Manage on-prem ONTAP clusters

On-premises ONTAP clusters

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Manage on-prem ONTAP clusters

Manage clusters that were discovered directly

If you discovered your on-prem ONTAP cluster directly without using a Connector, you can open the working environment to manage the cluster by using System Manager.

Before you begin

The computer that you're using to access the BlueXP console must have a network connection to the on-prem ONTAP cluster, similar to how you would provide connections to other resources in your private network.

Limitations

A few System Manager features are not supported from BlueXP.

Review the list of limitations.

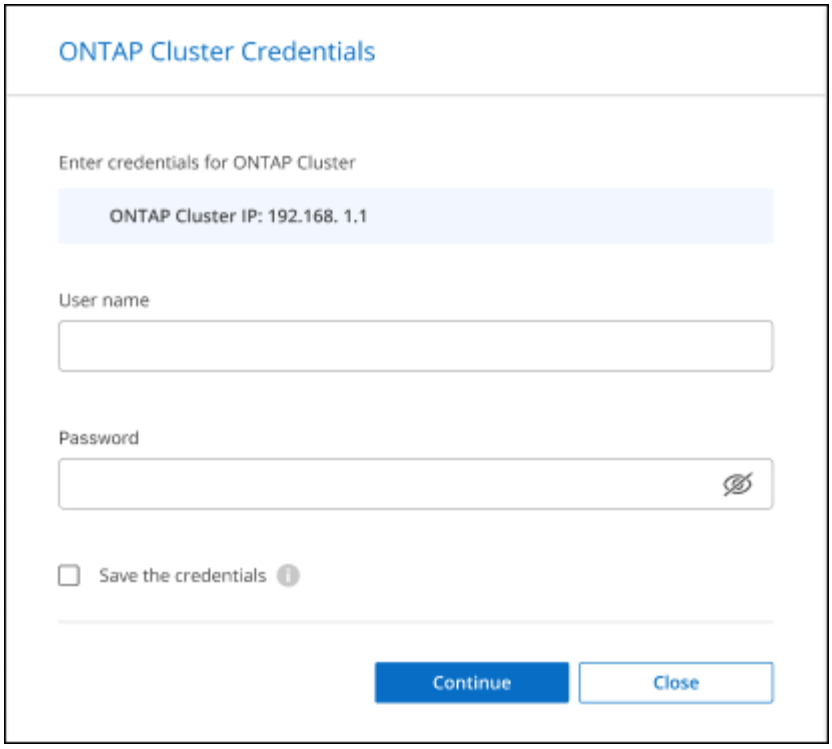
Steps

1. On the Canvas page, select the on-premises ONTAP working environment.

   The working environment icon identifies clusters that were discovered directly:

2. If prompted, enter your ONTAP credentials.

   You're prompted to log in with your ONTAP credentials each time that you open the working environment, if you don't save the credentials. You have the option to save the credentials so that you don't need to enter them each time. If you use this option, the credentials are associated with your BlueXP user only. They aren't saved for use by anyone else in your account.



3. Use System Manager to manage ONTAP.

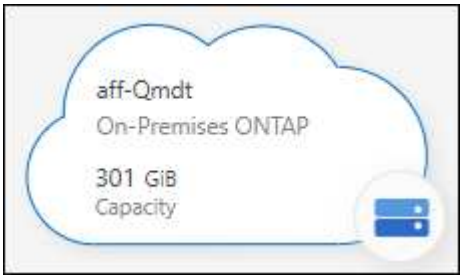
   If you need help using System Manager with ONTAP, you can refer to ONTAP documentation for step-by-step instructions. Here are a few links that might help:

   - Volume and LUN management
   - Network management
   - Data protection

Manage clusters that were discovered with a Connector

If you discovered an on-premises ONTAP cluster using a Connector, you can create volumes from the Standard view, use System Manager from the Advanced view, and enable BlueXP data services.

On the Canvas, the working environment icon for a cluster that you discovered with a Connector should look similar to the following:



If a working environment was discovered directly, the working environment icon includes the word "Direct."

Create FlexVol volumes from the Standard view

After you discover your on-prem ONTAP cluster from BlueXP using a Connector, you can open the working environment to provision and manage FlexVol volumes.

Create volumes

BlueXP enables you to create NFS or CIFS volumes on existing aggregates. You can't create new aggregates on an on-prem ONTAP cluster from the BlueXP Standard view. You need to use the Advanced view to create aggregates.

Steps

1. From the navigation menu, select **Storage > Canvas**.
2. On the Canvas page, select the on-prem ONTAP cluster on which you want to provision volumes.
3. Select **Volumes > Add Volume**.
4. Follow the steps in the wizard to create the volume.
   a. **Details, Protection, & Tags**: Enter details about the volume like its name and size and choose a Snapshot policy.

      Some of the fields on this page are self-explanatory. The following list describes fields for which you might need guidance:

Field	Description
Size	The maximum size that you can enter largely depends on whether you enable thin provisioning, which enables you to create a volume that is bigger than the physical storage currently available to it.
Snapshot Policy	A Snapshot copy policy specifies the frequency and number of automatically created NetApp Snapshot copies. A NetApp Snapshot copy is a point-in-time file system image that has no performance impact and requires minimal storage. You can choose the default policy or none. You might choose none for transient data: for example, tempdb for Microsoft SQL Server.

   b. **Protocol**: Choose the protocol for the volume (NFS, CIFS, or iSCSI) and then set the access control or permissions for the volume.

      If you choose CIFS and a server isn't set up yet, then BlueXP prompts you to set up a CIFS server using either Active Directory or a workgroup.

      The following list describes fields for which you might need guidance:

Field	Description
Access Control	An NFS export policy defines the clients in the subnet that can access the volume. By default, BlueXP enters a value that provides access to all instances in the subnet.
Permissions and Users/Groups	These fields enable you to control the level of access to an SMB share for users and groups (also called access control lists or ACLs). You can specify local or domain Windows users or groups, or UNIX users or groups. If you specify a domain Windows user name, you must include the user's domain using the format domain\username.

c. **Usage Profile**: Choose whether to enable or disable storage efficiency features on the volume in order to reduce the total amount of storage that you need.

d. **Review**: Review details about the volume and then select **Add**.

Create FlexGroup volumes

You can use the BlueXP API to create FlexGroup volumes. A FlexGroup volume is a scale-out volume that provides high performance along with automatic load distribution.

- Learn how to create a FlexGroup volume using the API
- Learn what a FlexGroup volume is

Administer ONTAP using the Advanced View (System Manager)

If you need to perform advanced management of an on-premises ONTAP cluster, 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 BlueXP so that you don't need to leave BlueXP for advanced management.

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

Features

The Advanced View in BlueXP gives you access to additional management features:

- Advanced storage management

  Manage consistency groups, shares, qtrees, quotas, and Storage VMs.

- Networking management

  Manage IPspaces, network interfaces, portsets, and ethernet ports.

- Events and jobs

  View event logs, system alerts, jobs, and audit logs.

- Advanced data protection

  Protect storage VMs, LUNs, and consistency groups.

- Host management

  Set up SAN initiator groups and NFS clients.

Supported configurations

Advanced management through System Manager is supported with on-premises ONTAP clusters running 9.10.0 or later.

System Manager integration is not supported in GovCloud regions or in regions that have no outbound internet access.

Limitations

A few System Manager features are not supported with on-premises ONTAP clusters when using the Advanced View in BlueXP.

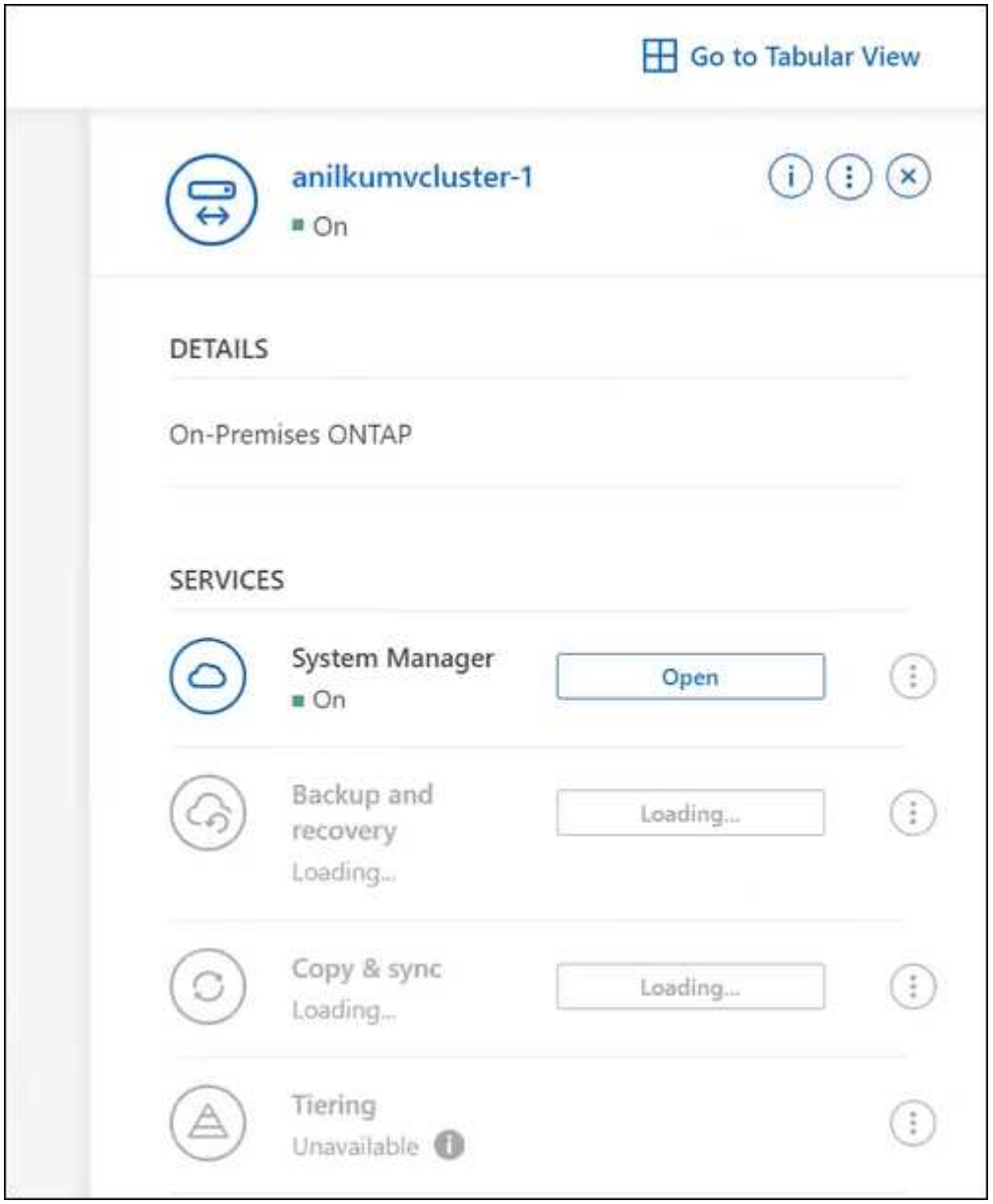
Review the list of limitations.

Use the Advanced View

Open an on-premises ONTAP working environment and select the Advanced View option.

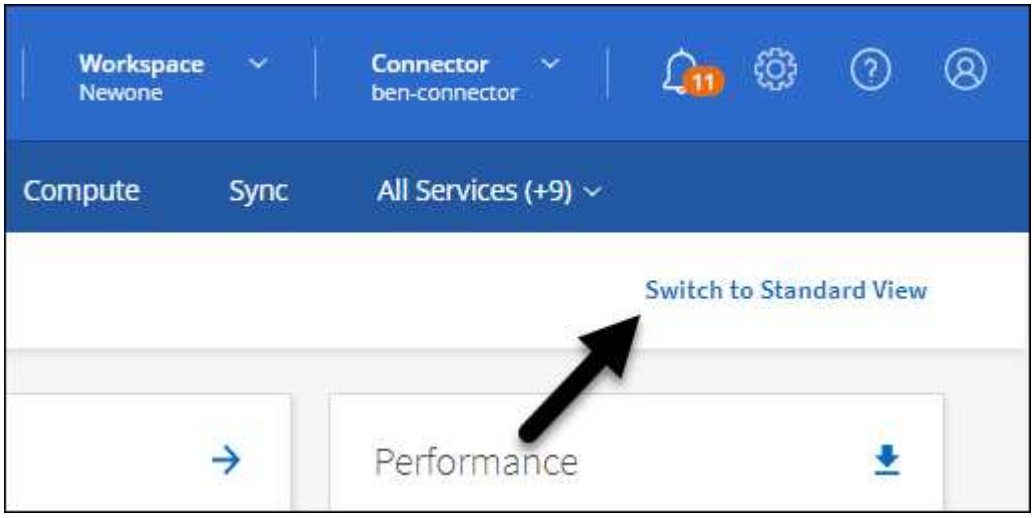
Steps

1. On the Canvas page, select the on-prem ONTAP cluster on which you want to provision volumes.
2. From the right panel, under **Services**, find **System Manager** and select **Open**.



3. If the confirmation message appears, read through it and select **Close**.
4. Use System Manager to manage ONTAP.

5. If needed, select **Switch to Standard View** to return to standard management through BlueXP.



Get help with System Manager

If you need help using System Manager with ONTAP, you can refer to ONTAP documentation for step-by-step instructions. Here are a few links that might help:

- Volume and LUN management
- Network management
- Data protection

Enable BlueXP services

Enable BlueXP data services on your working environments to replicate data, back up data, tier data, and more.

Replicate data

Replicate data between Cloud Volumes ONTAP systems, Amazon FSx for ONTAP file systems, and ONTAP clusters. Choose a one-time data replication, which can help you move data to and from the cloud, or a recurring schedule, which can help with disaster recovery or long-term data retention.

Replication documentation

Back up data

Back up data from your on-premises ONTAP system to low-cost object storage in the cloud.

Backup and recovery documentation

Scan, map, and classify your data

Scan your corporate on-premises clusters to map and classify data, and to identify private information. This can help reduce your security and compliance risk, decrease storage costs, and assist with your data migration projects.

Classification documentation

Tier data to the cloud

Extend your data center to the cloud by automatically tiering inactive data from ONTAP clusters to object storage.

Tiering documentation

Maintain health, uptime, and performance

Implement suggested remediations to ONTAP clusters before an outage or failure occurs.

Operational resiliency documentation

Identify clusters with low capacity

Identify clusters that are showing low capacity, review clusters for current and forecasted capacity, and more.

Economic efficiency documentation

View cluster information and contract details

The BlueXP digital wallet enables you to view contract details for each of your on-prem ONTAP clusters. If you haven't discovered a cluster in BlueXP yet, you can also do that from the digital wallet.

Before you begin

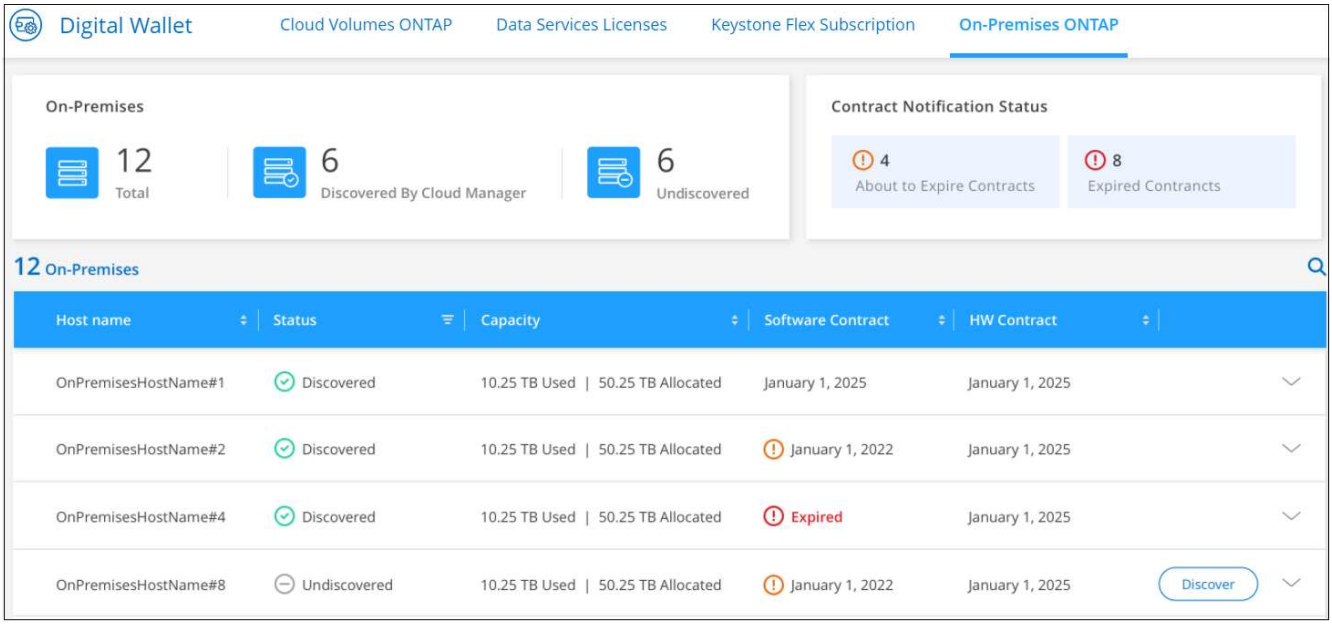
The BlueXP digital wallet displays details about the on-premises ONTAP clusters that you discovered as a working environment or that are associated with a NetApp Support Site account that you added to BlueXP.

Steps

1. From the BlueXP navigation menu, select **Governance > Digital wallet**.
2. Select **On-Premises ONTAP**.

   If you are prompted to enter your NetApp Support Site (NSS) account credentials first, enter them in the Support Dashboard. After you have added the account, the clusters that are included in that account are displayed.

   The Software Contract and Hardware Contract expiration dates appear on the line for each cluster.



3. If you haven't discovered a cluster as a working environment yet, select **Discover** and follow the prompts.

   After you discover a cluster, it's available as a working environment in BlueXP so that you can manage it.

Related link

Learn more about managing licenses for on-prem ONTAP clusters from the BlueXP digital wallet

Optimize clusters using BlueXP digital advisor

BlueXP digital advisor enables you to optimize the operations, security, and performance of your ONTAP clusters.

Features

You can view the overall status of your storage system, high-level information about the wellness of the system, inventory, planning, upgrades, and valuable insights at a watchlist level using BlueXP digital advisor.

- Analyze and optimize the health of your storage systems
- Gain insights regarding all the risks to your storage systems and the actions to mitigate the risks
- Analyze the performance of your storage devices by viewing the graphical format of performance data
- Get details about systems that have exceeded 90% capacity or are nearing 90% capacity
- Get information about the hardware and software that have expired or are near-expiration within the next 6 months
- Upgrade your storage system software, and update your ONTAP firmware using Ansible

Supported ONTAP systems

Digital advisor provides information for all the on-premises ONTAP systems and Cloud Volumes ONTAP systems associated with your NetApp Support SIte (NSS) account.

More information

Digital advisor documentation

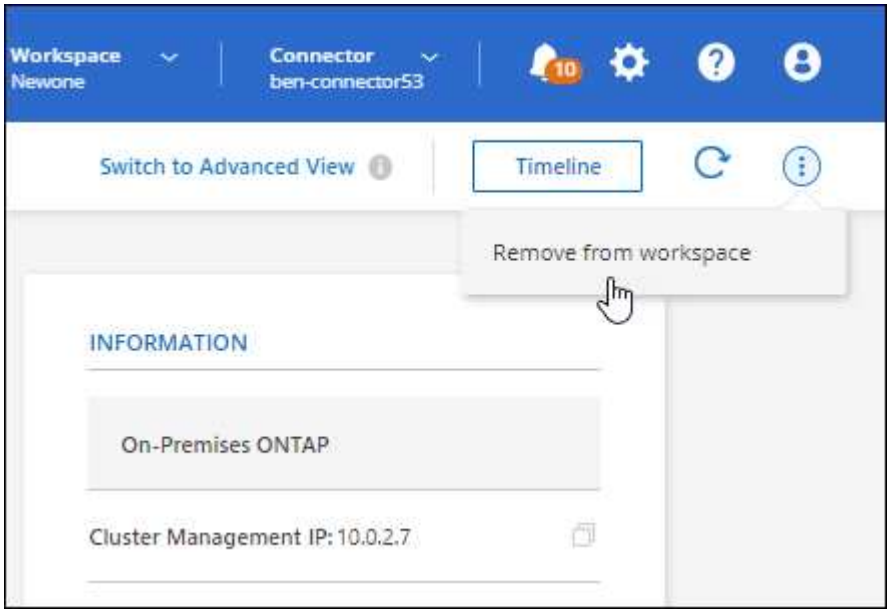
Remove an on-prem ONTAP working environment

Remove an on-premises ONTAP working environment if you no longer want to manage it from BlueXP.

Removing the working environment doesn't affect the ONTAP cluster. You can rediscover it from BlueXP at any time.

Steps

1. On the Canvas page, select the on-premises ONTAP working environment.
2. Select the menu icon and select **Remove from workspace**.



3. Select **Remove** to confirm.

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