

**F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management:  
Upgrading a Data Collection Cluster to  
Version 5.3**

Version 5.3





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# Data Collection Device Cluster Upgrade Overview

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## Decide which upgrade guide to use

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There are a number of different upgrade guides you can use to upgrade the BIG-IQ<sup>®</sup> Centralized Management logging node cluster to version 5.3. To decide which guide to use, you need to consider a number of factors. First, consider which version you are upgrading from. Then use the appropriate table to determine which guide is most appropriate for your business needs.

### Upgrading from version 5.0

To upgrade from version 5.0, use the guide on [support.f5.com](http://support.f5.com) titled: *F5 BIG-IQ Centralized Management: Upgrading Logging Nodes to Version 5.1*. When a task instructs you to download and install a v5.1.0 file, download and install a v5.3.0 file instead.

### Upgrading from version 5.1

To upgrade from version 5.1, you need to answer a couple of questions. Do you need to preserve the data on your logging node cluster? If so, can you allow your logging node cluster to go offline for an extended period during the upgrade?

#### **I do not need to preserve my data**

Use the guide titled: *F5 BIG-IQ Centralized Management: Upgrading Logging Nodes to Version 5.2 Without Preserving Existing Data*. When a task instructs you to download and install a v5.2.0 file, download and install a v5.3.0 file instead.

#### **I need my data and I can take my logging node cluster offline during upgrade**

Use the guide titled: *F5 BIG-IQ Centralized Management: Upgrading Logging Nodes to Version 5.2 While Preserving Existing Data*. When a task instructs you to download and install a v5.2.0 file, download and install a v5.3.0 file instead.

#### **I need to preserve my data, I have at least 3 logging nodes, and I need to minimize logging cluster downtime during upgrade**

Use the guide titled: *F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management: Upgrading a Logging Node Cluster from 5.1 to Version 5.3 with Minimal Downtime*.

### Upgrading from version 5.2

To upgrade from version 5.2, the main question to answer is whether you can allow your data collection device (DCD) cluster to go offline for an extended period during the upgrade. If you can afford the downtime, the workflow is much more straightforward and takes significantly less effort on your part.

#### **I can take my DCD cluster offline during upgrade**

Use the guide titled: *BIG-IQ<sup>®</sup> Centralized Management: Upgrading a Data Collection Cluster to Version 5.3*

#### **I need to preserve my data, I have at least 3 DCDs, and I need to minimize logging cluster downtime during upgrade**

Use the guide titled: *F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management: Upgrading a Data Collection Device Cluster from 5.2 to Version 5.3 with Minimal Downtime*

## How do I upgrade my data collection device cluster to version 5.3?

A data collection device (DCD) cluster is made up of all of your DCDs, the BIG-IQ® Centralized Management device you use to manage them, and an optional BIG-IQ peer device. If you use a DCD cluster to store and manage your alerts, events, and statistics, there are additional steps in the upgrade process.

**Important:** Using this process to upgrade the DCD cluster requires taking the cluster offline. To prevent losing data, perform this process during a maintenance window.

The diagram illustrates the process workflow.

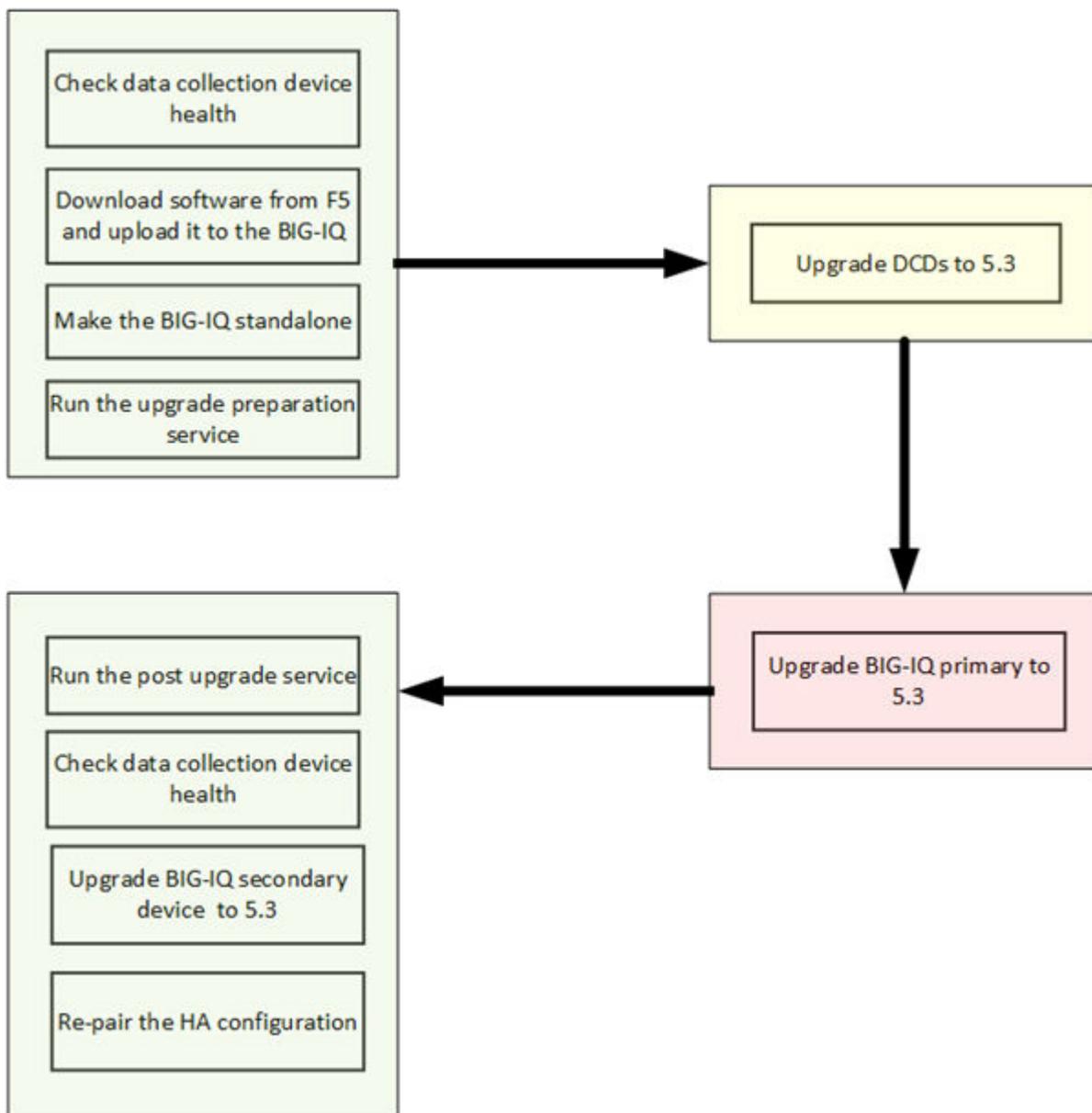


Figure 1: DCD cluster upgrade workflow

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*Note: For a successful upgrade, it is essential that you perform the tasks in the sequence detailed here. You cannot perform these tasks in parallel.*

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## Data collection device cluster update requirements

There are a number of items that you need to have ready access to, before you can successfully complete the data collection device cluster update. It might be helpful to use the following table to record the values, so you have them at hand when needed.

Device	Information needed	Information Recorded
Primary BIG-IQ Centralized Management device	Management IP address	
	admin user name and password	
	root access password	
Secondary BIG-IQ device	Management IP address	
	root access password	
	admin user name and password	
Data collection devices	Management IP address	
	root access password	

## Prepare for Data Collection Device Upgrade

### Download the BIG-IQ version 5.3 software image from F5 Networks

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

1. Log in to the F5 Downloads site, [downloads.f5.com](http://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 **V5.3.0**.
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 5.3 .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 BIG-IQ version 5.3 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 5.3 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 done 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.

### Prepare the DCD cluster for upgrade

Before you can perform the upgrade preparation task, you must:

- Download the BIG-IQ version 5.3 `.iso` image from the F5 downloads site.
- Upload the BIG-IQ version 5.3 `.iso` to your primary BIG-IQ.
- Remove the secondary BIG-IQ from your HA pair.

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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. This process can take up to an hour.*

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The upgrade preparation process readies your data collection device cluster for the upgrade process. You can opt to back up your data or discard it.

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 **THIS DEVICE > SOFTWARE MANAGEMENT > Available Images**.
4. In the list of images, select the check box next to the image you want to install, and click the **Install** button at the top of the screen
5. From the **Target Volume** list, select the volume you want to install the image on.

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**Note:** *If the Target Volume list is empty, the machine you are upgrading does not have a second volume available for you to install the upgrade. You must create one to proceed.*

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- If you selected a target volume, complete the remaining steps to finish the upgrade.
- If you do not have a second volume, use the following steps to create one:
  - Use SSH to log in to the machine you want to upgrade. You must log in as `root` to perform this procedure.
  - Create the new volume using the command `/usr/libexec/bigpipe software desired <volume name> add`, for example: `/usr/libexec/bigpipe software desired HD1.3 add`.
  - After the command executes, repeat this step; however, this time the **Target Volume** list will not be empty.
- 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.  
A dialog box opens to give you the option of saving or discarding your data.
- 8. Decide whether to save your data or discard it.
  - To back up the data on your data collection device, select **Yes, snapshot first and proceed with deactivating services (Recommended)** and then click **Continue**.
  - To discard the data on your data collection device, select **No, proceed directly to deactivating services** and then click **Continue**.

If you are backing up your data, the system creates a snapshot on an external storage location, and then deactivates the services on your BIG-IQ system. Depending on the amount of accumulated data, this step takes some time. If you do not save your data, the system begins deactivating services immediately.

9. If you chose to back up your data, but have not yet defined an external storage location, a dialog box opens so you can configure it.
  - a) In the **User name** and **Password** fields, type the user name and password for the user account configured on the external storage device.
  - b) For the **Domain**, type in the domain name for the user account configured on the external storage device.
  - c) For the **Storage Path**, type the path to the external storage location.  
You can specify the device using the IP address or the host name. Additionally, you need to specify the path to the folder on the external storage device. For example:  

```
//<storage machine ip-address>/<storage-file-path>
```
  - d) To test the settings just specified, click **Test**.  
A message displays to tell you whether the test completes successfully. If it does not, correct the settings and permissions until it completes successfully.
  - e) When the external storage is specified successfully, click **Save**.

10. Wait while BIG-IQ creates a snapshot.

Depending on the amount of data you have, 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.

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*Note: If this is the first time you have created a snapshot, this step takes significantly more time. If you have been creating regular backups, the snapshot step completes relatively quickly.*

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When the process completes, a message displays to tell you that the snapshot and deactivation have finished.

11. Click **Close** to close the de-activating services message.

Although the upgrade preparation process is now complete, you can not yet upgrade the BIG-IQ. You must upgrade your data collection devices before you can upgrade the BIG-IQ.



# Upgrade the Data Collection Devices in Your Cluster

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## Upgrading the data collection devices to version 5.3

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After you prepare the data collection device (DCD) cluster for upgrade, use these procedures to upgrade the DCDs in your cluster. Perform the following tasks for each DCD in the cluster.

1. Upload the BIG-IQ<sup>®</sup> version 5.3 software image.
2. From the BIG-IP<sup>®</sup> device(s), take the DCD out of the alert-traffic flow.
3. Deactivate data collection services.
4. Upgrade the DCD to version 5.3.
5. Confirm that the DCD is back in service.
6. Reactivate data collection services.
7. From the BIG-IP device(s), bring the DCD back online.

## What you need to do before you upgrade the data collection device from version 5.2 to 5.3

Before upgrading the F5<sup>®</sup> BIG-IQ<sup>®</sup> Centralized Management data collection device, perform these tasks.

Tasks	Additional information
Re-activate the BIG-IQ system license.	You must do this for each data collection device in the cluster. For specific instructions about how to reactivate a license, refer to the <i>F5<sup>®</sup> BIG-IQ<sup>®</sup> Central Management: Licensing and Initial Setup</i> guide.
Decide which disk volume you want to install the upgrade on. You must have at least two volumes to upgrade BIG-IQ.	If the machine you are upgrading does not have two volumes, you must create one using a sequence of <code>tmsh</code> commands. The upgrade task provides options for either case.

## Upload the BIG-IQ version 5.3 software image

Before you can upload the software image to your data collection device (DCD), you must have first downloaded it from the F5 Downloads site.

You upload the BIG-IQ<sup>®</sup> version 5.3 software image to your DCD to make it available for this upgrade.

1. At the top of the screen, click **System**.
2. 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.
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 done uploading, it shows in the Available Images list.

### Upgrade the data collection devices from version 5.2 to 5.3

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*Note: If the machine you are upgrading does not have two volumes, you must create one using a sequence of `tmsh` commands. The following steps provide options for either case.*

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Before upgrading the data collection device (DCD), you must have downloaded the BIG-IQ version 5.3 `.iso` image from the F5 downloads site.

The upgrade process installs the new version of the software on one DCD. You must repeat this process for each DCD in your cluster.

1. At the top of the screen, click **System**.
  2. 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.
  3. Select the check box for the image you want to install and click **Install**.
  4. From the **Target Volume** list, select the volume you want to install the image on.
- 

*Note: If the Target Volume list is empty, the machine you are upgrading does not have a second volume available for you to install the upgrade. You must create one to proceed.*

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- If you selected a target volume, complete the remaining steps to finish the upgrade.
  - If you do not have a second volume, use the following sequence of `tmsh` commands to install the upgrade for this machine:
    - Use SSH to log in to the machine you want to upgrade. You must log in as `root` to perform this procedure.
    - Navigate to the folder where you install software using the command: `cd /shared/images`
    - Install the upgrade to a new volume using one of the following commands:
      - If you are upgrading a virtual machine: `tmsh install sys software image <full name of the iso file> volume hd1.2 create-volume reboot`
      - If you are upgrading a BIG-IQ 7000 series platform: `tmsh install sys software image <full name of the iso file> volume md1.2 create-volume reboot`
    - While the system installs the upgrade to the new volume, you can check on the status of the upgrade using the command: `tmsh show sys soft`.
    - When the upgrade finishes installing, the machine reboots. Proceed to the next to the last (login) step in this task.
5. To prompt the data collection device to reboot into the new software installation volume, select the **Reboot into Target Volume** check box.
  6. Click the **Install** button.  
A confirmation dialog box appears.
  7. Click the **Continue** button.
  8. Wait while the data collection device loads the new software and reboots.  
Depending on your configuration and the number of devices you are managing, this could take up to 15 minutes. During this time, it is important that you not interrupt the installation process by restarting services or the server.
  9. Log back in to the data collection device to confirm that the upgrade succeeded.
  10. If needed, extend the `/var` partition.

The default size of the `/var` file system in a newly installed node is 10 GB. This volume size might be insufficient to store your data. You can see how to extend this file system to a larger size in

knowledge article K16103. refer to: K16103: Extending disk space on BIG-IQ Virtual Edition at [support.f5.com/csp/article/K16103](https://support.f5.com/csp/article/K16103). Because upgrading a node requires at least two volumes, you must ensure that both volumes can have their /var file system extended 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<sup>®</sup> 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 to 5.2.0 at [support.f5.com/kb/en-us/solutions/public/k/40/sol40338232.html](https://support.f5.com/kb/en-us/solutions/public/k/40/sol40338232.html) for more information.*

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# Upgrading BIG-IQ Centralized Management with Data Collection Devices to Version 5.3

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## What you need to do before you upgrade BIG-IQ from version 5.x to 5.3

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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 in the event you want to restore to the previous version of BIG-IQ.
Decide which disk volume you want to install the upgrade on. You must have at least two volumes to upgrade BIG-IQ.	If the machine you are upgrading does not have two volumes, you must create one using a sequence of <code>tmsh</code> commands. The upgrade task provides options for either case.
Deploy any staged configuration changes to your managed devices.	This step is required only if you are going to use the script to re-discover and re-import BIG-IP devices and services after the upgrade (as outlined in the section titled, <i>Re-discover devices and re-import services in bulk using a script</i> ). You must deploy configuration changes you have staged for your devices if you use this script, because they'll be overwritten on BIG-IQ after you run the script. If you'd rather re-discover devices and re-import services from the BIG-IQ user interface (instead of in bulk) so you can address any potential configuration conflicts for each BIG-IP device, refer to the section titled, <i>Re-discover devices and re-import services from the user interface</i> .

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 5.3. 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 5.3*.

## Upgrade 5.2 primary BIG-IQ to version 5.3

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**Note:** *If the machine you are upgrading does not have two volumes, you must create one using a sequence of `tmsh` commands. The following steps provide options for either case.*

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Before upgrading the primary BIG-IQ in a DCD cluster you must:

1. Prepare the DCD cluster for upgrade.

2. Update the DCDs in the cluster.
3. Upgrade the secondary BIG-IQ.
4. Download the BIG-IQ version 5.3 .iso image from the F5 downloads site

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

1. Log in to the primary 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.

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*Note: If the Target Volume list is empty, the machine you are upgrading does not have a second volume available for you to install the upgrade. You must create one to proceed.*

---

- If you selected a target volume, complete the remaining steps to finish the upgrade.
  - If you do not have a second volume, use the following sequence of `tmsh` commands to install the upgrade for this machine:
    - Use SSH to log in to the machine you want to upgrade. You must log in as `root` to perform this procedure.
    - Navigate to the folder where you install software using the command: `cd /shared/images`
    - Install the upgrade to a new volume using one of the following commands:
      - If you are upgrading a virtual machine: `tmsh install sys software image <full name of the iso file> volume hd1.2 create-volume reboot`
      - If you are upgrading a BIG-IQ 7000 series platform: `tmsh install sys software image <full name of the iso file> volume md1.2 create-volume reboot`
    - While the system installs the upgrade to the new volume, you can check on the status of the upgrade using the command: `tmsh show sys soft`.
    - When the upgrade finishes installing, the machine reboots. Proceed to the next to the last (login) step in this task.
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. Log in to the primary BIG-IQ to confirm that the upgrade succeeded.
  11. If needed, extend the `/var` partition.

The default size of the `/var` file system in a newly installed node is 10 GB. This volume size might be insufficient to store your data. You can see how to extend this file system to a larger size in knowledge article K16103. refer to: K16103: Extending disk space on BIG-IQ Virtual Edition at [support.f5.com/csp/article/K16103](http://support.f5.com/csp/article/K16103). Because upgrading a node requires at least two volumes, you must ensure that both volumes can have their `/var` file system extended to the same size, or 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.



# Completing Post-Upgrade Processes

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## Complete post upgrade processing

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After you upgrade the DCDs and primary BIG-IQ<sup>®</sup> in your cluster, you need to complete the post-upgrade processing. This is an automated process.

*Note: Perform this task on the DCD cluster's primary BIG-IQ system.*

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1. At the top of the screen, click **System**.
2. On the left, expand **BIG-IQ DATA COLLECTION** and then select **BIG-IQ Data Collection Devices**.  
The first time you access this screen after performing an upgrade, it triggers a dialog box that prompts you to start the post upgrade processing tasks.
3. Click **Continue**.  
The system restores your cluster to the pre-upgrade state. This includes restoring the data snapshot. Because it is restoring this snapshot for the first time (on your upgraded device), if you have a substantial amount of data, this process takes an extended amount of time.

Once your cluster is back online, you need to upgrade the secondary device and rediscover your devices to complete the upgrade.

## Upgrade the statistics agent

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If you collected statistics in version 5.2, then when you finish upgrading the primary BIG-IQ to version 5.3, you need to upgrade the statistics agent on each BIG-IP device that had statistics enabled before the upgrade.

*Note: Perform this task on the primary BIG-IQ that manages the DCD cluster.*

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1. At the top of the screen, click **Devices**.
2. Select all of the BIG-IP devices managed by this DCD cluster by 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 that you collected statistics for in version 5.2.
5. For **Frequency** select how often you want the DCD 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.

### Recheck data collection device health

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You can use the Summary Status screen to review the overall health and status of the data collection devices you've configured. You can use the data displayed on this screen both before and after an upgrade to verify that your data collection device cluster configuration is as you expect.

1. At the top of the screen, click **System**.
2. On the left, expand **BIG-IQ DATA COLLECTION** and then select **BIG-IQ Data Collection Cluster**.  
The BIG-IQ Data Collection Cluster screen opens to display summary status for the data collection device cluster. On this screen you can view information detailing how much data is stored, as well as how the data is stored.
3. Note the status icon color for the cluster. If it is not green yet, wait until it turns to green before proceeding. When the icon turns green it indicates that the primary BIG-IQ DCD cluster is functioning again.
4. Analyze the data collection device cluster details listed in the Summary area, and make sure that the values after upgrade match the values from the health check you did before the upgrade. At a minimum, you should confirm that the following values are correct:
  - Data Node Count

### Upgrade the BIG-IP framework

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To properly communicate, BIG-IQ<sup>®</sup> Centralized Management and managed BIG-IP<sup>®</sup> 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 5.3, 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 LTM, ASM, AFM, and DNS services in bulk using a script

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After you upgrade to BIG-IQ<sup>®</sup> Centralized Management version 5.3, you can use a script to re-discover devices and re-import the LTM, ASM, AFT, and DNS services in bulk. To run this script, you must have root access to the BIG-IQ command line.

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**Warning:** Before you run this script, make sure you don't have any pending configuration changes staged for your managed BIG-IP devices. This script prompts BIG-IQ to import the configurations for all your BIG-IP devices. So, if you don't deploy staged configuration changes before you run this script, you will lose them after you run the script. If you need assistance, contact F5 Support.

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Use this script to re-discover devices and re-import LTM, ASM, AFT, and DNS services all at once, so you can start managing your devices with the new version of BIG-IQ software.

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**Note:** If you'd rather re-discover devices and re-import their services individually through the user interface, refer to *Re-discover devices and re-import LTM, ASM, AFM, and DNS services from the user interface*.

---

1. Log in to the `downloads.f5.com` site, click the **Find a Download** button, and click **BIG-IQ Centralized Management**.
  2. Click the **v5.3.0** link.
  3. Review the End User Software License agreement and click the **I Accept** button to accept the terms. The Select a Download screen opens.
  4. Click the `bulkDiscovery.zip` file name, and unzip it on your local system.
  5. Log in to the BIG-IQ system as the root user and upload the script.
  6. Enable executable permissions, by typing: `chmod +x ./bulkDiscovery.pl`
- 

**Note:** To access help for this script, type `./bulkDiscovery.pl -h`

---

7. Export the IP addresses for the BIG-IP devices in your network to a CSV file, by typing: `./bulkDiscovery.pl -c masterDeviceList.csv -m -o`
  8. Re-discover your BIG-IP devices and re-import their services, by using the associated command:
- 

**Note:** This command prompts BIG-IQ to import all the configurations from the specified BIG-IP devices. It's important that you've already deployed any configuration changes you have staged for these devices, because they'll be overwritten on BIG-IQ after you run this script. If you'd rather re-discover devices and re-import services individually so you can address any potential configuration conflicts for each device, you can do that from the BIG-IQ system's user interface instead of using this script. For more information, refer to, *Re-discover devices and re-import services from the user interface*.

---

- For LTM, type `./bulkDiscovery.pl -c myDeviceList.csv -l -m`
- 

**Note:** You must re-discover devices running the LTM service before re-discovering devices running any other service.

---

- For ASM, type `./bulkDiscovery.pl -c myDeviceList.csv -l -s -m`
  - For AFM, type `./bulkDiscovery.pl -c myDeviceList.csv -l -f -m`
  - For DNS, type `./bulkDiscovery.pl -c myDeviceList.csv -l -d -m`
- 

You can now start managing your BIG-IP devices using BIG-IQ Centralized Management version 5.3.0.

## Re-discover devices and re-import LTM, ASM, AFM, and DNS services from the user interface

---

After you upgrade F5® BIG-IQ Centralized Management to version 5.3, you must rediscover your managed devices and reimport the services you use so you can start using the new features introduced in this release. This process requires you rediscover each device individually and reimport its services.

---

**Important:** If you'd rather run a Perl script to perform a bulk rediscovery of your devices and reimport of their services, refer to *Re-discover devices and re-import LTM, ASM, AFM, and DNS services using a bulk script*.

---

1. At the top of the screen, click **Devices**.
  2. Click the name of the device you want to rediscover and reimport services for.
  3. On the left, click **Services**.
  4. **Important:** To avoid any unnecessary conflicts between services, re-discover and re-import the LTM service first, before any other services.
- 

Click the **Re-discover** button next to a service.

When BIG-IQ rediscovers the service, a yellow triangle next to the **Re-import** button displays to indicate you need to re-import the service.

5. Click the **Re-Import** button.
6. If there are conflicts, select one of the following options for each object that is different, and then click the **Continue** button:
  - **Use BIG-IQ** to use the configuration settings stored on BIG-IQ.
  - **Use BIG-IP** to override the configuration setting stored on BIG-IQ with the settings from the BIG-IP device.

Perform these steps for the rest of your managed devices.

---

## Use a script to remove and recreate access groups in bulk for devices running APM services

---

After you upgrade F5 BIG-IQ Centralized Management to version 5.3, you must remove and recreate the access groups for devices running the APM service.

**Warning:** Before you run this script, make sure you don't have any pending configuration changes staged for your managed BIG-IP devices. This script prompts BIG-IQ to import the configurations for all your BIG-IP devices. So, if you don't deploy staged configuration changes before you run this script, you will lose them after you run the script. If you need assistance, contact *F5 Support*.

---

You can use this script to remove and recreate the access groups for devices running the APM service so you can start managing those devices with the new version of BIG-IQ.

**Note:** If you'd rather do this from the user interface, refer to, *Remove and recreate access groups (with SWG data) from the user interface for devices running APM services or Reimport access groups (without SWG data) from the user interface for devices running APM services*.

---

1. Log in to the BIG-IQ system as admin.
  2. At the top of the screen, select **Configuration**, then expand **ACCESS** and click **Access Groups**.
  3. In a separate file (such as a Notepad or Excel file), make a note of:
    - Each access group and the IP addresses of the devices contained within each.
    - The source device, from which you want to copy the configuration to all devices in the access group.
- 

**Note:** You'll deploy the configuration from this source device to all of the devices in the access group.

---

4. Select the check box next to each access group and click the **Remove** button.

5. Log in to the `downloads.f5.com` site, click the **Find a Download** button, and click **BIG-IQ Centralized Management**.
6. Click the **v5.3.0** link.
7. Review the End User Software License agreement and click the **I Accept** button to accept the terms. The Select a Download screen opens.
8. Click the `bulkDiscovery.zip` file name, and unzip it on your local system.
9. Log in to the BIG-IQ system as the root user and upload the script.
10. Enable executable permissions, by typing: `chmod +x ./bulkDiscovery.pl`

---

*Note: To access help for this script, type `./bulkDiscovery.pl -h`*

---

11. Export the IP addresses for the BIG-IP devices in your network to a CSV file, by typing: `./bulkDiscovery.pl -c masterDeviceList.csv -m -o`
12. For each access group:
  - a) Create a device list, by typing `cp masterDeviceList.csv <access_group_name>_devices.csv`
  - b) Edit the file as follows:
    - Remove any devices that don't belong to the access groups by comparing it to the list you made in step 3.
    - Place the source BIG-IP device you identified in step 3, at the top of the `<access_group_name>_devices.csv` file.
    - Verify the credentials for each device (the script uses ADMIN/APWD by default).
  - c) Save your changes to the file.
  - d) Import devices in the access group by typing: `./bulkDiscovery.pl -c <access_group_name>_devices.csv -g <access_group_name> -l -p -o -v`
13. Log in to the BIG-IQ system as admin.
14. At the top of the screen, select **Configuration**, then expand **ACCESS** and click **Access Groups**.
15. Review the access groups to verify all the groups properly imported.

You can now start managing your BIG-IP devices using BIG-IQ Centralized Management version 5.3.0.

## Re-import access groups (without SWG data) from the user interface for devices running APM services

---

After you upgrade F5® BIG-IQ Centralized Management to version 5.3, you must re-import the access groups running the APM service without SWG data.

Use this procedure to access groups for devices running APM services without F5 Secure Web Gateway configuration data so you can start using the new features introduced in this release.

---

**Important:** *If you'd rather use a script to do this, Use a script to remove and recreate access groups in bulk for devices running APM services. If your APM configuration includes SWG data, refer to Remove and recreate access groups (with SWG data) from the user interface for devices running APM services.*

---

1. At the top of the screen, select **Configuration**, then expand **ACCESS** and click **Access Groups**.
2. Click the name of the access group.
3. From the Device list, select from which to reimport the shared access policy configuration and click the **Reimport** button.

This device will share the access policy configuration with all other devices in this access group.

4. Select **Shared Access Group and Device Specific configuration** and click the **Reimport** button at the bottom of the screen.
5. If the differences window displays for the LTM service, select **USE\_BIGIP** and click the **Resolve** button.
6. If the differences window displays for the APM service, click the **Accept** button.
7. For the remainder of the devices in this access group:
  - a) Select the check box next to the device, and click the **Reimport** button.
  - b) Select **Device specific configuration** and click the **Reimport** button at the bottom of the screen.
  - c) If the differences window displays for the LTM service, select **USE\_BIGIP** and click the **Resolve** button.
  - d) If the differences window displays for the APM service, click the **Accept** button.
8. Repeat steps 2-7 for the rest of the access groups.

You can now start managing your BIG-IP devices using BIG-IQ Centralized Management version 5.3.0.

---

## Remove and recreate access groups (with SWG data) from the user interface for devices running APM services

---

After you upgrade F5<sup>®</sup> BIG-IQ Centralized Management to version 5.3, you must recreate the access groups running the APM service.

Use this procedure to remove and recreate access groups for devices running APM services with F5 Secure Web Gateway configuration data so you can start using the new features introduced in this release.

---

***Important:** If you'd rather use a script to do this, refer to *Use a script to remove and recreate access groups in bulk for devices running APM services*. If your APM configuration doesn't include SWG data, refer to *Reimport access groups (without SWG data) from the user interface for devices running APM services*.*

---

1. At the top of the screen, select **Configuration**, then expand **ACCESS** and click **Access Groups**.
2. In a separate file (such as a Notepad or Excel file), make a note of:
  - Each access group and the IP addresses of the devices contained within each.
  - The source device, from which you want to copy the configuration to all devices in the access group.

---

***Note:** You'll deploy the configuration from this source device to all of the devices in the access group.*

---

3. Select the check box next to each access group and click the **Remove** button.
4. Click the **Create** button.
5. Type a name for this access group in the **Name** field.
6. From the Device list, select from which to reimport the shared access policy configuration and click the **Reimport** button.

This device will share the access policy configuration with all other devices in this access group.
7. Click the **Create** button at the bottom of the screen.
8. If the differences window displays for the LTM service, select **USE\_BIGIP** and click the **Resolve** button.
9. Click the name of the access group you added.
10. Click the **Add Device** button.

11. From the Device list, select a device to add to this access group.
  12. Click the **Add** button at the bottom of the screen.
  13. If the differences window displays for the LTM service, select **USE\_BIGIP** and click the **Resolve** button.
  14. If the differences window displays for the APM service, click the **Accept** button.
  15. Repeat these steps 10-14 for each device in each access group before creating the next access group.
- You can now start managing your BIG-IP devices using BIG-IQ Centralized Management version 5.3.0.



# Legal Notices

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## Legal notices

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### **Standards Compliance**

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