

Copyright© 2015 Fortinet, Inc. All rights reserved.

Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., in the U.S. and other jurisdictions, 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 General Counsel, 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. In no event does Fortinet make any commitment related to future deliverables, features or development, and circumstances may change such that any forward-looking statements herein are not accurate. 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.

1

How to Upgrade

STEP 1: Backup Your Device.

Backup your device and its configuration.

STEP 2: Download.

Upgrade images are available from the Customer Support website.

STEP 3: Upgrade and Monitor.

Install the new firmware.

STEP 4: Verify and Validate.

Use the GUI to verify that the upgrade succeeded, and run the dataset validation tool to verify your datasets.

STEP 5: Convert Log Array to HA Clusters.

If Log Arrays are used to manage HA clusters in previous versions, you will need to convert them to HA clusters.



To upgrade from v5.0.6 to v5.0.10:

Watch the following video

http://forti.net/faz_upgrade

2

Upgrade Paths



IMPORTANT: FortiAnalyzer must be running v5.0.6 or later before upgrading to FortiAnalyzer v5.0.11.

Initial Version	Upgrade To	Log Database Rebuild Required?
≤ 5.0.5	5.0.6	Yes
5.0.6	5.0.11	Yes
5.0.7	5.0.11	No
5.0.8	5.0.11	No
5.0.9	5.0.11	No
5.0.10	5.0.11	No

3

Detailed Upgrade Instructions

Step 1. Back Up Your Device.

Backup your device configuration from the Systems Settings tab.

Step 2. Download.

Download your firmware image.

1. Use the CLI command to check for current reports. Allow them to complete prior to upgrading.

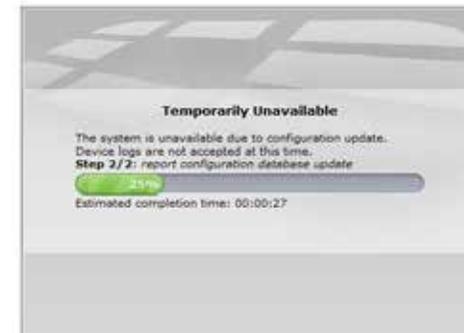
```
FAZ1000D # dia report status running  
FAZ1000D # dia report status pending
```

2. If you are upgrading a FortiAnalyzer VM, make sure your VM partition has more than 512MB*, and your VM server is up to date.

Step 3. Upgrade and Monitor

Install the downloaded firmware image.

During a firmware upgrade, you will temporarily disconnect to your FortiAnalyzer. When the firmware has been installed, you can reconnect to your device.



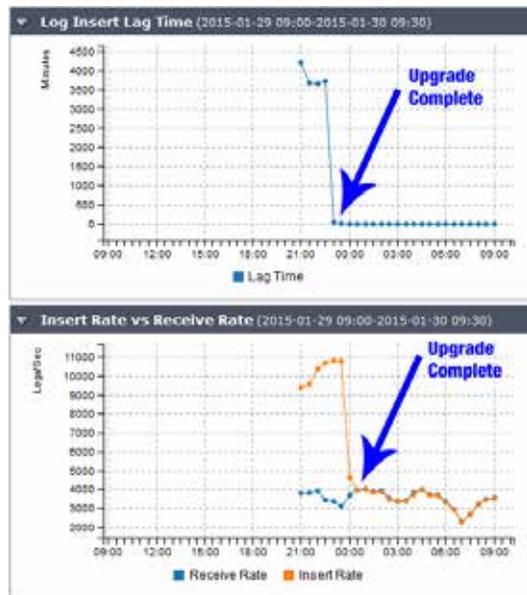
When complete, you will be able to log in and access your FortiAnalyzer. Not all features will be available immediately while the SQL database is rebuilt. A status bar will keep you up to date on the rebuild status.



*It is recommended to allocate 1024MB for the FortiAnalyzer VM partition.

Step 3. Upgrade and Monitor

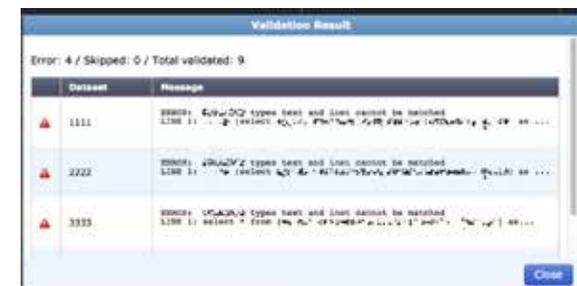
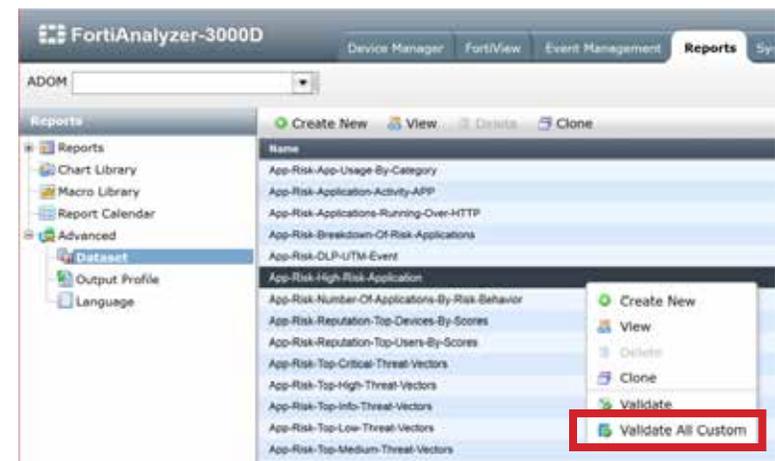
Monitor the rebuild progress with the *Log Insert Lag Time* and *Insert Rate vs Receive Rate* widgets. These widgets will show you the gap between logs being received and logs being inserted after the upgrade. You can customize this widget to show data every 60 to 240 seconds. As shown below, you will notice an initial delay in logs being inserted, but that will resolve itself as time passes. You can add these widgets in the same way you add other widgets in the Dashboard.



Step 4. Verify and Validate

After using GUI to verify that the upgrade succeeded, run dataset validation tool to verify your datasets.

1. Select the *Reports* tab.
2. Select *Advanced* in the left pane.
3. Select *Dataset*.
4. Right-click any report and select *Validate All Custom*.



Step 5. HA Cluster for Log Conversion

If you have been using log array to manage your HA device disk quota, migrate from log array to HA cluster for easier management.

Follow the steps below to migrate from log array to HA cluster.

1. In the Device & Groups tab, create a new entry for the HA device by right-clicking on one of the member devices.
2. Select *Edit* and name the entry as `ha_cluster_01`.

Name

Description

3. Check the HA Cluster option box. In the *Add Other Device* field, select other member devices from the drop down menu. Click Add.

HA Cluster

Add existing device

Add other device

HA Cluster List:

<input type="checkbox"/>	FG10CH3G09603851 (50000MB)
<input type="checkbox"/>	FG80CM3909603513 (50000MB)
<input checked="" type="checkbox"/>	FG100D0000000002 (50000MB)

4. Once added, the HA Cluster List will show all member devices with the disk quota assigned to the cluster instead of each individual device. You can change the disk quota based on your requirements.

HA Cluster

Add existing device

Add other device

HA Cluster List:

#	Serial Number	Action	Disk Quota(MB)
1	FG100D00000000001		100000
2	FG100D00000000002		

5. Select *OK* and observe the HA cluster is now added. The cluster can be identified by the HA cluster icon.



Do not delete the other device yet. You will lose all your data.

CLI Commands

In order to complete the HA cluster, the logs of all the member devices need to be moved to the HA cluster.

1. Run `diagnose log device` to show `ha_cluster_01`.
2. Run `#execute log device logstore list` to list the member devices.

```
FAZ1000C # diagnose log device
Device Name      Device ID
HA_Cluster_01   FGHA001206932942_CID
- HA cluster member: FG100D0000000001
- HA cluster member: FG100D0000000002
```

```
FAZ1000C # execute log device logstore list
Device ID          log files
=====
(1) FG100D0000000001  N/A      N/A  zombie
(2) FGHA001206932942_CID  0MB      0MB
(3) FG100D0000000002  N/A      N/A  zombie
```

3. `#execute log device logstore move†`
`<source> <destination>`

```
FAZ1000C # execute log device logstore move
FG100D0000000001 FGHA001206932942_CID
```

Example: Source: FG100Dxxx1 (individual devices)
Destination: FGHA001xxxx_CID (HA cluster)

†You may need extra temporary free disk space equivalent to the log size to be able to move them.
‡The time to complete the log move and database rebuild is determined by the log size.

This command is necessary for each individual device being added to the HA cluster.

After all the member device logs have been moved into the HA cluster. You can delete the individual devices from the GUI under the Device & Group tab.

4. Run `#execute log device logstore clear All` to clean up all log files and archives.

```
FAZ1000C # execute log device logstore clear All
This will clean up all zombie devices logs and
archive files.
Do you want to continue? (y/n)y
```

5. Run `#execute sql-local rebuild-db` to complete the log migration into the HA cluster.

```
FAZ1000C # execute sql-local rebuild-db
Rebuild the whole SQL database has been requested.
This operation will remove the SQL database and
rebuild from log data.
This operation will reboot the device.
Do you want to continue? (y/n)y
```

6. You can now delete the log array from the GUI. Go Fortiview > Log View > Tools > Manage Log Arrays> select *Delete*.

Supported Models

The following models support upgrading to FortiAnalyzer v5.0.11:

FAZ-100C

FAZ-200D

FAZ-300D

FAZ-400B

FAZ-400C

FAZ-1000B

FAZ-1000C

FAZ-1000D

FAZ-2000A

FAZ-2000B

FAZ-3000D

FAZ-3000E

FAZ-3500E

FAZ-4000A

FAZ-4000B

FAZ-VM32

FAZ-VM64

FAZ-VM64-AWS

FAZ-VM64-HV

FAZ-VM64-KVM

FAZ-VM64-XEN

FORTINET.