

# Configure role-based access control (RBAC)

SnapCenter Software 4.8

NetApp March 06, 2023

# **Table of Contents**

$\Box$	configure role-based access control (RBAC)	. 1
	Add a user or group and assign role and assets	. 1
	Create a role	. 3
	Add an ONTAP RBAC role using security login commands	. 4
	Create SVM roles with minimum privileges	. 6
	Create ONTAP cluster roles with minimum privileges	10
	Configure IIS Application Pools to enable Active Directory read permissions	16

# Configure role-based access control (RBAC)

## Add a user or group and assign role and assets

To configure role-based access control for SnapCenter users, you can add users or groups and assign role. The role determines the options that SnapCenter users can access.

## What you will need

- You must have logged in as the "SnapCenterAdmin" role.
- You must have created the user or group accounts in Active Directory in the operating system or database. You cannot use SnapCenter to create these accounts.



From SnapCenter 4.5, you can include only the following special characters in user names and group names: space (), hyphen (-), underscore (\_), and colon (:). If you want to use a role that you created in an earlier release of SnapCenter with these special characters, you can disable the validation of the role name by changing the value of 'DisableSQLInjectionValidation' parameter to true in the web.config file located where the SnapCenter WebApp is installed. After modifying the value, you do not have to restart the service.

• SnapCenter includes several predefined roles.

You can either assign these roles to the user or create new roles.

- AD Users and AD Groups that are added to SnapCenter RBAC must have the READ permission on the Users Container and the Computers Container in the Active Directory.
- After you assign a role to a user or group that contains the appropriate permissions, you must assign the user access to SnapCenter assets, such as hosts and storage connections.

This enables users to perform the actions for which they have permissions on the assets that are assigned to them.

- You should assign a role to the user or group at some point to take advantage of RBAC permissions and efficiencies.
- You can assign assets like host, resource groups, policy, storage connection, plug-in, and credential to the user while creating the user or group.
- The minimum assets that you should assign an user to perform certain operations are as follows:

Operation	Assets assignment
Protect resources	host, policy
Backup	host, resource group, policy
Restore	host, resource group

Operation	Assets assignment
Clone	host, resource group, policy
Clone lifecycle	host
Create a Resource Group	host

• When a new node is added to a Windows cluster or a DAG (Exchange Server Database Availability Group) asset and if this new node is assigned to a user, you must reassign the asset to the user or group to include the new node to the user or group.

You should reassign the RBAC user or group to the cluster or DAG to include the new node to the RBAC user or group. For example, you have a two-node cluster and you have assigned an RBAC user or group to the cluster. When you add another node to the cluster, you should reassign the RBAC user or group to the cluster to include the new node for the RBAC user or group.

• If you are planning to replicate Snapshot copies, you must assign the storage connection for both the source and destination volume to the user performing the operation.

You should add assets before assigning access to the users.



If you are using the SnapCenter Plug-in for VMware vSphere functions to protect VMs, VMDKs, or datastores, you should use the VMware vSphere GUI to add a vCenter user to a SnapCenter Plug-in for VMware vSphere role. For information about VMware vSphere roles, see Predefined roles packaged with SnapCenter Plug-in for VMware vSphere.

## Steps

- 1. In the left navigation pane, click **Settings**.
- 2. In the Settings page, click **Users and Access** > +.
- 3. In the Add Users/Groups from Active Directory or Workgroup page:

For this field	Do this
Access Type	Select either Domain or workgroup
	For Domain authentication type, you should specify the domain name of the user or group to which you want to add the user to a role.
	By default, it is pre-populated with the logged in domain name.
	You must register the untrusted domain in the Settings > Global Settings > Domain Settings page.

For this field	Do this
<b>Т</b> уре	Select either User or Group
	SnapCenter supports only security group and not the distribution group.
Jser Name	a. Type the partial user name, and then click <b>Add</b> .
	The user name is case-sensitive.
	b. Select the user name from the search list.
	When you add users from a different domain or an untrusted domain, you should type the user name fully because there is no search list for cross domain users.
	Repeat this step to add additional users or groups to the selected role.
Roles	Select the role to which you want to add the user.

- 4. Click **Assign**, and then in the Assign Assets page:
  - a. Select the type of asset from the **Asset** drop-down list.
  - b. In the Asset table, select the asset.

The assets are listed only if the user has added the assets to SnapCenter.

- c. Repeat this procedure for all of the required assets.
- d. Click Save.
- 5. Click Submit.

After adding users or groups and assigning roles, refresh the resources list.

## Create a role

In addition to using the existing SnapCenter roles, you can create your own roles and customize the permissions.

You should have logged in as the "SnapCenterAdmin" role.

## **Steps**

- 1. In the left navigation pane, click **Settings**.
- 2. In the Settings page, click Roles.

- 3. Click +.
- 4. In the Add Role page, specify a name and description for the new role.



From SnapCenter 4.5, you can include only the following special characters in user names and group names: space ( ), hyphen (-), underscore (\_), and colon (:). If you want to use a role that you created in an earlier release of SnapCenter with these special characters, you can disable the validation of the role name by changing the value of 'DisableSQLInjectionValidation' parameter to true in the web.config file located where the SnapCenter WebApp is installed. After modifying the value, you do not have to restart the service.

5. Select **All members of this role can see other members' objects** to enable other members of the role to see resources such as volumes and hosts after they refresh the resources list.

You should deselect this option if you do not want members of this role to see objects to which other members are assigned.



When this option is enabled, assigning users access to objects or resources is not required if users belong to the same role as the user who created the objects or resources.

- 6. In the Permissions page, select the permissions that you want to assign to the role, or click **Select All** to grant all permissions to the role.
- 7. Click Submit.

# Add an ONTAP RBAC role using security login commands

You can use the security login commands to add an ONTAP RBAC role when your storage systems are running clustered ONTAP.

### What you will need

- Before you create an ONTAP RBAC role for storage systems running clustered ONTAP, you must identify the following:
  - The task (or tasks) that you want to perform
  - The privileges required to perform these tasks
- Configuring an RBAC role requires that you perform the following actions:
  - Grant privileges to commands and/or command directories.

There are two levels of access for each command/command directory: all-access and read-only.

You must always assign the all-access privileges first.

- Assign roles to users.
- Vary your configuration depending on whether your SnapCenter plug-ins are connected to the Cluster Administrator IP for the entire cluster or directly connected to a SVM within the cluster.

## About this task

To simplify configuring these roles on storage systems, you can use the RBAC User Creator for Data ONTAP tool, which is posted on the NetApp Communities Forum.

This tool automatically handles setting up the ONTAP privileges correctly. For example, RBAC User Creator for Data ONTAP tool automatically adds the privileges in the correct order so that the all-access privileges appear first. If you add the read-only privileges first and then add the all-access privileges, ONTAP marks the all-access privileges as duplicates and ignores them.



If you later upgrade SnapCenter or ONTAP, you should re-run the RBAC User Creator for Data ONTAP tool to update the user roles you created previously. User roles created for an earlier version of SnapCenter or ONTAP do not work properly with upgraded versions. When you rerun the tool, it automatically handles the upgrade. You do not need to recreate the roles.

More information about setting up ONTAP RBAC roles, see the ONTAP 9 Administrator Authentication and RBAC Power Guide.



For consistency, the SnapCenter documentation refers to the roles as using privileges. The OnCommand System Manager GUI uses the term *attribute* instead of *privilege*. When setting up ONTAP RBAC roles, both these terms mean the same thing.

#### Steps

1. On the storage system, create a new role by entering the following command:

```
security login role create <role_name\> -cmddirname "command" -access all
-vserver <svm name\>
```

- svm\_name is the name of the SVM. If you leave this blank, it defaults to cluster administrator.
- role\_name is the name you specify for the role.
- command is the ONTAP capability.



You must repeat this command for each permission. Remember that all-access commands must be listed before read-only commands.

For information about the list of permissions, see ONTAP CLI commands for creating roles and assigning permissions.

2. Create a user name by entering the following command:

```
security login create -username <user_name\> -application ontapi -authmethod
<password\> -role <name_of_role_in_step_1\> -vserver <svm_name\> -comment
"user description"
```

- user\_name is the name of the user you are creating.
- <password> is your password. If you do not specify a password, the system will prompt you for one.
- svm\_name is the name of the SVM.
- 3. Assign the role to the user by entering the following command:

```
security login modify username <user_name\> -vserver <svm_name\> -role
<role_name\> -application ontapi -application console -authmethod <password\>
```

 <user\_name> is the name of the user you created in Step 2. This command lets you modify the user to associate it with the role.

- <svm name> is the name of the SVM.
- <role name> is the name of the role you created in Step 1.
- <password> is your password. If you do not specify a password, the system will prompt you for one.
- 4. Verify that the user was created correctly by entering the following command:

```
security login show -vserver <svm_name\> -user-or-group-name <user_name\> user_name is the name of the user you created in Step 3.
```

# **Create SVM roles with minimum privileges**

There are several ONTAP CLI commands you must run when you create a role for a new SVM user in ONTAP. This role is required if you configure SVMs in ONTAP to use with SnapCenter and you do not want to use the vsadmin role.

## **Steps**

1. On the storage system, create a role and assign all the permissions to the role.

```
security login role create -vserver <svm_name\>- role <SVM_Role_Name\>
-cmddirname <permission\>
```



You should repeat this command for each permission.

2. Create a user and assign the role to that user.

```
security login create -user <user_name\> -vserver <svm_name\> -application
ontapi -authmethod password -role <SVM Role Name\>
```

Unlock the user.

```
security login unlock -user <user name\> -vserver <svm name\>
```

## ONTAP CLI commands for creating SVM roles and assigning permissions

There are several ONTAP CLI commands you should run to create SVM roles and assign permissions.

- security login role create -role SVM\_Role\_Name -cmddirname "snapmirror list-destinations" -vserver SVM\_Name -access all
- security login role create -role SVM\_Role\_Name -cmddirname "event generate-autosupport-log" -vserver SVM\_Name -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname"job history show" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname"job stop" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname "lun" -access all

- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun igroup add" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun igroup create" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun igroup delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun igroup rename" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun igroup show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun mapping add-reporting-nodes" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname "lun mapping create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun mapping delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun mapping remove-reporting-nodes" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun mapping show" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun modify" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun move-in-volume" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun offline" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun online" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun resize" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun serial" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "lun show" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname "network interface" -access readonly
- \* security login role create -vserver SVM name -role SVM Role Name -cmddirname

- "snapmirror policy add-rule" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror policy modify-rule" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror policy remove-rule" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror policy show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror restore" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror show" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname "snapmirror show-history" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror update" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "snapmirror update-ls-set" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "version" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume clone create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume clone show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume clone split start" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume clone split stop" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume destroy" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume file clone create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume file show-disk-usage" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume modify" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname"volume offline" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume online" -access all

- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume gtree create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume gtree delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume qtree modify" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume qtree show" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume restrict" -access all
- \* security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume snapshot create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume snapshot delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume snapshot modify" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume snapshot rename" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume snapshot restore" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume snapshot restore-file" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume snapshot show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "volume unmount" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver cifs share create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver cifs share delete" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver cifs share show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver cifs show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver export-policy create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver export-policy delete" -access all
- \* security login role create -vserver SVM name -role SVM Role Name -cmddirname

- "vserver export-policy rule create" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver export-policy rule show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "vserver export-policy show" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname
   "vserver iscsi connection show" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "vserver" -access readonly
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "vserver export-policy" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname "vserver iscsi" -access all
- security login role create -vserver SVM\_Name -role SVM\_Role\_Name -cmddirname
   "volume clone split status" -access all
- security login role create -vserver SVM\_name -role SVM\_Role\_Name -cmddirname
   "volume managed-feature" -access all

# Create ONTAP cluster roles with minimum privileges

You should create an ONTAP cluster role with minimum privileges so that you do not have to use the ONTAP admin role to perform operations in SnapCenter. You can run several ONTAP CLI commands to create the ONTAP cluster role and assign minimum privileges.

#### **Steps**

1. On the storage system, create a role and assign all the permissions to the role.

```
security login role create -vserver <cluster_name\>- role <role_name\>
-cmddirname <permission\>
```



You should repeat this command for each permission.

2. Create a user and assign the role to that user.

```
security login create -user <user_name\> -vserver <cluster_name\> -application
ontapi -authmethod password -role <role name\>
```

3. Unlock the user.

```
security login unlock -user <user name\> -vserver <cluster name\>
```

## ONTAP CLI commands for creating cluster roles and assigning permissions

There are several ONTAP CLI commands you should run to create cluster roles and assign permissions.

- security login role create -vserver Cluster\_name or cluster\_name -role Role\_Name -cmddirname "metrocluster show" -access readonly
- security login role create -vserver Cluster\_name or cluster\_name -role Role\_Name -cmddirname "cluster identity modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "cluster identity show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "cluster modify" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "cluster peer show" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "cluster show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "event generate-autosupport-log" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "job history show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname"job stop" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "lun" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun delete" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup add" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup rename" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun igroup show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun mapping add-reporting-nodes" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun mapping create" -access all
- \* security login role create -vserver Cluster name -role Role Name -cmddirname

- "lun mapping delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun mapping remove-reporting-nodes" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun mapping show" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun move-in-volume" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun offline" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun online" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun persistent-reservation clear" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "lun resize" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun serial" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "lun show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "network interface create" -access readonly
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "network interface delete" -access readonly
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "network interface modify" -access readonly
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "network interface show" -access readonly
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "security login" -access readonly
- security login role create -role Role\_Name -cmddirname "snapmirror create" -vserver Cluster name -access all
- security login role create -role Role\_Name -cmddirname "snapmirror list-destinations" -vserver Cluster name -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy add-rule" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy delete" -access all

- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy modify-rule" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy remove-rule" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror policy show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror restore" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror show-history" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror update" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "snapmirror update-ls-set" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system license add" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system license clean-up" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system license delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system license show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system license status show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system node modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system node show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "system status show" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "version" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume clone create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume clone show" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname

- "volume clone split start" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume clone split stop" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume destroy" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume file clone create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume file show-disk-usage" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume offline" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume online" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume qtree create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume qtree delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume gtree modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume qtree show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume restrict" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume snapshot delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot promote" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot rename" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot restore" -access all

- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume snapshot restore-file" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "volume snapshot show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "volume unmount" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs share modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs share create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs share delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs share modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver cifs share show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "vserver cifs show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy rule create" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy rule delete" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy rule modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname "vserver export-policy rule show" -access all
- \* security login role create -vserver Cluster\_name -role Role\_Name -cmddirname

- "vserver export-policy show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "vserver iscsi connection show" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "vserver modify" -access all
- security login role create -vserver Cluster\_name -role Role\_Name -cmddirname
   "vserver show" -access all

# **Configure IIS Application Pools to enable Active Directory read permissions**

You can configure Internet Information Services (IIS) on your Windows Server to create a custom Application Pool account when you need to enable Active Directory read permissions for SnapCenter.

## **Steps**

- 1. Open IIS Manager on the Windows Server where SnapCenter is installed.
- 2. In the left navigation pane, click **Application Pools**.
- 3. Select SnapCenter in the Application Pools list, and then click **Advanced Settings** in the Actions pane.
- Select Identity, and then click ... to edit the SnapCenter application pool identity.
- 5. In the Custom Account field, enter a domain user or domain admin account name with Active Directory read permission.
- 6. Click OK.

The custom account replaces the built-in ApplicationPoolIdentity account for the SnapCenter application pool.

## Copyright information

Copyright © 2023 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

#### **Trademark information**

NETAPP, the NETAPP logo, and the marks listed at <a href="http://www.netapp.com/TM">http://www.netapp.com/TM</a> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.