FortiManager - Upgrading Managed FortiGates

Version 5.6

FORTINET DOCUMENT LIBRARY
https://docs.fortinet.com

FORTINET VIDEO GUIDE
https://video.fortinet.com

FORTINET BLOG
https://blog.fortinet.com

CUSTOMER SERVICE & SUPPORT
https://support.fortinet.com

FORTINET COOKBOOK
https://cookbook.fortinet.com

FORTINET TRAINING & CERTIFICATION PROGRAM
https://www.fortinet.com/support-and-training/training.html

NSE INSTITUTE
https://training.fortinet.com

FORTIGUARD CENTER
https://fortiguard.com/

END USER LICENSE AGREEMENT
https://www.fortinet.com/doc/legal/EULA.pdf

FEEDBACK
Email: techdocs@fortinet.com

August 1, 2018

FortiManager 5.6 Upgrading Managed FortiGates

02-560-000000-20180801

TABLE OF CONTENTS

Change Log

Date	Change Description
2018-07-04	Initial release.

Introduction

Each FortiManager version can support multiple firmware versions for managed FortiGates. However, FortiGates running the same major version need to be managed (grouped) together in order to effectively leverage central templates or policy packages. To ease administrative burdens, it's recommended to standardize on a single version and then migrate between versions when needed. But this creates a challenge - large-scale upgrades of many devices from one version to another. The purpose of this document is to clarify how groups of FortiGates can be migrated from one version to another over a period of time, and the process that should be used during times when multiple versions are present.

This document explains:

- how to upgrade managed firewalls from FortiManager.
- limitations that exist in *mixed mode* (multiple versions of FortiGates are present).
- backend installation procedures happening when in mixed mode.

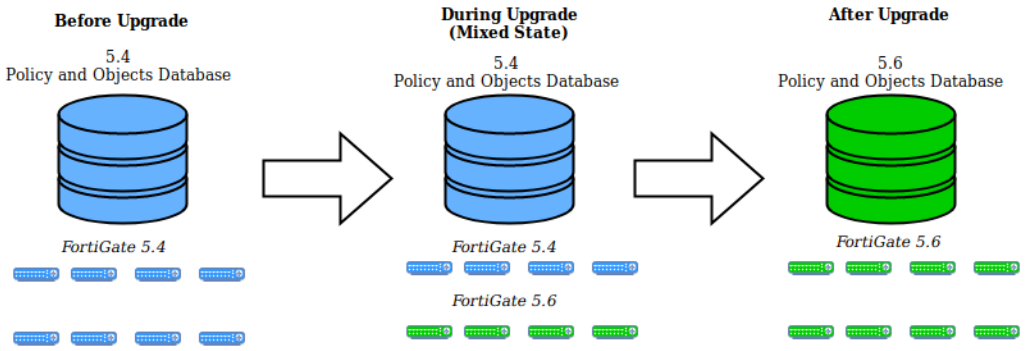
It is assumed that you are running the version of FortiManager that supports the FortiGate devices you are managing. Upgrading FortiGate devices from version 5.4 to 5.6 is used as an example.

Overview

When upgrading the managed firewalls from one major firmware version to the next, you must:

- upgrade the firmware for all managed firewalls first.
- upgrade the central policy and object database last During the upgrade, the managed firewalls can be running mixed firmware versions until all firewalls and the central policy & object database are successfully upgraded.

The following diagram shows what's happening during the upgrade and after the upgrade:



Mixed state

Although running mixed firmware versions on the managed firewalls are supported, the central management capabilities are reduced until all firewalls and the central database are successfully upgraded to the next major version. Here is a summary of what's supported and not supported when in the mixed state:

Supported	Not Supported
Installing a policy	Importing a policy
When installing a lower version of the Policy Package (5.4) to a higher version of FortiOS (5.6), an upgrade code is applied during the copy operation inside FortiManager to convert the lower version to higher version. This is similar to the process that happens when upgrading a FortiGate itself.	You cannot import a policy from Device Manager to Policy Manager when the device version is higher than the policy manager version.
Installing Device Manager settings	
Create new VDOMs	
Assigning provisioning templates	
Running scripts	

Upgrade

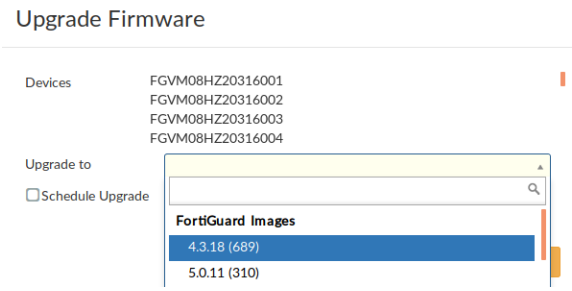
The upgrade procedure requires the following steps:

Step 1: Upgrading FortiGates

You can upgrade all firewalls at once or perform batch upgrade for selected firewalls.

To upgrade all FortiGates from FortiManager:

1. Log on to FortiManager.
2. Go to *Device Manager* > *Firmware*.
3. Select all the FortiGate devices and click *Upgrade*.
4. In the *Upgrade Firmware* dialog, go to the *Upgrade to* drop-down. Choose the firmware from the *FortiGuard Images*. Click *OK*.



   FortiManager downloads the firmware image from FortiGuard server and upgrades the selected FortiGate devices. The *Upgrade Firmware Task* dialog shows the progress of the upgrade.
5. Click *Close* after the upgrade is complete.

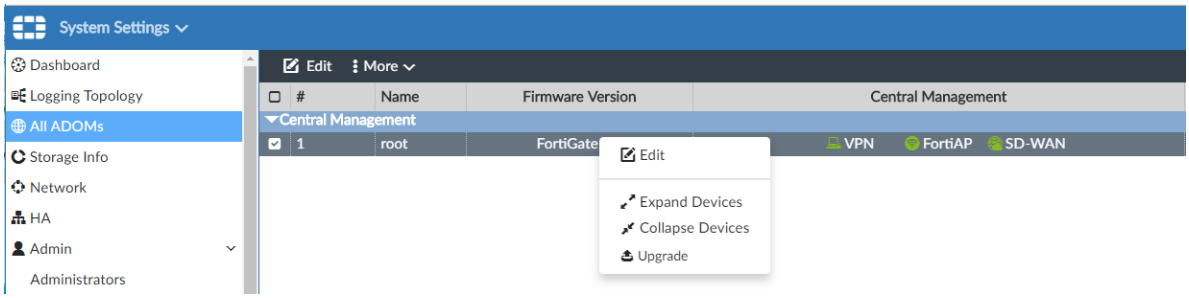
After each FortiGate device is upgraded to 5.6, FortiManager will automatically add a revision into revision history through auto-update. The upgraded FortiGate devices are visible in *Device Manager*.

Step 2: Upgrading Central Policy and Objects Database

Ensure all managed FortiGates have been upgraded to 5.6 before upgrading the Central Policy & Objects database from 5.4. to 5.6.

To upgrade the central policy and objects database:

1. Log on to FortiManager.
2. Go to *System Settings* > *All ADOMs*.



3. Right-click *root* and select *Upgrade*.
   The Central Policy and Objects database is now upgraded to 5.6.