



# **Managing groups of storage objects**

Active IQ Unified Manager 9.8

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# Managing groups of storage objects

You can manage storage objects in your environment by creating groups of storage objects. These storage objects must satisfy the group rules associated with the group.

## Adding groups

You can create groups to combine clusters, volumes, and storage virtual machines (SVMs) for ease of management.

### Before you begin

You must have the Application Administrator or Storage Administrator role.

### About this task

You can define group rules to add or remove members from the group and to modify group actions for the group.

### Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Groups** tab, click **Add**.
3. In the **Add Group** dialog box, enter a name and description for the group.
4. Click **Add**.

## Deleting groups

You can delete a group from Unified Manager when the group is no longer required.

### Before you begin

- None of the storage objects (clusters, SVMs, or volumes) must be associated with any group rule that is associated with the group that you want to delete.
- You must have the Application Administrator or Storage Administrator role.

### Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Groups** tab, select the group that you want to delete, and then click **Delete**.
3. In the **Warning** dialog box, confirm the deletion by clicking **Yes**.

Deleting a group does not delete the group actions that are associated with the group. However, these group actions will be unmapped after the group is deleted.

# Editing groups

You can edit the name and description of a group that you created in Unified Manager.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## About this task

When you edit a group to update the name, you must specify a unique name; you cannot use an existing group name.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Groups** tab, select the group that you want to edit, and then click **Edit**.
3. In the **Edit Group** dialog box, change the name, description, or both for the group.
4. Click **Save**.

# Adding group rules

You can create group rules for a group to dynamically add storage objects such as volumes, clusters, or storage virtual machines (SVMs) to the group. You must configure at least one condition group with at least one condition to create a group rule.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## About this task

Storage objects that are currently monitored are added as soon as the group rule is created. New objects are added only after the monitoring cycle is completed.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Rules** tab, click **Add**.
3. In the **Add Group Rule** dialog box, specify a name for the group rule.
4. In the **Target Object Type** field, select the type of storage object that you want to group.
5. In the **Group** field, select the required group for which you want to create group rules.
6. In the **Conditions** section, perform the following steps to create a condition, a condition group, or both:

To create....	Do this...
A condition	<ol style="list-style-type: none"> <li>Select an operand from the list of operands.</li> <li>Select either <b>Contains</b> or <b>Is</b> as the operator.</li> <li>Enter a value, or select a value from the available list.</li> </ol>
A condition group	<ol style="list-style-type: none"> <li>Click <b>Add Condition Group</b></li> <li>Select an operand from the list of operands.</li> <li>Select either <b>Contains</b> or <b>Is</b> as the operator.</li> <li>Enter a value, or select a value from the available list.</li> <li>Click <b>Add condition</b> to create more conditions if required, and repeat steps a through d for each condition.</li> </ol>

- Click **Add**.

## Example for creating a group rule

Perform the following steps in the Add Group Rule dialog box to create a group rule, including configuring a condition and adding a condition group:

- Specify a name for the group rule.
- Select the object type as storage virtual machine (SVM).
- Select a group from the list of groups.
- In the Conditions section, select **Object Name** as the operand.
- Select **Contains** as the operator.
- Enter the value as `svm_data`.
- Click **Add condition group**.
- Select **Object Name** as the operand.
- Select **Contains** as the operator.
- Enter the value as `vol`.
- Click **Add condition**.
- Repeat steps 8 through 10 by selecting **data-priority** as the operand in step 8, **Is** as the operator in step 9, and **critical** as the value in step 10.
- Click **Add** to create the condition for the group rule.

## Editing group rules

You can edit group rules to modify the condition groups and the conditions within a condition group to add or remove storage objects to or from a specific group.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Rules** tab, select the group rule that you want to edit, and then click **Edit**.
3. In the **Edit Group Rule** dialog box, change the group rule name, associated group name, condition groups, and conditions as required.



You cannot change the target object type for a group rule.

4. Click **Save**.

## Deleting group rules

You can delete a group rule from Active IQ Unified Manager when the group rule is no longer required.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## About this task

When a group rule is deleted, the associated storage objects will be removed from the group.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Rules** tab, select the group rule that you want to delete, and then click **Delete**.
3. In the **Warning** dialog box, confirm the deletion by clicking **Yes**.

## Configuring conditions for group rules

You can configure one or more conditions to create group rules in Unified Manager that are applied on the storage objects. The storage objects that satisfy the group rule are combined into a group.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.

2. Click **Add**.
3. In the **Add Group Rule** dialog box, select one operand from the list of operands.
4. Select an operator for the condition.
5. Enter a required value or select one from the available list.
6. Click **Add**.

## Example of configuring a condition for a group rule

Consider a condition for the object type SVM, where the object name contains "svm\_data".

Perform the following steps in the Add Group Rule dialog box to configure the condition:

1. Enter a name for the group rule.
2. Select the object type as SVM.
3. Select a group from the list of groups.
4. In the **Conditions** field, select **Object Name** as the operand.
5. Select **Contains** as the operator.
6. Enter the value as `svm_data`.
7. Click **Add**.

## Adding group actions

You can configure group actions that you want to apply to storage objects in a group. Configuring actions for a group enables you to save time, because you do not have to add these actions to each object individually.

### Before you begin

You must have the Application Administrator or Storage Administrator role.

### Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Actions** tab, click **Add**.
3. In the **Add Group Action** dialog box, enter a name and description for the action.
4. From the **Group** menu, select a group for which you want to configure the action.
5. From the **Action Type** menu, select an action type.

The dialog box expands, enabling you to configure the selected action type with required parameters.

6. Enter appropriate values for the required parameters to configure a group action.
7. Click **Add**.

## Editing group actions

You can edit the group action parameters that you configured in Unified Manager, such as the group action name, description, associated group name, and parameters of the action type.

### Before you begin

You must have the Application Administrator or Storage Administrator role.

### Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Actions** tab, select the group action that you want to edit, and then click **Edit**.
3. In the **Edit Group Action** dialog box, change the group action name, description, associated group name, and parameters of the action type, as required.
4. Click **Save**.

## Configuring volume health thresholds for groups

You can configure group-level volume health thresholds for capacity, Snapshot copies, qtree quotas, growth, and inodes.

### Before you begin

You must have the Application Administrator or Storage Administrator role.

### About this task

The volume health threshold type of group action is applied only on volumes of a group.

### Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Actions** tab, click **Add**.
3. Enter a name and description for the group action.
4. From the **Group** drop-down box, select a group for which you want to configure group action.
5. Select **Action Type** as the volume health threshold.
6. Select the category for which you want to set the threshold.
7. Enter the required values for the health threshold.
8. Click **Add**.

## Deleting group actions

You can delete a group action from Unified Manager when the group action is no longer



required.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## About this task

When you delete the group action for the volume health threshold, global thresholds are applied to the storage objects in that group. Any object-level health thresholds that are set on the storage object are not impacted.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Actions** tab, select the group action that you want to delete, and then click **Delete**.
3. In the **Warning** dialog box, confirm the deletion by clicking **Yes**.

## Reordering group actions

You can change the order of the group actions that are to be applied to the storage objects in a group. Group actions are applied to storage objects sequentially based on their rank. The lowest rank is assigned to the group action that you configured last. You can change the rank of the group action depending on your requirements.

## Before you begin

You must have the Application Administrator or Storage Administrator role.

## About this task

You can select either a single row or multiple rows, and then perform multiple drag-and-drop operations to change the rank of group actions. However, you must save the changes for the re-prioritization to be reflected in the group actions grid.

## Steps

1. In the left navigation pane, click **Storage Management > Groups**.
2. In the **Group Actions** tab, click **Reorder**.
3. In the **Reorder Group Actions** dialog box, drag and drop the rows to rearrange the sequence of group actions as required.
4. Click **Save**.

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