BIG-IQ® Centralized Management: Upgrading to Version 5.0

Version 5.0

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Before Upgrading to BIG-IQ version 5.0

What you need to do before you upgrade to BIG-IQ version 5.0

We want your upgrade to go smoothly, so it's important to note a couple things. First, before you start the upgrade process, there are a few tasks you need to do. Once you finish those tasks and are ready to start the upgrade, be sure to follow the process in the order specified.

Note: *Although you can upgrade BIG-IQ version 4.5.x (with hotfixes) to version 5.0; we recommend that you upgrade to BIG-IQ version 4.6.x first, (with hotfixes) then to version 5.0.*

Required tasks you must complete before you upgrade to BIG-IQ version 5.0

Before you start the process to upgrade the BIG-IQ® system, you must complete each of the following tasks.

Required Task	Notes
Reactivate the BIG-IQ license on both the active and standby systems.	For specific instructions about how to reactivate a license, refer to the *BIG-IQ® Central Management: Licensing and Initial Setup* guide.
Create a UCS backup of the BIG-IQ system's current configuration and send it to a remote server for storage.	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 5.0.
	For specific instructions about how to create a UCS backup, refer to the *BIG-IQ® Central Management: Licensing and Initial Setup* guide.
Decide which disk volume you want to install the upgrade on.	If you are running BIG-IQ Virtual Edition and you don't have at least two volumes, follow these instructions: *SOL17406: Using the tmsh utility to create a new software volume for installing a new image or hotfix on the BIG-IQ system* at `https://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html`.
Upgrade all your managed BIG-IP devices to a version compatible with BIG-IQ version 5.0.	See *SOL14592: Compatibility between BIG-IQ and BIG-IP releases* at `https://support.f5.com/kb/en-us/solutions/public/14000/500/sol14592.html` for details about what BIG-IP versions are compatible with BIG-IQ version 5.0.
To make sure you've deployed all pending changes you want to keep after the upgrade, for each functional area: • Create a deployment job. • Select all your managed devices. • Evaluate the differences. • Deploy the changes you want to keep after upgrading.	For more information about this process, review the documentation associated with the functionality you're deploying changes for.

Upgrading BIG-IQ to version 5.0

Overview: Upgrading to BIG-IQ version 5.0

To upgrade BIG-IQ® to version 5.0, perform these procedures.

Important: You must do these in the following order.

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1. Complete all of the pre-requisite tasks outlined in, *What you need to do before you upgrade to BIG-IQ version 5.0.*
2. Download the BIG-IQ version 5.0 `iso` file from the F5 Downloads site to you desktop.
3. Upload the software image to BIG-IQ.
4. If BIG-IQ is configured in an HA pair, remove the secondary BIG-IQ system from the primary BIG-IQ system.
5. If configured in an HA pair, upgrade the primary BIG-IQ system.
6. Discover and import services for managed devices.

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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7. If configured in an HA pair, upgrade the secondary BIG-IQ system.
8. If configured in an HA pair, re-establish the HA configuration.
9. Re-specify configuration settings for some BIG-IQ functionality as outlined in, *After you upgrade to BIG-IQ version 5.0.*

Downloading the BIG-IQ version 5.0 software image from F5 Networks

Before you start the upgrade process by downloading the software image to BIG-IQ®, be sure you completed all the tasks outlined in, *What you need to do before you upgrade to BIG-IQ version 5.0.*

Download the BIG-IQ version 5.0 software image from F5 Networks to make it available to upload it onto BIG-IQ.

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 **V5.0.0**.
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 5.0 `.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.

Uploading the BIG-IQ version 5.0 software image to BIG-IQ

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

Upload the BIG-IQ version 5.0 software image to make it available for this upgrade.

1. Log in to BIG-IQ system with the administrator user name and password.
2. At the top left of the screen, select **Device** from the BIG-IQ menu.
3. At the top of the screen, click **Provisioning**.
4. Hover over the Images panel, and click the + icon when it appears.
5. Click the **Choose File** button, navigate to the location where you downloaded the image, and click the **Open** button.
6. Click the **Upload** button.
   After the software image uploads, it displays on the Software Images screen.

Removing the secondary BIG-IQ from an HA pair

If the BIG-IQ® 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 system with your administrator 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, hover over the gear icon next to **localhost**, and click **Properties**.
5. If you are upgrading a BIG-IQ system running version 4.6, click the **Sync Now** button to sync with the peer BIG-IQ system.
6. On the BIG-IQ Systems panel, hover over the gear icon next to the peer device, and click **Properties**.
7. For the High Availability State property, verify this device displays as **STANDBY**.
8. Near the top right of the Properties screen, click **Remove**.
   A dialog box opens, prompting you to confirm that you want to remove the peer device from this group.
9. Click **Delete** in the dialog box to confirm the removal.

You can now upgrade this BIG-IQ.

Upgrading the primary BIG-IQ

You need at least two volumes to upgrade BIG-IQ®. 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
`https://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html?sr=54474315`
Before upgrading BIG-IQ, download the BIG-IQ version 5.0 `.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.

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 the active BIG-IQ system with your admin 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 5.0 `.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**.

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.

After upgrading to BIG-IQ version 5.0, you must discover and import services for each managed device that displays with a green icon next to it in the BIG-IP Device inventory list. If a yellow triangle displays, refer to the *Upgrading the BIG-IP REST framework* section.

Upgrading the BIG-IP REST framework

To properly communicate, BIG-IQ® 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.

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

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.

Discovering and importing services for managed devices after upgrading

You can discover and import services for devices only if the 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 *Upgrading the BIG-IP REST framework* section.

You discover and import services for each device in your device inventory, to start managing them after you upgrade to BIG-IQ® version 5.0.

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 *Upgrading the Secondary BIG-IQ* section.

Upgrading the secondary BIG-IQ

After you upgrade the primary BIG-IQ® system to version 5.0 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
`https://support.f5.com/kb/en-us/solutions/public/17000/400/sol17406.html?sr=54474315`

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 5.0 `.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 5.0 `.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**.

    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.

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 5.0.

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

After Upgrading to BIG-IQ version 5.0

Re-establishing an HA configuration

After you upgrade both BIG-IQ® 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. Type the properties for the peer BIG-IQ system you are adding, and then click the **Add** button at the bottom of the screen.
   A popup screen opens, explaining the configuration changes being made.
7. Click the **OK** button.

Both BIG-IQ systems in the HA configuration are now running BIG-IQ version 5.0.

Now you should verify that both BIG-IQ system have the same configuration.

Re-specifying configuration settings

Important: In the unlikely event 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 5.0.0 at `https://support.f5.com/kb/en-us/solutions/public/k/40/sol40338232.html` *for more information.*

Some settings and configurations are not compatible between BIG-IQ® version 4.5 or 4.6, and version 5.0. After you upgrade to BIG-IQ version 5.0, you'll need to re-specify configuration settings for any of the following functionality you were using before you upgraded.

System Management:

- SMTP server settings, except for email recipients, which persist after upgrading.
- BIG-IQ Logging, logging nodes, and logging configuration
- Backup Schedules, including retention policies, when upgrading from BIG-IQ version 4.5 directly to version 5.0. If you upgrade from BIG-IQ version 4.6 to version 5.0, the Backup Schedules and retention policies are retained. Refer to the BIG-IQ version 5.0 release notes for more information.

Audit Logging:

- Archive Settings

Device Management:

- Backup Schedules, including retention policies, when upgrading from BIG-IQ version 4.5 directly to version 5.0. If you upgrade from BIG-IQ version 4.6 to version 5.0, the Backup Schedules and retention policies are retained. Refer to the BIG-IQ version 5.0 release notes for more information.

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 5.0.

Global User Settings

- Reverts to default settings

Legal Notices

Legal notices

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