



Firmware, system, and security updates

ONTAP 9

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Firmware, system, and security updates

Firmware, system, and security updates overview

Depending upon your version of ONTAP, you can enable automatic firmware, system, and security updates.

ONTAP Version	What's included in automatic updates
9.16.1 and later	<ul style="list-style-type: none">• Autonomous Ransomware Protection with Artificial Intelligence (ARP/AI)• ONTAP Time Zone Database• Storage firmware for storage devices, disks, and disk shelves• SP/BMC firmware for service processors and BMC modules
9.13.1 and later	<ul style="list-style-type: none">• ONTAP Time Zone Database• Storage firmware for storage devices, disks, and disk shelves• SP/BMC firmware for service processors and BMC modules
9.10.1 and later	<ul style="list-style-type: none">• Storage firmware for storage devices, disks, and disk shelves• SP/BMC firmware for service processors and BMC modules
9.9.1 and earlier	Not supported

If an automatic update is not available for your version of ONTAP or you don't have automatic updates enabled, you can perform firmware, Time Zone Database, and security updates manually.

Related links

- [Learn to make firmware updates manually](#)
- [Knowledge Base article, How to update time zone information in ONTAP 9](#)
- [Learn to make security updates manually](#)

Video: Automatic firmware update feature

Take a look at the automatic firmware update feature available starting in ONTAP 9.10.1.



Automatic Firmware Update feature is available starting in ONTAP 9.10.1

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How automatic updates are scheduled for installation

All eligible nodes within the same cluster are grouped together for automatic updates. The timeframe in which the eligible nodes are scheduled for automatic update varies based upon the priority level of the update and the percentage of systems in your environment that require the update.

For example, if 10% or less of your total systems are eligible for a non-priority update, the update is scheduled for all eligible systems within 1 week. However, if 76% or more of your total systems are eligible for a non-priority update, then the update is staggered across the eligible systems over the course of 8 weeks. This staggered installation helps to mitigate risks to your overall environment if there is an issue with an update that needs to be remedied.

The percentage of your total systems scheduled for automatic updates by week are as follows:

For critical updates

% of systems requiring update	% of updates that occur week 1	% of updates that occur week 2
50% or less	100%	
50-100%	30%	70%

For high priority updates

% of systems requiring update	% of updates that occur by week			
	week 1	week 2	week 3	week 4

% of systems requiring update	% of updates that occur by week			
	week 1	week 2	week 3	week 4
25% or less	100%			
26-50%	30%	70%		
50-100%	10%	20%	30%	40%

For normal priority updates

% of systems requiring update	% of updates that occur by week							
	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8
10% or less	100%							
11-20%	30%	70%						
21-50%	10%	20%	30%	40%				
51-75%	5%	10%	15%	20%	20%	30%		
76-100%	5%	5%	10%	10%	15%	15%	20%	20%

Enable automatic updates

Enabling automatic updates allows ONTAP to download and install firmware, system, and security updates without your intervention.

Availability of automatic updates vary based upon your version of ONTAP.

ONTAP Version	Available automatic updates	Enabled by default to...
9.16.1 and later	<ul style="list-style-type: none"> Autonomous Ransomware Protection with Artificial Intelligence (ARP/AI) ONTAP Time Zone Database Storage firmware for storage devices, disks, and disk shelves SP/BMC firmware for service processors and BMC modules 	Show notifications
9.13.1 and later	<ul style="list-style-type: none"> ONTAP Time Zone Database Storage firmware for storage devices, disks, and disk shelves SP/BMC firmware for service processors and BMC modules 	Update automatically

ONTAP Version	Available automatic updates	Enabled by default to...
9.10.1 and later	<ul style="list-style-type: none"> Storage firmware for storage devices, disks, and disk shelves SP/BMC firmware for service processors and BMC modules 	Update automatically

Before you begin

- You must have a current support entitlement. This can be validated on the [NetApp support site](#) in the **System Details** page.
- To enable automatic updates, you must first enable AutoSupport with HTTPS. If AutoSupport is not enabled on your cluster, or if AutoSupport is enabled on your cluster with another transport protocol, you will be given the option to enable it with HTTPS during this procedure.



AutoSupport OnDemand is enabled by default and functional when configured to send messages to technical support using HTTPS transport protocol.

About this task

Depending on your version of ONTAP, the default settings on the **Enable automatic updates** page for firmware, system, or security files will be set to either update automatically or show notifications. Be sure to confirm that these settings are correct for your environment before completing the appropriate version-specific procedure.

Example 1. Steps

ONTAP 9.16.1 and later

- In System Manager, navigate to **Cluster > Settings**.
- If you do not have AutoSupport OnDemand enabled with HTTPS, click the to enable the settings needed to proceed.
- In the **Software updates** section, click **Enable**.
- Specify the action to be taken for each update type.

You can choose to automatically update, show notifications, or automatically dismiss the updates for each update type.

- Accept the terms and conditions and select **Save**.

ONTAP 9.15.1 and earlier

- In System Manager, click **Events**.
- In the **Overview** section, next to **Enable automatic update**, click **Actions > Enable**.
- If you do not have AutoSupport with HTTPS enabled, select it to enable it.
- Accept the terms and conditions and select **Save**.

Related information


- [Prepare to use AutoSupport](#)
- [Troubleshoot AutoSupport message delivery over HTTP or HTTPS](#)

Modify automatic updates

When automatic updates are enabled, by default ONTAP automatically detects, downloads, and installs all recommended updates. If you would like to view recommended updates before they are installed, or if you would like to have the recommendations automatically dismissed, you can modify the default behavior to your preference.

Example 2. Steps

ONTAP 9.16.1 and later

1. In System Manager, navigate to **Cluster > Settings**.
2. In the **Software updates** section, select .
3. Select the **All other updates** tab and click **Edit automatic update settings**.
4. Specify the default actions to be taken for each update type.


You can choose to automatically update, show notifications, or automatically dismiss the updates for each update type.



The ONTAP Time Zone database is controlled by the **System files** update type.

5. Accept the terms and conditions and select **Save**.

ONTAP 9.15.1 and earlier

1. In System Manager, click **Cluster > Settings**.
2. In the **Automatic Update** section, click  to view a list of actions.
3. Click **Edit Automatic Update Settings**.
4. Specify the default actions to be taken for each update type.

You can choose to automatically update, show notifications, or automatically dismiss the updates for each type.








The ONTAP Time Zone database is controlled by the SYSTEM FILES update type.


Manage recommended automatic updates

The automatic update log displays a list of update recommendations and details about each one, including a description, category, scheduled time to install, status, and any errors. You can view the log and then decide what action you would like to perform for each recommendation.

Steps

1. View the list of recommendations:

View from Cluster settings	View from update tab
<p>a. Click Cluster > Settings.</p> <p>b. Do one of the following depending on your version of ONTAP:</p> <ul style="list-style-type: none"> For ONTAP 9.15.1 and earlier, in the Automatic Update section click , then click the option to view all updates. For ONTAP 9.16.1 and later, in the Software updates section, select . In the right corner of the All other updates pane, click More  then click the option to view all updates. 	<p>a. Click Cluster > Overview.</p> <p>b. In the Overview section, click More , then click ONTAP Update.</p> <p>c. Depending on your version of ONTAP do the following:</p> <ul style="list-style-type: none"> For ONTAP 9.15.1 and earlier, click Firmware Update. For ONTAP 9.16.1 and later, click All other updates. <p>d. On the update page, click More , then click the option to view all updates.</p>

- Click  next to the description to view a list of actions you can perform on the recommendation.

You can perform one of the following actions, depending on the state of the recommendation:

If the update is in this state...	You can...
Has not been scheduled	<p>Update: Starts the updating process.</p> <p>Schedule: Lets you set a date for starting the updating process.</p> <p>Dismiss: Removes the recommendation from the list.</p>
Has been scheduled	<p>Update: Starts the updating process.</p> <p>Edit Schedule: Lets you modify the scheduled date for starting the updating process.</p> <p>Cancel Schedule: Cancels the scheduled date.</p>
Has been dismissed	<p>Undismiss: Returns the recommendation to the list.</p>
Is being applied or is being downloaded	<p>Cancel: Cancels the update.</p>

Update firmware manually

Beginning with ONTAP 9.9.1, if you are registered with [Active IQ Unified Manager](#), you can receive alerts in System Manager that inform you when firmware updates for supported devices, such as disk, disk shelves, the service processor (SP), or the Baseboard Management Controller (BMC) are pending on the cluster.

If you are running ONTAP 9.8 or you are not registered with Active IQ Unified Manager, navigate to the NetApp Support Site to download firmware updates.

Before you begin

To prepare for a smooth firmware update, you should reboot the SP or BMC before the update begins. Use the `system service-processor reboot-sp -node node_name` command to reboot.

Steps

Follow the appropriate procedure based upon your version of ONTAP and if you are registered with Active IQ Unified Manager.

ONTAP 9.16.1 and later with Digital Advisor

Steps

1. In System Manager, go to **Dashboard**.

In the **Health** section, a message displays if there are any recommended firmware updates for the cluster.

2. Click on the alert message.
3. Next to the security updates in the list of recommended updates, select **Actions**.
4. Click **Update** to install the update immediately or **Schedule** to schedule it for later.

If the update is already scheduled, you can **Edit** or **Cancel** it.

ONTAP 9.9.1 to 9.15.1 with Digital Advisor

1. In System Manager, go to **Dashboard**.


In the **Health** section, a message displays if there are any recommended firmware updates for the cluster.

2. Click on the alert message.

The **Firmware Update** tab is displayed in the **Update** page.


3. Click **Download from NetApp Support Site** for the firmware update that you want to perform.

The NetApp Support Site is displayed.

4. Log into the NetApp Support Site and download the firmware image package needed for the update.
5. Copy the files to an HTTP or FTP server on your network or to a local folder.
6. In System Manager, click **Cluster > Overview**.
7. In the right corner of the **Overview** pane, click **More**  and select **ONTAP Update**.
8. Click **Firmware Update**.
9. Depending on your version of ONTAP do the following:

ONTAP 9.9.1 and 9.10.0	ONTAP 9.10.1 and later
<ol style="list-style-type: none">a. Select From Server or Local Clientb. Provide the server URL or the file location.	<ol style="list-style-type: none">a. In the list of recommended updates, select Actions.b. Click Update to install the update immediately or Schedule to schedule it for later. If the update is already scheduled, you can Edit or Cancel it.c. Select the Update Firmware button.


ONTAP 9.8 and later without Digital Advisor

1. Navigate to the [NetApp Support Site](#) and log in.
2. Select the firmware package that you want to use to update your cluster firmware.
3. Copy the files to an HTTP or FTP server on your network or to a local folder.
4. In System Manager, click **Cluster > Overview**.
5. In the right corner of the **Overview** pane, click **More**  and select **ONTAP Update** or **Software updates** (depending on your version).
6. Depending on your version of ONTAP, do the following:
 - For ONTAP 9.15.1 and earlier, click **Firmware Update**.
 - For ONTAP 9.16.1 and later, click **All other updates**.
7. Depending on your version of ONTAP do the following:

ONTAP 9.8, 9.9.1, and 9.10.0	ONTAP 9.10.1 and later
<ol style="list-style-type: none"> a. Select From Server or Local Client b. Provide the server URL or the file location. 	<ol style="list-style-type: none"> a. In the list of recommended updates, select Actions. b. Click Update to install the update immediately or Schedule to schedule it for later. If the update is already scheduled, you can Edit or Cancel it. c. Select the Update Firmware button.

After you finish

You can monitor or verify updates under **Firmware Update Summary**. To view updates that were dismissed or failed to install, do one of the following depending on your version of ONTAP:

- For ONTAP 9.15.1 and earlier, click **Cluster > Settings > Automatic Update > View All Automatic Updates**
- For ONTAP 9.16.1 and later, click **Cluster > Settings > Software updates**. In the right corner of the **All other updates** pane, click **More**  and select **View all automatic updates**.

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