NetApp

Release notes

Cloud Volumes ONTAP

NetApp
August 02, 2022

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Release notes

What's new

Learn what's new with Cloud Volumes ONTAP management in Cloud Manager.

The enhancements described on this page are specific to Cloud Manager features that enable management of Cloud Volumes ONTAP. To learn what's new with the Cloud Volumes ONTAP software itself, go to the Cloud Volumes ONTAP Release Notes

31 July 2022

The following changes were introduced with the 3.9.21 release of the Connector.

MTEKM license

The Multi-tenant Encryption Key Management (MTEKM) license is now included with new and existing Cloud Volumes ONTAP systems running version 9.11.1 or later.

Multi-tenant external key management enables individual storage VMs (SVMs) to maintain their own keys through a KMIP server when using NetApp Volume Encryption.

Learn how to encrypt volumes with NetApp encryption solutions.

Proxy server

Cloud Manager now automatically configures your Cloud Volumes ONTAP systems to use the Connector as a proxy server, if an outbound internet connection isn't available to send AutoSupport messages.

AutoSupport proactively monitors the health of your system and sends messages to NetApp technical support.

The only requirement is to ensure that the Connector's security group allows *inbound* connections over port 3128. You'll need to open this port after you deploy the Connector.
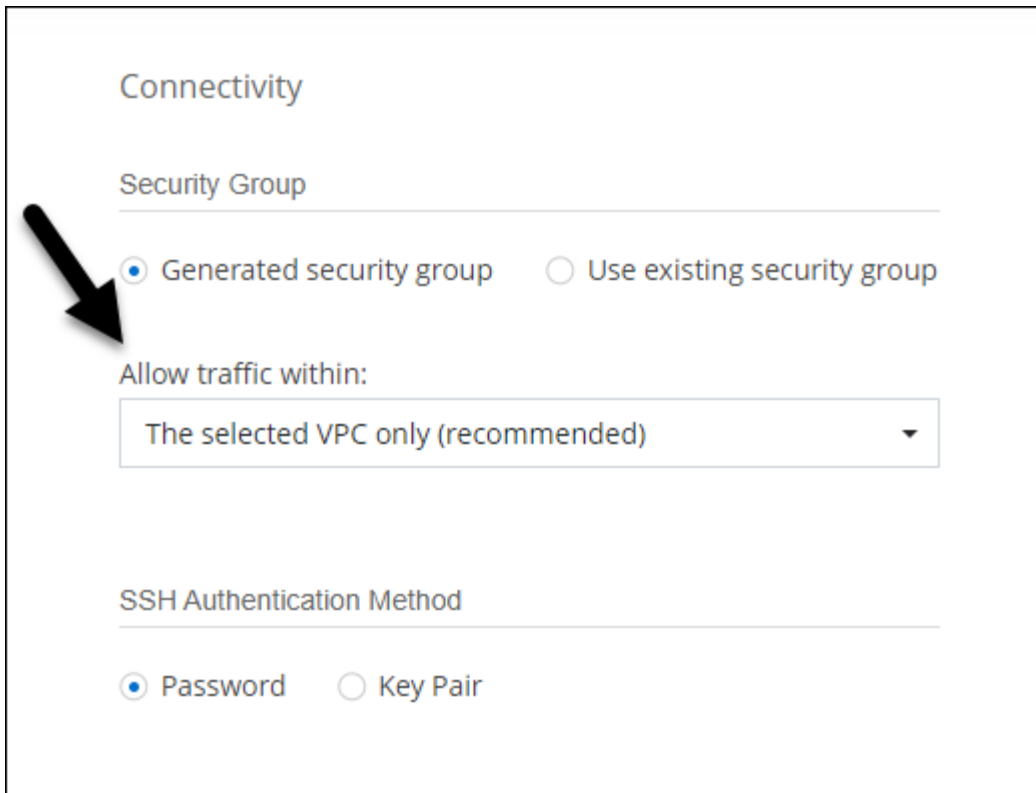
Change charging method

You can now change the charging method for a Cloud Volumes ONTAP system that uses capacity-based licensing. For example, if you deployed a Cloud Volumes ONTAP system with the Essentials package, you can change it to the Professional package if your business needs changed. This feature is available from the Digital Wallet.

Learn how to change charging methods.

Security group enhancement

When you create a Cloud Volumes ONTAP working environment, the user interface now enables you to choose whether you want the predefined security group to allow traffic within the selected network only (recommended) or all networks.

18 July 2022

New licensing packages in Azure

Two new capacity-based licensing packages are available for Cloud Volumes ONTAP in Azure when you pay through an Azure Marketplace subscription:

- **Optimized**: Pay for provisioned capacity and I/O operations separately
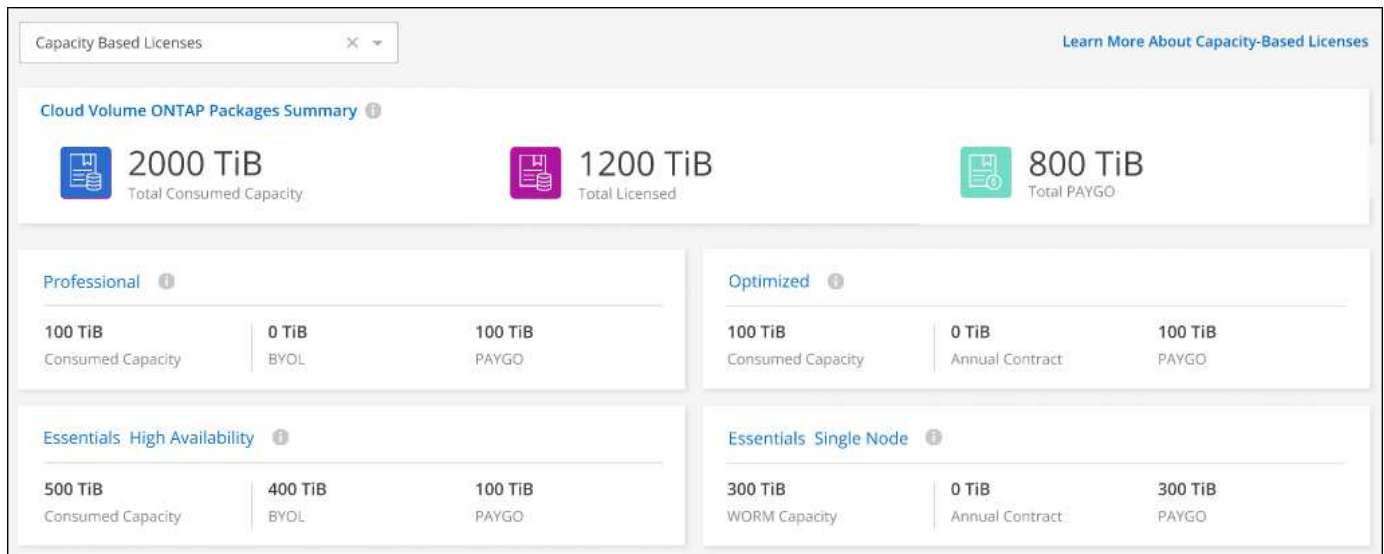- **Edge Cache**: Licensing for Cloud Volumes Edge Cache

Learn more about these licensing packages.

3 July 2022

The following changes were introduced with the 3.9.20 release of the Connector.

Digital Wallet

The Digital Wallet now shows you the total consumed capacity in your account and the consumed capacity by licensing package. This can help you understand how you're being charged and whether you need to purchase additional capacity.

New Azure Cloud region support

Starting with the 9.10.1 release, Cloud Volumes ONTAP is now supported in the Azure West US 3 region.

View the full list of supported regions for Cloud Volumes ONTAP

ONTAP S3 license in Azure

An ONTAP S3 license is now included on new and existing Cloud Volumes ONTAP systems running version 9.9.1 or later in Azure.

Learn how to configure and manage S3 object storage services in ONTAP

7 June 2022

The following changes were introduced with the 3.9.19 release of the Connector.

Cloud Volumes ONTAP 9.11.1

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.11.1, which includes support for new features and additional cloud provider regions.

Learn about the new features included in this release of Cloud Volumes ONTAP

New Advanced View

If you need to perform advanced management of Cloud Volumes ONTAP, you can do so using ONTAP System Manager, which is a management interface that's provided with an ONTAP system. We have included the System Manager interface directly inside Cloud Manager so that you don't need to leave Cloud Manager for advanced management.

This Advanced View is available as a Preview with Cloud Volumes ONTAP 9.10.0 and later. We plan to refine this experience and add enhancements in upcoming releases. Please send us feedback by using the in-product chat.

Learn more about the Advanced View.

Limited network access when using service endpoints

Cloud Manager now limits network access when using a VNet service endpoint for connections between Cloud Volumes ONTAP and storage accounts. Cloud Manager uses a service endpoint if you disable Azure Private Link connections.

Learn more about Azure Private Link connections with Cloud Volumes ONTAP.

2 May 2022

The following changes were introduced with the 3.9.18 release of the Connector.

Cloud Volumes ONTAP 9.11.0

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.11.0.

Learn about the new features included in this release of Cloud Volumes ONTAP.

Enhancement to mediator upgrades

When Cloud Manager upgrades the mediator for an HA pair, it now validates that a new mediator image is available before it deletes the boot disk. This change ensures that the mediator can continue to operate successfully if the upgrade process is unsuccessful.

K8s tab has been removed

The K8s tab was deprecated in a previous and has now been removed. If you want to use Kubernetes with Cloud Volumes ONTAP, you can add managed-Kubernetes clusters to the Canvas as a working environment for advanced data management.

Learn about Kubernetes data management in Cloud Manager

Annual contract in Azure

The Essentials and Professional packages are now available in Azure through an annual contract. You can contact your NetApp sales representative to purchase an annual contract. The contract is available as a private offer in the Azure Marketplace.

After NetApp shares the private offer with you, you can select the annual plan when you subscribe from the Azure Marketplace during working environment creation.

Learn more about licensing.

3 April 2022

System Manager link has been removed

We have removed the System Manager link that was previously available from within a Cloud Volumes ONTAP working environment.

You can still connect to System Manager by entering the cluster management IP address in a web browser that has a connection to the Cloud Volumes ONTAP system. Learn more about connecting to System Manager.

Charging for WORM storage

Now that the introductory special rate has expired, you will now be charged for using WORM storage. Charging is hourly, according to the total provisioned capacity of WORM volumes. This applies to new and existing Cloud Volumes ONTAP systems.

Learn about pricing for WORM storage.

27 February 2022

The following changes were introduced with the 3.9.16 release of the Connector.

Redesigned volume wizard

The create new volume wizard that we recently introduced is now available when creating a volume on a specific aggregate from the **Advanced allocation** option.

Learn how to create volumes on a specific aggregate.

9 February 2022

Marketplace updates

- The Essentials package and Professional package are now available in all cloud provider marketplaces.

  These by-capacity charging methods enable you to pay by the hour or to purchase an annual contract directly from your cloud provider. You still have the option to purchase a by-capacity license directly from NetApp.

  If you have an existing subscription in a cloud marketplace, you're automatically subscribed to these new offerings as well. You can choose by-capacity charging when you deploy a new Cloud Volumes ONTAP working environment.

  If you're a new customer, Cloud Manager will prompt you to subscribe when you create a new working environment.

- By-node licensing from all cloud provider marketplaces is deprecated and no longer available for new subscribers. This includes annual contracts and hourly subscriptions (Explore, Standard, and Premium).

  This charging method is still available for existing customers who have an active subscription.

Learn more about the licensing options for Cloud Volumes ONTAP.

6 February 2022

Exchange unassigned licenses

If you have an unassigned node-based license for Cloud Volumes ONTAP that you haven't used, you can now exchange the license by converting it to a Cloud Backup license, Cloud Data Sense license, or Cloud Tiering license.

This action revokes the Cloud Volumes ONTAP license and creates a dollar-equivalent license for the service with the same expiry date.

Learn how to exchange unassigned node-based licenses.

30 January 2022

The following changes were introduced with the 3.9.15 release of the Connector.

Redesigned licensing selection

We redesigned the licensing selection screen when creating a new Cloud Volumes ONTAP working environment. The changes highlight the by-capacity charging methods that were introduced in July 2021 and support upcoming offerings through the cloud provider marketplaces.

Digital Wallet update

We updated the **Digital Wallet** by consolidating Cloud Volumes ONTAP licenses in a single tab.

2 January 2022

The following changes were introduced with the 3.9.14 release of the Connector.

Support for additional Azure VM types

Cloud Volumes ONTAP is now supported with the following VM types in Microsoft Azure, starting with the 9.10.1 release:

- E4ds_v4
- E8ds_v4
- E32ds_v4
- E48ds_v4

Go to the Cloud Volumes ONTAP Release Notes for more details about supported configurations.

FlexClone charging update

If you use a capacity-based license for Cloud Volumes ONTAP, you are no longer charged for the capacity used by FlexClone volumes.

Charging method now displayed

Cloud Manager now shows the charging method for each Cloud Volumes ONTAP working environment in the right panel of the Canvas.

Choose your user name

When you create a Cloud Volumes ONTAP working environment, you now have the option to enter your preferred user name, instead of the default admin user name.

Volume creation enhancements

We made a few enhancements to volume creation:

- We redesigned the create volume wizard for ease of use.
- Tags that you add to a volume are now associated with the Application Templates service, which can help you organize and simplify the management of your resources.

- You can now choose a custom export policy for NFS.

28 November 2021

The following changes were introduced with the 3.9.13 release of the Connector.

Cloud Volumes ONTAP 9.10.1

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.10.1.

Learn about the new features included in this release of Cloud Volumes ONTAP.

Keystone Flex Subscriptions

You can now use Keystone Flex Subscriptions to pay for Cloud Volumes ONTAP HA pairs.

A Keystone Flex Subscription is a pay-as-you-grow subscription-based service that delivers a seamless hybrid cloud experience for those preferring OpEx consumption models to upfront CapEx or leasing.

A Keystone Flex Subscription is supported with all new versions of Cloud Volumes ONTAP that you can deploy from Cloud Manager.

- Learn more about Keystone Flex Subscriptions.
- Learn how to get started with Keystone Flex Subscriptions in Cloud Manager.

Port reduction

Ports 8023 and 49000 are no longer open on Cloud Volumes ONTAP systems in Azure for both single node systems and HA pairs.

This change applies to *new* Cloud Volumes ONTAP systems starting with the 3.9.13 release of the Connector.

4 October 2021

The following changes were introduced with the 3.9.11 release of the Connector.

Cloud Volumes ONTAP 9.10.0

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.10.0.

Learn about the new features included in this release of Cloud Volumes ONTAP.

Reduced deployment time

We reduced the amount of time that it takes to deploy a Cloud Volumes ONTAP working environment in Microsoft Azure or in Google Cloud when normal write speed is enabled. The deployment time is now 3-4 minutes shorter on average.

2 September 2021

The following changes were introduced with the 3.9.10 release of the Connector.

Customer-managed encryption key in Azure

Data is automatically encrypted on Cloud Volumes ONTAP in Azure using Azure Storage Service Encryption with a Microsoft-managed key. But you can now use your own customer-managed encryption key instead by completing the following steps:

1. From Azure, create a key vault and then generate a key in that vault.
2. From Cloud Manager, use the API to create a Cloud Volumes ONTAP working environment that uses the key.

Learn more about these steps.

7 July 2021

The following changes were introduced with the 3.9.8 release of the Connector.

New charging methods

New charging methods are available for Cloud Volumes ONTAP.

- **Capacity-based BYOL**: A capacity-based license enables you to pay for Cloud Volumes ONTAP per TiB of capacity. The license is associated with your NetApp account and enables you to create as multiple Cloud Volumes ONTAP systems, as long as enough capacity is available through your license. Capacity-based licensing is available in the form of a package, either *Essentials* or *Professional*.

- **Freemium offering**: Freemium enables you to use all Cloud Volumes ONTAP features free of charge from NetApp (cloud provider charges still apply). You're limited to 500 GiB of provisioned capacity per system and there's no support contract. You can have up to 10 Freemium systems.

    Learn more about these licensing options.

    Here's an example of the charging methods that you can choose from:

WORM storage available for general use

Write once, read many (WORM) storage is no longer in Preview and is now available for general use with Cloud Volumes ONTAP. Learn more about WORM storage.

Select existing Azure resource groups

When creating a Cloud Volumes ONTAP system in Azure, you now have the option to select an existing resource group for the VM and its associated resources.

The following permissions enable Cloud Manager to remove Cloud Volumes ONTAP resources from a resource group, in case of deployment failure or deletion:

```
"Microsoft.Network/privateEndpoints/delete",
"Microsoft.Compute/availabilitySets/delete",
```

Be sure to provide these permissions to each set of Azure credentials that you've added to Cloud Manager. View the latest Connector policy for Azure.

Blob public access now disabled in Azure

As a security enhancement, Cloud Manager now disables **Blob public access** when creating a storage account for Cloud Volumes ONTAP.

Azure Private Link enhancement

By default, Cloud Manager now enables an Azure Private Link connection on the boot diagnostics storage account for new Cloud Volumes ONTAP systems.

This means *all* storage accounts for Cloud Volumes ONTAP will now use a private link.

Learn more about using an Azure Private Link with Cloud Volumes ONTAP.

30 May 2021

The following changes were introduced with the 3.9.7 release of the Connector.

Minimum cooling period for auto tiering policy

If you enabled data tiering on a volume using the *auto* tiering policy, you can now adjust the minimum cooling period using the API.

Learn how to adjust the minimum cooling period.

Enhancement to custom export policies

When you create a new NFS volume, Cloud Manager now displays custom export policies in ascending order, making it easier for you to find the export policy that you need.

Deletion of old cloud snapshots

Cloud Manager now deletes older cloud snapshots of root and boot disks that are created when a Cloud Volumes ONTAP system is deployed and every time its powered down. Only the two most recent snapshots are retained for both the root and boot volumes.

This enhancement helps reduce cloud provider costs by removing snapshots that are no longer needed.

Note that a Connector requires a new permission to delete Azure snapshots. View the latest Connector policy for Azure.

```
"Microsoft.Compute/snapshots/delete"
```

24 May 2021

Cloud Volumes ONTAP 9.9.1

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.9.1.

Learn about the new features included in this release of Cloud Volumes ONTAP.

11 Apr 2021

The following changes were introduced with the 3.9.5 release of the Connector.

Logical space reporting

Cloud Manager now enables logical space reporting on the initial storage VM that it creates for Cloud Volumes ONTAP.

When space is reported logically, ONTAP reports the volume space such that all the physical space saved by the storage efficiency features are also reported as used.

TLS 1.2 for Azure storage accounts

When Cloud Manager creates storage accounts in Azure for Cloud Volumes ONTAP, the TLS version for the storage account is now version 1.2.

8 Mar 2021

The following changes were introduced with the 3.9.4 release of the Connector.

Cloud Volumes ONTAP 9.9.0

Cloud Manager can now deploy and manage Cloud Volumes ONTAP 9.9.0.

Learn about the new features included in this release of Cloud Volumes ONTAP.

Support for Azure DoD

You can now deploy Cloud Volumes ONTAP 9.8 in the Azure Department of Defense (DoD) Impact Level 6 (IL6).

4 Jan 2021

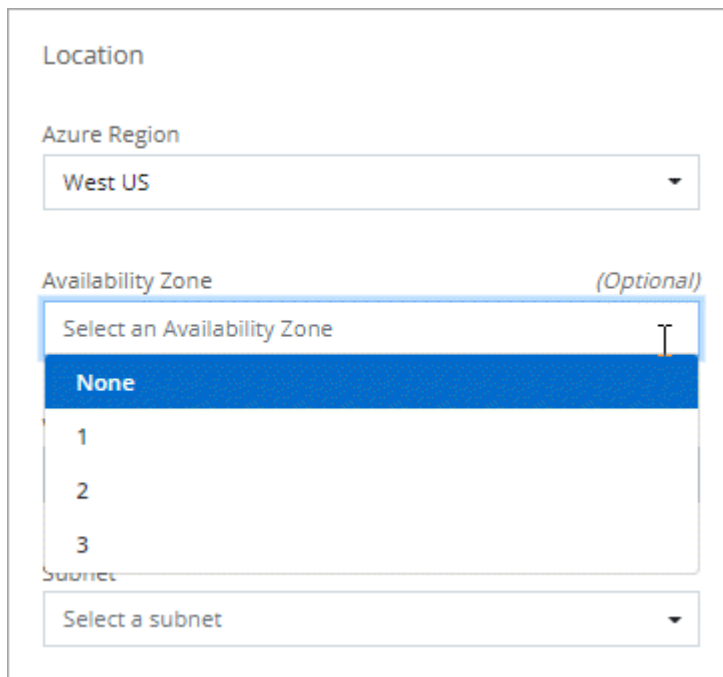The following changes were introduced with the 3.9.2 release of the Connector.

Ultra SSD VNVRAM in supported Azure regions

Cloud Volumes ONTAP can now use an Ultra SSD as VNVRAM when you use the E32s_v3 VM type with a single node system in any supported Azure region.

VNVRAM provides better write performance.

Choose an Availability Zone in Azure

You can now choose the Availability Zone in which you'd like to deploy a single node Cloud Volumes ONTAP system. If you don't select an AZ, Cloud Manager will select one for you.

3 Nov 2020

The following changes were introduced with the 3.9.0 release of the Connector.

Azure Private Link for Cloud Volumes ONTAP

By default, Cloud Manager now enables an Azure Private Link connection between Cloud Volumes ONTAP and its associated storage accounts. A Private Link secures connections between endpoints in Azure.

- Learn more about Azure Private Links
- Learn more about using an Azure Private Link with Cloud Volumes ONTAP

Known limitations

Known limitations identify platforms, devices, or functions that are not supported by this release of the product, or that do not interoperate correctly with it. Review these limitations carefully.

These limitations are specific to Cloud Volumes ONTAP management in Cloud Manager. To view limitations with the Cloud Volumes ONTAP software itself, go to the Cloud Volumes ONTAP Release Notes

Cloud Manager doesn't support FlexGroup volumes

While Cloud Volumes ONTAP supports FlexGroup volumes, Cloud Manager does not. If you create a FlexGroup volume from System Manager or from the CLI, then you should set Cloud Manager's Capacity Management mode to Manual. Automatic mode might not work properly with FlexGroup volumes.

Cloud Manager doesn't support S3 with Cloud Volumes ONTAP

While Cloud Volumes ONTAP supports S3 as an option for scale-out storage in some cloud providers, Cloud Manager doesn't provide any management capabilities for this feature. Using the CLI is the best practice to configure S3 client access from Cloud Volumes ONTAP. For details, refer to the S3 Configuration Power Guide.

Learn more about Cloud Volumes ONTAP support for S3 and other client protocols.

Cloud Manager doesn't support disaster recovery for storage VMs

Cloud Manager doesn't provide any setup or orchestration support for storage VM disaster recovery. You must use System Manager or the CLI.

- SVM Disaster Recovery Preparation Express Guide
- SVM Disaster Recovery Express Guide

Cloud Volumes ONTAP Release Notes

The Release Notes for Cloud Volumes ONTAP provide release-specific information. What's new in the release, supported configurations, storage limits, and any known limitations or issues that can affect product functionality.

Go to the Cloud Volumes ONTAP Release Notes