Create a volume efficiency policy to run efficiency operations

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You can create a volume efficiency policy to run deduplication or data compression followed by deduplication on a volume for a specific duration, and specify the job schedule using the `volume efficiency policy create` command.

Before you begin

You must have created a cron schedule using the `job schedule cron create` command. For more information about managing the cron schedules, see the System administration reference.

About this task

An SVM administrator with default predefined roles cannot manage the deduplication policies. However, the cluster administrator can modify the privileges assigned to an SVM administrator by using any customized roles. For more information about the SVM administrator capabilities, see Administrator authentication and RBAC.

> You can run deduplication or data compression operations at a scheduled time, or by creating a schedule with a specific duration, or by specifying a threshold percentage, which waits for the new data to exceed the threshold and then triggers the deduplication or data compression operation. This threshold value is the percentage of the total number of blocks used in the volume. For example, if you set the threshold value on a volume to 20% when the total number of blocks used on the volume is 50%, data deduplication or data compression triggers automatically when new data written on the volume reaches 10% (20% of 50% blocks used). If required, you can obtain the total number of blocks used from the `df` command output.

Steps

1. Use the `volume efficiency policy create` command to create a volume efficiency policy.

Examples

The following command creates a volume efficiency policy named pol1 that triggers an efficiency operation daily:

```
volume efficiency policy create -vserver vs1 -policy pol1 -schedule daily
```

The following command creates a volume efficiency policy named pol2 that triggers an efficiency operation when the threshold percentage reaches 20%:

```
volume efficiency policy create -vserver vs1 -policy pol2 -type threshold -start
-threshold-percent 20%
```

Assign a volume efficiency policy to a volume

You can assign an efficiency policy to a volume to run deduplication or data compression operation by using the `volume efficiency modify` command.

About this task

If an efficiency policy is assigned to a SnapVault secondary volume, only the volume efficiency priority attribute is considered when running volume efficiency operations. The job schedules are ignored and the deduplication operation is run when incremental updates are made to the SnapVault secondary volume.

Step

1. Use the `volume efficiency modify` command to assign a policy to a volume.

Example

The following command assigns the volume efficiency policy named new_policy with volume VolA:

```
volume efficiency modify -vserver vs1 -volume VolA -policy new_policy
```

Modify a volume efficiency policy

You can modify a volume efficiency policy to run deduplication and data compression for a different duration or change the job schedule using the `volume efficiency policy modify` command.

Step

1. Use the `volume efficiency policy modify` command to modify a volume efficiency policy.

Examples

The following command modifies the volume efficiency policy named policy1 to run every hour:

```
volume efficiency policy modify -vserver vs1 -policy policy1 -schedule hourly
```

The following command modifies a volume efficiency policy named pol2 to threshold 30%:

```
volume efficiency policy modify -vserver vs1 -policy pol1 -type threshold -start
-threshold-percent 30%
```

View a volume efficiency policy

You can view the volume efficiency policy name, schedule, duration, and description by using the `volume efficiency policy show` command.

About this task

When you run the `volume efficiency policy show` command from the cluster scope, the cluster-scoped policies are not displayed. However, you can view the cluster-scoped policies in the storage virtual machine (SVM) context.

Step

1. Use the `volume efficiency policy show` command to view information about a volume efficiency policy.

   The output depends on the parameters you specify. For more information about displaying detailed view and other parameters, see the man page for this command.

Examples

The following command displays information about the policies created for the SVM vs1: `volume efficiency policy show -vserver vs1`

The following command displays the policies for which the duration is set as 10 hours: `volume efficiency policy show -duration 10`

Disassociate a volume efficiency policy from a volume

You can disassociate a volume efficiency policy from a volume to stop running any further schedule-based deduplication and data compression operations on the volume. Once you disassociate a volume efficiency policy, you have to trigger it manually.

Step

1. Use the `volume efficiency modify` command to disassociate a volume efficiency policy from a volume.

Example

The following command disassociates the volume efficiency policy from volume VolA: `volume efficiency modify -vserver vs1 -volume VolA -policy -`

Delete a volume efficiency policy

You can delete a volume efficiency policy by using the `volume efficiency policy delete` command.

What you'll need

You must have ensured that the policy you want to delete is not associated with any volume.

You cannot delete the *inline-only* and the *default* predefined efficiency policy.

Step

1. Use the `volume efficiency policy delete` command to delete a volume efficiency policy.

Example

The following command deletes a volume efficiency policy named policy1: `volume efficiency policy delete -vserver vs1 -policy policy1`

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