiTester-VM-AZURE-BYOL, FortiTester-VM-AZURE-PAYG, FortiTester-VM-GCP-BYOL, FortiTester-VM-GCP-PAYG, FortiTester-VM-KVM, FortiTester-VM-OCI-BYOL, FortiTester-VM-OCI-PAYG	4.2

FortiWeb models

Model	Firmware Version
FortiWeb: FortiWeb-100D, FortiWeb-100E, FortiWeb-400C, FortiWeb-400D, FortiWeb-400E, FortiWeb-600D, FortiWeb-600E, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-1000F, FortiWeb-2000E, FortiWeb-2000F, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3000F, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E, FortiWeb-4000F FortiWeb VM: FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-Docker, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XENServer	7.2, 7.4
FortiWeb: FortiWeb-100D, FortiWeb-100E, FortiWeb-400C, FortiWeb-400D, FortiWeb-400E, FortiWeb-600D, FortiWeb-600E, FortiWeb-1000D, FortiWeb-1000E, FortiWeb-2000E, FortiWeb-2000F, FortiWeb-3000C, FortiWeb-3000CFSX, FortiWeb-3000D, FortiWeb-3000DFSX, FortiWeb-3000E, FortiWeb-3000F, FortiWeb-3010E, FortiWeb-4000C, FortiWeb-4000D, FortiWeb-4000E, FortiWeb-4000F FortiWeb VM: FortiWeb-Azure, FortiWeb-Azure_OnDemand, FortiWeb-Docker, FortiWeb-GCP, FortiWeb-GCP_OnDemand, FortiWeb-HyperV, FortiWeb-VM, FortiWeb-XENOpenSource, FortiWeb-XENServer	6.4, 7.0

Compatibility with FortiOS Versions

This section highlights compatibility issues that administrators should be aware of in FortiManager 7.2.8.

FortiManager 7.2.8 and FortiOS 7.0.16 compatibility issues

This section identifies interoperability issues that have been identified with FortiManager 7.2.8 and FortiOS 7.0.16. FortiOS 7.0.16 includes syntax changes not supported by FortiManager 7.2.8.



When specific platforms are indicated, the syntax change applies to both the FortiGate and FortiCarrier platform for the model.

For example, (4 platforms: 3980E, 3960E) indicates FortiGate-3980E, FortiCarrier-3980E, FortiGate-3960E, FortiCarrier-3960E.

The following objects were added:

```
(attr) system csf legacy-authentication
```

The following objects were changed:

```
switch-controller system tunnel-mode  
++ 1 opts: moderate (110 platforms: excludes 5001E1, 5001E)
```

Additional option changes:

```
system csf group-password  
tag: mu -> None
```

Resolved Issues

The following issues have been fixed in FortiManager version 7.2.8. To inquire about a particular bug, please contact [Customer Service & Support](#).

Common Vulnerabilities and Exposures

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

Bug ID	CVE references
1086790	FortiManager 7.2.8 is no longer vulnerable to the following CVE Reference: <ul style="list-style-type: none">• CVE-2024-47575

Known issues

Known issues are organized into the following categories:

- [New known issues on page 48](#)
- [Existing known issues on page 48](#)

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

New known issues

There are no new issues identified in 7.2.8.

Existing known issues

The following issues have been identified in a previous version of FortiManager and remain in FortiManager 7.2.8.

AP Manager

Bug ID	Description
1010632	Floor Map shows wrong AP status and does not show the rest of APs when adding a new AP.
1040365	FortiManager is generating false vulnerability reports for certain FortiAPs: <ul style="list-style-type: none">• U431F• U231F
1076200	Policy install fails due to FortiManager installs unexpected changes related to "<wifi_intf> address". Workaround: Create a CLI template with all subnet addresses and assign to device.

Device Manager

Bug ID	Description
894948	FortiManager fails to push the FortiAnalyzer override settings to the FortiGate.
973365	FortiManager does not display the IP addresses of FortiGate interfaces configured with DHCP addressing mode.

Bug ID	Description
	Workaround: Disable Addressing Mode from DHCP to Manual in FortiManager Device DB, then Retrieve from FortiGate and IP will be updated successfully.
980362	The Firmware Version column in <i>Device Manager</i> incorrectly shows "Upgrading FortiGate from V1 to V2" even after a successful upgrade has been completed.
1004220	The SD-WAN Overlay template creates route-map names that exceed the 35-character limit.
1024552	SD-WAN Monitor (Map View) and Network Monitor SD-WAN (on device DB) keep loading indefinitely.
1030685	Unable to export metadata variables if the metadata's per-device-mapping value is empty.
1062545	When using the backslash "\" in the preshared key of IPSEC settings, the install may fail.
1063635	FortiManager does not support the "FortiWiFi-80F-2R-3G4G-DSL".
1063835	FortiManager ZTP installation to FortiGate versions 7.2.8 and lower may fail due to differing default "ssh-kex-algo" settings between FortiManager and FortiGate.
1070943	Unable to upgrade the devices via Device Group Upgrade Firmware feature. Workaround: Upgrade devices individually by using the "Device Firmware Upgrade" feature or Create New Firmware Template for single devices or device groups and use the "Assign to Devices/Groups" feature.

Others

Bug ID	Description
703585	FortiManager may return 'Connection aborted' error with JSON API request.
777831	When FortiAnalyzer is added as a managed device to FortiManager, "Incidents & Events" tile will be displayed instead of the "FortiSoC".
1003711	During the FortiGate HA upgrade, both the primary and secondary FortiGates may reboot simultaneously, which can disrupt the network. This issue is more likely to occur in FortiGates that require disk checks, leading to longer boot times. Workaround: Disabling the disk check on fmupdate before the upgrade.
1019261	Unable to upgrade ADOM from 7.0 to 7.2, due to the error "Do not support urlfilter-table for global scope webfilter profile". Workaround: Run the following script against the ADOM DB: <pre>config webfilter profile edit "g-default" config web unset urlfilter-table end</pre>

Bug ID	Description
	<pre> next end </pre>
1029677	<p>Unable to upgrade ADOM from v6.4 to v7.0 due to global scope error in webfilter profile.</p> <p>Workaround:</p> <p>Rename the "g-default" to "g-test" > save. It can be deleted after that. Once ADOM upgraded, new g-default is created.</p>
1078947	<p>Repeatedly testing the URL rating on FortiManager (<code>diagnose fmupdate test fgd-url-rating...</code>) may cause the "fgdsrv daemon" to crash.</p>

Policy & Objects

Bug ID	Description
845022	SDN Connector failed to import objects from VMWare VSphere.
967271	Installation failed when trying to remove firewall internet-service-name objects.
971065	When the number of Custom Internet Services exceeds 256, installation fails due to this limitation.
1004929	<p>FortiManager removes the Web Filter Profile from the Profile Group for Policy-Based FortiGates.</p> <p>Workaround:</p> <p>Use individual profiles in the policy instead of the profile group.</p>
1005161	The policy package status changes for all devices even when an address object is opened and saved without any modifications. This issue is particularly observed in objects utilizing the per-device mapping feature.
1029921	Under the "Web Application Firewall" security profiles, users are unable to disable the signatures via GUI.
1030914	Copy and paste function in GUI removes name of the policy rule and adds unwanted default security profiles (SSL-SSH no-inspection and default PROTOCOL OPTIONS).
1037861	ADOM versions (7.0 & 7.2) do not have "ie-allow-list" option available to create GTP object.
1076659	When policy package configured with policy block, installation to multiple devices may have copy fail errors if combined length of the Policy Block name and Policy name is greater than 35 characters and if the total number of such policies exceeds 1000.
1079678	FortiManager does not provide any warning when there is a "deny all" policy in the middle of a Policy Package. This can be still seen on the "task monitor".

Script

Bug ID	Description
931088	Unable to delete VDOMs using the FortiManager script. Interfaces remain in the device database, causing the installation to fail.

System Settings

Bug ID	Description
825319	FortiManager fails to promote a FortiGate HA member (running on firmware 7.2.0 to 7.2.4) to the Primary.

VPN Manager

Bug ID	Description
784385	<p>If policy changes are made directly on the FortiGates, the subsequent policy package import creates faulty dynamic mappings for <i>VPN Manager</i>.</p> <p>Workaround:</p> <p>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.</p> <pre>diagnose cdb check policy-packages <adom></pre> <p>After running this command, FortiManager will remove the invalid mappings of vpnmgr interfaces.</p>
1042701	The traffic view page for the full mesh does not display the FortiGate and the external gateway.

Appendix A - FortiGuard Distribution Servers (FDS)

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

- 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 443 to communicate with the proxy server in *tunnel* mode by default. Alternatively, you can configure web proxy to use *proxy* mode using port 80. For more information, see the [FortiManager Administration Guide](#).

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:

Platform	Update Service	Query Service
FortiGate	✓	✓
FortiADC	✓	
FortiCache	✓	
FortiCarrier	✓	✓
FortiClient	✓	
FortiDeceptor	✓	✓
FortiDDoS	✓	
FortiEMS	✓	
FortiMail	✓	✓
FortiProxy	✓	✓
FortiSandbox	✓	✓
FortiSOAR	✓	
FortiTester	✓	
FortiWeb	✓	

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

FortiManager supports a default number of ADOMs based on hardware model.

Some hardware models support an ADOM subscription license. When you purchase an ADOM subscription license, you increase the number of supported ADOMs. For example, you can purchase an ADOM subscription license for the FMG-3000G series, which allows you to use up to a maximum of 8000 ADOMs.

Other hardware models do not support the ADOM subscription license. For hardware models that do not support the ADOM subscription license, the default and maximum number of ADOMs is the same.

FortiManager Platform	Default number of ADOMs	ADOM license support?	Maximum number of ADOMs
200G Series	30		30
300F Series	100		100
400G Series	150		150
1000F Series	1000		1000
2000E Series	1200		1200
3000G Series	4000	✓	8000
3700G Series	10,000	✓	12,000

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. 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](#).



- FortiManager-VM subscription licenses are fully stackable.
 - For FortiManager-VM perpetual licenses, only the number of managed devices is stackable.
-



www.fortinet.com

Copyright© 2024 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.