NetApp

License management

ONTAP 9

NetApp
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License management

ONTAP licensing overview

A license is a record of one or more software entitlements. Beginning with ONTAP 9.10.1, all licenses are delivered as a NetApp license file (NLF), which is a single file that enables multiple features. Beginning in May 2023, all AFF systems (both A-series and C-series) and FAS systems are sold with either the ONTAP One software suite or the ONTAP Base software suite, and beginning in June 2023, all ASA systems are sold with ONTAP One for SAN. Each software suite is delivered as a single NLF, replacing the separate NLF bundles first introduced in ONTAP 9.10.1.

Licenses included with ONTAP One

ONTAP One contains all available licensed functionality. It contains a combination of the contents of the former Core bundle, Data Protection bundle, Security and Compliance bundle, Hybrid Cloud bundle, and Encryption bundle, as shown in the table. Encryption is not available in restricted countries.

Former bundle name	ONTAP keys included
Core bundle	FlexClone
	SnapRestore
	NFS, SMB, S3
	FC, iSCSI
	NVME-oF
Security and Compliance bundle	Autonomous Ransomware Protection
	MTKM
	SnapLock
Data Protection bundle	SnapMirror (asynchronous, synchronous, Business Continuity)
	SnapCenter
	S3 SnapMirror for NetApp targets
Hybrid Cloud bundle	SnapMirror Cloud
	S3 SnapMirror for non-NetApp targets
Encryption bundle	NetApp Volume Encryption
	Trusted Platform module

Licenses not included with ONTAP One

ONTAP One does not include any of NetApp's cloud-delivered services, including the following:

- BlueXP tiering

- Cloud Insights
- BlueXP backup
- Data governance

ONTAP One for existing systems

If you have existing systems that are currently under NetApp support but have not been upgraded to ONTAP One, the existing licenses on those systems are still valid and continue to work as expected. For example, if the SnapMirror license is already installed on existing systems, it is not necessary to upgrade to ONTAP One to get a new SnapMirror license. However, if you do not have a SnapMirror license installed on an existing system, the only way to get that license is to upgrade to ONTAP One for an additional fee.

Beginning in June 2023, ONTAP systems using 28-character license keys can also upgrade to the ONTAP One or ONTAP Base compatibility bundle.

Licenses included with ONTAP Base

ONTAP Base is an optional software suite that's an alternative to ONTAP One for ONTAP systems. It is for specific use cases where data protection technologies such as SnapMirror and SnapCenter, as well as security features like Autonomous Ransomware, are not required, such as non-production systems for dedicated test or development environments. Additional licenses cannot be added to ONTAP Base. If you want additional licenses, such as SnapMirror, you must upgrade to ONTAP One.

Former bundle name	ONTAP keys included
Core bundle	FlexClone
	SnapRestore
	NFS, SMB, S3
	FC, iSCSI
	NVME-oF
Encryption bundle	NetApp Volume Encryption
	Trusted Platform module

Licenses included with ONTAP One for SAN

ONTAP One for SAN is available for ASA A-series and C-series systems. This is the only software suite available for SAN. ONTAP One for SAN contains the following licenses:

ONTAP keys included
FlexClone
SnapRestore
FC, iSCSI
NVME-oF
MTKM
SnapLock

SnapMirror (asynchronous, synchronous, Business Continuity)
SnapCenter
SnapMirror Cloud
NetApp Volume Encryption
Trusted Platform module

Other license delivery methods

In ONTAP 8.2 through ONTAP 9.9.1, license keys are delivered as 28-character strings, and there is one key per ONTAP feature. You use the ONTAP CLI to install license keys if you are using ONTAP 8.2 through ONTAP 9.9.1.

> ⓘ ONTAP 9.10.1 supports installing 28-character license keys using System Manager or the CLI. However, if an NLF license is installed for a feature, you cannot install a 28-character license key over the NetApp license file for the same feature. For information about installing NLFs or license keys using System Manager, see Install ONTAP licenses.

Related information

How to get an ONTAP One license when the system has NLFs already

How to verify ONTAP Software Entitlements and related License Keys using the Support Site

NetApp: ONTAP Entitlement Risk Status

Download NetApp license files (NLF) from NetApp Support Site

If your system is running ONTAP 9.10.1 or later, you can upgrade the bundle license files on existing systems by downloading the NLF for ONTAP One or ONTAP Core from the NetApp Support Site.

> ⓘ The SnapMirror Cloud and S3 SnapMirror licenses are not included with ONTAP One. They are part of the ONTAP One Compatibility bundle, which you can get for free if you have ONTAP One and request separately.

Steps

You can download ONTAP One license files for systems with existing NetApp license file bundles and for systems with 28-character license keys that have been converted to NetApp license files on systems running ONTAP 9.10.1 and later. For a fee, you can also upgrade systems from ONTAP Base to ONTAP One.

Upgrade existing NLF

1. Contact your NetApp sales team and request the license file bundle you want to upgrade or convert (for example, ONTAP Base to ONTAP One, or Core Bundle and Data Protection bundle to ONTAP One).

   When your request is processed, you will receive an email from netappsw@netapp.com with the subject "NetApp Software Licensing Notification for SO# [SO Number]" and the email will include a PDF attachment that includes your license serial number.

2. Log in to the NetApp Support Site.

3. Select **Systems > Software Licenses**.

4. From the menu, choose **Serial Number**, enter the serial number you received, and click **New Search**.

5. Locate the license bundle you want to convert.

6. Click **Get NetApp License File** for each license bundle and download the NLFs when they're available.

7. Install the ONTAP One file.

Upgrade NLF converted from license key

1. Log in to the NetApp Support Site.

2. Select **Systems > Software Licenses**.

3. From the menu, choose **Serial Number**, enter the system serial number, and click **New Search**.

4. Locate the license you want to convert, and in the **Eligibility** column click **Check**.

5. In the **Check Eligibility form**, click **Generate Licenses for 9.10.x and later**.

6. Close the **Check Eligibility form**.

   You will need to wait at least 2 hours for the licenses to generate.

7. Repeat Steps 1 through 3.

8. Locate the ONTAP One license, click **Get NetApp License File**, and choose the delivery method.

9. Install the ONTAP One file.

Install ONTAP licenses

You can install NetApp license files (NLFs) and license keys using System Manager, which is the preferred method for installing NLFs, or you can use the ONTAP CLI to install license keys. In ONTAP 9.10.1 and later, features are enabled with a NetApp license file, and in releases earlier than ONTAP 9.10.1, ONTAP features are enabled with license keys.

Steps

If you have already downloaded NetApp license files or license keys, you can use System Manager or the ONTAP CLI to install NLFs and 28-character license keys.

System Manager - ONTAP 9.8 and later

1. Select **Cluster > Settings**.

2. Under **Licenses**, select ➔.

3. Select **Browse**. Choose the NetApp License File you downloaded.

4. If you have license keys you want to add, select **Use 28-character license keys** and enter the keys.

System Manager - ONTAP 9.7 and earlier

1. Select **Configuration > Cluster > Licenses**.

2. Under **Licenses**, select ➔.

3. In the **Packages** window, click **Add**.

4. In the **Add License Packages** dialog box, click **Choose Files** to select the NetApp License File that you downloaded, and then click **Add** to upload the file to the cluster.

CLI

1. Add one or more license key:

```
system license add
```

The following example installs licenses from the local node "/mroot/etc/lic_file" if the file exists at this location:

```
cluster1::> system license add -use-license-file true
```

The following example adds a list of licenses with the keys AAAAAAAAAAAAAAAAAAAAAAAAAAAA and BBBBBBBBBBBBBBBBBBBBBBBBBBBB to the cluster:

```
cluster1::> system license add -license-code
AAAAAAAAAAAAAAAAAAAAAAAAAAAA, BBBBBBBBBBBBBBBBBBBBBBBBBBBB
```

Related information

Man page for system license add command.

Manage ONTAP licenses (cluster administrators only)

You can use System Manager or the ONTAP CLI to manage licenses installed on your system, including viewing the license serial number, checking the status of a license, and removing a license.

View details about a license

Steps

How you view details about a license depends on what version of ONTAP you are using and whether you use System Manager or the ONTAP CLI.

System Manager - ONTAP 9.8 and later

1. To view details about a specific feature license, select **Cluster > Settings**.

2. Under **Licenses**, select ➔.

3. Select **Features**.

4. Locate the licensed feature you want to view and select ⌄ to view the license details.

System Manager - ONTAP 9.7 and earlier

1. Select **Configuration > Cluster > Licenses**.

2. In the **Licenses** window, perform the appropriate action:

3. Click the **Details** tab.

CLI

1. Display details about an installed license:

```
system license show
```

Delete a license

System Manager - ONTAP 9.8 and later

1. To delete a license, select **Cluster > Settings**.

2. Under **Licenses**, select →.

3. Select **Features**.

4. Select the licensed feature you want to delete and **Delete legacy key**.

System Manager - ONTAP 9.7 and earlier

1. Select **Configuration > Cluster > Licenses**.

2. In the **Licenses** window, perform the appropriate action:

If you want to…	Do this…
Delete a specific license package on a node or a master license	Click the **Details** tab.
Delete a specific license package across all of the nodes in the cluster	Click the **Packages** tab.

3. Select the software license package that you want to delete, and then click **Delete**.

   You can delete only one license package at a time.

4. Select the confirmation check box, and then click **Delete**.

CLI

1. Delete a license:

   ```
   system license delete
   ```

   The following example deletes a license named CIFS and serial number 1-81-000000000000000000123456 from the cluster:

   ```
   cluster1::> system license delete -serial-number 1-81-
   000000000000000000123456 -package CIFS
   ```

   The following example deletes from the cluster all of the licenses under the installed-license Core Bundle for serial number 123456789:

   ```
   cluster1::> system license delete { -serial-number 123456789
   -installed-license "Core Bundle" }
   ```

Related information

[ONTAP CLI commands for managing licenses](#)

License types and licensed method

Understanding license types and the licensed method helps you manage the licenses in a cluster.

License types

A package can have one or more of the following license types installed in the cluster. The `system license show` command displays the installed license type or types for a package.

- Standard license (`license`)

  A standard license is a node-locked license. It is issued for a node with a specific system serial number (also known as a *controller serial number*). A standard license is valid only for the node that has the matching serial number.

  Installing a standard, node-locked license entitles a node to the licensed functionality. For the cluster to use licensed functionality, at least one node must be licensed for the functionality. It might be out of compliance to use licensed functionality on a node that does not have an entitlement for the functionality.

- Site license (`site`)

  A site license is not tied to a specific system serial number. When you install a site license, all nodes in the cluster are entitled to the licensed functionality. The `system license show` command displays site licenses under the cluster serial number.

  If your cluster has a site license and you remove a node from the cluster, the node does not carry the site license with it, and it is no longer entitled to the licensed functionality. If you add a node to a cluster that has a site license, the node is automatically entitled to the functionality granted by the site license.

- Evaluation license (`demo`)

  An evaluation license is a temporary license that expires after a certain period of time (indicated by the `system license show` command). It enables you to try certain software functionality without purchasing an entitlement. It is a cluster-wide license, and it is not tied to a specific serial number of a node.

  If your cluster has an evaluation license for a package and you remove a node from the cluster, the node does not carry the evaluation license with it.

Licensed method

It is possible to install both a cluster-wide license (the `site` or `demo` type) and a node-locked license (the `license` type) for a package. Therefore, an installed package can have multiple license types in the cluster. However, to the cluster, there is only one *licensed method* for a package. The `licensed method` field of the `system license status show` command displays the entitlement that is being used for a package. The command determines the licensed method as follows:

- If a package has only one license type installed in the cluster, the installed license type is the licensed method.

- If a package does not have any licenses installed in the cluster, the licensed method is `none`.

- If a package has multiple license types installed in the cluster, the licensed method is determined in the following priority order of the license type--`site`, `license`, and `demo`.

  For example:

  ◦ If you have a site license, a standard license, and an evaluation license for a package, the licensed method for the package in the cluster is `site`.

  ◦ If you have a standard license and an evaluation license for a package, the licensed method for the package in the cluster is `license`.

  ◦ If you have only an evaluation license for a package, the licensed method for the package in the cluster is `demo`.

Commands for managing licenses

You can use the ONTAP CLI `system license` commands to manage feature licenses for the cluster. You use the `system feature-usage` commands to monitor feature usage.

The following table lists some of the common CLI commands for managing licenses and links to the command man pages for additional information.

If you want to…	Use this command…
Display all packages that require licenses and their current license status, including the following: • The package name • The licensed method • The expiration date, if applicable	system license show-status
Display or remove expired or unused licenses	system license clean-up
Display summary of feature usage in the cluster on a per-node basis	system feature-usage show-summary
Display feature usage status in the cluster on a per-node and per-week basis	system feature-usage show-history
Display the status of license entitlement risk for each license package	system license entitlement-risk show

Related information

ONTAP 9 Commands

Knowledge Base article: ONTAP 9.10.1 and later licensing overview

Use System Manager to install a NetApp license file