



# **Firmware and system updates**

## **ONTAP 9**

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# Firmware and system updates

## Firmware and system updates overview

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

ONTAP Version	What's included in automatic updates
9.13.1 and later	<ul style="list-style-type: none"><li>• ONTAP Time Zone Database</li><li>• Storage firmware for storage devices, disks, and disk shelves</li><li>• SP/BMC firmware for service processors and BMC modules</li></ul>
9.10.1 and later	<ul style="list-style-type: none"><li>• Storage firmware for storage devices, disks, and disk shelves</li><li>• SP/BMC firmware for service processors and BMC modules</li></ul>
9.9.1 and earlier	Not supported

If you are running ONTAP 9.9.1 or earlier, or if you do not have [automatic system updates](#) enabled, you can [make firmware updates manually](#).

If you are running ONTAP 9.12.1 or earlier, or if you do not have [automatic system updates](#) enabled, you can update the Time Zone Database manually. See the Knowledge Base article, [How to update time zone information in ONTAP 9](#), for details.

## How automatic updates are scheduled for installation

The timeframe in which an automatic update is scheduled for installation 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 areas 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
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

Beginning with ONTAP 9.10.1, you can enable automatic updates to allow ONTAP to download and install firmware updates without your intervention.

Beginning in ONTAP 9.13.1, these automatic updates also include automatic Time Zone Database updates.

#### Before you begin

You must have a current support entitlement. This can be validated on the [NetApp support site](#) in the **System Details** page.

#### About this task

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.

#### Steps


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

#### Related information

## Modify automatic updates

When automatic updates are enabled, by default, ONTAP automatically detects, downloads, and installs all recommended firmware updates and, beginning with ONTAP 9.13.1, ONTAP Time Zone Database 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.

### Steps

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 event type.

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






The ONTAP Time Zone database is controlled by the SYSTEM FILES event 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 the Firmware Update tab
<div>a. Click <b>Cluster &gt; Settings</b>.</div> <div>b. In the <b>Automatic Update</b> section, click , then click <b>View All Automatic Updates</b>.</div>	<div>a. Click <b>Cluster &gt; Overview</b>.</div> <div>b. In the <b>Overview</b> section, click <b>More</b> , then click <b>ONTAP Update</b>.</div> <div>c. Select the <b>Firmware Update</b> tab.</div> <div>d. On the <b>Firmware Update</b> tab, click <b>More</b> , then click <b>View All Automatic Updates</b>.</div>

2. 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...
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Has not been scheduled	<b>Update:</b> Starts the updating process. <b>Schedule:</b> Lets you set a date for starting the updating process. <b>Dismiss:</b> Removes the recommendation from the list.
Has been scheduled	<b>Update:</b> Starts the updating process. <b>Edit Schedule:</b> Lets you modify the scheduled date for starting the updating process. <b>Cancel Schedule:</b> Cancels the scheduled date.
Has been dismissed	<b>Undismiss:</b> Returns the recommendation to the list.
Is being applied or is being downloaded	<b>Cancel:</b> Cancels the update.

## 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, you can 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. You can 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 9.9.1 and later with Active IQ

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

### ONTAP 9.8 and later without Active IQ

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

### After you finish

You can monitor or verify updates under **Firmware Update Summary**. To view updates that were dismissed or failed to install click **Cluster > Settings > Automatic Update > View All Automatic Updates**.



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