



# **Google Cloud Storage documentation**

## **Google Cloud Storage**

NetApp  
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# Google Cloud Storage documentation

# What's new with Google Cloud Storage in BlueXP

Learn what's new in Google Cloud Storage in BlueXP.

## 10 July 2023

### Ability to add new buckets and manage existing buckets from BlueXP

You have had the ability to view Google Cloud Storage buckets on the BlueXP Canvas for quite a while. Now you can add new buckets and change properties for existing buckets directly from BlueXP. [See how to add new Google Cloud Storage buckets.](#)

# Get started

## View your Google Cloud Storage buckets

After you install a Connector in Google Cloud, BlueXP can automatically discover information about the Google Cloud Storage buckets that reside in the Google account where the Connector is installed. A Google Cloud Storage working environment is added to the Canvas so you can view this information.

You can see details about your Google Cloud Storage buckets, including the location, access status, storage class, total and used capacity, and more. These buckets can be used as destinations for BlueXP backup and recovery, BlueXP tiering, or BlueXP copy and sync operations.

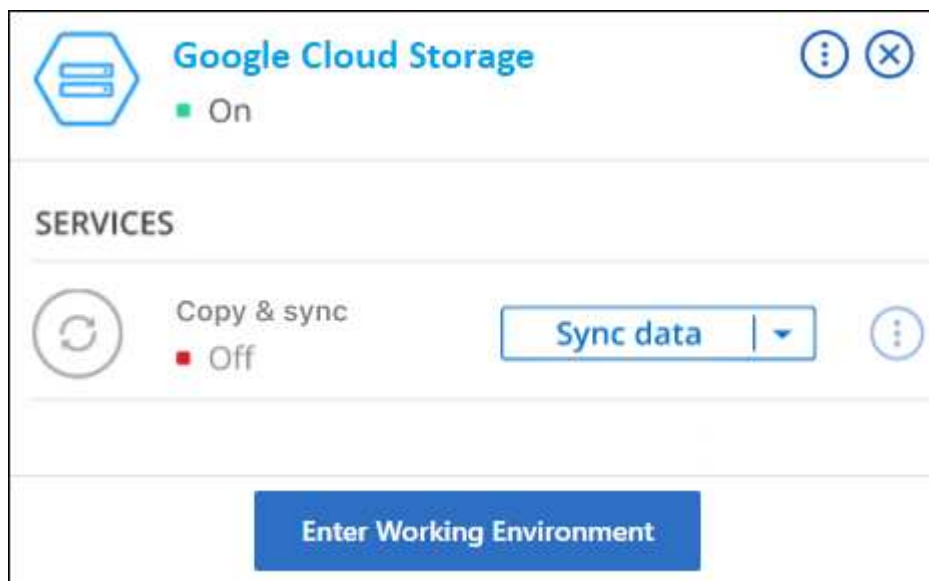
### Steps

1. [Install a Connector](#) in the Google account where you want to view your Google Cloud Storage buckets.
2. From the navigation menu, select **Storage > Canvas**.

You should automatically see a Google Cloud Storage working environment shortly after.



3. Select the working environment and select an action from the right pane if you want to enable BlueXP services with your Google Cloud Storage.



See [which BlueXP services are available and learn how to use them with your Google Cloud Storage buckets](#).

4. Select **Enter Working Environment**, or double-click the working environment, to view details about the buckets in your Google account.

In addition to the columns that appear by default, you can scroll the page to view additional properties for the bucket; for example, the number of Labels, and the type of encryption that has been enabled.

### **What's next**

You can change some bucket settings directly from BlueXP by clicking **...** for a bucket. [Go here for details.](#)

You can add new buckets by clicking **Add bucket**. [Go here for details.](#)

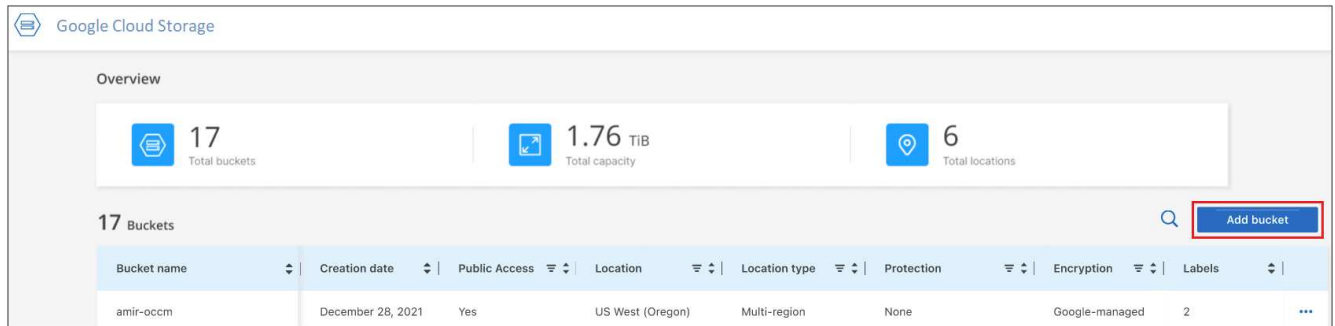
# Manage Google Cloud Storage buckets

## Add Google Cloud Storage buckets

Once your Google Cloud Storage working environment is available in the Canvas, you can add additional buckets directly from BlueXP.

### Steps


1. From the Canvas, double-click the Google Cloud Storage working environment to view the Google Cloud Storage buckets Overview page, and click **Add bucket**.



The *Add bucket* page is displayed.

The screenshot shows the 'Add bucket' page. The page is divided into sections: Project details, Labels, Location, Storage class, and Protection. The 'Project details' section is expanded, showing fields for Bucket name, Google project (A\_project), and Labels. The 'Labels' section shows a table with Label key and Label value fields. The 'Location' section shows 'Multi-region, europe-west1, europe-west2, +2'. The 'Storage class' section shows 'Autoclass'. The 'Protection' section is partially visible.

2. Enter the required information in the *Project details* section.

Field	Description
Bucket name	Enter the name you want to use for the bucket. <a href="#">See the Google Cloud documentation for naming requirements.</a>
Google project	<p>Select the Google project that will be the owner of the bucket. This can be the primary project where the Connector was deployed, or it can be a different project.</p> <p>If you don't see any additional projects in the drop-down list, then you haven't yet associated the BlueXP service account with other projects. Go to the Google Cloud console, open the IAM service, and select the project. Add the service account with the BlueXP role to that project. You'll need to repeat this step for each project.</p> <div>  <p>This is the service account that you set up for BlueXP, <a href="#">as described on this page.</a></p> </div>
Labels	<p>Labels are metadata for your Google Cloud resources. You can add up to 10 label key:value pairs when creating a bucket.</p> <p><a href="#">See the Google Cloud documentation for more information about labels.</a></p>

- In the *Location* section, select the location type and region (or regions) where the bucket will be created. You can select from three different types of locations.

If you select the "Location type"...	Then select...
Region	A single region from the "Available regions" field.
Dual-region	<p>The geographic location (a single continent) from the "Available locations" field, and then select two regions in the "Available regions" field.</p> <p>You can enable "Turbo replication" if you want to guarantee geo-redundancy for all newly written objects within a target of 15 minutes.</p>
Multi-region	The geographic multi-region from the "Available multi-regions" field.

Note that all Cloud Storage data is redundant across at least two zones within at least one geographic place as soon as you upload it. [See the Google Cloud documentation for more information about bucket locations.](#)

- In the *Storage class* section, select the storage class that will be used for objects in your bucket. You can select from among four storage classes, or you can select *Autoclass* to have Google adjust the class as needed.

Storage class	Description
Standard	Standard storage is best for data that is frequently accessed ("hot" data) and/or stored for only brief periods of time.



Storage class	Description
Nearline	Nearline storage is a low-cost, highly durable storage service for storing infrequently accessed data.
Coldline	Coldline storage is a very-low-cost, highly durable storage service for storing infrequently accessed data.
Archive	Archive storage is the lowest-cost, highly durable storage service for data archiving, online backup, and disaster recovery.
Autoclass	Autoclass automatically transitions objects in your bucket to the appropriate storage classes based on each object's access pattern.

The cost and retrieval fees are different for each storage class. [See the Google Cloud documentation for more information about storage classes.](#)

5. In the *Protection* section, choose whether you want to use any data protection tools to protect objects in the bucket, or any data encryption configuration to protect access to your data.

Data protection	Description
None	By default, no protection tools are enabled on the bucket.
Object versioning	<p>The bucket will retain a noncurrent object version each time you update, replace, or delete a live object version - continuously maintaining a protected version of the object. When you select "Object versioning" you can specify two options:</p> <ul style="list-style-type: none"> <li>• <b>Max. number of versions per object</b> - Enter the number of noncurrent versions per object that will be created.</li> <li>• <b>Expire noncurrent versions after</b> - Enter the number of days after which the older, noncurrent objects will be removed.</li> </ul>
Retention policy	<p>A retention policy ensures that all current and future objects in the bucket cannot be deleted or replaced until they reach the age you define in the retention policy. When you select "Retention policy" you can specify two options:</p> <ul style="list-style-type: none"> <li>• <b>Retain objects for</b> - Enter the number of seconds, days, months, or years that objects will be retained.</li> <li>• <b>Time frame</b> - Select whether the time is in seconds, days, months, or years.</li> </ul>

The object versioning and retention policy protection tools can't be enabled at the same time. See the Google Cloud documentation for [more information about object versioning](#), and [more information about retention policies](#).

Data encryption	Description
Google-managed encryption key	By default, Google-managed encryption keys are used to encrypt your data.

Data encryption	Description
Customer-managed encryption key (CMEK)	<p>You can use your own customer-managed keys for data encryption instead of using the default Google-managed encryption keys. If you're planning to use your own customer-managed keys, you'll need to have created them already so you can select the Keys in this page.</p> <p>The keys can be in the same Project as the bucket, or you can select a different Project.</p>

See the Google Cloud documentation for [more information about Google-managed encryption keys](#), and [more information about Customer-managed encryption keys](#).

6. Click **Add** and the bucket is created.

## Change Google Cloud Storage bucket settings

Once your Google Cloud Storage working environment is available in the Canvas, you can change some bucket properties directly from BlueXP.

Note that you can't change the bucket name, Google project, or protection settings.

The bucket properties you can change include:

- Storage class for all future objects in the bucket.
- You can choose to add, edit, and remove labels to the objects in the bucket.
- Turbo replication mode - only if the bucket is in a dual-region location.

You can change these bucket settings directly from BlueXP by clicking **...** > **Edit bucket details** for a bucket.

Overview

158

Total buckets

3.55 TiB

Total capacity

18

Total locations

Buckets (55)

Search

Add bucket

Bucket name	Creation date	Public Access	Location	Location type	Protection	Encryption	Labels
allenc-demo-tiveng	November 8, 2021	Yes	EU	Multi-region	None	Google-managed	2
amir-occm	December 28, 2021	Yes	US	Multi-region	None	Google-managed	
appstream-app-settings-us-east	August 16, 2021	Yes	US	Multi-region	None	Google-managed	
appstream2-36fb080bb8-us-ea	March 19, 2019	Yes	EU, US	Dual-region	Object versioning	Google-managed	
Azure-logs-Sub1111-us-east-1	March 19, 2019	Yes	EU, US	Dual-region	Object versioning	Google-managed	

Edit bucket details

Edit labels

Edit location

Edit storage class

## Change the storage class

The Storage class section enables you to make only certain changes:

- If *Autoclass* was selected when the bucket was created, you can disable Autoclass and select another storage class.

- If any other storage class was selected when the bucket was created, you can change to any other storage class - except *Autoclass*.

Objects that were in a different class will stay in that class, but any new objects will use the new class setting.

## Add or change labels for objects in the bucket

Labels are metadata that you can use to group resources to identify applications, environments, regions, cloud providers, and more. Labels consists of a key and a value. You can add labels to a bucket so that the labels are applied to objects when they are added to the bucket. You can also change and delete labels and label values.

After you add or edit a label, click **Apply** to save your changes. If you want to add more labels, click **Add new label**. You can add up to 10 labels per bucket.

## Change whether turbo replication is enabled in dual-region locations

If the bucket is in a dual-region location, you can enable or disable whether turbo replication mode is enabled or disabled. "Turbo replication" enables you to guarantee geo-redundancy for all newly written objects within a target of 15 minutes.

No other location details can be changed after the bucket has been created.

# Use NetApp data services with Google Cloud Storage buckets

After you discover Google Cloud Storage buckets in BlueXP, you can use NetApp data services for backup, tiering, and data synchronization.

- Use **BlueXP backup and recovery** to back up data from your on-premises ONTAP and Cloud Volumes ONTAP systems to Google Cloud object storage.

To get started, go to the Canvas and drag and drop an on-premises ONTAP or Cloud Volumes ONTAP working environment on your Google Cloud Storage working environment.

[Learn more about backing up ONTAP data to Google Cloud Storage.](#)

- Use **BlueXP tiering** to tier inactive data from on-premises ONTAP clusters to Google Cloud object storage.

To get started, go to the Canvas and drag and drop an on-premises ONTAP working environment on your Google Cloud Storage working environment.

[Learn more about tiering ONTAP data to Google Cloud Storage.](#)

- Use **BlueXP copy and sync** to synchronize data to or from Google Cloud Storage buckets.

To get started, go to the Canvas and drag and drop the source working environment on the target working environment. Your Google Cloud Storage working environment can be either the source or target.

You can also select your Google Cloud Storage working environment and click **Copy & sync** from the Services panel to synchronize data to or from Cloud Storage buckets.

[Learn more about the BlueXP copy and sync service.](#)

# 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 ID support subscription (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 account-level 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 your BlueXP account for NetApp support

To register for support and activate support entitlement, one user in your BlueXP 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 account is registered for support.



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 account is not registered for support. As long as one user in the account has followed these steps, then your account 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

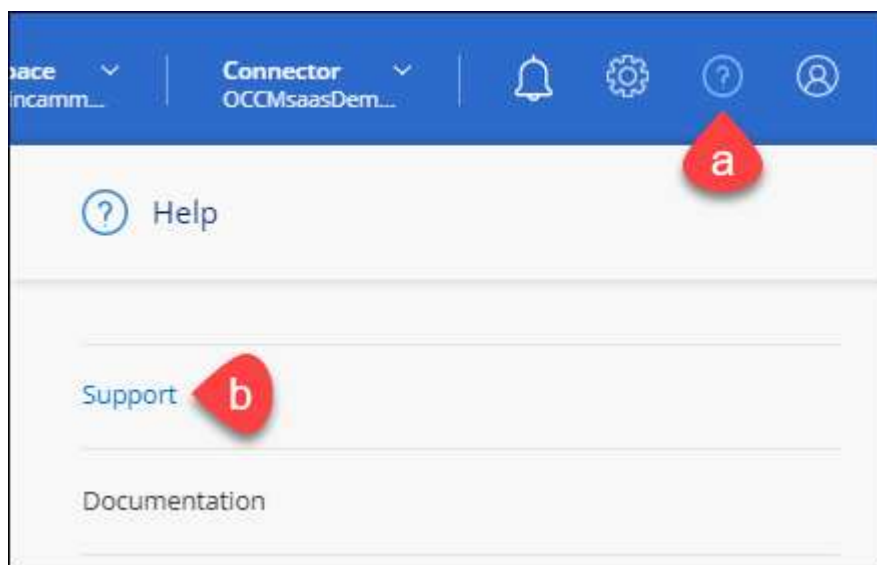
1. Create a NetApp Support Site account by completing the [NetApp Support Site User Registration form](#)
  - a. Be sure to select the appropriate User Level, which is typically **NetApp Customer/End User**.
  - b. Be sure to copy the BlueXP account serial number (960xxxx) used above for the serial number 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**.



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.

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 the account 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 account 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

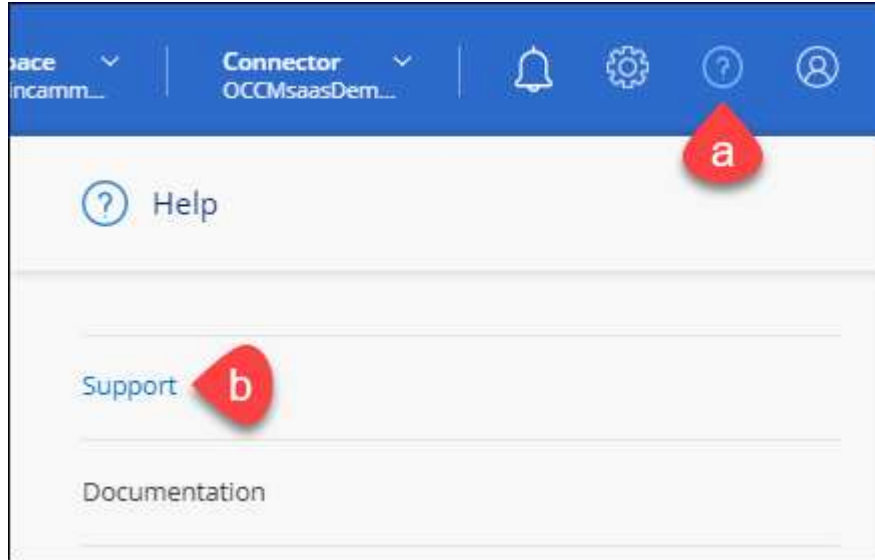
Associating NSS credentials with your BlueXP account is different than the NSS account that is associated with a BlueXP user login.

These NSS credentials are associated with your specific BlueXP account ID. Users who belong to the BlueXP account 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**.



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 account, 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

Select ▼

Working Enviroment


Select ▼

Case Priority 

Low - General guidance ▼

Issue Description



Provide detailed description of problem, applicable error messages and troubleshooting steps taken.



Additional Email Addresses (Optional) 

Type here

Attachment (Optional)

No files selected

 Upload 

### 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.

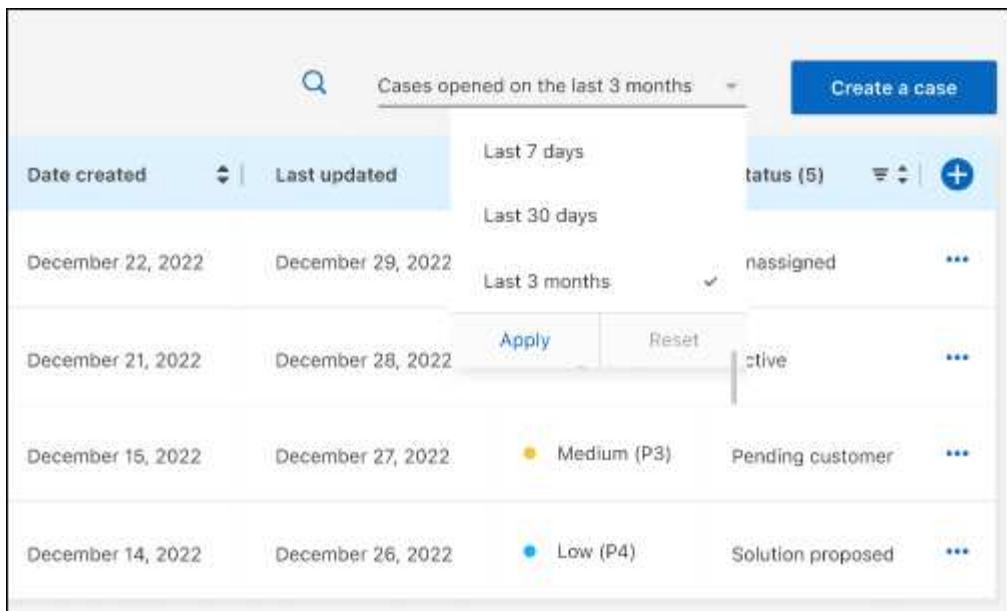
- At a per-case level, we offer the ability to update case notes or close a case that is not already in Closed or Pending Closed status.

### Steps

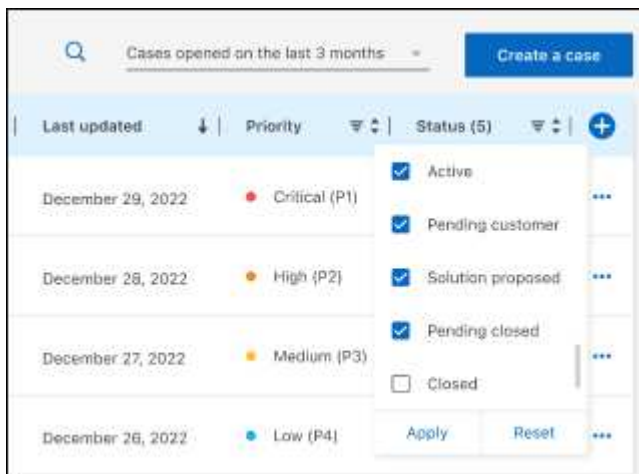
1. In BlueXP, select **Help > Support**.
2. Select **Case Management** and if you're prompted, add your NSS account to BlueXP.

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.

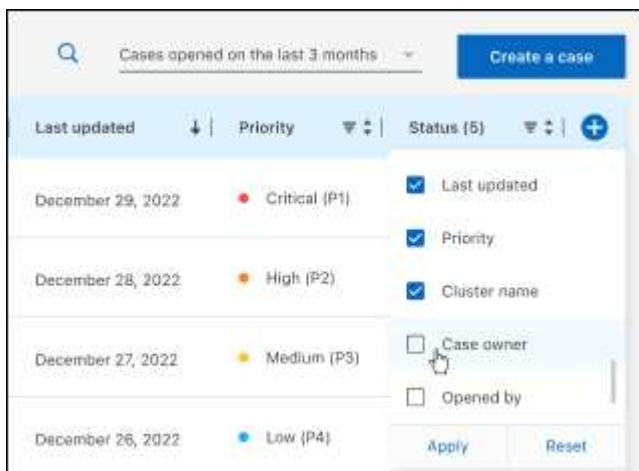
3. Optionally modify the information that displays in the table:
  - Under **Organization's cases**, select **View** to view all cases associated with your company.
  - Modify the date range by choosing an exact date range or by choosing a different time frame.



- Filter the contents of the columns.



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

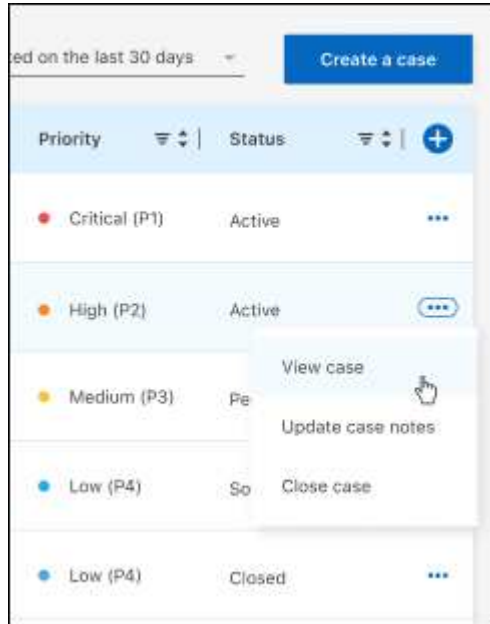


4. Manage an existing case by selecting ... and selecting one of the available options:

- **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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[Notice for BlueXP](#)

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