

**F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management:  
Upgrading from BIG-IQ Version 4.5 or 4.6 to  
Version 5.1**

Version 5.1





# Table of Contents

|   |               |
|---|---------------|
| <b>Procedures: Upgrading BIG-IQ Centralized Management to version 5.0.....</b>                      | <b>5</b>      |
| What you need to do before you upgrade from BIG-IQ version 4.5 or 4.6 to BIG-IQ<br>version 5.1..... | 5             |
| How to upgrade from BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1.....                            | 5             |
| Download the BIG-IQ version 5.1 software image from F5 Networks.....                                | 6             |
| Upload the BIG-IQ version 5.1 software image to BIG-IQ version 5.0.....                             | 6             |
| Remove the secondary BIG-IQ version 5.0 from an HA pair.....  | 7             |
| Upgrade the primary BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1.....                            | 7             |
| Upgrade the BIG-IP REST framework.....  | 8             |
| Discover and import services for managed devices after upgrade.....                                 | 9             |
| Upgrade the secondary BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1.....                          | 9             |
| Re-establish the HA configuration after upgrading to BIG-IQ version 5.1.....                        | 10            |
| After you upgrade to BIG-IQ version 5.1.....  | 11            |
| <br><b>Legal Notices.....</b>   | <br><b>13</b> |
| Legal notices.....  | 13            |



# Procedures: Upgrading BIG-IQ Centralized Management to version 5.0

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## What you need to do before you upgrade from BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1

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**Important:** You can upgrade BIG-IQ® Centralized Management versions 4.5.x (including hotfixes) to version 5.1; however, we recommend that you upgrade to BIG-IQ version 4.6.x first (including hotfixes), then to version 5.1.

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Before you can upgrade the BIG-IQ® system, you must perform each of the following procedures.

| Required Task  | Notes  |
|--|--|
| Re-activate the BIG-IQ system license. You must do this on both the active and the standby BIG-IQ if they are running in an HA pair.   | For specific instructions about how to reactivate a license, refer to the <i>F5® BIG-IQ® Central Management: Licensing and Initial Setup</i> guide.  |
| Create a UCS backup of the BIG-IQ system's current configuration and store it on a remote server.  | You can restore this saved backup only to BIG-IQ running version 4.5 or 4.6. You cannot restore a backup file for BIG-IQ version 4.5 or 4.6 onto BIG-IQ running version 5.1.   |
| Decide which disk volume you want to install the upgrade on. You must have at least two volumes to upgrade BIG-IQ.   | If you are running BIG-IQ Virtual Edition and you don't have two volumes, refer to: SOL17406: Using the tmsh utility to create a new software volume for installing a new image or hotfix on the BIG-IQ system at: <a href="https://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html">https://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html</a> |
| Upgrade all managed BIG-IP devices to version 11.5.2 or later.   | SOL14592: Compatibility between BIG-IQ and BIG-IP releases at <a href="https://support.f5.com/kb/en-us/solutions/public/14000/500/sol14592.html">https://support.f5.com/kb/en-us/solutions/public/14000/500/sol14592.html</a>  |
| To make sure you've deployed all pending changes that you want to keep after upgrade, for each functional area: <ul style="list-style-type: none"><li>• Create a deployment job.</li><li>• Select all your managed devices.</li><li>• Evaluate the differences.</li><li>• Deploy the changes you want to keep after upgrading.</li></ul> | For more information about this process, review the documentation associated with the functionality you're deploying changes for.  |

After you upgrade to BIG-IQ version 5.1, some collected data and reports might not be compatible with the new version of BIG-IQ. You'll need to reconfigure some settings for certain functionality that was not retained during the upgrade process. Refer to the section titled, *After you upgrade to BIG-IQ version 5.1*.

## How to upgrade from BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1

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To upgrade F5® BIG-IQ® Centralized Management from BIG-IQ version 4.5 or 4.6 to version 5.1, you perform these procedures.

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

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1. Complete all of the pre-requisites outlined in the section titled, *What you need to do before you upgrade to BIG-IQ version 5.1.*
  2. Download the BIG-IQ version 5.1 `iso` file from the F5 Downloads site to your desktop.
  3. Upload the software image to BIG-IQ.
  4. Remove the secondary BIG-IQ system from the primary BIG-IQ system, if they are configured in an HA pair.
  5. Upgrade the primary BIG-IQ system, if they are configured in an HA pair.
  6. Discover and import services for managed devices.
  7. Upgrade the secondary BIG-IQ system, if they are configured in an HA pair.
  8. Re-establish the HA configuration, if they are configured in an HA pair.
  9. Re-specify configuration settings for some BIG-IQ functionality as outlined in the section titled, *After you upgrade to BIG-IQ version 5.1.*
- 

*Note: You might be required to upgrade the BIG-IP REST framework for managed devices before you can discover and import their services.*

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### Download the BIG-IQ version 5.1 software image from F5 Networks

Downloading a software image from F5 Networks is the first step to making it available to install on BIG-IQ<sup>®</sup> Centralized Management.

1. Log in to the F5 Downloads site, <https://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 **V5.1.0**.
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 5.1 `.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 to BIG-IQ.

### Upload the BIG-IQ version 5.1 software image to BIG-IQ version 5.0

Before you can upload the software image to BIG-IQ<sup>®</sup> Centralized Management, you must have first downloaded it from the F5 Downloads site.

Upload the BIG-IQ version 5.1 software image to make it available for this upgrade.

1. Log in to F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management with your user name and password.
2. At the top left of the screen, select **System Management** from the BIG-IQ menu.
3. On the left, click **SOFTWARE MANAGEMENT**.
4. On the left, click **THIS DEVICE > SOFTWARE MANAGEMENT > Available Images**.
5. Click the **Upload Image** button.
6. 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.
7. Click the **Upload** button.

The screen refreshes to display the progress of the upload.

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

### Remove the secondary BIG-IQ version 5.0 from an HA pair

If the F5® BIG-IQ® Centralized Management system version 5.0 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 system with your administrator user name and password.
2. At the top left of the screen, select **System Management** from the BIG-IQ menu.
3. At the top of the screen, click **Inventory**.
4. On the left, click **BIG-IQ HA**.
5. Select the check box next to the secondary BIG-IQ, and click the **Remove Device** button.  
A dialog box opens, prompting you to confirm that you want to remove the peer device from this group.
6. Click **Delete** in the dialog box to confirm the removal.

You can now upgrade the primary BIG-IQ.

### Upgrade the primary BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1

You need at least two volumes to upgrade BIG-IQ® Centralized Management. If you are running BIG-IQ Virtual Edition and don't have two volumes, refer to: *SOL17406: Using the tmsh utility to create a new software volume for installing a new image or hotfix on the BIG-IQ system* at [support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html](http://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html)

Before upgrading BIG-IQ, download the BIG-IQ version 5.1 .iso image from the F5 downloads site.

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**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.*

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The upgrade process involves installing the new version of the software, booting into that new version, and reviewing the settings on the setup screens.

1. Log in to F5® BIG-IQ® Centralized Management with your user name and password.
2. At the top left of the screen, select **System** from the BIG-IQ menu.
3. At the top of the screen, click **Configuration**.
4. On the BIG-IQ Systems panel, expand the HA Peer Group, and click the **localhost**.
5. Hover over the gear icon and then click **Properties**.  
The Localhost screen opens.
6. Click **Software Update**.  
The screen displays information about the current software.
7. Click the **Update** button.
8. From the **Software Image** list, select the BIG-IQ version 5.1 .iso image you downloaded from the F5 Downloads site.
9. If you are upgrading a BIG-IQ system running version 4.6, From the **Install Location** list, select the location to install this upgrade.
10. If you are upgrading a BIG-IQ system running version 4.6, to have BIG-IQ reboot into the volume where the new software is installed, select the **Reboot into Target Volume** check box.
11. If you are upgrading a BIG-IQ system running version 4.5, to have BIG-IQ reboot into the volume where the new software is installed, select the **Reboot After Live Install** check box.

12. Click the **Apply** button.  
A popup screen opens, prompting you to confirm the installation.
13. Click the **Continue** button.
14. Wait while BIG-IQ loads the new software and reboots.
15. Log in to the primary BIG-IQ system with your admin user name and password.  
The BIG-IQ System Setup screen opens.
16. Click the **Next** button.
17. If the License Feature Selection popup screen opens, select **BIG-IQ Central Management Console**, and then click **OK**.

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**Important:** *This choice cannot be undone. Once you license a device as a BIG-IQ Management Console, you cannot change your mind and license it as a Logging Node.*

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18. Click the **Next** button to move through the rest of the BIG-IQ System Setup screens.
19. At the last setup screen, click the **Done** button.
20. If needed, extend the `/var` partition.

The default size of the `/var` file system in a newly installed or upgraded node is 10 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. For information about how to do that, refer to: [K16103: Extending disk space on BIG-IQ Virtual Edition](#) And remember, 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, or upgrades might fail.

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**Important:** *In the unlikely event that you are unable to log in to a BIG-IQ® 7000 series platform after you upgraded it, refer to SOL40338232: The BIG-IQ system interface might be inaccessible after the BIG-IQ system is upgraded from BIG-IQ Centralized Management version 4.5.x or 4.6.0 to 5.1.0 at [support.f5.com/kb/en-us/solutions/public/k/40/sol40338232.html](http://support.f5.com/kb/en-us/solutions/public/k/40/sol40338232.html) for more information.*

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## Upgrade the BIG-IP REST framework

To properly communicate, BIG-IQ® Centralized Management and BIG-IP® devices need to be running compatible versions of the REST framework. If the REST frameworks are incompatible, BIG-IQ displays a yellow triangle next to the device in the BIG-IP Device inventory. It might take a few minutes for BIG-IQ to check the framework on all the BIG-IP devices.

1. Log in to the BIG-IQ system with your admin user name and password.
2. At the top left of the screen, select **Device Management** from the BIG-IQ menu.
3. At the top of the screen, click **Inventory**.
4. Hover over the yellow triangle to display a message to confirm that the reason it is yellow is because the REST framework for the device needs an update.
5. Select the check box next to each device you want to upgrade the framework for.  
You can upgrade the framework for multiple devices only if they have the same user name and password. Otherwise, you must select a single device to upgrade.
6. Click the **More** button, and select **Upgrade Framework**.  
A popup screen opens.
7. Into the fields, type the required credentials, and click the **Continue** button.  
A REST Framework upgrade in progress message displays.

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**Note:** *It might take a few minutes for BIG-IQ to check the framework on all the BIG-IP devices.*

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After the REST framework is updated, BIG-IQ displays the message: REST Framework upgrade is finished. Info will be updated shortly. When the information is updated, the device's status displays as *Active*.

You can now discover and import services for these devices.

### Discover and import services for managed devices after upgrade

You can discover and import services for devices only if the BIG-IP® device name displays a green icon next to it in the BIG-IP Device inventory list. If the device displays a yellow triangle, refer to the *Upgrade the BIG-IP REST framework* topic.

You discover and import services for each device in your device inventory, to start managing them after you upgrade to BIG-IQ® Centralized Management version 5.1.

1. Log in to the BIG-IQ system with your admin user name and password.
2. At the top left of the screen, select **Device Management** from the BIG-IQ menu.
3. At the top of the screen, click **Inventory**.
4. Click the name of a device in the BIG-IP Device inventory.
5. Click **Services**.
6. Click the **Discover** button next to the services you want to discover for this device.
7. Click the **Import** button next to the services you want to import for this device.
8. Click the arrow button to return to the BIG-IP Device inventory screen.  
The device should display with a green status. This means the device is active and running.
9. Repeat steps 4-7 for each device in the inventory.

After all of your devices are in an active and running state, you should upgrade the secondary BIG-IQ system. Refer to the *Upgrade the Secondary BIG-IQ* topic.

### Upgrade the secondary BIG-IQ version 4.5 or 4.6 to BIG-IQ version 5.1

After you upgrade the primary BIG-IQ® Centralized Management system to version 5.1 and discover and import services for your managed devices, you can upgrade the secondary BIG-IQ system in a HA configuration. You must have command-line access to upgrade the secondary BIG-IQ system.

You need at least two volumes to upgrade BIG-IQ. If you are running BIG-IQ Virtual Edition and you don't have two volumes, refer to: *SOL17406: Using the tmsh utility to create a new software volume for installing a new image or hotfix on the BIG-IQ system* at [support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html](http://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html)

You upgrade the secondary BIG-IQ in a HA configuration so it is running the same software version as the primary BIG-IQ.

1. Log in to the command line of the secondary BIG-IQ system as `root`, and delete any stored data by typing the following commands:
  - a) `bigstart stop restjavad`
  - b) `rm -rf /var/config/rest/storage/*`
  - c) `rm -rf /var/config/rest/index/*`
  - d) `bigstart start restjavad`
2. Log in to the secondary BIG-IQ system with your admin user name and password.
3. At the top left of the screen, select **Device** from the BIG-IQ menu.
4. At the top of the screen, click **Provisioning**.
5. Hover on the **Images** panel and click the + when it appears.

6. Click the **Choose File** button, navigate to the location where the BIG-IQ version 5.1 .iso image is located, and click the **Open** button.  
The New Software Image screen opens.
7. Click the **Upload** button.  
The software uploads to the BIG-IQ system.
8. At the top left of the screen, select **System** from the BIG-IQ menu.
9. At the top of the screen, click **Configuration**.
10. On the BIG-IQ Systems panel, expand the HA Peer Group, and click the **localhost**.
11. Hover over the gear icon and then click **Properties**.  
The Localhost screen opens.
12. Click **Software Update**.  
Information about the current software displays.
13. From the **Software Image** list, select the BIG-IQ version 5.1 .iso image you downloaded from the F5 Downloads site.
14. If you are upgrading a BIG-IQ system running version 4.6, from the **Install Location** list, select the location to install this upgrade.
15. If you are upgrading a BIG-IQ system running version 4.6, to have BIG-IQ reboot into the volume where the new software is installed, select the **Reboot into Target Volume** check box.
16. If you are upgrading a BIG-IQ system running version 4.5, to have BIG-IQ reboot into the volume where the new software is installed, select the **Reboot After Live Install** check box.
17. Click the **Apply** button.  
A popup screen opens, prompting you to confirm the installation.
18. Click the **Continue** button.
19. Wait while BIG-IQ loads the new software and reboots.
20. Log in to the secondary BIG-IQ system with your admin user name and password.  
The BIG-IQ System Setup screen opens.
21. If the License Feature Selection popup screen opens, select **BIG-IQ Central Management Console**, and then click **OK**.

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**Important:** *This choice cannot be undone. Once you license a device as a BIG-IQ Management Console, you cannot change your mind and license it as a Logging Node.*

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22. Click the **Next** button to move through the rest of the BIG-IQ System Setup screens.
23. At the last setup screen, click the **Done** button.

The secondary BIG-IQ system is now upgraded to BIG-IQ version 5.1.

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

*Re-establish the HA configuration after upgrading to BIG-IQ version 5.1*

### Re-establish the HA configuration after upgrading to BIG-IQ version 5.1

After you upgrade both F5<sup>®</sup> BIG-IQ<sup>®</sup> 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 left of the screen, select **System Management** from the BIG-IQ menu.
3. At the top of the screen, click **Inventory**.
4. On the left, click **BIG-IQ HA**.
5. Click the **Add Device** button.
6. In the **IP Address** field, type the BIG-IQ system's self IP address.

7. In the **User name** and **Password** fields, type the administrative user name and password for the system.
8. Click the **Add** button to add this device to this high availability configuration.

Both BIG-IQ systems in the HA configuration are now running BIG-IQ version 5.1.

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

### After you upgrade to BIG-IQ version 5.1

Some settings and configurations are not compatible between F5® BIG-IQ® Centralized Management version 4.5 or 4.6, and version 5.1. After you upgrade to BIG-IQ version 5.1, you need to re-specify configuration settings for any of the (following, listed) functionality that you were using before you upgraded.

#### System Management

- SMTP server settings, except for email recipients, which persist after upgrading.
- Backup Schedules, including retention policies, when upgrading from BIG-IQ version 4.5 directly to version 5.1.

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***Note:** If you upgrade from BIG-IQ version 4.6 to version 5.1, the Backup Schedules and retention policies are retained. Refer to the BIG-IQ version 5.1 release notes for more information.*

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- BIG-IQ Logging, logging nodes, and logging configuration

#### Device Management

- Backup Schedules, including retention policies, when upgrading from BIG-IQ version 4.5 directly to version 5.1.

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***Note:** If you upgrade from BIG-IQ version 4.6 to version 5.1, the Backup Schedules and retention policies are retained. Refer to the BIG-IQ version 5.1 release notes for more information.*

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#### Audit Logging:

- Archive Settings

#### Change Management:

- Configuration Snapshots
- Evaluate & Deploy

#### Network Security:

- Notification Rules and Notification Schedules
- Change Verification Reports
- Web Application Security event logs created in a previous version of BIG-IQ are not compatible with BIG-IQ version 5.1.

#### Global User Settings

- Reverts to default settings



# Legal Notices

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## Legal notices

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# Index

## A

Archive Settings  
after upgrading 11

## B

BIG-IP Device inventory  
displaying a yellow triangle 8  
BIG-IP REST framework  
upgrading 8  
BIG-IP services  
discovering and importing 9  
BIG-IQ  
after upgrading 11  
before you upgrade 5  
upgrade steps for version 4.5 and 4.6 5  
BIG-IQ HA pair  
re-establishing configuration 10  
BIG-IQ upgrade  
configuration changes required after 11  
BIG-IQ version 5.0  
upgrading an HA pair 7

## C

Change Verification Reports  
after upgrading 11  
Configuration Snapshots  
after upgrading 11

## E

Evaluate and Deploy  
after upgrading 11

## G

Global User Preferences  
after upgrading 11

## H

HA pair  
re-establishing BIG-IQ HA configuration 10

## P

Post-upgrade configuration  
settings for BIG-IQ 11  
primary BIG-IQ version 4.5 or 4.6 in HA pair  
upgrading 7

## S

secondary BIG-IQ in an HA pair

secondary BIG-IQ in an HA pair (*continued*)  
upgrading from version 4.5 or 4.6 to version 5.1 9  
secondary BIG-IQ version 5.0 in HA pair  
removing 7  
services  
discovering and importing 9  
SMTP server settings  
after upgrading 11  
software  
downloading to BIG-IQ 6  
uploading to BIG-IQ 6

## T

troubleshooting 11

## U

upgrade BIG-IQ  
overview of steps for version 4.5 and 4.6 5  
Upgrade prerequisites 5

## Y

yellow triangle  
displaying when a BIG-IP REST framework upgrade is  
required 8

