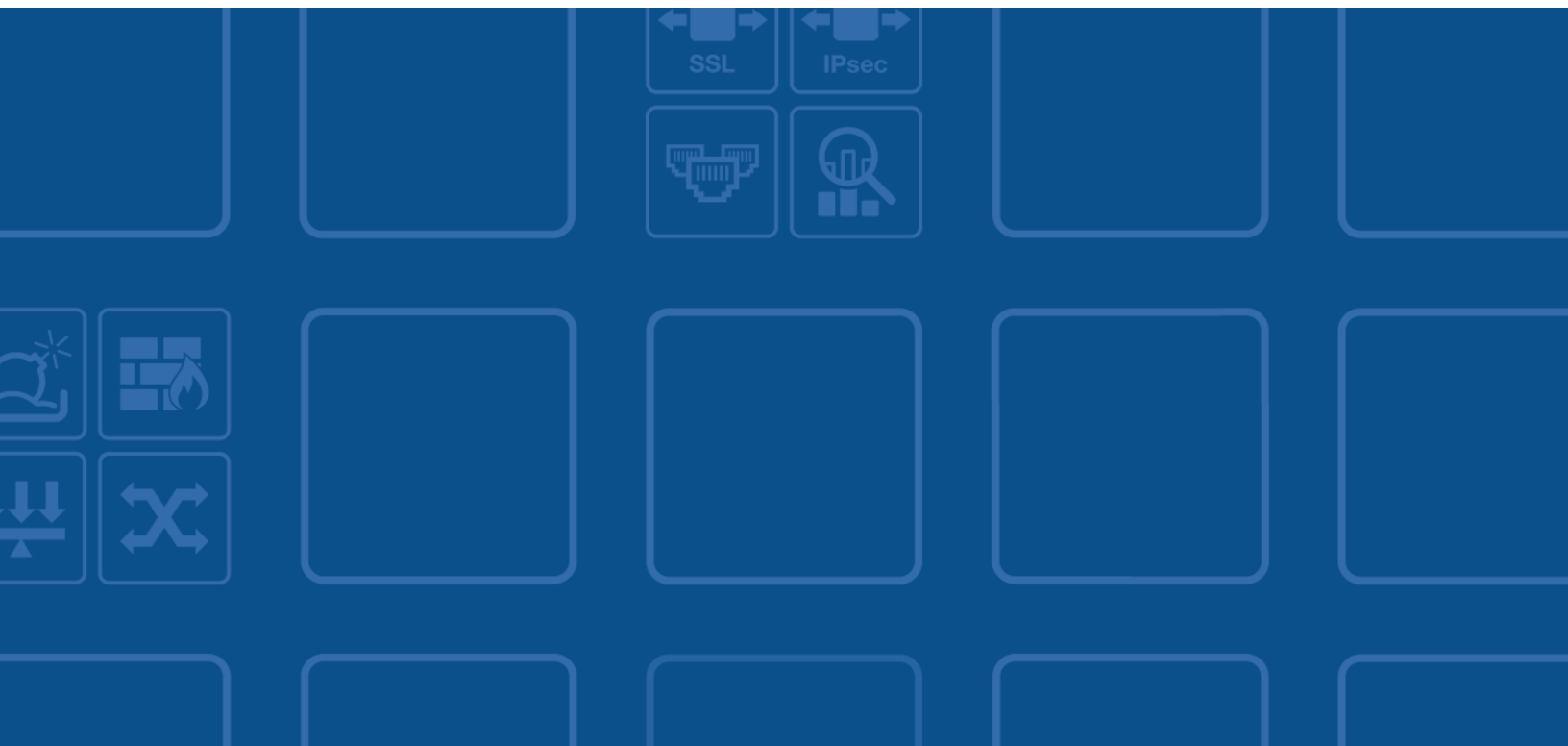
FORTINET
High Performance Network Security

FortiAnalyzer - Release Notes

VERSION 5.4.7



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FortiAnalyzer - Release Notes

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Change Log

Date	Change Description
2019-07-18	Initial release of 5.4.7.
2019-07-24	Updated the *Product Integration* section.

Introduction

This document provides the following information for FortiAnalyzer version 5.4.7 build 1247:

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

For more information on upgrading your FortiAnalyzer device, see the *FortiAnalyzer Upgrade Guide*.

Supported models

FortiAnalyzer version 5.4.7 supports the following models:

FortiAnalyzer	FAZ-200D,FAZ-200F, FAZ-300D, FAZ-300F, FAZ-400E, FAZ-1000C, FAZ-1000D, FAZ-1000E, FAZ-2000B, FAZ-2000E, FAZ-3000D, FAZ-3000E, FAZ-3000F, FAZ-3500E, FAZ-3500F, FAZ-3700F, FAZ-3900E, and FAZ-4000B.
FortiAnalyzer VM	FAZ-VM64, FAZ-AWSOnDemand, FAZ-VM64-AWS, FAZ-VM64-Azure, FAZ-VM64-HV, FAZ-VM64-KVM, and FAZ-VM64-XEN (Citrix XenServer and Open Source Xen).

What’s new in FortiAnalyzer version 5.4.7

There are no new features or enhancements in FortiAnalyzer version 5.4.7.

Special Notices

This section highlights some of the operational changes that administrators should be aware of in FortiAnalyzer version 5.4.7.

Common Vulnerabilities and Exposures

FortiAnalyzer 5.4.7 is no longer vulnerable to the issue described in the following link - https://fortiguard.com/psirt/FG-IR-19-144.

Cannot remove VDOM from the GUI

A VDOM may re-appear even after it is deleted from the FortiAnalyzer GUI.

A new CLI command is introduced in FortiAnalyzer 5.4.3 to use as a workaround for this issue. You can use the following CLI command `execute log device vdom delete <Device_Name> <VDOM_Name>` to delete the VDOM from FortiAnalyzer.

Hyper-V FortiAnalyzer-VM running on an AMD CPU

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

IPsec connection to FortiOS for logging

FortiAnalyzer 5.4.2 no longer supports an IPsec connection with FortiOS 5.0/5.2. However UDP or TCP + reliable are supported.

Instead of IPsec, you can use the FortiOS reliable logging feature to encrypt logs and send them to FortiAnalyzer. You can enable the reliable logging feature on FortiOS by using the `configure log fortianalyzer setting` command. You can also control the encryption method on FortiOS by using the `set enc-algorithm default/high/low/disable` command.

FortiAnalyzer 5.4.1 and earlier does support IPsec connection with FortiOS 5.0/5.2.

Datasets Related to Browse Time

FortiAnalyzer 5.4.2 contains enhancements to calculating the estimated browse time. Due to the changes, cloned datasets that query for browse time may not be able to return any results after upgrade.

System Configuration or VM License is Lost after Upgrade

When upgrading FortiAnalyzer from 5.4.0 or 5.4.1 to 5.4.2, it is imperative to reboot the unit before installing the 5.4.2 firmware image. Please see the *FortiAnalyzer Upgrade Guide* for details about upgrading. Otherwise, FortiAnalyzer may lose system configuration or VM license after upgrade. There are two options to recover the FortiAnalyzer unit:

1. Reconfigure the system configuration or add VM license via CLI with `execute add-vm-license <vm license>`.
2. Restore the 5.4.0 backup and upgrade to 5.4.2.

SSLv3 on FortiAnalyzer-VM64-AWS

Due to known vulnerabilities in the SSLv3 protocol, FortiAnalyzer-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
```

No support for remote SQL database

Starting with FortiAnalyzer software versions 5.0.7 and 5.2.0, remote SQL database support will only cover the insertion of log data into the remote MySQL database. Historical log search and reporting capabilities, which rely on the remote SQL data, will no longer be supported.

Those wishing to use the full set of FortiAnalyzer features are encouraged to switch as soon as possible to storing SQL data locally on the FortiAnalyzer. The local database can be built based upon existing raw logs already stored on the FortiAnalyzer.

Pre-processing logic of ebtime

Logs with the following conditions met are considered usable for the calculation of estimated browsing time:

Traffic logs with `logid` of `13` or `2`, when `logid == 13`, `hostname` must not be empty. The `service` field should be either `HTTP`, `80/TCP` or `443/TCP`.

If all above conditions are met, then `devid`, `vdom`, and `user` (`srcip` if `user` is empty) are combined as a key to identify a user. For time estimation, the current value of `duration` is calculated against history session start and end time, only un-overlapped part are used as the `ebtime` of the current log.

In version 5.0.5 or later, Explicit Proxy logs (`logid=10`) are checked when calculating the estimated browsing time.

Log Aggregation or Forwarding

Log aggregation or forwarding works from 5.4 to 5.4 or 5.4.1 to 5.4.1. Please use the same FortiAnalyzer version on all the units. Other FortiAnalyzer versions not supported.

Naming Convention for Generated Reports

Starting in FortiAnalyzer 5.4.7, the file naming convention for generated reports has changed. The filename will reference the device name rather than the device ID.

Upgrade Information

Upgrading to FortiAnalyzer 5.4.7

You can upgrade FortiAnalyzer 5.2.0 or later directly to 5.4.7. If you are upgrading from versions earlier than 5.2.0, you must upgrade to FortiAnalyzer 5.2 first. (We recommend that you upgrade to 5.2.9, the latest version of FortiAnalyzer 5.2.)

ADOM version is not required to match the FortiGate log versions. For example, you can have FortiGate 5.4 logs in a 5.2 version ADOM.

For details about upgrading your FortiAnalyzer, see *FortiAnalyzer Upgrade Guide*.

Upgrading to FortiAnalyzer 5.4.x

Upgrade automatically triggers an SQL rebuild post upgrade to v5.4 which essentially needs to be completed for FortiAnalyzer to function normally. Verify the database rebuild status using `diagnose sql status rebuild-db`.

If you decide to continue the upgrade to v5.6 or later ,you will need to wait for rebuild status to proceed to just > 2% and then continue the upgrade to v5.6 or later to save time as SQL DB rebuild would take considerable amount of time to complete that will slow down your upgrade to v5.6 or later. Reason to wait for >2% is when upgrading FAZ from v5.2 to v5.4, involves a special upgrade that splits log files from per device storage to per device [vdom]storage. There is no such requirement for further upgrades from v5.4 to v5.6 or later.

Downgrading to previous versions

FortiAnalyzer 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. 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
execute format {disk | disk-ext4}
```

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. To verify the integrity of the download, select the *Checksum* link next to the *HTTPS* download link. A dialog box will be displayed with the image file name and checksum code. Compare this checksum with the checksum of the firmware image.

FortiAnalyzer VM firmware

Fortinet provides FortiAnalyzer VM firmware images for Amazon AWS, 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 FortiAnalyzer VM installation.
- `.out.OpenXen.zip`: Download the 64-bit package for a new FortiAnalyzer 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 FortiAnalyzer VM installation. This package contains the Citrix XenServer Disk (VHD), and OVF files.

Linux KVM

- `.out`: Download the 64-bit firmware image to upgrade your existing FortiAnalyzer VM installation.
- `.out.kvm.zip`: Download the 64-bit package for a new FortiAnalyzer 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 `FAZ_VM64_AZURE-v<number>-build<number>-FORTINET.out.hyperv.zip`.

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

Microsoft Hyper-V Server

The files for Microsoft Hyper-V Server have HV in the filenames, for example, `FAZ_VM64_HV-v<number>-build<number>-FORTINET.out.hyperv.zip`.

- `.out`: Download the firmware image to upgrade your existing FortiAnalyzer VM installation.
- `.hyperv.zip`: Download the package for a new FortiAnalyzer 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 either 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 product data sheet available on the Fortinet web site, http://www.fortinet.com/products/fortimanager/virtual-security-management.html. 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 FortiAnalyzer v5.00 file folder.

Product Integration and Support

FortiAnalyzer version 5.4.7 support

The following table lists FortiAnalyzer version 5.4.7 product integration and support information:

Web Browsers	• Mozilla Firefox version 67 • Google Chrome version 75 Other web browsers may function correctly, but are not supported by Fortinet.
FortiOS/FortiOS Carrier	• 5.4.0 to 5.4.12 • 5.2.0 to 5.2.14 • 5.0.4 to 5.0.14
FortiAnalyzer	• 5.4.0 to 5.4.5 • 5.2.0 to 5.2.11 • 5.0.0 to 5.0.13
FortiCache	• 4.2.2 • 4.1.3 • 4.0.4
FortiClient	• 5.4.3 • 5.2.0 and later • 5.0.4 and later
FortiMail	• 5.3.9 • 5.2.9 • 5.1.6 • 5.0.10
FortiManager	• 5.4.0 to 5.4.5 • 5.2.0 and later • 5.0.0 and later

FortiSandbox	• 2.5.0 • 2.4.1 • 2.4.0 • 2.3.3 • 2.3.2 • 2.3.0 • 2.2.2 • 2.1.3 • 2.0.3 • 1.4.0 and later • 1.3.0 • 1.2.0 and 1.2.3
FortiSwitch ATCA	• 5.2.3 • 5.0.0 and later • 4.3.0 and later • 4.2.0 and later
FortiWeb	• 5.9.0 • 5.8.6 • 5.8.1 • 5.8.0 • 5.7.0 • 5.6.0 • 5.5.4 • 5.4.1 • 5.3.8 • 5.2.4 • 5.1.4 • 5.0.6
FortiDDoS	• 4.3.1 • 4.2.3 • 4.1.12
FortiAuthenticator	• 4.3.2 • 4.2.0

Virtualization	• Amazon Web Service AMI, Amazon EC2, Amazon EBS
	• Citrix XenServer 6.2
	• Linux KVM Redhat 6.5
	• Microsoft Azure
	• Microsoft Hyper-V Server 2008 R2, 2012 & 2012 R2
	• OpenSource XenServer 4.2.5
	• VMware:
	  • ESX versions 4.0 and 4.1
	  • ESXi versions 4.0, 4.1, 5.0, 5.1, 5.5, 6.0, and 6.5

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

Feature support

The following table lists FortiAnalyzer feature support for log devices.

Platform	Log View	FortiView	Event Management	Reports
FortiGate	✓	✓	✓	✓
FortiCarrier	✓	✓	✓	✓
FortiAnalyzer	✓		✓	
FortiCache	✓		✓	✓
FortiClient registered to FortiGate	✓	✓		✓
FortiClient registered to FortiClient EMS	✓	✓		✓
FortiDDoS	✓	✓	✓	✓
FortiMail	✓		✓	✓
FortiManager	✓		✓	
FortiSandbox	✓		✓	✓

Platform	Log View	FortiView	Event Management	Reports
FortiWeb	✓		✓	✓
Syslog	✓		✓	

FortiGate Management

You can enable FortiManager features on some FortiAnalyzer models. FortiAnalyzer models with FortiManager features enabled can manage a small number of FortiGate devices, and all but a few FortiManager features are enabled on FortiAnalyzer. The following table lists the supported modules for FortiAnalyzer with FortiManager Features enabled:

FortiManager Management Modules	FortiAnalyzer with FortiManager Features Enabled
Device Manager, except firmware and license management	✓
Policy & Objects	✓
AP Manager	✓
FortiClient Manager	✓
VPN Manager	✓
FortiGuard	
FortiMeter	
FGT-VM License Activation	
Chassis Management	✓

Language support

The following table lists FortiAnalyzer language support information.

Language	GUI	Reports
English	✓	✓
Chinese (Simplified)	✓	✓

Language	GUI	Reports
Chinese (Traditional)	✓	✓
French		✓
Hebrew		✓
Hungarian		✓
Japanese	✓	✓
Korean	✓	✓
Portuguese		✓
Russian		✓
Spanish		✓

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

Russian, Hebrew, and Hungarian are not included in the default report languages. You can import language translation files for these languages via the command line interface using one of the following commands:

```
execute sql-report import-lang <language name> <ftp> <server IP address> <user name>
    <password> <file name>
execute sql-report import-lang <language name> <sftp <server IP address> <user name>
    <password> <file name>
execute sql-report import-lang <language name> <scp> <server IP address> <user name>
    <password> <file name>
execute sql-report import-lang <language name> <tftp> <server IP address> <file name>
```

For more information, see the *FortiAnalyzer CLI Reference*.

Supported models

The following tables list which FortiGate, FortiCarrier, FortiDDoS, FortiAnalyzer, FortiMail, FortiManager, FortiWeb, FortiCache, and FortiSandbox models and firmware versions can log to a FortiAnalyzer appliance running version 5.4.7. Please ensure that the log devices are supported before completing the upgrade.

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.

FortiGate models

Model	Firmware Version
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-61E, FG-60E-DSL, FG-60E-POE, FG-70D, FG-70D-POE, FG-80C, FG-80CM, FG-80D, FG-80E, FG-80E-POE, FG-81E, FG-81E-POE, FG-90D, FG-90D-POE,FG-90E, FG-91E, FG-92D, FG-94D-POE, FG-98D-POE, FG-100D, FG-100E, FG-101E, FG-100EF, FG-140D, FG-140E, FG-140D-POE, FG-140E-POE, FG-200D, FG-200D-POE, FG-240D, FG-240D-POE, FG-280D-POE, FG-200E, FG-201E, FGT-300D, FG-300E, FG-301E, FG-400D, FG-500D, FG-500E, FG-501E, FG-600C, FG-600D, FG-800C, FG-800D, FG-900D, FG-1000C, FG-1000D, FG-1200D, FG-1500D, FG-1500DT, FG-3000D, FG-3100D, FG-3200D, FG-3240C, FG-3600C, FG-3700D, FG-3700DX, FG-3810D, FG-3815D, FG-2000E, FG-2500E, FG 3800D, FG-3960E, FG-3980E **FortiGate 5000 Series:** FG-5001C, FG-5001D, FG-5001E, FG-5001E1 **FortiGate 7000 Series:** FG-7030E-Q, FG-7030E-S, FG-7040E-1, FG-7040E-2, FG-7040E-3, FG-7040E-4, FG-7040E-5, FG-7040E-6, FG-7040E-8, FG-7040E-8-DC, FG-7060E-1, FG-7060E-2, FG-7060E-3, FG-7060E-4, FG-7060E-5, FG-7060E-6, FG-7060E-8 **FortiGate DC:** FG-80C-DC, FG-600C-DC, FG-800C-DC, FG-1000C-DC, FG-1500D-DC, FG-3000D-DC, FG-3100D-DC, FG-3200D-DC, FG-3240C-DC, FG-3600C-DC, FG-3700D-DC, FG-3800D-DC, FG-3810D-DC **FortiGate Hardware Low Encryption:** FG-80C-LENC, FG-100D-LENC, FG-600C-LENC, FG-1000C-LENC **Note:** All license-based LENC is supported based on the FortiGate support list. **FortiWiFi:** FWF-30D, FWF-30E, FWF-30E-3G4G-INTL, FWF-30E-3G4G-NAM, FWF-50E, FWF-50E-2R, FWF-51E, FWF-30D-POE, FWF-60D, FWF-60E-DSL, FWF-60D-POE, FWF-90D, FWF-90D-POE, FWF-92D, FWF-60E, FWF-61E, FWF-80CM, FWF-81CM **FortiGate VM:** FG-VM, FG-VM64, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-AZUREONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VM64-XEN, FG-VMX-Service-Manager **FortiGate Rugged:** FGR-30D, FGR-35D, FGR-60D, FGR-90D	5.4

Model	Firmware Version
FortiGate: FG-20C, FG-20C-ADSL-A, FG-30D, FG-30D-POE, FG-40C, FG-60C, FG-60C-POE, FG-60C-SFP, FG-60D, FG-60D-3G4G-VZW, FG-60D-POE, FG-70D, FG-70D-POE, FG-80C, FG-80CM, FG-80D, FG-90D, FG-90D-POE, FG-92D, FG-94D-POE, FG-98D-POE, FG-100D, FG-110C, FG-111C, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200B, FG-200B-POE, FG-200D, FG-200D-POE, FG-240D, FG-240D-POE, FG-280D-POE, FG-300C, FG-300D, FG-310B, FG-311B, FG-400D, FG-500D, FG-600D, FG-900D, FG-600C, FG-620B, FG-621B, FG-800C, FG-800D, FG-1000C, FG-1000D, FG-1200D, FG-1240B, FG-1500D, FG-1500DT, FG-3000D, FG-3016B, FG-3040B, FG-3100D, FG-3140B, FG-3200D, FG-3240C, FG-3600C,FG-3700D, FG-3700DX, FG-3810A, FG-3810D, FG-3815D, FG-3950B, FG-3951B **FortiGate 5000 Series:** FG-5001A, FG-5001A-SW, FG-5001A-LENC, FG-5001A-DW-LENC, FG-5001A-SW-LENC, FG-5001B, FG-5001C, FG-5001D, FG-5101C **FortiGate DC:** FG-80C-DC, FG-300C-DC, FG-310B-DC, FG-600C-DC, FG-620B-DC, FG-621B-DC, FG-800C-DC, FG-1000C-DC, FG-1240B-DC, FGT-1500D-DC, FG-3000D-DC, FG-3040B-DC, FG-3100D-DC, FG-3140B-DC, FG-3200D-DC, FG-3240C-DC, FG-3600C-DC, G-3700D-DC, FG-3810A-DC, FG-3810D-DC, FG-3815D-DC, FG-3950B-DC, FG-3951B-DC **FortiGate Low Encryption:** FG-20C-LENC, FG-40C-LENC, FG-60C-LENC, FG-80C-LENC, FG-100D-LENC, FG-200B-LENC, FG-300C-LENC, FG-620B-LENC, FG-1000C-LENC, FG-1240B-LENC, FG-3040B-LENC, FG-310B-LENC, FG-600C-LENC, FG-3140B-LENC, FG-3810A-LENC, FG-3950B-LENC **FortiWiFi:** FWF-20C, FWF-20C-ADSL-A, FWF-30D, FWF-30D-POE, FWF-40C, FWF-60C, FWF-60CM, FWF-60CX-ADSL-A, FWF-60D, FWF-60D-3G4G-VZW, FWF-60D-POE, FWF-80CM, FWF-81CM, FWF-90D, FWF-90D-POE, FWF-92D **FortiGate Rugged:** FGR-60D, FGR-100C **FortiGate VM:** FG-VM-Azure, FG-VM, FG-VM64, FG-VM64-HV, FG-VM64-KVM, FG-VM64-XEN **FortiSwitch:** FS-5203B, FCT-5902D	5.2

Model	Firmware Version
FortiGate: FG-20C, FG-20C-ADSL-A, FG-30D, FG-30D-POE, FG-40C, FG-60C, FG-60C-POE, FG-60C-SFP, FG-60D, FG-60D-3G4G-VZW, FG-60D-POE, FG-70D, FG-70D-POE, FG-80C, FG-80CM, FG-80D, FG-90D, FG-90D-POE, FG-92D, FG-94D-POE, FG-98D-POE, FG-100D, FG-110C, FG-111C, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200B, FG-200B-POE, FG-200D, FG-200D-POE, FG-240D, FG-240D-POE, FG-280D-POE, FG-300C, FG-300D, FG-310B, FG-311B, FG-500D, FG-600C, FG-620B, FG-621B, FG-700D, FG-800C, FG-900D, FG-1000C, FG-1000D, FG-1200D, FG-1240B, FG-1500D, FG-3000D, FG-3016B, FG-3040B, FG-3100D, FG-3140B, FG-3200D, FG-3240C, FG-3600C, FG-3700D, FG-3810A, FG-3950B, FG-3951B **FortiGate 5000 Series:** FG-5001A, FG-5001A-SW, FG-5001A-LENC, FG-5001A-DW-LENC, FG-5001A-SW-LENC, FG-5001B, FG-5001C, FG-5001D, FG-5101C **FortiGate DC:** FG-80C-DC, FG-300C-DC, FG-310B-DC, FG-600C-DC, FG-620B-DC, FG-621B-DC, FG-800C-DC, FG-1000C-DC, FG-1240B-DC, FG-3000D-DC, FG-3040B-DC, FG-3100D-DC, FG-3140B-DC, FG-3200D-DC, FG-3240C-DC, FG-3600C-DC, FG-3700D-DC, FG-3810A-DC, FG-3950B-DC, FG-3951B-DC **FortiGate Low Encryption:** FG-20C-LENC, FG-40C-LENC, FG-60C-LENC, FG-80C-LENC, FG-100D-LENC, FG-200B-LENC, FG-300C-LENC, FG-310B-LENC, FG-600C-LENC, FG-620B-LENC, FG-1000C-LENC, FG-1240B-LENC, FG-3040B-LENC, FG-3140B-LENC, FG-3810A-LENC, FG-3950B-LENC **FortiWiFi:**FWF-20C, FWF-20C-ADSL-A, FWF-30D, FWF-30D-POE, FWF-40C, FWF-60C, FWF-60CM, FWF-60CX-ADSL-A, FWF-60D, FWF-60D-POE, FWF-60D-3G4G-VZW, FWF-80CM, FWF-81CM, FWF-90D, FWF-90D-POE, FWF-92D **FortiGate Rugged:** FGR-60D, FGR-90D, FGR-100C **FortiGateVoice:** FGV-40D2, FGV-70D4 **FortiGate VM**: FG-VM, FG-VM64, FG-VM64-AWS, FG-VM64-AWSONDEMAND, FG-VM64-HV, FG-VM64-KVM, FG-VM64-XEN **FortiSwitch:** FS-5203B	5.0

FortiCarrier Models

Model	Firmware Version
FortiCarrier: FCR-3000D, FCR-3100D, FCR-3200D, FCR-3700D, FCR-3700DX, FCR-3800D, FCR-3810D, FCR-3815D, FCR-5001C, FCR-5001D, FCR-3000D-DC, FCR-3100D-DC, FCR-3200D-DC, FCR-3240C, FCR-3600C, FCR-3700D-DC, FCR-3810D-DC, FCR-5001C **FortiCarrier DC:** FCR-3000D-DC, FCR-3100D-DC, FCR-3200D-DC, FCR-3240C-DC, FCR-3600C-DC, FCR-3700D-DC, FCR-3810D-DC, FCR-3815D-DC **FortiCarrier VM:** FCR-VM, FCR-VM64, FCR-VM64-AWS, FCR-VM64-AWSONDEMAND, FCR-VM64-HV, FCR-VM64-KVM	5.4
FortiCarrier: FCR-3000D, FCR-3100D, FCR-3200D, FCR-3240C, FCR-3600C, FCR-3700D, FCR-3700DX, FCR-3810A, FCR-3810D, FCR-3815D, FCR-3950B, FCR-3951B, FCR-5001A, FCR-5001B, FCR-5001C,FCR-5001D, FCR-5101C, FCR5203B, FCR-5902D **FortiCarrier DC:** FCR-3000D-DC, FCR-3100D-DC, FCR-3200D-DC, FCR-3700D-DC, FCR-3810D-DC **FortiCarrier Low Encryption:** FCR-5001A-DW-LENC **FortiCarrier VM:** FCR-VM, FCR-VM64, FCR-VM64-HV, FCR-VM64-KVM, FCR-Vm64-XEN, FCR-VM64-AWSONDEMAND	5.2
FortiCarrier: FCR-3240C, FCR-3600C, FCR-3810A, FCR-3950B, FCR-3951B, FCR-5001A, FCR-5001B, FCR-5001C, FCR-5001D, FCR-5101C **FortiCarrier DC:** FCR-3240C-DC, FCR-3600C-DC, FCR-3810A-DC, FCR-3950B-DC, FCR-3951B-DC **FortiCarrier Low Encryption:** FCR-5001A-DW-LENC **FortiCarrier VM:** FCR-VM, FCR-VM64	5.0

FortiDDoS models

Model	Firmware Version
FortiDDoS: FI-200B, FI-400B, FI-600B, FI-800B, FI-900B, FI-1000B, FI-1200B, FI-2000B	4.2, 4.1, 4.0

FortiAnalyzer models

Model	Firmware Version
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, FAZ-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-200E, 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-200E, 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

FortiMail models

Model	Firmware Version
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	5.3.7
FortiMail: FE-60D, FE-200D, FE-200E, FE-400C, FE-400E, FE-1000D, FE-2000B, FE-3000C, FE-3000D, FE-5002B **FortiMail VM:** FE-VM64, FE-VM64-HV, FE-VM64-XEN	5.2.8
FortiMail: FE-100C, FE-200D, FE-200E, FE-400B, FE-400C, FE-400E, FE-1000D, FE-2000B, FE-3000C, FE-3000D, FE-5001A, FE-5002B **FortiMail VM:** FE-VM64	5.1.6
FortiMail: FE-100C, FE-200D, FE-200E, FE-400B, FE-400C, FE-1000D, FE-2000A, FE-2000B, FE-3000C, FE-3000D, FE-4000A, FE-5001A, FE-5002B **FortiMail VM:** FE-VM64	5.0.10

FortiSandbox models

Model	Firmware Version
FortiSandbox: FSA-1000D, FSA-3000D, FSA-3000E, FSA-3500D **FortiSandbox VM:** FSA-VM	2.3.2
FortiSandbox: FSA-1000D, FSA-3000D, FSA-3500D **FortiSandbox VM:** FSA-VM	2.2.0 2.1.0
FortiSandbox: FSA-1000D, FSA-3000D **FortiSandbox VM:** FSA-VM	2.0.0 1.4.2
FortiSandbox: FSA-1000D, FSA-3000D	1.4.0 and 1.4.1 1.3.0 1.2.0 and later

FortiSwitch ACTA models

Model	Firmware Version
FortiController: FTCL-5103B, FTCL-5902D, FTCL-5903C, FTCL-59	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

FortiWeb models

Model	Firmware Version
FortiWeb: FWB-400D, FWB-600D, FWB-1000E, FWB-2000E, FWB-3010E	5.6.0
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	5.5.3

Model	Firmware Version
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	5.4.1
FortiWeb: FWB-100D, FWB-400B, FWB-400C, FWB-1000B, FWB-1000C, FWB-1000D, 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, and FWB-HYPERV	5.3.8
FortiWeb: FWB-100D, FWB-400B, FWB-400C, FWB-1000B, FWB-1000C, FWB-1000D, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-3000E, FWB-4000C, FWB-4000D, FWB-4000E **FortiWeb VM:** FWB-VM64, FWB-HYPERV,FWB-XENAWS, FWB-XENOPEN, FWB-XENSERVER	5.2.4

FortiCache models

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

Resolved Issues

The following issues have been fixed in FortiAnalyzer version 5.4.7. For inquires about a particular bug, please contact Customer Service & Support.

Bug ID	Description
147917	Add upgrade path to v5.4.7.

Common Vulnerabilities and Exposures

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

Vulnerability
FortiAnalyzer 5.4.7 is no longer vulnerable to the issue described in the following link - https://fortiguard.com/psirt/FG-IR-19-144.

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