



Organize your resources using tags

Cloud Manager

NetApp
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Organize your resources using tags

Learn about tagging

Cloud Manager enables you to apply tags to your *existing* resources to help organize and manage those resources. Tags are metadata that you can use to group resources to identify applications, environments, regions, billing codes, cloud providers, and more.

Tags consists of a **tag key** and a **tag value**. For example, you can create a tag key called "Environment" and then tag values of "Production" and "Test". After they are applied to your resources, you can quickly search for and view resources that match the key/value pair.

You can add tag key/value pairs to *new* resources when you create a new Azure NetApp Files volume. You can change or delete those tags using the tagging service, or add new tags.

Features

The Tagging service offers the following features and benefits:

- Create tag keys and tag values that match the terms you use in your environment
- Organize the resources in your environment for easier monitoring and management
- Add, remove, and edit tag keys and tag values by resource type

Pricing and licenses

The ability to tag your resources requires no licensing and is free to use by all Cloud Manager users.

Resources that you can tag

You can apply tags to the following resources.

| Container | Resource |
|---------------------|-----------------------------------|
| Cloud Volumes ONTAP | Storage VM Aggregate Volume |
| On-premise ONTAP | Storage VM Aggregate Volume |
| Azure NetApp Files | Volume |



At this time you can't view or manage tags assigned to resources through a cloud provider. So you won't see tags applied from AWS or Azure, or labels assigned from Google Cloud.

Tag rules and restrictions

The following rules apply when creating tag keys and tag values:

- Maximum key length: 128 characters
- Maximum key value length: 256 characters
- Valid tag and tag value characters: letters, numbers, spaces, and special characters (_, @, &, *, etc.)
- Tags are case upper/lower sensitive.
- Maximum tags per resource: 30
- Per resource, each tag key must be unique

Tag examples

| Key | Values |
|-------|-------------------------|
| Env | production test |
| Dept | finance sales eng |
| Owner | admin storage |

Manage tags for your resources

You can view, add, modify, and delete the tags assigned to your existing resources using the Cloud Manager Tagging service. This allows you to organize and simplify the management of your resources.


Search for resources that have certain tags

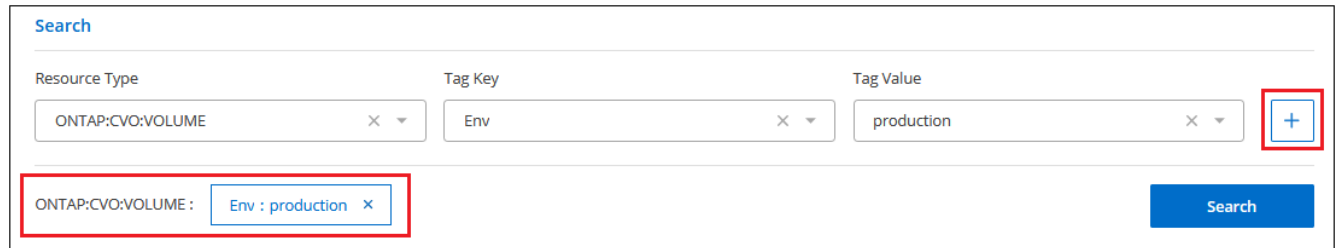
If you want to see all the resources that have a certain tag, or a certain tag and tag key value, you can search for those tags. You can search across all resources, or just within certain resource categories.

Steps

1. Select the **AppTemplate** service and click the **Tags** tab.
2. In the *Resource Type* field, select the resource, for example, **ONTAP:CVO:VOLUME** to search across all Cloud Volumes ONTAP volumes.
3. In the *Tag Key* field, select the tag, for example, **Env** to restrict the search to volumes with the "Env" tag.
4. In the *Tag Value* field, select the key value, for example, **production** to restrict the search to volumes with the tag name "Env" and the tag value "production".

The screenshot shows the 'AppTemplate' interface with the 'Tags' tab selected. Below the navigation bar, there is a 'Search' section. It contains three input fields: 'Resource Type' with the value 'ONTAP:CVO:VOLUME', 'Tag Key' with the value 'Env', and 'Tag Value' with the value 'production'. Each field has a red rectangular highlight. To the right of each field is a small 'x' icon for clearing the field. To the right of the 'Tag Value' field is a blue '+' icon. The background is a light gray.

5. Click the  to add this search criteria to the Search area.



The screenshot shows a search interface with three input fields: 'Resource Type' (ONTAP:CVO:VOLUME), 'Tag Key' (Env), and 'Tag Value' (production). A red box highlights a plus button in the top right corner. Below the input fields, a red box highlights the search criteria 'ONTAP:CVO:VOLUME : Env : production' with a close button. A 'Search' button is located at the bottom right.

6. If you are done with your search, click **Search** and the search results appear in the Resources section.



The screenshot shows a table with 11 resources. The table has columns for ID, Tags, and Type. The resources are listed as follows:

| ID | Tags | Type |
|---------------|------------------|------------------|
| labsod01dev | Env : production | ONTAP:CVO:VOLUME |
| urlabsod1 | Env : production | ONTAP:CVO:VOLUME |
| urlabsod01dev | Env : production | ONTAP:CVO:VOLUME |

If you want to add additional search criteria, follow steps 2 through 5 again and then click **Search**.

Search rules

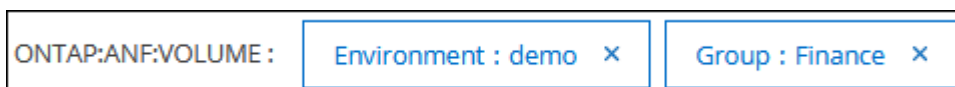
The following rules apply when defining your search:

- After choosing a Resource Type, you can leave the Tag Key field and Tag Value fields empty if you want to list all the resources that have any key and any key value.
- You can choose a single search, or you can define multiple searches to refine the results in the Resource section.
- When defining multiple sets of search criteria:
 - If the criteria for two searches are for different resource types, then this is treated as an "OR" operation and the result shows the resources from both searches. For example, the following search returns all Azure NetApp Files volumes that have the "Environment:demo" tag value and all Cloud Volumes ONTAP volumes that have the "Environment:demo" tag value.



The screenshot shows two search criteria: 'ONTAP:ANF:VOLUME : Environment : demo' and 'ONTAP:CVO:VOLUME : Environment : demo'.

- If the criteria for two searches are for the same resource type, then this is treated as an "AND" operation and the result shows only the resources that match **both** searches. For example, the following search returns Azure NetApp Files volumes that have both the "Environment:demo" tag value and "Group:Finance" tag value.




The screenshot shows a search criteria for 'ONTAP:ANF:VOLUME' with two tags: 'Environment : demo' and 'Group : Finance'.

- If you have defined multiple search criteria and then decide you want to remove one, just click the **X** to remove it from the Search area.



Add tags to existing resources

You can apply tags to a single resource or to multiple resources. The resources could have existing tags or have no current tags.

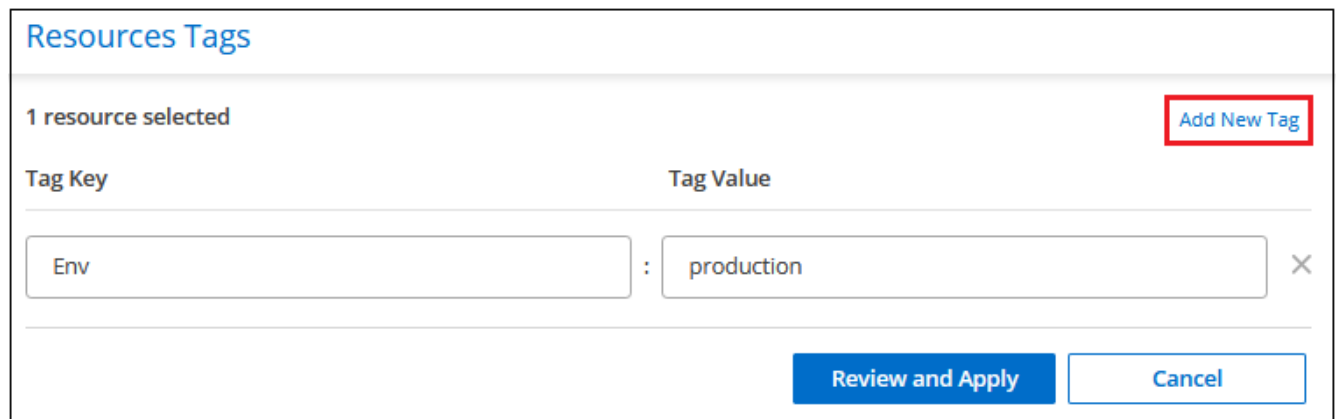
Steps

1. From the **Tags** tab, create your search criteria and click **Search**.
2. Select the resource, or resources, that you want to tag.
 - To select all resources on the page, check the box in the title row (☒ **ID**).
 - To select multiple resources, check the box for each resource (☒ **Volume_1**).
 - To select a single resource, click the  icon for the resource.



| 11 Resources | | | | | Manage Tags |
|-------------------------------------|---------------|------------------|---|------------------|-------------|
| <input checked="" type="checkbox"/> | ID | Tags | | Type | |
| <input type="checkbox"/> | labsod01dev | Env : production |  | ONTAP:CVO:VOLUME | |
| <input type="checkbox"/> | urlabsod1 | Env : production |  | ONTAP:CVO:VOLUME | |
| <input type="checkbox"/> | urlabsod01dev | Env : production |  | ONTAP:CVO:VOLUME | |

3. Click **Manage Tags** and the *Resource Tags* dialog appears. Any existing tags will appear in this dialog.



Resources Tags

1 resource selected

Add New Tag

| Tag Key | Tag Value |
|---------|--------------|
| Env | : production |

Review and Apply Cancel

4. Click **Add New Tag** and a blank Tag Key and Tag Value row appears in the dialog.
5. Enter the tag key and tag value. Add more tags at this time if you want more tags on this resource, and then click **Review and Apply**.
6. If your changes look correct in the *Reviewing* page, click **Save** and the new tag is added to the resource, or to all selected resources.

Change tag values for a resource

You can change the tags that are assigned to resources, and you can change the tag value that is applied to an existing tag.

Steps

1. From the **Tags** tab, create your search criteria and click **Search**.
2. Select the resource, or resources, on which you want to change tags.
3. Click **Manage Tags** and the *Resource Tags* dialog appears.
4. Enter a new value for the tag value and click **Review and Apply**.
5. If your change looks correct in the *Reviewing* page, click **Save** and the tag value is changed for the resource, or for all selected resources.

Delete tags from resources

You can delete a tag key/value pair from a single resource or from multiple resources.

Steps

1. From the **Tags** tab, create your search criteria and click **Search**.
2. Select the resource, or resources, from which you want to remove tags.
3. Click **Manage Tags** and the *Resource Tags* dialog appears.
4. Click the ✕ for the tag key/value pair you want to delete and the row is removed, and then click **Review and Apply**.
5. If your change looks correct in the *Reviewing* page, click **Save** and the tag key/value pair is removed from the resource, or from all selected resources.

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