

On-premises ONTAP cluster management using BlueXP

On-premises ONTAP clusters

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On-premises ONTAP cluster management using BlueXP

Release notes

What's new with on-premises ONTAP clusters

Learn what's new with on-premises ONTAP cluster management in BlueXP.

7 October 2024

Support for ASA r2 systems

You can now discover NetApp ASA r2 systems in BlueXP when using BlueXP in standard mode or restricted mode. After you discover a NetApp ASA r2 system and open the working environment, you're brought directly to System Manager.

No other management options are available with ASA r2 systems. You can't use the Standard view and you can't enable BlueXP services.

Discovery of ASA r2 systems is not supported when using BlueXP in private mode.

- Learn more about ASA r2 systems
- Learn about BlueXP deployment modes

22 April 2024

Volume templates no longer supported

You can no longer create a volume from a template. This action was associated with the BlueXP remediation service, which is no longer available.

30 July 2023

Create FlexGroup volumes

If you're managing a cluster with a Connector, you can now create FlexGroup volumes using the BlueXP API.

- · Learn how to create a FlexGroup volume
- Learn what a FlexGroup volume is

2 July 2023

Cluster discovery from My estate

You can now discover on-premises ONTAP clusters from **Canvas > My estate** by selecting a cluster that BlueXP pre-discovered based on the ONTAP clusters that are associated with the email address for your BlueXP login.

Learn how to discover clusters from the My estate page.

4 May 2023

Enable BlueXP backup and recovery

Beginning with ONTAP 9.13.1, you can use System Manager (advanced view) to enable BlueXP backup and recovery if you discovered the cluster using a Connector. Learn more about enabling BlueXP backup and recovery

Upgrade ONTAP version image and hardware firmware

Beginning with ONTAP 9.10.1, you can use System Manager (advanced view) to upgrade the ONTAP version image and hardware firmware. You can choose to receive automatic upgrades to stay up to date, or you can make manual updates from your local machine or a server that can be accessed using BlueXP. Learn more about upgrading ONTAP and firmware

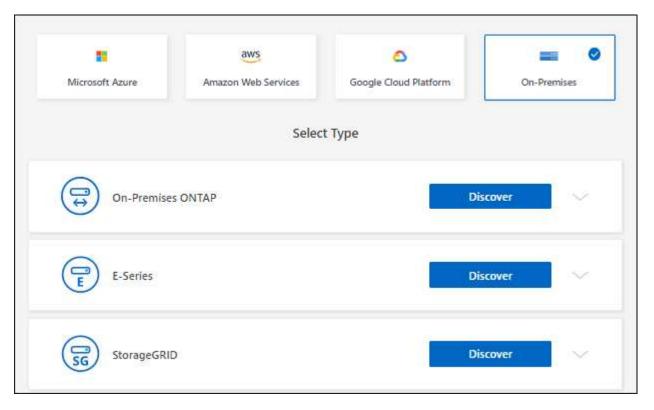


If you do *not* have a Connector, you cannot make updates from your local machine, only from a server that can be accessed using BlueXP.

3 April 2023

Single discovery option from the BlueXP console

When you discover an on-prem ONTAP cluster from the BlueXP console, you'll now see a single option:



Previously, there were separate flows for direct discovery and for discovery with a Connector. Both of those options are still available, but merged into a single flow.

When you start the discovery process, BlueXP discovers the cluster as follows:

• If you have an active Connector that has a connection to your ONTAP cluster, BlueXP will use that

Connector to discover and manage the cluster.

• If you don't have a Connector or if your Connector doesn't have a connection to the ONTAP cluster, then BlueXP will automatically use the direct discovery and management option.

Learn more about the discovery and management options.

1 January 2023

Save ONTAP credentials

When you open an on-premises ONTAP working environment that was discovered directly without using a Connector, you now have the option to save your ONTAP cluster credentials so that you don't need to enter them each time that you open the working environment.

Learn more about this option.

4 December 2022

The following changes were introduced with the 3.9.24 release of the Connector.

New way to discover on-premises ONTAP clusters

You can now directly discover your on-premises ONTAP clusters without using a Connector. This option enables cluster management through System Manager only. You can't enable any BlueXP data services on this type of working environment.

Learn more about this discovery and management option.

FlexGroup volumes

For on-premises ONTAP clusters that are discovered through a Connector, the Standard view in BlueXP now shows the FlexGroup volumes that were created through System Manager or the ONTAP CLI. You can also manage these volumes by cloning them, editing their settings, deleting them, and more.

olumes						Q 🖩	Add Volume
HexGroup Volume	1						
Volvo		ONLIN	4E Manage Volume	Volvo		ONLIN	E Manage Volum
INFO		CAPACITY		INFO		CAPACITY	
Storage VM	svm_name	Provisioned	150 TIB	Storage VM	svm_name	Provisioned	150 TIB
Tags	з	Used & Reserved	40.2 TIB	Tags	3	Used & Reserved	40.2 T/B
Protection	1 1 1 1 1 1 1 1 1 1	Tiered Data	26.3 TIB	Protection	ା ଦ ଦ	Tiered Data	26.3 TIB
Volvo		Civilia	E Menage Volume	Volva		ONLIN	E Manage Volum
INFO		CAPACITY		INFO		CAPACITY	
Storage VM	svm_name	Provisioned	150 Ti8	Storage VM	svm_name	Provisioned	150 TIB
Tags	3	Used & Reserved	40.2 TiB	Tags	3	Used & Reserved	40.2 TIB
Protection	66	Tiered Data	26.3 TIB	Protection	6 6 6	Tiered Data	26.3 TiB

BlueXP does not support creating FlexGroup volumes. You'll need to continue using System Manager or the CLI to create FlexGroup volumes.

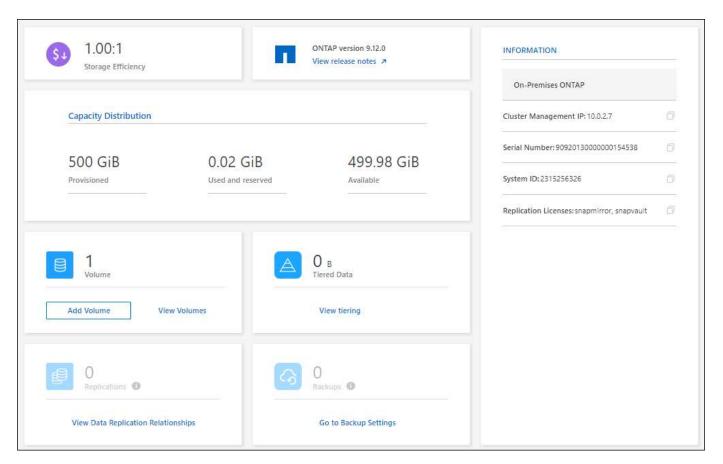
18 September 2022

The following changes were introduced with the 3.9.22 release of the Connector.

New Overview page

We've introduced a new Overview page to provide key details about an on-premises ONTAP cluster. For example, you can now view details like storage efficiency, capacity distribution, and system information.

You can also view details about integration with other BlueXP services that enable data tiering, data replication, and backups.



Redesigned Volumes page

We redesigned the Volumes page to provide a summary of the volumes on a cluster. The summary shows you the total number of volumes, the amount of provisioned capacity, used and reserved capacity, and the amount of tiered data.

Volumes Summary		1 Volume	500 GiB Provisioned Capaci	ty	0.02 GiB Used & Reserved Capacity	O GiB Tiered Data	
olume						Q 📰	Add
vol1		ONLINE	Manage Volume				
INFO		CAPACITY					
Storage VM	svm_cloudvolumeso	Provisioned	500 GiB				
Tags	0	Used & Reserved	0.02 GiB				
Protection	()	Tiered Data	0 GiB				

7 June 2022

The following change was introduced with the 3.9.19 release of the Connector.

New Advanced View

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

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

- · Learn how to manage clusters discovered directly
- · Learn how to manage clusters discovered with a Connector

27 February 2022

An "On-Premises ONTAP" tab is available in the Digital Wallet

Now you can view an inventory of your on-premises ONTAP clusters along with their hardware and service contracts expiration dates. Additional details about the clusters are also available.

Learn how to view this important on-prem cluster information. You'll need to have a NetApp Support Site account (NSS) for the clusters, and the NSS credentials will need to be attached to your Cloud Manager account.

11 January 2022

Tags that you add to volumes on on-premises ONTAP clusters can be use with the Tagging service

Tags that you add to a volume are now associated with the tagging feature of the Application Templates service, which can help you organize and simplify the management of your resources.

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.

Limitations related to ASA r2 systems

- You can discover NetApp ASA r2 systems in BlueXP when using BlueXP in standard mode or restricted mode. Discovery of ASA r2 systems is not supported when using BlueXP in private mode.
- After you discover a NetApp ASA r2 system and open the working environment, you're brought directly to System Manager.

No other management options are available with ASA r2 systems. You can't use the Standard view and you can't enable BlueXP services.

Learn more about ASA r2 systems

Unsupported clusters

On-premises ONTAP clusters that are configured with SAML authentication are not supported with BlueXP.

System Manager limitations

The following System Manager features are not supported from BlueXP:

Cluster setup

After you set the management IP address and configure the admin password on an on-premises ONTAP cluster, you can discover the cluster in BlueXP.

· Role-based access control (Connector only)

Role-based access control from System Manager is not supported when discovering and managing an onprem ONTAP cluster using a Connector. You are prompted to enter your admin credentials during the discovery process. Those credentials are used for all actions taken from System Manager.

With the direct discovery option, you're prompted to log in with your ONTAP credentials each time that you open the working environment.

• BlueXP backup and recovery (Cloud Backup) activation

The cluster version must be 9.13.1 to enable BlueXP backup and recovery from System Manager.

If you did *not* discover a cluster using a Connector, then you can't use System Manager (advanced view) to enable backup and recovery. However, you can enable backup and recovery on an on-premises cluster directly from BlueXP. Learn how to get started

On-demand upgrades

On-demand upgrades of firmware and software are not available if the cluster version is ONTAP 9.9.1 or earlier.

If you do *not* have a Connector, you cannot make updates from your local machine, only from a server that can be accessed using BlueXP.

- Global search
- User interface settings

Get started

Learn about on-premises ONTAP cluster management in BlueXP

BlueXP can discover the ONTAP clusters running on AFF/FAS controllers and ONTAP Select. Adding on-premises ONTAP systems to BlueXP enables you to manage all of your storage and data assets from a single interface.

Features

- Manage NFS and CIFS volumes
- Perform advanced management using ONTAP System Manager
- Get health and performance observability with BlueXP analysis and control
- Use BlueXP services to replicate, back up, scan, classify, and tier data
- View hardware and software contract status information in the BlueXP digital wallet

Cost

A cost might be associated, but it depends on the following:

• Whether you deploy a Connector to discover and manage your clusters.

You can install the Connector in the cloud or on your premises.

• Whether you use BlueXP services such as backup and recovery, tiering, and classification.

Discover on-premises ONTAP clusters

Discover on-premises ONTAP clusters from BlueXP so that you can start managing volumes and performing advanced management using ONTAP System Manager, which is available from BlueXP.

Step 1: Review discovery and management options

BlueXP provides two discovery and management options for on-prem ONTAP clusters:

Discovery and management using a Connector

This option enables you to manage clusters running ONTAP 8.3 and later by using the following features:

- The Standard view, which provides basic volume operations
- The Advanced view, which provides management through System Manager (supported with ONTAP 9.10.0 and later)
- Integration with BlueXP services that provide data replication, back up and recovery, data classification, and data tiering

This option requires a Connector, which you can install in a cloud provider or on your premises.

Direct discovery and management

This option enables you to manage clusters running ONTAP 9.12.1 and later by using System Manager. No other management options are available. You can't use the Standard view and you can't enable BlueXP services.

This option doesn't require a Connector.

When you access System Manager on an on-premises ONTAP cluster running 9.12.1 or later with connectivity to the BlueXP service, you'll be prompted to manage the cluster directly from BlueXP. If you follow this prompt, it discovers the cluster in BlueXP using the direct discovery option.

Once discovered, your clusters are available as a working environment on the BlueXP Canvas.

If you decide to use the other discovery option at a later time, you will need to discover the on-prem cluster as a separate working environment on the Canvas. You then have the option to remove the other working environment.

Step 2: Set up your environment

Before you discover your on-prem ONTAP clusters, ensure that you've met the following requirements.

General requirements

- You should have gotten started with BlueXP, which includes logging in and setting up an account. Learn how to get started with BlueXP
- You need the cluster management IP address and the password for the admin user account.
- BlueXP discovers ONTAP clusters using HTTPS. If you use custom firewall policies, the ONTAP cluster must allow inbound HTTPS access through port 443.

The default "mgmt" firewall policy allows inbound HTTPS access from all IP addresses. If you modified this default policy, or if you created your own firewall policy, you must associate the HTTPS protocol with that policy and enable access from the Connector host.

Requirements for Connector discovery

- The on-premises cluster must be running ONTAP 8.3 or later.
- A Connector must be installed in a cloud provider or on your premises.

If you want to tier cold data to the cloud, then you should review requirements for the Connector based on where you plan to tier cold data.

- Learn about Connectors
- · Learn how to switch between multiple Connectors
- Learn about BlueXP tiering
- The Connector host must allow outbound connections through port 443 (HTTPS) and the ONTAP cluster must allow inbound HTTP access through port 443 to the cluster management LIF.

If the Connector is in the cloud, all outbound communication is allowed by the predefined security group.

Requirements for direct discovery

- The on-premises cluster must be running ONTAP 9.12.1 or later.
- The cluster must have inbound and outbound connectivity to the BlueXP service:

https://cloudmanager.cloud.netapp.com/ontap-service/check-service-connection

• 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.

Step 3: Discover a cluster

Discover your on-prem ONTAP clusters from the Canvas in one of two ways:

- From Canvas > My Working Environments by manually adding details about the on-premises ONTAP cluster.
- From **Canvas > My estate** by selecting a cluster that BlueXP pre-discovered based on the ONTAP clusters that are associated with the email address for your BlueXP login.

When you start the discovery process, BlueXP discovers a cluster as follows:

- If you have an active Connector that has a connection to an ONTAP cluster, then BlueXP will use that Connector to discover and manage the cluster.
- If you don't have a Connector or if your Connector doesn't have a connection to the ONTAP cluster, then BlueXP will automatically use the direct discovery and management option.

Discover a cluster manually

Discover an on-premises ONTAP cluster in BlueXP by entering the cluster management IP address and the password for the admin user account.

Steps

- 1. From the navigation menu, select **Storage > Canvas**.
- 2. On the Canvas page, select Add Working Environment > On-Premises.
- 3. Next to On-Premises ONTAP, select **Discover**.
- 4. On the *Discover* page, enter the cluster management IP address, and the password for the admin user account.
- 5. If you're discovering the cluster directly (without a Connector), you can select **Save the credentials**.

If you select this option, you won't need to re-enter the credentials each time that you open the working environment. These credentials are only associated with your BlueXP user login. They aren't saved for use by anyone else in the BlueXP organization.

6. Select **Discover**.

If you don't have a Connector and the IP address isn't reachable from BlueXP, then you'll be prompted to create a Connector.

Result

BlueXP discovers the cluster and adds it as a working environment on the Canvas. You can now start managing the cluster.

- · Learn how to manage clusters discovered directly
- · Learn how to manage clusters discovered with a Connector

Add a pre-discovered cluster

BlueXP automatically discovers information about the ONTAP clusters that are associated with the email address for your BlueXP login and displays them on the **My estate** page as undiscovered clusters. You can view the list of undiscovered clusters and add them one at a time.

About this task

Note the following about the on-premises ONTAP clusters that appear on the My estate page:

- The email address that you use to log in to BlueXP must be associated with a registered, full-level NetApp Support Site (NSS) account.
 - If you log in to BlueXP with your NSS account and navigate to the My estate page, BlueXP uses that NSS account to find the clusters that are associated with the account.
 - If you log in to BlueXP with a cloud account or a federated connection and you navigate to the My estate page, BlueXP prompts you to verify your email. If that email address is associated with an NSS account, BlueXP uses that information to find the clusters that are associated with the account.
- BlueXP only shows the ONTAP clusters that have successfully sent AutoSupport messages to NetApp.
- To refresh the inventory list, exit the My estate page, wait 5 minutes, and then go back to it.

Steps

- 1. From the navigation menu, select **Storage > Canvas**.
- 2. Select My estate.
- 3. On the My estate page, select **Discover** for on-premises ONTAP.

Dn-premises ONTAP 5	Discover
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4. Select a cluster and then select **Discover**.

ONTAP	clusters (12)							Q Disc	over
	Cluster name	\$	ONTAP cluster IP	₹\$	OS version	₹ \$	Cluster UUID	\$ Show or hide cluster (12)	₹\$
0	Cluster_name		192.158.1.38		9.1		759995470648	Show 👻	
0	Cluster_name		192.158.1.38		11.3.0.13		759995470648	Show -	
\bigcirc	Cluster_name		192.158.1.38		9.1		759995470648	Show -	

- 5. Enter the password for the admin user account.
- 6. Select Discover.

If you don't have a Connector and the IP address isn't reachable from BlueXP, then you'll be prompted to create a Connector.

Result

BlueXP discovers the cluster and adds it as a working environment on the Canvas. You can now start managing the cluster.

- Learn how to manage clusters discovered directly
- Learn how to manage clusters discovered with a Connector

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.

ONTAP Cluster Credentials		
Enter credentials for ONTAP Cluster		
ONTAP Cluster IP: 192.168. 1.1		
User name		
Password		
		Ø
Save the credentials		
	Continue	Close

3. Use System Manager to manage ONTAP.

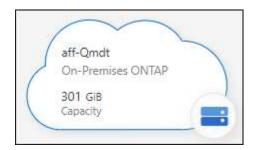
If you need help using System Manager with ONTAP, you can refer to ONTAP documentation for step-bystep instructions. Here are a few links that might help:

- 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**.

		Go to Tabular V	View
	anilkumvcluster-1 ■ On	() ()	
DETAILS	i		
On-Prer	nises ONTAP		
SERVICE	S		
\frown			
\odot	System Manager	Open	(:
6		Open Loading	(:
0 (3) (0)	On Backup and recovery		-

- 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.

Workspac Newone	e ~	Connector ~ ben-connector	â 🕲 🥼	0
Compute	Sync	All Services (+9) ~		
			Switch to Standard Viev	v
	→	Performance	<u>+</u>	

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.

Digital Wallet	Cloud Volumes ONTAP	Data Services Licenses	Keystone Flex Subscription	On-Premises O	INTAP	
On-Premises			Contract Not	ification Status		
Total	B Discovered By Cloud I	Manager 6	• 4 About to E	xpire Contracts	8 Expired Contrancts	
2 On-Premises	Status =	Capacity	Software Contract	* HW Contract	e l	C
OnPremisesHostName#1	O Discovered	10.25 TB Used 50.25 TB Allocate		January 1, 2025		\sim
OnPremisesHostName#2	O Discovered	10.25 TB Used 50.25 TB Allocate	ed () January 1, 2022	January 1, 2025		\sim
OnPremisesHostName#4	O Discovered	10.25 TB Used 50.25 TB Allocate	ed () Expired	January 1, 2025		\sim
OnPremisesHostName#8	 Undiscovered 	10.25 TB Used 50.25 TB Allocate	ed (1) January 1, 2022	January 1, 2025	Discover	\sim

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 Slte (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.

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On-Premises ONTAP			
Cluster Management IP: 10.0.2.7	đ		

3. Select **Remove** to confirm.

Knowledge and support

Register for support

Support registration is required to receive technical support specific to BlueXP and its storage solutions and services. Support registration is also required to enable key workflows for Cloud Volumes ONTAP systems.

Registering for support does not enable NetApp support for a cloud provider file service. For technical support related to a cloud provider file service, its infrastructure, or any solution using the service, refer to "Getting help" in the BlueXP documentation for that product.

- Amazon FSx for ONTAP
- Azure NetApp Files
- Cloud Volumes Service for Google Cloud

Support registration overview

There are two forms of registration to activate support entitlement:

• Registering your BlueXP account serial number (your 20 digit 960xxxxxxx serial number located on the Support Resources page in BlueXP).

This serves as your single support subscription ID for any service within BlueXP. Each BlueXP accountlevel support subscription must be registered.

• Registering the Cloud Volumes ONTAP serial numbers associated with a subscription in your cloud provider's marketplace (these are 20 digit 909201xxxxxxx serial numbers).

These serial numbers are commonly referred to as *PAYGO serial numbers* and get generated by BlueXP at the time of Cloud Volumes ONTAP deployment.

Registering both types of serial numbers enables capabilities like opening support tickets and automatic case generation. Registration is completed by adding NetApp Support Site (NSS) accounts to BlueXP as described below.

Register BlueXP for NetApp support

To register for support and activate support entitlement, one user in your BlueXP organization (or account) must associate a NetApp Support Site account with their BlueXP login. How you register for NetApp support depends on whether you already have a NetApp Support Site (NSS) account.

Existing customer with an NSS account

If you're a NetApp customer with an NSS account, you simply need to register for support through BlueXP.

Steps

- 1. In the upper right of the BlueXP console, select the Settings icon, and select Credentials.
- 2. Select User Credentials.

- 3. Select Add NSS credentials and follow the NetApp Support Site (NSS) Authentication prompt.
- 4. To confirm that the registration process was successful, select the Help icon, and select **Support**.

The **Resources** page should show that your BlueXP organization is registered for support.

டு	9601111122222244444555555 Account Serial Number	Registered for Support Support Registration
	Account Serial Number	Support Registration

Note that other BlueXP users will not see this same support registration status if they have not associated a NetApp Support Site account with their BlueXP login. However, that doesn't mean that your BlueXP organization is not registered for support. As long as one user in the organization has followed these steps, then your organization has been registered.

Existing customer but no NSS account

If you're an existing NetApp customer with existing licenses and serial numbers but *no* NSS account, you need to create an NSS account and associate it with your BlueXP login.

Steps

- 1. Create a NetApp Support Site account by completing the NetApp Support Site User Registration form
 - a. Be sure to select the appropriate User Level, which is typically NetApp Customer/End User.
 - b. Be sure to copy the BlueXP account serial number (960xxxx) used above for the serial number field. This will speed up the account processing.
- 2. Associate your new NSS account with your BlueXP login by completing the steps under Existing customer with an NSS account.

Brand new to NetApp

If you are brand new to NetApp and you don't have an NSS account, follow each step below.

Steps

1. In the upper right of the BlueXP console, select the Help icon, and select Support.

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Support	Ь				
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2. Locate your account ID serial number from the Support Registration page.

96015585434285107893 Account serial number	▲ Not Registered Add your NetApp Support Site (NSS) credentials to BlueXP Follow these instructions to register for support in case you don't have an NSS account yet.
	Follow these instructions to register for support in case you don't have an NSS account yet.

- 3. Navigate to NetApp's support registration site and select I am not a registered NetApp Customer.
- 4. Fill out the mandatory fields (those with red asterisks).
- 5. In the **Product Line** field, select **Cloud Manager** and then select your applicable billing provider.
- 6. Copy your account serial number from step 2 above, complete the security check, and then confirm that you read NetApp's Global Data Privacy Policy.

An email is immediately sent to the mailbox provided to finalize this secure transaction. Be sure to check your spam folders if the validation email doesn't arrive in few minutes.

7. Confirm the action from within the email.

Confirming submits your request to NetApp and recommends that you create a NetApp Support Site account.

- 8. Create a NetApp Support Site account by completing the NetApp Support Site User Registration form
 - a. Be sure to select the appropriate User Level, which is typically **NetApp Customer/End User**.
 - b. Be sure to copy the account serial number (960xxxx) used above for the serial number field. This will speed up processing.

After you finish

NetApp should reach out to you during this process. This is a one-time onboarding exercise for new users.

Once you have your NetApp Support Site account, associate the account with your BlueXP login by completing the steps under Existing customer with an NSS account.

Associate NSS credentials for Cloud Volumes ONTAP support

Associating NetApp Support Site credentials with your BlueXP organization is required to enable the following key workflows for Cloud Volumes ONTAP:

• Registering pay-as-you-go Cloud Volumes ONTAP systems for support

Providing your NSS account is required to activate support for your system and to gain access to NetApp technical support resources.

• Deploying Cloud Volumes ONTAP when you bring your own license (BYOL)

Providing your NSS account is required so that BlueXP can upload your license key and to enable the subscription for the term that you purchased. This includes automatic updates for term renewals.

• Upgrading Cloud Volumes ONTAP software to the latest release

Associating NSS credentials with your BlueXP organization is different than the NSS account that is associated with a BlueXP user login.

These NSS credentials are associated with your specific BlueXP organization ID. Users who belong to the BlueXP organization can access these credentials from **Support > NSS Management**.

- If you have a customer-level account, you can add one or more NSS accounts.
- If you have a partner or reseller account, you can add one or more NSS accounts, but they can't be added alongside customer-level accounts.

Steps

1. In the upper right of the BlueXP console, select the Help icon, and select Support.

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Support	•				
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- 2. Select NSS Management > Add NSS Account.
- 3. When you're prompted, select **Continue** to be redirected to a Microsoft login page.

NetApp uses Microsoft Entra ID as the identity provider for authentication services specific to support and licensing.

4. At the login page, provide your NetApp Support Site registered email address and password to perform the authentication process.

These actions enable BlueXP to use your NSS account for things like license downloads, software upgrade verification, and future support registrations.

Note the following:

- The NSS account must be a customer-level account (not a guest or temp account). You can have multiple customer-level NSS accounts.
- There can be only one NSS account if that account is a partner-level account. If you try to add customer-level NSS accounts and a partner-level account exists, you'll get the following error message:

"The NSS customer type is not allowed for this account as there are already NSS Users of different type."

The same is true if you have pre-existing customer-level NSS accounts and try to add a partner-level account.

• Upon successful login, NetApp will store the NSS user name.

This is a system-generated ID that maps to your email. On the **NSS Management** page, you can display your email from the ••• menu.

 If you ever need to refresh your login credential tokens, there is also an Update Credentials option in the ••• menu.

Using this option prompts you to log in again. Note that the token for these accounts expire after 90 days. A notification will be posted to alert you of this.

Get help

NetApp provides support for BlueXP and its cloud services in a variety of ways. Extensive free self-support options are available 24x7, such as knowledgebase (KB) articles and a community forum. Your support registration includes remote technical support via web ticketing.

Get support for a cloud provider file service

For technical support related to a cloud provider file service, its infrastructure, or any solution using the service, refer to "Getting help" in the BlueXP documentation for that product.

- Amazon FSx for ONTAP
- Azure NetApp Files
- Cloud Volumes Service for Google Cloud

To receive technical support specific to BlueXP and its storage solutions and services, use the support options described below.

Use self-support options

These options are available for free, 24 hours a day, 7 days a week:

Documentation

The BlueXP documentation that you're currently viewing.

Knowledge base

Search through the BlueXP knowledge base to find helpful articles to troubleshoot issues.

Communities

Join the BlueXP community to follow ongoing discussions or create new ones.

Create a case with NetApp support

In addition to the self-support options above, you can work with a NetApp Support specialist to resolve any issues after you activate support.

Before you get started

- To use the **Create a Case** capability, you must first associate your NetApp Support Site credentials with your BlueXP login. Learn how to manage credentials associated with your BlueXP login.
- If you're opening a case for an ONTAP system that has a serial number, then your NSS account must be associated with the serial number for that system.

Steps

- 1. In BlueXP, select Help > Support.
- 2. On the **Resources** page, choose one of the available options under Technical Support:
 - a. Select **Call Us** if you'd like to speak with someone on the phone. You'll be directed to a page on netapp.com that lists the phone numbers that you can call.
 - b. Select Create a Case to open a ticket with a NetApp Support specialist:
 - **Service**: Select the service that the issue is associated with. For example, BlueXP when specific to a technical support issue with workflows or functionality within the service.
 - Working Environment: If applicable to storage, select Cloud Volumes ONTAP or On-Prem and then the associated working environment.

The list of working environments are within scope of the BlueXP organization (or account), project (or workspace), and Connector you have selected in the top banner of the service.

• Case Priority: Choose the priority for the case, which can be Low, Medium, High, or Critical.

To learn more details about these priorities, hover your mouse over the information icon next to the field name.

- **Issue Description**: Provide a detailed description of your problem, including any applicable error messages or troubleshooting steps that you performed.
- Additional Email Addresses: Enter additional email addresses if you'd like to make someone else aware of this issue.
- Attachment (Optional): Upload up to five attachments, one at a time.

Attachments are limited to 25 MB per file. The following file extensions are supported: txt, log, pdf, jpg/jpeg, rtf, doc/docx, xls/xlsx, and csv.

ntapitdemo 🖉 NetApp Support Site Account	
Service	Working Enviroment
Select	▼ Select ▼
ase Priority	0
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After you finish

A pop-up will appear with your support case number. A NetApp Support specialist will review your case and get back to you soon.

For a history of your support cases, you can select **Settings > Timeline** and look for actions named "create support case." A button to the far right lets you expand the action to see details.

It's possible that you might encounter the following error message when trying to create a case:

"You are not authorized to Create a Case against the selected service"

This error could mean that the NSS account and the company of record it's associated with is not the same company of record for the BlueXP account serial number (ie. 960xxxx) or the working environment serial number. You can seek assistance using one of the following options:

- Use the in-product chat
- Submit a non-technical case at https://mysupport.netapp.com/site/help

Manage your support cases (Preview)

You can view and manage active and resolved support cases directly from BlueXP. You can manage the cases associated with your NSS account and with your company.

Case management 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.

Note the following:

- The case management dashboard at the top of the page offers two views:
 - The view on the left shows the total cases opened in the past 3 months by the user NSS account you provided.
 - The view on the right shows the total cases opened in the past 3 months at your company level based on your user NSS account.

The results in the table reflect the cases related to the view that you selected.

• You can add or remove columns of interest and you can filter the contents of columns like Priority and Status. Other columns provide just sorting capabilities.

View the steps below for more details.

• At a per-case level, we offer the ability to update case notes or close a case that is not already in Closed or Pending Closed status.

Steps

- 1. In BlueXP, select **Help > Support**.
- 2. Select Case Management and if you're prompted, add your NSS account to BlueXP.

The **Case management** page shows open cases related to the NSS account that is associated with your BlueXP user account. This is the same NSS account that appears at the top of the **NSS management** page.

- 3. Optionally modify the information that displays in the table:
 - Under Organization's cases, select View to view all cases associated with your company.
 - Modify the date range by choosing an exact date range or by choosing a different time frame.

		Q	Cases ope	ened on the last	t 3 months	Create a c	ase
Date created	\$1	Last update	ed	Last 7 days		tatus (5) 🖙 🛊	Đ
				Last 30 days			
December 22, 202	2	December 3	29, 2022	Last 3 month	5 🗸	nassigned	
December 21, 202	2	December 2	28, 2022	Apply	Reset	stive	
December 15, 202	2	December 2	27, 2022	 Medi 	um (P3)	Pending customer	
December 14, 202	2	December 2	26, 2022	Low	(P4)	Solution proposed	

• Filter the contents of the columns.

Last updated	41	Priority 🐨 🕻	\$ Status (5) ♥ \$	0
December 29, 2022		Critical (P1)	Active Pending customer	
December 28, 2022		• High (P2)	Solution proposed	
December 27, 2022		 Medium (P3) 	Pending closed	
December 26, 2022		Low (P4)	Apply Reset	

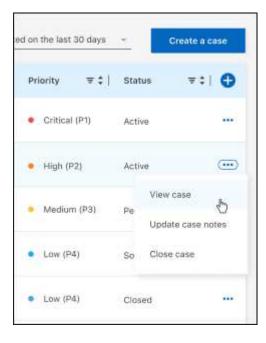
° Change the columns that appear in the table by selecting 🕂 and then choosing the columns that you'd like to display.

Q Cases op	ened	on the last 3 months	Create a case
Last updated	+1	Priority 🛛 🐺 ‡	Status (5) 🛛 🕏 🗘 🕄
December 29, 2022		Critical (P1)	Last updated
December 28, 2022		• High (P2)	Cluster name
December 27, 2022		 Medium (P3) 	Case owner
December 26, 2022		 Low (P4) 	Apply Reset

- 4. Manage an existing case by selecting ••• and selecting one of the available options:
 - View case: View full details about a specific case.
 - **Update case notes**: Provide additional details about your problem or select **Upload files** to attach up to a maximum of five files.

Attachments are limited to 25 MB per file. The following file extensions are supported: txt, log, pdf, jpg/jpeg, rtf, doc/docx, xls/xlsx, and csv.

• Close case: Provide details about why you're closing the case and select Close case.



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