



# **Customize a replication policy**

## **ONTAP 9**

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# Customize a replication policy

## Create a custom replication policy

You can use a default or custom policy when you create a replication relationship. For a custom unified replication policy, you must define one or more *rules* that determine which Snapshot copies are transferred during initialization and update.

You can create a custom replication policy if the default policy for a relationship is not suitable. You might want to compress data in a network transfer, for example, or modify the number of attempts SnapMirror makes to transfer Snapshot copies.

### About this task

The *policy type* of the replication policy determines the type of relationship it supports. The table below shows the available policy types.

Policy type	Relationship type
async-mirror	SnapMirror DR
mirror-vault	Unified replication

### Step

1. Create a custom replication policy:

```
snapmirror policy create -vserver SVM -policy policy -type async-  
mirror|mirror-vault -comment comment -tries transfer_tries -transfer-priority  
low|normal -is-network-compression-enabled true|false
```

For complete command syntax, see the man page.

Beginning with ONTAP 9.5, you can specify the schedule for creating a common Snapshot copy schedule for SnapMirror Synchronous relationships by using the `-common-snapshot-schedule` parameter. By default, the common Snapshot copy schedule for SnapMirror Synchronous relationships is one hour. You can specify a value from 30 minutes to two hours for the Snapshot copy schedule for SnapMirror Synchronous relationships.

The following example creates a custom replication policy for SnapMirror DR that enables network compression for data transfers:

```
cluster_dst::> snapmirror policy create -vserver svm1 -policy  
DR_compressed -type async-mirror -comment "DR with network compression  
enabled" -is-network-compression-enabled true
```

The following example creates a custom replication policy for unified replication:

```
cluster_dst::> snapmirror policy create -vserver svm1 -policy my_unified
-type mirror-vault
```

### After you finish

For “mirror-vault” policy types, you must define rules that determine which Snapshot copies are transferred during initialization and update.

Use the `snapmirror policy show` command to verify that the SnapMirror policy was created. For complete command syntax, see the man page.

## Define a rule for a policy

For custom policies with the “mirror-vault” policy type, you must define at least one rule that determines which Snapshot copies are transferred during initialization and update. You can also define rules for default policies with the “mirror-vault” policy type.

### About this task

Every policy with the “mirror-vault” policy type must have a rule that specifies which Snapshot copies to replicate. The rule “bi-monthly”, for example, indicates that only Snapshot copies assigned the SnapMirror label “bi-monthly” should be replicated. You assign the SnapMirror label when you configure Element Snapshot copies.

Each policy type is associated with one or more system-defined rules. These rules are automatically assigned to a policy when you specify its policy type. The table below shows the system-defined rules.

System-defined rule	Used in policy types	Result
sm_created	async-mirror, mirror-vault	A Snapshot copy created by SnapMirror is transferred on initialization and update.
daily	mirror-vault	New Snapshot copies on the source with the SnapMirror label “daily” are transferred on initialization and update.
weekly	mirror-vault	New Snapshot copies on the source with the SnapMirror label “weekly” are transferred on initialization and update.
monthly	mirror-vault	New Snapshot copies on the source with the SnapMirror label “monthly” are transferred on initialization and update.

You can specify additional rules as needed, for default or custom policies. For example:

- For the default `MirrorAndVault` policy, you might create a rule called “bi-monthly” to match Snapshot copies on the source with the “bi-monthly” SnapMirror label.
- For a custom policy with the “mirror-vault” policy type, you might create a rule called “bi-weekly” to match Snapshot copies on the source with the “bi-weekly” SnapMirror label.

## Step

1. Define a rule for a policy:

```
snapmirror policy add-rule -vserver SVM -policy policy_for_rule -snapmirror
-label snapmirror-label -keep retention_count
```

For complete command syntax, see the man page.

The following example adds a rule with the SnapMirror label `bi-monthly` to the default `MirrorAndVault` policy:

```
cluster_dst:> snapmirror policy add-rule -vserver svm1 -policy
MirrorAndVault -snapmirror-label bi-monthly -keep 6
```

The following example adds a rule with the SnapMirror label `bi-weekly` to the custom `my_snapvault` policy:

```
cluster_dst:> snapmirror policy add-rule -vserver svm1 -policy
my_snapvault -snapmirror-label bi-weekly -keep 26
```

The following example adds a rule with the SnapMirror label `app_consistent` to the custom `Sync` policy:

```
cluster_dst:> snapmirror policy add-rule -vserver svm1 -policy Sync
-snapmirror-label app_consistent -keep 1
```

You can then replicate Snapshot copies from the source cluster that match this SnapMirror label:

```
cluster_src:> snapshot create -vserver vs1 -volume voll -snapshot
snapshot1 -snapmirror-label app_consistent
```

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