FortiAnalyzer v5.0 Patch Release 4
Release Notes

FortiAnalyzer v5.0 Patch Release 4 Release Notes

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Change Log

Date	Change Description
2013-09-13	Initial release.
2013-09-18	Updated FortiMail support, FortiWeb support, and Firefox support.
2013-10-02	`auto-table-upgrade` special notice.
2013-10-09	Added a FortiAnalyzer VM upgrade warning to the Upgrade Information chapter and added note in Special Notices.
2013-10-15	Updated FortiAnalyzer VM upgrade warning.
2013-10-23	Changed VM support information to reflect Microsoft Hyper-V Server 2008 R2 and 2012.

Introduction

This document provides a summary of enhancements, support information, installation instructions, integration, resolved and known issues in FortiAnalyzer v5.0 Patch Release 4 build 0232. Please review all sections in this document prior to upgrading your device. For more information on upgrading your FortiAnalyzer device, see the *FortiAnalyzer Administration Guide*.

This document includes the following sections:

Supported models

The following models are supported on FortiAnalyzer v5.0 Patch Release 4.

FortiAnalyzer

FAZ-100C, FAZ-200D, FAZ-300D, FAZ-400B, FAZ-400C, FAZ-1000B, FAZ-1000C, FAZ-2000A, FAZ-2000B, FAZ-3000D, FAZ-4000A, and FAZ-4000B.

FortiAnalyzer VM

FAZ-VM32, FAZ-VM64, and FAZ-VM64-HV.

See http://docs.fortinet.com/fa.html for additional documents on FortiAnalyzer v5.0.

Summary of enhancements

The following is a list of enhancements in FortiAnalyzer v5.0 Patch Release 4 build 0232.

Reports

- Option to remove the FortiAnalyzer report cover page
- Generate per user reports (setup via XML)
- Chart builder wizard
- Pre-defined report template for custom application report
- Pre-defined report template for threat activity
- Change the background color, text color, text size, and text style in reports
- Format text areas and headers in report
- Report cover page customization
- Usability enhancements for reports

Logging

- Log forward in CEF format
- SQL index performance optimizations and enhanced log search support
- Import logs from a remote FTP/SCP/SFTP server
- Configure up to three log rolling upload servers

Other

- Export and import image files along with report DAT files
- Event Management extensions and enhancements

Special Notices

This section highlights some of the operational changes that administrators should be aware of in FortiAnalyzer v5.0 Patch Release 4 build 0232.

FortiAnalyzer VM upgrade

In FortiAnalyzer v4.0 MR3, the Open Virtualization Format (OVF) setting uses 2 virtual CPUs, however v5.0 uses 1 virtual CPU. It is essential to change the vCPU setting to 1 before upgrading your FortiAnalyzer VM to avoid server instability or other serious issues.

Fortinet recommends upgrading to the latest VMware ESXi 4.1 Patch Release before upgrading FortiAnalyzer VM or changing the vCPU setting. If ESXi server instability or PSOD issue persists, please contact VMware support for proper guidance.

SQL log table upgrade

When upgrading from FortiAnalyzer v4.0 MR3 Patch Release 7 or v5.0 Patch Release 3 to v5.0 Patch Release 4, it is recommended to enable `auto-table-upgrade` before upgrading to avoid potential log view and reporting issues. To enable `auto-table-upgrade` enter the following CLI commands:

```
config system sql
  set auto-table-upgrade enable
end
```

After upgrading to v5.0 Patch Release 4, the SQL log table upgrade will start at the system start time. The SQL log table upgrade applies to both local SQL and MySQL databases.

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.

FortiSwitch support

FortiAnalyzer v5.0 Patch Release 1 or later does not support FortiSwitch for logging and reporting.

Device groups

Device groups are not supported in FortiAnalyzer v5.0 Patch Release 2 or later. Device group configuration will be removed upon upgrade. You can use the new log array feature to group managed devices into groups for logging and reporting. Log arrays are configured at the ADOM level, but when scheduling reports you can select to run reports against multiple managed devices or multiple log arrays. The device raw log files and log SQL database are retained after upgrade. If you move a device to a log array after the upgrade, FortiAnalyzer will stop logging entries in the device log SQL database and start logging entries in a new log array SQL database. See the *FortiAnalyzer v5.0 Patch Release 4 Administration Guide* for more information.

Log arrays

After creating a log array, only new logs will be populated into this array. Older logs will remain on the device. To collect older logs, you will need to build the array database. Use the following CLI command to build the array database:

```
execute sql-local rebuild-device <log array device ID>
```

The SQL logs for the members of the log array will be rebuilt. To verify that the array rebuild was successful, select the Log View tab to view the log array and logs.

Executing this command will not reboot the FortiAnalyzer device.

Fortinet recommends configuring log arrays prior to deploying the FortiAnalyzer into production. When adding and deleting log arrays, you will need to rebuild the database to view older logs.

FortiAnalyzer VM license check

As a part of the license validation process FortiAnalyzer VM compares its IP addresses with the IP information in the license file. If the IP addresses do not match, FortiAnalyzer VM returns the error `IP does not match` within CLI command `get system status` output. If a new license has been imported or the FortiAnalyzer VM's IP address has been changed, the FortiAnalyzer VM must be manually rebooted in order for the system to validate the change and operate with a valid license.

Extended UTM log for Application Control

Upon upgrading to FortiAnalyzer v5.0 Patch Release 1 or later the application control log is not visible until you enable the extended UTM log in the FortiOS CLI.

To enable extended UTM log, use the following CLI command:

```
config application list
  edit <name>
    set extended-utm-log enable
end
```

ConnectWise Management Services Platform (MSP) support

ConnectWise Management Services Platform (MSP) is not supported FortiAnalyzer v5.0 Patch Release 1 or later. Upon upgrading to v5.0 Patch Release 1 or later, FortiAnalyzer ConnectWise functionality will be broken.

Distributed upgrades

For Collector/Analyzer architecture upgrades, Fortinet recommends upgrading the Analyzer first.

Upgrading the Collector first could impact the Analyzer's performance.

Report templates

When upgrading from FortiAnalyzer v4.0 MR3 to v5.0 Patch Release 1 or later, most report templates and customized reports will be removed. You will need to recreate these reports after upgrading.

Upgrade Information

Upgrading from FortiAnalyzer v5.0 Patch Release 3

FortiAnalyzer v5.0 Patch Release 4 build 0232 officially supports upgrade from FortiAnalyzer v5.0 Patch Release 3. Please upgrade to FortiAnalyzer v5.0 Patch Release 3 prior to upgrading to v5.0 Patch Release 4. See the *FortiAnalyzer v5.0 Patch Release 3 Release Notes* for details.

Please review the Special Notices, Product Integration and Support, and Resolved Issues chapters prior to upgrading. For more information on upgrading your FortiAnalyzer device, see the *FortiAnalyzer v5.0 Patch Release 4 Administration Guide* at http://docs.fortinet.com.

You can download the Fortinet FortiManager-FortiAnalyzer MIB file in the firmware image FTP directory. The Fortinet Core MIB file is located in the main FortiAnalyzer v5.00 directory.

Upgrading from FortiAnalyzer v4.0 MR3

Fortinet recommends upgrading to FortiAnalyzer v5.0 Patch Release 1 build 0087 before upgrading to FortiAnalyzer v5.0 Patch Release 4.

Upon upgrading to FortiAnalyzer v5.0 Patch Release 1, your v4.0 MR3 logs are automatically converted and inserted into the SQL database. An icon appears at the top right corner after login to the Web-based Manager next to the logout and help buttons. This pops-up a small window displaying the progress.

Upon upgrading from FortiAnalyzer v4.0 MR3 the Web-based Manager incorrectly reports that the device is downgrading the firmware version. If you upgrade the firmware version from the CLI using the `execute restore all-settings` command, the message is correct.

In FortiAnalyzer v4.0 MR3, the Open Virtualization Format (OVF) setting uses 2 virtual CPUs, however v5.0 uses 1 virtual CPU. It is essential to change the vCPU setting to 1 before upgrading your FortiAnalyzer VM to avoid server instability or other serious issues.

Fortinet recommends upgrading to the latest VMware ESXi 4.1 Patch Release before upgrading FortiAnalyzer VM or changing the vCPU setting. If ESXi server instability or PSOD issue persists, please contact VMware support for proper guidance.

FortiAnalyzer VM license

Upgrading a FortiAnalyzer VM device from v4.0 MR3 Patch 6 or later to v5.0 Patch Release 4 is supported. The old VM license is converted into the new VM stackable license model. New VM installations running v5.0 Patch Release 4 can be deployed with the .ovf file and application of either an old v4.0 MR3 or new v5.0 license.

Supported configuration

The following configurations are retained after upgrade:

- `host name`
- `config system interface`
- `config system route`
- `config system dns`
- `config system sql`
- `config log setting`

Aggregation and Collector mode configuration

Aggregation and Collector mode configurations are retained after upgrade.

Device

FortiGate, FortiCarrier, FortiMail, and FortiWeb devices are supported in FortiAnalyzer v5.0 Patch Release 4, and are retained after upgrade. Other devices are not yet supported in FortiAnalyzer v5.0.

FortiGate High Availability (HA) clusters

After the system finishes upgrading, FortiGate HA clusters are split into individual devices in the device manager (master + slaves). They appear as standalone devices. This may cause the maximum number of allowed devices to be reached since in FortiAnalyzer v4.0 MR3 HA clusters are counted as one device. Secure logging from a FortiGate HA cluster to a FortiAnalyzer device using IPsec VPN has inconsistent connectivity upon failover of the HA cluster.

Log

All raw log files are retained upon upgrade for FortiGate, FortiCarrier, and FortiMail devices. However, the logs for FortiMail are unable to be viewed in the Log View.

Partially supported configuration

Administrative Domains (ADOMs)

If ADOMs are enabled in FortiAnalyzer v4.0 MR3, after the upgrade the ADOMs are re-created but the FortiGate devices are not assigned to an ADOM. FortiAnalyzer v5.0 allows for a device to assigned to only one ADOM.

Log report

FortiAnalyzer v5.0 Patch Release 4 only supports PDF reports. FortiAnalyzer v4.0 MR3 PDF reports can be seen in *Report History* after upgrade.

Unsupported configuration

The following configurations are not retained and must be re-created after upgrade.

- RADIUS server
- TACACS+ server
- Authentication group
- Admin users
- Profiles
- Pre-login banner
- Post-login banner
- SNMP settings
- Alert event
- Syslog server
- Default device allocation space
- Report remote output
- Per device IPsec tunnel configuration

FortiAnalyzer v4.0 MR3 Report layouts, charts, and datasets are not supported.

General firmware upgrade steps

The following table lists the general firmware upgrade steps.

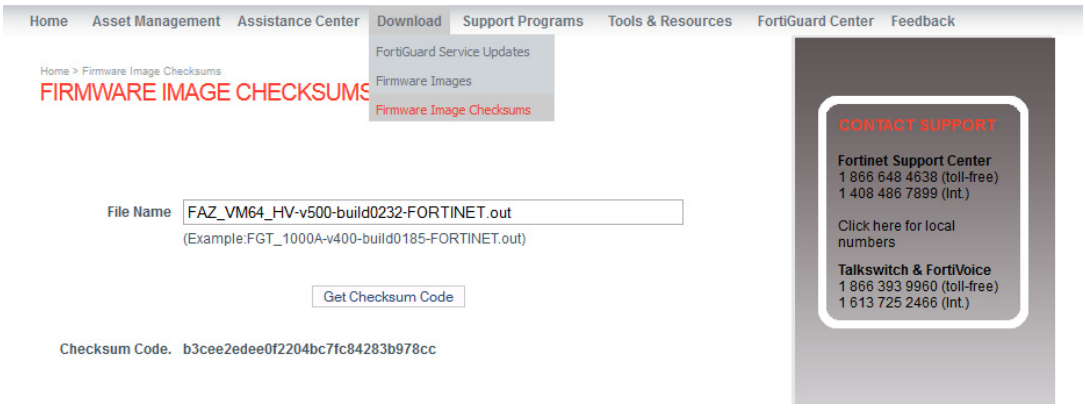
Table 1: Upgrade steps

Step 1	Prepare your FortiAnalyzer for upgrade.
Step 2	Backup your FortiAnalyzer system configuration. For FortiAnalyzer VM, take a *Snapshot* of the VM instance.
Step 3	Transfer the firmware image to your FortiAnalyzer device.
Step 4	Log into your FortiAnalyzer Web-based Manager to verify the upgrade was successful.

Step 1: Prepare your FortiAnalyzer for upgrade

1. Make sure all log devices are running the supported firmware version as stated in the Release Notes.
2. To verify the integrity of the download, go back to the *Download* section of the Customer Service & Support login page, then select the *Firmware Image Checksums* link. Optionally, you can select *Download* in the toolbar and select *Firmware Image Checksums* from the drop-down list.

Figure 1: Firmware image checksums page



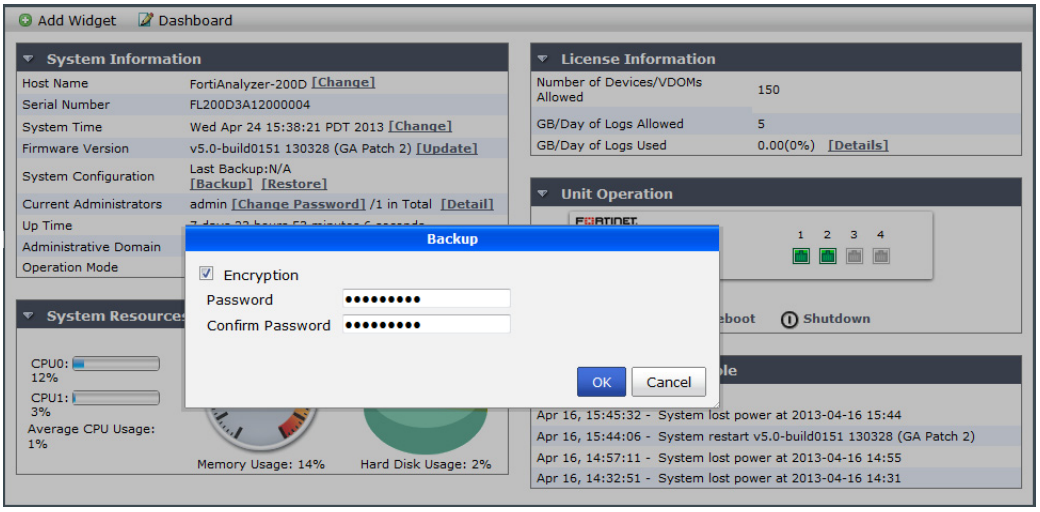
3. Enter the file name and select *Get Checksum Code* to get the firmware image checksum code. Compare this checksum with the checksum of the firmware image.

Step 2: Back up your FortiAnalyzer configuration

1. Go to *System Settings* > *Dashboard*.
2. In the *System Information* widget, under *System Configuration*, select *Backup*.

   The *Backup* dialog box opens.

Figure 2: Backup dialog box



3. Select the checkbox to encrypt the backup file and enter a password.

When selecting to encrypt the backup configuration file, the same password used to encrypt the file will be required to restore this backup file to the FortiAnalyzer device.

4. Select *OK* and save the backup file on your local computer.

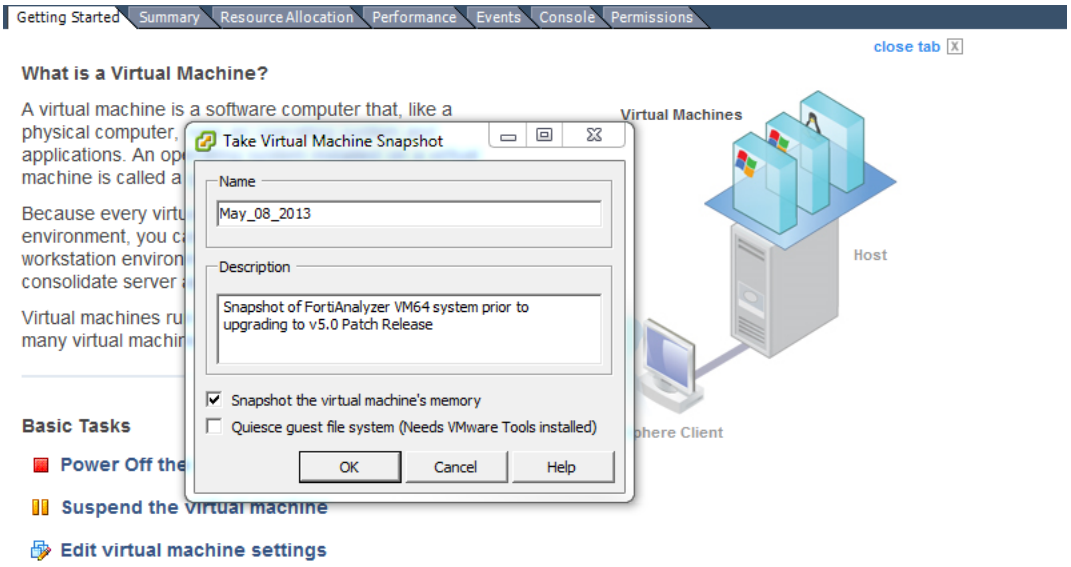
The system configuration file from a FortiAnalyzer v4.0 MR3 device cannot be directly imported into a FortiAnalyzer v5.0 Patch Release 4 device.

Optionally, you can backup the configuration file to a FTP, SFTP, or SCP server using the following CLI command:

```
execute backup all-settings {ftp | sftp} <server IP address>
    <path/filename to the server> <user name on server> <password>
    [cryptpasswd]
execute backup all-settings scp <server IP address> <path/filename to
    the server> <user name on server> <SSH certificate> <crptpassrd>
```

5. In VM environments, it is recommended that you take a *Snapshot* of the VM instance. In the event of an issue with the firmware upgrade, use the *Snapshot Manager* to revert to the *Snapshot*. To create a *Snapshot*, right-click the VM instance and select *Snapshot* > *Take Snapshot*.

Figure 3: Snapshot of FortiAnalyzer VM (VMware)



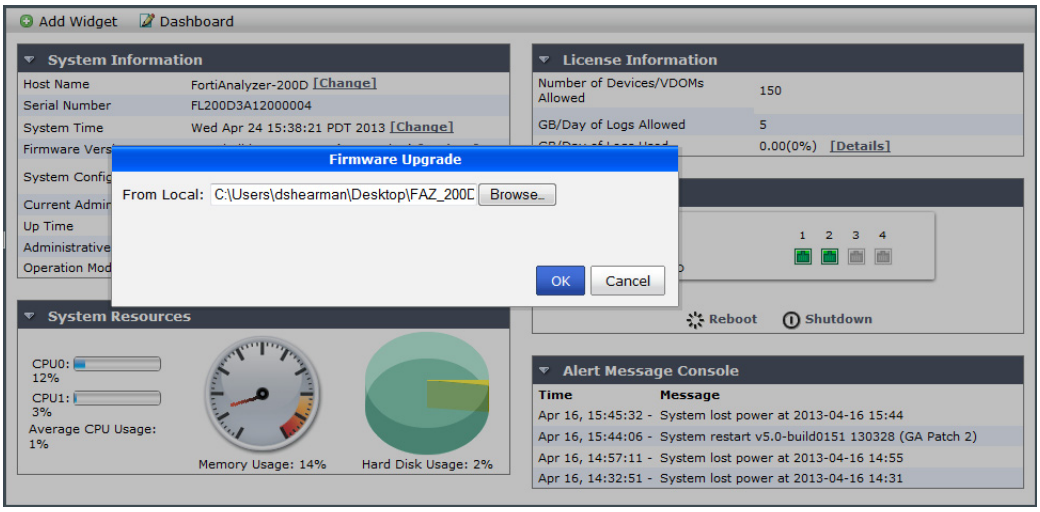
For information on snapshots in Microsoft Hyper-V Server environments, refer to the Microsoft Windows Server online help.

Step 3: Transfer the firmware image to your FortiAnalyzer device

1. Go to *System Settings* > *Dashboard*.
2. In the *System Information* widget, in the *Firmware Version* field, select *Update*.

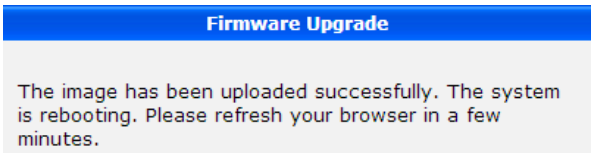
   The *Firmware Upgrade* dialog box opens.

Figure 4: Firmware upgrade dialog box



3. Select *Browse* to locate the firmware image (`.out` file) that you downloaded from the Customer Service & Support portal and select *Open*.
4. Select *OK. Your* FortiAnalyzer will upload the firmware image and you will receive the following message.

Figure 5: Firmware upgrade successful dialog box



Optionally, you can upgrade firmware stored on a FTP or TFTP server using the following CLI command:

```
exexute restore image {ftp | tftp} <file path on the FTP server>
    <server IP address <user name on server> <password>
```

Step 4: Verify the upgrade

1. Refresh the browser page and log back into the device.
2. Launch the *Device Manager* module and make sure that all formerly added log devices are still listed.
3. Launch the other functional modules and make sure they work properly.

Downgrading to previous versions

FortiAnalyzer does not provide a full downgrade path. You can downgrade to a previous FortiAnalyzer firmware release via the Web-based Manager or CLI. A system reset is required after the firmware downgrading process has completed.

All configuration will be lost after downgrading the device and the hard drives could be formatted automatically.

Firmware downgrade is not recommended as it could lead to log data loss.

To re-initialize a FortiAnalyzer, use the following CLI commands via a console port connection:

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

Product Integration and Support

Web browser support

FortiAnalyzer v5.0 Patch Release 4 supports the following web browsers:

- Microsoft Internet Explorer versions 9 and 10
- Mozilla Firefox version 24
- Google Chrome version 30

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

FortiOS support

FortiAnalyzer v5.0 Patch Release 4 supports the following FortiOS versions:

- FortiOS v5.0.0 and Patch Releases 1 to 4
- FortiOS v4.0 MR3 Patch Release 2 or later
- FortiOS v4.0 MR2 and all Patch Releases

FortiOS v4.0 MR2 is no longer supported (EOS) as of April 1, 2013.

FortiOS Carrier support

FortiAnalyzer v5.0 Patch Release 4 supports the following FortiOS Carrier versions:

- FortiOS Carrier v5.0.0 and Patch Releases 1 to 4
- FortiOS Carrier v4.0 MR3 Patch Release 2 or later
- FortiOS Carrier v4.0 MR2 and all Patch Releases

FortiOS Carrier v4.0 MR2 is no longer supported (EOS) as of March 31, 2013.

FortiMail support

FortiAnalyzer v5.0 Patch Release 4 supports the following FortiMail versions:

- FortiMail v5.0 Patch Release 2

In order for FortiMail devices to be promoted to the DVM table, ADOMs must be enabled. FortiMail devices are added to the default FortiMail ADOM.

FortiWeb support

FortiAnalyzer v5.0 Patch Release 4 supports the following FortiWeb versions:

- FortiWeb v5.0 Patch Release 2

In order for FortiWeb devices to be promoted to the DVM table, ADOMs must be enabled. FortiWeb devices are added to the default FortiWeb ADOM.

FortiSwitch support

FortiAnalyzer v5.0 Patch Release 4 does not support FortiSwitch logging.

FortiClient support

FortiAnalyzer v5.0 Patch Release 4 supports the following FortiClient versions:

- FortiClient (Windows) v5.0 Patch Release 4 or later
- FortiClient (Mac OS X) v5.0 Patch Release 4 or later

MySQL server support

FortiAnalyzer v5.0 Patch Release 4 supports MySQL Server v5.5.

Virtualization software support

FortiAnalyzer v5.0 Patch Release 4 supports the following virtualization software:

- VMware ESX versions 4.1
- VMware ESXi versions 4.1 and 5.1
- Microsoft Hyper-V Server 2008 R2 and 2012

Other virtualization software versions may function correctly, but are not supported by Fortinet. See “FortiAnalyzer VM” on page 28 for more information.

Language support

The following table lists FortiAnalyzer language support information.

Table 2: Language support

Language	Web-based Manager	Reports	Documentation
English	✔	✔	✔
French	-	✔	-
Spanish	-	✔	-
Portuguese	-	✔	-
Korean	✔	✔	-
Chinese (Simplified)	✔	✔	-
Chinese (Traditional)	✔	✔	-
Japanese	✔	✔	-

To change the FortiAnalyzer 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*.

Supported models

The following tables list which FortiGate, FortiCarrier, FortiMail, and FortiWeb models and firmware versions can log to a FortiAnalyzer appliance running v5.0 Patch Release 4. Please ensure that the log devices are supported before completing the upgrade.

Table 3: Supported FortiGate models

Model	Firmware Version
FG-20C, FG-20C-ADSL-A, FG-30D, FG-40C, FG-60C, FG-60C-POE, FG-60D, FG-80C, FG-80CM, FG-90D, FG-90D-POE, FG-100D, FG-110C, FG-111C, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200B, FG-200B-POE, FG-200D, FG-240D, FG-300C, FG-310B, FG-310B-DC, FG-311B, FG-600C, FG-620B, FG-620B-DC, FG-621B, FG-800C, FG-1000C, FG-1240B, FG-3016B, FG-3040B, FG-3140B, FG-3240C, FG-3600C, FG-3810A, FG-3950B, FG-3951B, FG-5001B, FG-5001C, FG-5101C FGR-100C FG-VM, FG-VM64, FG-VM64-XEN FWF-20C, FWF-20C-ADSL-A, FWF-30D, FWF-40C, FWF-60C, FWF-60CM, FWF-60CX-ADSL-A, FWF-60D, FWF-80CM, FWF-81CM, FWF-90D, FWF-90D-POE FS-5203B	v5.0

Table 3: Supported FortiGate models (continued)

Model	Firmware Version
FG-20C, FG-20C-ADSL-A, FG-30B, FG-40C, FG-50B, FG-51B, FG-60B, FG-60C, FG-60C-POE, FG-60C-SFP, FG-60CM, FG-80C, FG-80CM, FG-82C, FG-100A, FG-100D, FG-110C, FG-111C, FG-200A, FG-200B, FG-200B-POE, FG-224B, FG-300A, FG-300C, FG-310B, FG-310B-DC, FG-311B, FG-400A, FG-500A, FG-600C, FG-620B, FG-620B-DC, FG-621B, FG-800, FG-800C, FG-800F, FG-1000, FG-1000A, FG-1000A-FA2, FG-1000C, FG-1240B, FG-3016B, FG-3040B, FG-3140B, FG-3240C, FG-3600, FG-3600A, FG-3810A, FG-3950B, FG-3951B, FG-5001, FG-5001A, FG-5001B, FG-5001C, FG-5001FA2, FG-5002FB2, FG-5005FA2, FG-5101C, FG-ONE FG-VM, FG-VM64, FG-VM64-XEN FGR-100C FWF-20C, FWF-20C-ADSL-A, FWF-30B, FWF-40C, FWF-50B, FWF-60B, FWF-60C, FWF-60CM, FWF-60CM-3G4G-B, FWF-60CX-ADSL-A, FWF-80CM, FWF-81CM FS-5203B	v4.0 MR3
FG-30B, FG-50B, FG-51B, FG-60-ADSL, FG-60B, FG-60C, FG-60CM, FG-80C, FG-80CM, FG-82C, FG-100A, FG-110C, FG-200A, FG-200B, FG-200B-POE, FG-224B, FG-300A, FG-300C, FG-310B, FG-310B-DC, FG-311B, FG-400A, FG-500A, FG-620B, FG-620B-DC, FG-800, FG-800F, FG-1000, FG-1000A, FG-1000A-FA2, FG-1240B, FG-3000, FG-3016B, FG-3040B, FG-3140B, FG-3600, FG-3600A, FG-3810A, FG-3950B, FG-3951B, FG-5001, FG-5001A, FG-5001B, FG-5001FA2, FG-5002FB2, FG-5005FA2, FG-ONE FG-VM FWF-30B, FWF-50B, FWF-60B, FWF-60C, FWF-60CX-ADSL-A, FWF-80CM, FWF-81CM	v4.0 MR2

Table 4: Supported FortiCarrier models

Model	Firmware Version
FCR-3240C, FCR-3600C, FCR-3810A, FCR-3950B, FCR-3951B, FCR-5001A, FCR-5001B, FCR-5001C, FCR-5101C FCR-VM, FCR-VM64	v5.0
FCR-3810A, FCR-3950B, FCR-3951B, FCR-5001, FCR-5001A, FCR-5001B, FCR-5001FA2, FCR-5005FA2	v4.0 MR3
FCR-3810A, FCR-3950B, FCR-3951B, FCR-5001, FCR-5001A, FCR-5001B, FCR-5001FA2, FCR-5005FA2	v4.0 MR2

Table 5: Supported FortiMail models

Model	Firmware Version
FE-100C, FE-200D, FE-400B, FE-400C, FE-1000D, FE-2000A, FE-2000B, FE-3000C, FE-3000D, FE-4000, FE-5001A, FE-5002B FE-VM64	v5.0 Patch Release 2

Table 6: Supported FortiWeb models

Model	Firmware Version
FWB-400B, FWB-400C, FWB-1000B, FWB-1000C, FWB-3000C, FWB-3000CFSX, FWB-3000D, FWB-3000DFSX, FWB-4000C, FWB-4000D FWB-VM64	v5.0 Patch Release 2

Resolved Issues

The resolved issues tables listed below do not list every bug that has been corrected with FortiAnalyzer v5.0 Patch Release 4 build 0232. For inquires about a particular bug, please contact Customer Service & Support.

Device Manager

Table 7: Resolved device manager issues

Bug ID	Description
0212755	VDOMs are shown in FortiAnalyzer but they are not enabled on FortiGate.

Event Management

Table 8: Resolved event management issues

Bug ID	Description
0211386	Search function does not work in *Event Handler* tab.

Logging

Table 9: Resolved logging issues

Bug ID	Description
0209620	FortiAnalyzer cannot set the aggregation quota to unlimited.
0210504	Search logs should not be case sensitive.
0210529	UTM action and status columns have inconsistent text and icon.
0211565	Text should not be line wrapped within each column and columns should be separated with a clear border.
0211732	Log details for FortiMail are missing some attributes.
0211796	Non case sensitive search does not work for real time logs.
0212039	FortiAnalyzer always displays *Loading* after selecting *Data Leak Prevention*.
0212062	Log Aggregation does not work for FortiMail and FortiWeb devices.
0212504	FortiWeb and FortiMail templates can be selected as FortiGate's charts.
0212512	Archive column does not list links for all archived logs.
0213089	Some column filters may not work.
0216343	FortiAnalyzer cannot display logs when there are non-printable characters in the URL field.

Other

Table 10: Other resolved issues

Bug ID	Description
0210860	The `execute backup` CLI command does not store logs in a compressed format.
0211587	FortiAnalyzer is missing the `log-integrity` CLI command.
0211601	The `diagnose dvm supported-platforms list` CLI command should be updated to list FortiMail and FortiWeb devices.
0212412	FortiAnalyzer needs a CLI command to view and modify device logging permissions.
0213129	FortiAnalyzer may lose custom reports after upgrade.

Reporting

Table 11: Resolved reporting issues

Bug ID	Description
0194288	FortiAnalyzer should re-introduce the auto-delete features.
0202911	FortiMail's client name is not inserted into SQL database due to the 40 character limit.
0203729	Horizontal bar is missing when the result of a test query exceeds the buffer of the test view window.
0211380	Web filter report does not correctly calculate the same blocked request for the same user or IP.
0211469	FortiAnalyzer should have default datasets and charts for FortiGate performance statistics.
0211597	Chart name containing invalid characters is not editable.
0213287	FortiAnalyzer may show previously deleted historical reports when creating a new report template.
0213288	FortiAnalyzer uses the chart name as the chart title when there is no matching data within a report.
0213481	Test view window should show bandwidth in readable GB/MB/KB unit.
0213752	Report always shows pie charts for cloned composite pie charts and chart type is selected as table.
0214278	Report templates cannot be loaded if the object name contains a space.
0214415	Administrative users always appear on the *Top Dial-Up VPN Users* with the pre-defined VPN report.
0214434	The number of allowed saved reports is not enforced.

Table 11: Resolved reporting issues (continued)

Bug ID	Description
0215013	Text on the report's footer is not reflected in the PDF file.
0215014	Device and OS types should be displayed in the default chart *Top Device By Reputation Score*.

System Settings

Table 12: Resolved system settings issues

Bug ID	Description
0204263	FortiAnalyzer does not generate a local event log when log array quota is reached.
0209980	FortiAnalyzer does not send out SNMP traps when one of the PSUs fails on some platforms.
0211490	FortiAnalyzer should support multiple worker threads to convert and zip the log files when uploading.
0215352	Device log upload may not functional.

Known Issues

The known issues tables listed below do not list every bug that has been identified with FortiAnalyzer v5.0 Patch Release 4 build 0232. For inquires about a particular bug or to report a bug, please contact Customer Service & Support.

Logging

Table 13: Known logging issues

Bug ID	Description
0216416	Events table should remove the double quotes for *Event Name*.
0216698	The sent and received columns in log view are empty when FortiGate is in explicit proxy mode.
0216733	Filters should always indicate current logs filter status.
0216739	Partial file is transferred when logs are aggregated.
0216914	If a log array is created using VDOMs, the logs should be visible in the same way as if log array is created using FortiGate devices.
0217013	Application packet log archive is received but it is not shown in the Web-based Manager.

Reporting

Table 14: Known reporting issues

Bug ID	Description
0216400	Ranked binding should allow users to group and control rows on the second column in ranked table.
0216728	Report should show bar chart in three dimensions.
0216983	Email PDF report name should be same as the name of report.
0217214	FortiAnalyzer should not allow user to delete a folder when the folder has template inside.

System Settings

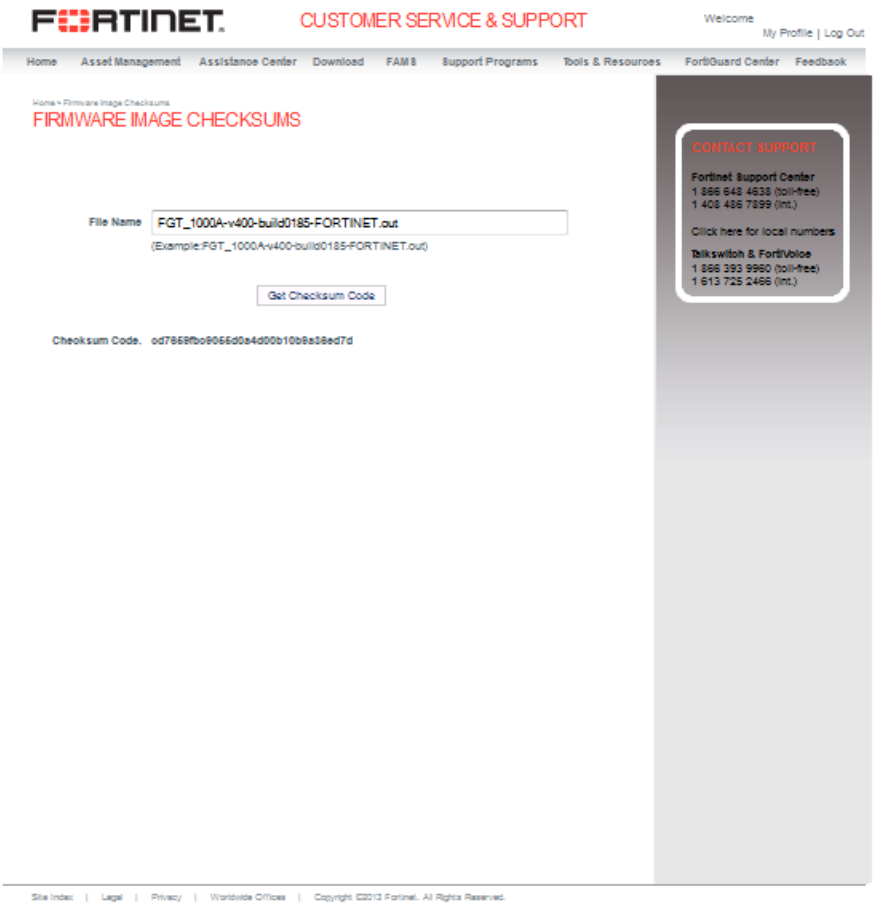
Table 15: Known system settings issues

Bug ID	Description
0216704	FortiAnalyzer should be able to add devices to FortiMail ADOM from the *All ADOMs* configuration page.

Firmware Image Checksums

The MD5 checksums for all Fortinet software and firmware releases are available at the Customer Service & Support portal located at https://support.fortinet.com. After logging in, select *Download* > *Firmware Image Checksum*, enter the image file including the extension, and select *Get Checksum Code*.

Figure 6: Firmware image checksum tool



Appendix A: FortiAnalyzer VM

Licensing

Fortinet offers the FortiAnalyzer VM in a stackable license model based on GB logs per day and storage add-ons. This model allows you to expand your VM solution as your environment expands. When configuring your FortiAnalyzer, ensure to configure hardware settings as outlined in Table 16 and consider future expansion.

Table 16: FortiAnalyzer VM license information

Technical Specification	VM-Base	VM-GB1	VM-GB5	VM-GB25	VM-GB100
Hypervisor Support	VMware ESX versions 4.0 and 4.1 VMware ESXi versions 4.0, 4.1, 5.0 and 5.1 Microsoft Hyper-V Server 2008 R2 and 2012				
VM Form Factor	VMware ESX/ESXi: Open Virtualization Format (OVF) Microsoft Hyper-V Server: Virtual Hard Disk (VHD)				
Devices / ADOMs Supported	10,000				
Virtual CPUs (Minimum / Maximum)	1 / Unlimited				
Virtual Network Interfaces (Minimum / Maximum)	1 / 4				
Virtual Memory (Minimum / Maximum)	1GB / Unlimited				
Virtual Storage (Minimum)	40GB				
Device Quota	200GB	+200GB	+1TB	+8TB	+16TB
Sessions / Day	3.5 M	3.5 M	18 M	85 M	360 M

For more information see the FortiAnalyzer product datasheet available on the Fortinet web site, http://www.fortinet.com/products/fortianalyzer/index.html.

FortiAnalyzer VM firmware

Fortinet provides FortiAnalyzer VM firmware images for both VMware ESX/ESXi and Microsoft Hyper-V Server virtualization environments.

VMware ESX/ESXi

- `.out`: Download either the 32-bit or 64-bit firmware image to upgrade your existing FortiAnalyzer VM installation.
- `.ovf.zip`: Download either the 32-bit or 64-bit package for a new FortiAnalyzer 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.

Microsoft Hyper-V Server

- `.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.

Appendix B: FortiAnalyzer Log Limits

The following table outlines the device log limits and support information for FortiAnalyzer v5.0 Patch Release 4.

Table 17: FortiAnalyzer log limits

Model	Supported Devices / ADOMs / VDOMs / Log Arrays (Maximum)	GB / Day of Logs
FAZ-100C	150	5GB / Day
FAZ-200D	150	5GB / Day
FAZ-300D	175	15GB / Day
FAZ-400B	200	15GB / Day
FAZ-400C	200	15GB / Day
FAZ-1000B	2000	25GB / Day
FAZ-1000C	2000	25GB / Day
FAZ-2000A	2000	75GB / Day
FAZ-2000B	2000	75GB / Day
FAZ-3000D	2000	250GB / Day
FAZ-4000A	2000	150GB / Day
FAZ-4000B	2000	Unlimited[a]
FAZ-VM-Base	10000	1GB / Day
FAZ-VM-GB1	10000	+1GB / Day
FAZ-VM-GB5	10000	+5GB / Day
FAZ-VM-GB25	10000	+25GB / Day
FAZ-VM-GB100	10000	+100GB / Day

a. Only restricted to the hardware performance, there are no software licensing limitations.

For more information including performance data (sessions/day, maximum log rate, average retention, and hardware specifications), see the FortiAnalyzer product datasheet available on the Fortinet web site, http://www.fortinet.com/products/fortianalyzer/index.html.