

**F5[®] BIG-IQ[®] Centralized Management:
Upgrading Version 5.x to Version 5.4**

Version 5.4



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Upgrading BIG-IQ Centralized Management Version 5.x to Version 5.4

What you need to do before you upgrade BIG-IQ from version 5.x to 5.4

Before upgrading F5® BIG-IQ® Centralized Management, perform the following tasks.

Tasks	Additional information
Create a backup of the BIG-IQ system's current compressed user configuration set (UCS) and store it on a remote server.	The UCS file includes: system-specific configuration files; license, user account and password information; and SSL certificates and keys. You can use this backup if you want to restore to the previous version of BIG-IQ.
Decide which disk volume to install the upgrade on. At least two volumes are required to upgrade BIG-IQ.	If the machine you are upgrading does not have two volumes, you must create one using a <code>CLI</code> command. The upgrade task provides options for either case.
Deploy any staged configuration changes to your managed devices.	Deploy configuration changes you have staged for your devices. When addressing configuration conflicts for each BIG-IP device, we recommend you use BIG-IP to override the configuration settings stored on BIG-IQ. Refer to the section titled, <i>Re-discover devices and re-import services from the user interface</i> .
If you are currently using a self-IP address for device discovery, make a note of that IP address.	You'll need to enter it when you perform setup after you upgrade and reboot the BIG-IQ system.

If you're currently running a version of BIG-IQ prior to version 5.0, you must first upgrade to version 5.0 before you can upgrade to version 5.4. For more information, refer to the guide titled, *F5 BIG-IQ Centralized Management: Upgrading BIG-IQ to Version 5.0*.

If you're upgrading BIG-IQ Data Collection Device clusters, refer to the guide titled, *F5 BIG-IQ Centralized Management: Upgrading Data Collection Device clusters to version 5.4*.

Which upgrade workflow should I use?

The user interface for BIG-IQ® Centralized Management has changed between releases. Before you start the upgrade process, decide which workflow is appropriate for you.

If you're upgrading from:	Use this guide:	Note:
Version 5.0	<i>F5 BIG-IQ Centralized Management: Upgrading Version 5.0 to Version 5.1</i> https://support.f5.com/kb/en-us/products/big-iq-centralized-mgmt/manuals/product/bigiq-central-mgmt-upgrading-v5-0-to-5-1-0/1.html	For all tasks and references of v5.1.0, substitute v5.3.0.

If you're upgrading from:	Use this guide:	Note:
Version 5.1	<i>F5 BIG-IQ Centralized Management: Upgrading Version 5.x to Version 5.2</i> https://support.f5.com/kb/en-us/products/big-iq-centralized-mgmt/manuals/product/bigiq-central-mgmt-upgrading-v5-0-to-5-2-0/1.html	For all tasks and references of v5.1.0 or v5.2.0, substitute v5.3.0.
Version 5.2	<i>F5 BIG-IQ Centralized Management: Upgrading Version 5.x to Version 5.3</i> https://support.f5.com/content/kb/en-us/products/big-iq-centralized-mgmt/manuals/product/bigiq-central-mgmt-upgrading-v5-0-to-5-3-0/1.html	N/A
Version 5.3	<i>F5 BIG-IQ Centralized Management: Upgrading Version 5.x to Version 5.4</i>	N/A

Summary of procedures to upgrade BIG-IQ from version 5.x to 5.4

To upgrade F5® BIG-IQ® Centralized Management from BIG-IQ version 5.x to 5.4, perform these procedures. Upgrading BIG-IQ to the most recent version requires that you update its configuration to incorporate new features introduced. It's a good idea to set aside at least a few hours to complete this process.

Note: *It is important that you follow these procedures in the order stated.*

1. Complete all of the prerequisites outlined in the topic titled, *What you need to do before you upgrade BIG-IQ from version 5.x to 5.4*.
2. Download the BIG-IQ version 5.4 `iso` file from the F5 Downloads site to your desktop.
3. Upload the software image to, and install the new software on your primary BIG-IQ.
4. If you're upgrading an HA pair:
 - Remove the peer BIG-IQ from the primary BIG-IQ.
 - Upload the software image to, and install the new software on the peer BIG-IQ.
 - Re-establish the HA configuration.
5. Upgrade the BIG-IP® framework on your managed devices.
6. Rediscover devices, and re-import services.

Download the BIG-IQ version 5.4 software image from F5 Networks

Downloading a software image from F5 Networks is the first step toward making it available to install on the BIG-IQ system.

1. Log in to the F5 Downloads site, `downloads.f5.com`.
2. Click the **Find a Download** button.
3. Click the name of the product line.

4. Click the product name, **Centralized Management**.
5. Click **V5.4.0**.
6. Read the End User Software License agreement and click the **I Accept** button if you agree with the terms.
7. Click the BIG-IQ version 5.4 .iso file name.
8. Click the name of the closest geographical location to you.
The software image downloads to your local system.

The software image is now available for you to upload.

Upload the latest version of the BIG-IQ software image

Before you can upload the software image to the BIG-IQ® system, you must have first downloaded it from the F5 Downloads site.

Upload the BIG-IQ version software image to the primary BIG-IQ system to make it available for this upgrade.

1. At the top of the screen, click **System**.
2. On the left, click **THIS DEVICE > SOFTWARE MANAGEMENT > Available Images**.
3. Click the **Upload Image** button.
4. Click the **Choose File** button and go to the location to which you downloaded the image, and click the **Open** button to upload it to BIG-IQ.
5. Click the **Upload** button.

The screen refreshes to display the progress of the upload.

When the image is finished uploading, it shows in the Available Images list.

Remove the secondary BIG-IQ from the HA pair

If the F5®BIG-IQ® Centralized Management system is configured in an HA pair, you must remove the secondary BIG-IQ system before you upgrade the primary BIG-IQ.

1. Log in to the primary BIG-IQ with your admin user name and password.
2. At the top of the screen, click **System**.
3. On the left, click **BIG-IQ HA**.
4. Click **Remove Secondary**.
A dialog box opens, prompting you to confirm that you want to remove the HA secondary device from this group.
5. Click **Remove** to confirm you want to take the HA secondary device out of the group.
The system logs you out of the BIG-IQ while it removes the secondary device.
6. Log back in to the primary BIG-IQ with your admin user name and password.
For a while, both the primary and the secondary BIG-IQ devices continue to display. After a few minutes, the screen updates to display a single standalone device.

Upgrade BIG-IQ to version 5.4

You need at least two volumes to upgrade F5® BIG-IQ® Centralized Management. If you are running BIG-IQ Virtual Edition and don't have two volumes, refer to: *K17406: Using the tmsl utility to create a*

new software volume for installing a new image or hotfix on the BIG-IQ system at support.f5.com/csp/article/K17406

Before upgrading the primary BIG-IQ you must download the BIG-IQ version 5.4 .iso image from the F5 downloads site.

Warning: *These procedures require that the BIG-IQ system is temporarily unavailable, and unable to manage BIG-IP® devices until the upgrade is complete. BIG-IP devices can continue to manage traffic during this time. This process can take up to an hour.*

Upgrade BIG-IQ to take advantage of the newest functionality and features.

1. Log in to the BIG-IQ system with your admin user name and password.
2. At the top of the screen, click **System**.
3. On the left, expand **THIS DEVICE > Software Management**, then click **Available Images**.
The Available Images screen lists the software image files that are available for install on this BIG-IQ.
4. Select the check box for the image you want to install and click **Install**.
5. From the **Target Volume** list, select the volume you want to install the image on.
6. To prompt BIG-IQ to reboot into the new software installation volume, select the **Reboot into Target Volume** check box.
7. Click the **Install** button.
8. Click the **Continue** button.
9. Wait while BIG-IQ loads the new software and reboots.

Depending on your configuration and the number of devices you are managing, this could take up to an hour. During this time, it is important that you not interrupt the installation process by restarting services or the server.

10. If needed, extend the `/var` partition.

The default size of the `/var` file system in a newly installed or upgraded node is 30 GB. This amount of available storage might not be enough to store your data. If you previously extended your disk space, you'll need to do it again after you upgrade, as explained in *K16103: Extending disk space on BIG-IQ Virtual Edition*.

Important: *Upgrading a node requires at least two volumes, so be sure you can extend the `/var` file system on both volumes to the same size; otherwise, upgrades might fail.*

Even though you can log in to this BIG-IQ system after the software is installed, the system continues some database re-indexing processes in the background. For larger configurations, that can take up to an hour. If you perform any searches on objects before it's done re-indexing, BIG-IQ might not return the expected results. During this time, you can continue with the rest of the upgrade process.

Install version 5.4 on the peer BIG-IQ system

After you upgrade the primary BIG-IQ® Centralized Management system to version 5.4, you can upgrade a secondary BIG-IQ system for an HA configuration.

You need at least two volumes to install BIG-IQ software. If you are running BIG-IQ Virtual Edition and you don't have two volumes, refer to: *K17406: Using the `tms` utility to create a new software volume for installing a new image or hotfix on the BIG-IQ system* at <https://support.f5.com/csp/article/K17406>.

Important: Be sure you have the Master Key pass phrase you used for the primary BIG-IQ system; you'll need this when you complete the setup wizard after you reboot. You must use the same Master Key pass phrase on both systems for the pair to successfully communicate and synchronize.

Install version 5.4 on the peer BIG-IQ system so it'll be running the same version as the peer BIG-IQ system you just upgraded.

1. Log on to the system you are going to establish as the secondary BIG-IQ system's command line as **root** and type the following command: `/usr/bin/clear-rest-storage`.
While this step is not required, it clears the database storage on the system so the upgrade goes more quickly. After you upgrade both peer systems and re-establish the HA pair, the peer BIG-IQ will synchronize its database with this BIG-IQ system and repopulate the database.
2. Log on to the system you are going to establish as the secondary BIG-IQ system's user interface.
3. If you ran the `clear-rest-storage` command, complete the setup wizard. Otherwise, continue to step 4.
4. At the top of the screen, click **System**.
5. On the left, expand **THIS DEVICE > Software Management**, then click **Available Images**.
The Available Images screen lists the software image files that are available for install on this BIG-IQ.
6. Select the check box for the image you want to install and click the **Install** button.
7. From the **Target Volume** list, select the volume you want to install the image on.
8. To prompt BIG-IQ to reboot into the new software installation volume, select the **Reboot into Target** volume check box.
9. Click the **Install** button.
A confirmation dialog box appears.
10. Click the **Continue** button.
11. Wait while BIG-IQ loads the new software and reboots.
Depending on your configuration and the number of devices you are managing, this could take up to an hour. During this time, it is important that you not interrupt the installation process by restarting services or the server.
12. Log in to the BIG-IQ that will be the secondary BIG-IQ system to confirm that the upgrade succeeded and complete the setup wizard.
To complete the setup task, you must supply a master key pass phrase that all devices in the logging node cluster must share. Make note of the phrase you use. Each logging node, as well as the primary and secondary BIG-IQ systems must use this phrase before they can join the cluster.
13. If needed, extend the `/var` partition.
The default size of the `/var` file system in a newly installed or upgraded node is 30 GB. This amount of available storage might not be enough to store your data. If you previously extended your disk space, you'll need to do it again after you upgrade, as explained in *K16103: Extending disk space on BIG-IQ Virtual Edition*.

Important: Upgrading a node requires at least two volumes, so be sure you can extend the `/var` file system on both volumes to the same size; otherwise, upgrades might fail.

You can now re-establish the BIG-IQ HA configuration.

Upgrade the statistics agent

If you collected statistics in previously version of BIG-IQ, then when you finish upgrading the primary BIG-IQ to the latest version, you need to upgrade the statistics agent on each BIG-IP device that had statistics enabled before the upgrade.

1. At the top of the screen, click **Devices**.
2. Select all of the BIG-IP devices selecting the check box next to **Status**.
3. Click **More** , and then select **Update Stats Agent**.
The Statistics Collection Agent Upgrade screen opens.
4. For **Modules/Services**, select the check box next to the services you collected statistics for in BIG-IQ version 5.x.
5. For **Frequency** select how often you want to collect statistics for these services.
6. Click the **Continue** button.
7. Wait while the stats collection agent for each BIG-IP device is upgraded.
Depending on the number of devices in your cluster, this could take several minutes to complete.
When the agent is upgraded on each BIG-IP, the status icon turns to green.

Reestablish the HA configuration after upgrading to BIG-IQ version 5.4

After you upgrade both F5® BIG-IQ® Centralized Management systems in a HA configuration, you can re-associate the secondary system with the primary BIG-IQ system.

1. Log in to primary BIG-IQ system with your administrator user name and password.
2. At the top of the screen, click **System**.
3. On the left, click **BIG-IQ HA**.
4. Click the **Add Secondary** button.
5. In the **IP Address** field, type the discovery address you specified on the BIG-IQ system during setup.
This is the same IP address the peers in a high availability confirmation use to communicate.
6. In the **User name** and **Password** fields, type the administrative user name and password for the system.
7. In the **Root Password** field, type the root password for the system.
8. Click the **Add** button to add this device to this high availability configuration.

Even though you can log in to the secondary BIG-IQ after the you reestablish the HA configuration, the system continues some database re-indexing processes in the background. For larger configurations, that can take up to an hour. If you perform any searches on objects before it's done re-indexing, BIG-IQ might not return the expected results. During this time, you can use the primary BIG-IQ.

Next, you should verify that both BIG-IQ systems have the same configuration.

Upgrade the BIG-IP framework

To properly communicate, BIG-IQ® Centralized Management and managed BIG-IP® devices must be running a compatible version of its framework. If the frameworks are incompatible, BIG-IQ displays a yellow triangle next to the device in the BIG-IP Device inventory.

When you upgrade a BIG-IP device running version 11.5.x to another 11.5.x version, or to an 11.6.x version (for example, from version 11.5.3 to 11.5.4, or from version 11.5.3 to version 11.6.1), you must upgrade the REST framework so BIG-IQ can manage the device.

When you upgrade BIG-IQ from version 5.x to the latest version, you must also upgrade the REST framework for all BIG-IP devices (currently in the BIG-IP Device inventory) running a version prior to 12.0.0.

1. At the top of the screen, click **Devices**.
2. Select the check box next to a device, click the **More** button, and select **Upgrade Framework**. A popup screen opens.
3. Into the fields, type the required credentials, and click the **Continue** button. A REST Framework upgrade in progress message displays.

After the framework is updated, you can successfully manage this device.

Repeat these steps for each device.

Re-discover devices and re-import services

After you upgrade F5® BIG-IQ Centralized Management, you must rediscover your managed devices and reimport their services for AFM, ASM, DNS, and LTM so you can start managing those devices with the new features introduced in this release.

1. At the top of the screen, click **Devices**.
2. Select the check box next to the devices you want to rediscover and reimport services for.
3. Click the **More** button and select **Re-discover and Re-import**.
4. In the **Name** and **Description** fields, type a name and an optional description to identify this task.
5. For the Conflict Resolution Policy setting, select an option for how you want to handle any differences found between the configuration on BIG-IQ and the BIG-IP device during the re-discover and re-import task.
 - **Use BIG-IQ** to use the configuration setting stored on BIG-IQ if any differences are found.
 - **Use BIG-IP** to override the configuration settings stored on BIG-IQ with the settings from the BIG-IP device.

Important:

Some new features are introduced with each BIG-IQ release so it's a good idea to use the BIG-IP device's configuration after you upgrade BIG-IQ. This ensures you don't inadvertently overwrite a configuration that wasn't previously supported. BIG-IP devices are re-imported in the order listed, from top to bottom. You can use the arrow keys to change the processing order.

When you select **Use BIG-IP** to resolve conflicts, the BIG-IP device used to resolve those conflicts should appear last in the re-import list. If two or more BIG-IP devices contain the same object with different values, only the value in the last imported BIG-IP is used to resolve the conflict for all the BIG-IP devices.

-
6. If you want to save a snapshot of the BIG-IP device's configuration before importing their services, select the **Create a snapshot of the current configuration before importing** check box.
 7. Click the **Create** button at the bottom of the screen.

Legal Notices

Legal notices

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