



## What's new

### Cloud Volumes ONTAP 9.12.1 release notes

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# What's new in Cloud Volumes ONTAP 9.12.1

Cloud Volumes ONTAP 9.12.1 includes new enhancements.

Additional features and enhancements are also introduced in the latest versions of BlueXP (formerly Cloud Manager). See the [BlueXP Release Notes](#) for details.

## 9.12.1 RC1 (8 December 2022)

Cloud Volumes ONTAP 9.12.1 Release Candidate 1 is now available in AWS, Azure, and Google Cloud. This release includes the following new features and enhancements.

### ONTAP S3 license in GCP

An ONTAP S3 license is now included on new and existing Cloud Volumes ONTAP systems running version 9.12.1 or later in Google Cloud Platform.

[Learn how to configure and manage S3 object storage services in ONTAP](#)

### NVMe-TCP support in Cloud Volumes ONTAP

NVMe-TCP is supported for cloud providers if you are using Cloud Volumes ONTAP version 9.12.1 or newer. BlueXP does not provide any management capabilities for NVMe-TCP.

For more information on configuring NVMe through ONTAP, see [Configure a storage VM for NVMe](#).

### Azure HA in a single availability zone with shared managed disks

You can now deploy a Cloud Volumes ONTAP HA configuration using Microsoft Azure locally redundant storage (LRS) running on top of shared managed disks. Locally redundant storage replicates your data three times within a single data center in the same region.

For more information about the HA configuration architecture and components, see [High-availability pairs in Azure](#).

When you deploy a new HA pair in Azure in a single availability zone, you will now be using LRS shared managed disks rather than page blobs for storage. There's no change to the Working Environment wizard. You simply need to choose a Single Availability Zone to use this new configuration. For details, see [Launching a Cloud Volumes ONTAP HA pair in Azure](#).

### Azure HA in multiple availability zones with shared managed disks

You can now deploy a Cloud Volumes ONTAP HA configuration using Azure multiple availability zones within a region. The new configuration protects against data center failure and maintains application availability with the use of Azure zone-redundant storage (ZRS) shared managed disks. This feature is currently available only in the West US 2, West Europe, North Europe, and France Central regions.

For more information about the HA configuration architecture and components, see [High-availability pairs in Azure](#).

To use this new configuration, see [Launching a Cloud Volumes ONTAP HA pair in Azure](#).

To learn more about zone-redundant storage for managed disks, refer to [Microsoft Azure's documentation](#).

## Upgrade notes

Read through these notes to learn more about upgrading to this release.

### How to upgrade

Upgrades of Cloud Volumes ONTAP must be completed from BlueXP. You should not upgrade Cloud Volumes ONTAP by using System Manager or the CLI. Doing so can impact system stability.

[Learn how to upgrade when BlueXP notifies you.](#)

### Supported upgrade path

You can upgrade to Cloud Volumes ONTAP 9.12.1 from the 9.12.0 and 9.11.1 releases. BlueXP will prompt you to upgrade eligible Cloud Volumes ONTAP systems to this release.

### Required version of the Connector

The BlueXP Connector must be running version 3.9.24 or later to deploy new Cloud Volumes ONTAP 9.12.1 systems and to upgrade existing systems to 9.12.1.



Automatic upgrades of the Connector are enabled by default so you should be running the latest version.

### Downtime

- The upgrade of a single node system takes the system offline for up to 25 minutes, during which I/O is interrupted.
- Upgrading an HA pair is nondisruptive and I/O is uninterrupted. During this nondisruptive upgrade process, each node is upgraded in tandem to continue serving I/O to clients.

### c4, m4, and r4 instances no longer supported

In AWS, the c4, m4, and r4 EC2 instance types are no longer supported with Cloud Volumes ONTAP. If you have an existing system that's running on a c4, m4, or r4 instance type, you must change to an instance type in the c5, m5, or r5 instance family.

[Learn how to change the EC2 instance type for Cloud Volumes ONTAP.](#)

Refer to [NetApp Support](#) to learn more about the end of availability and support for these instance types.

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