



# **Manage ONTAP in the cloud**

## **ONTAP 9**

NetApp  
July 27, 2022

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# Manage ONTAP in the cloud

## Manage ONTAP in the cloud

Whether you use ONTAP in your own datacenter or in the cloud, you use the same interfaces to manage your storage. This means you already know how to manage ONTAP in the cloud. Additionally, NetApp Cloud Manager is a modern, easy-to-use graphical interface for deploying and getting started with Cloud Volumes ONTAP. There are situations when you need to perform advanced management of Cloud Volumes ONTAP or Cloud Volumes Service. You can do so using System Manager, the command line interface (CLI), or REST APIs.

**System Manager** runs on the Cloud Volumes ONTAP or Cloud Volumes Service system, enabling you to perform management tasks.

**The ONTAP CLI** enables you to execute all administrative commands and is a good choice for advanced tasks or if you are more comfortable using the CLI. You connect to the CLI using Secure Shell (SSH).

**ONTAP REST APIs** enable you to create and manage cloud volumes and develop provisioning scripts and tools. The ONTAP capabilities that are available through the Web user interface are also available through REST APIs. For some situations, this programmatic interface is more useful, especially for developers because they can automate processes involving Cloud Manager operations.

### Related information

[Connecting to Cloud Volumes ONTAP](#)

[Cloud Automation with Cloud Volumes ONTAP and REST](#)

[Cloud Manager REST API](#)

## Event and performance monitoring

When you move your on-premises workloads to the cloud, you can continue to rely on ONTAP event monitoring. EMS messages, NAS native auditing, FPolicy, and SNMP are all available in the cloud.

If you are already using System Manager or Active IQ Unified Manager for on-premises performance monitoring, you can continue to do so in the cloud. Both System Manager and Unified Manager provide detailed reporting and alerting of Cloud Volumes ONTAP health, capacity, and performance.

### Related information

[How to Define an Effective Cloud Monitoring Strategy](#)

[10 Cloud Monitoring Tools You Should Know](#)

## Volume management

Flexible and efficient volume management is the heart of the ONTAP cloud solution. ONTAP FlexVol volumes offer the same data fabric benefits, with the same data

management processes, regardless of whether they are configured on-prem in the cloud. You can also take advantage of cloud capabilities to rapidly scale workloads, increasing or decreasing capacity as needed.

Cloud volumes provide the same storage efficiencies as on-prem volumes: deduplication, compression, compaction, thin provisioning, and data tiering. In a cloud environment, this means that you pay less for underlying cloud disk usage.



There are two ways to provision volumes in the cloud:

- Create new cloud volumes.
- Replicate existing on-prem volumes to new cloud volume destination using SnapMirror technology or the Cloud Sync service.

#### Related information

[Cloud Manager: Provisioning storage](#)

[Managing volumes for Azure NetApp Files](#)

[Managing Cloud Volumes Service for AWS](#)

[Cloud Sync service](#)

## Volume move

Using ONTAP, you can move a FlexVol volume to a different local tier (aggregate), node, or both within the same storage VM (SVM) to balance storage capacity after you

determine that there is a storage capacity imbalance. With Cloud Volumes ONTAP, you can move one or more volumes to another Cloud Volumes ONTAP system or to another aggregate to avoid capacity issues. You might need to do this if the system reaches its disk limit.

**Related information**

[Cloud Volumes ONTAP: Moving volumes to another system to avoid capacity issues](#)

[Cloud Volumes ONTAP: Moving volumes to another aggregate to avoid capacity issues](#)

## ONTAP updates

NetApp releases regular updates to ONTAP to add new features and to fix known issues. You can update ONTAP in the cloud in a similar way to updating your on-premises ONTAP release. For HA configurations in the cloud, the process is nondisruptive.

**Related information**

[Upgrading Cloud Volumes ONTAP](#)

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