Customizing the transition of 7-Mode configurations by using the CLI

ONTAP 7-Mode Transition

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Customizing the transition of 7-Mode configurations by using the CLI

By default, all 7-Mode configurations are transitioned to ONTAP. You can choose to exclude some or all the volume, NFS, CIFS, SAN, and name services configurations from transition by using the 7-Mode Transition Tool CLI. You can also choose to consolidate the 7-Mode NFS export rules and Snapshot schedules, and reuse an existing NFS export policy and Snapshot policy on the target SVM.

You must perform this task before the configuration is applied, after which any modification will be ignored.

The 7-Mode Transition Tool does not perform prechecks for the configuration that is excluded.

By default, all 7-Mode configurations are selected for transition.

It is a best practice to run the prechecks with all configurations first, and then exclude one or more configurations in the subsequent run of the prechecks. This helps you to understand which configurations are excluded from transition and which prechecks are skipped subsequently.

Steps

- Exclude and verify the configurations:
  a. Exclude the configurations:
  transition cbt property-set -p *project_name* -n *config_property_name* -v true

  config_property_name is the configuration that you want to exclude.

  Configurations that can be excluded from transition

  b. Verify the value of the property that is set for excluding the configuration:

  transition cbt property-get -p *project_name* -n *config_property_name*

- Consolidate NFS export rules for transition:
  - Consolidate similar 7-Mode NFS export rules to a single export policy in clustered Data ONTAP, which can then be applied to the transitioned volume or qtree:
  transition cbt property-set -p *project_name* -n *nfs-consolidate-similiar-7mode-exports* -v true

    If the `nfs-consolidate-similiar-7mode-exports` property is set to `false`, the 7-Mode Transition Tool creates a new NFS export policy in ONTAP for each 7-Mode NFS export rule.

  - Reuse an existing NFS export policy on the SVM that matches the export policy that will be created by the tool, which can be applied to the transitioned volumes or qtrees:
  transition cbt property-set -p *project_name* -n *nfs-reuse-matching-svm-export-policies* -v true
- Consolidate Snapshot schedules for transition:
  - Consolidate similar 7-Mode Snapshot schedules to a single Snapshot policy in ONTAP, which can then be applied to the transitioned volume:
  transition cbt property-set -p *project_name* -n *consolidate-similar-7mode-*

***snapshot-policies* -v true**

If the `consolidate-similar-7mode-snapshot-policies` property is set to false, the 7-Mode Transition Tool creates a new Snapshot policy in ONTAP for each Snapshot schedule.

- Reuse an existing Snapshot policy on the SVM that matches the Snapshot policy that will be created by the tool, which can be applied to the transitioned volumes:
transition cbt property-set -p *project_name* -n *reuse-matching-svm-snapshot-policies* -v true

Configurations that can be excluded from transition

You can customize the configuration transition by excluding some volume-level or SVM-level configurations for NFS, CIFS, SAN, and name services configurations from transition by specifying the property name with the `transition cbt property-set` command of the 7-Mode Transition Tool CLI.

NFS

7-Mode configuration to exclude	Property name
Export policies	`ignore-nfs-exports-transition`
NFS options	`ignore-nfs-options-transition`
All NFS configurations	`ignore-all-nfs-configurations-transition`

CIFS

7-Mode configuration to exclude	Property name
Local users and groups	`ignore-local-users-groups-transition`
Home directory paths	`ignore-cifs-home-directory-paths-transition`
Symbolic links	`ignore-cifs-symlinks-transition`
Widelinks	`ignore-cifs-widelinks-transition`
Shares and Share ACLs	`ignore-cifs-shares-and-acls-transition`
CIFS options	`ignore-cifs-options-transition`

7-Mode configuration to exclude	Property name
Name mapping	`ignore-cifs-name-mapping-transition`
Audit configuration	`ignore-cifs-audit-transition`
Preferred domain controller list	`ignore-cifs-preferred-domain-controllers-list-transition`
All CIFS configurations	`ignore-all-cifs-configurations-transition`

Name services

7-Mode configuration to exclude	Property name
Netgroups	`ignore-netgroups-transition`
UNIX users and groups	`ignore-unix-users-groups-transition`
NIS	`ignore-nis-transition`
DNS	`ignore-dns-transition`
LDAP	`ignore-ldap-transition`
`/etc/nsswitch.conf` file	`ignore-nsswitch-transition`
LDAP-based user mapping	`ignore-nmswitch-transition`
`/etc/hosts` files	`ignore-etc-hosts-transition`
All name services configurations	`ignore-all-nameservices-configurations-transition`

SAN

7-Mode configuration to exclude	Property name
igroup and LUN mapping	`ignore-igroup-and-lunmapping-transition`
All configurations	`ignore-all-san-configurations-transition`

Snapshot schedules

7-Mode configuration to exclude	Property name
Snapshot schedules	ignore-snapshot-schedule-transition If this option is set to true, the 'default' Snapshot policy is applied to the transitioned volumes.

Related information

Supported and unsupported CIFS configurations for transition to ONTAP

NFS transition: supported and unsupported configurations, and required manual steps

Name services transition: supported and unsupported configurations, and required manual steps

SAN transition: supported and unsupported configurations, and required manual steps

Examples of consolidating NFS export rules and Snapshot schedules for transition

You might want to review examples of how similar 7-Mode export rules and 7-Mode Snapshot schedules are consolidated to a single NFS export policy and a single Snapshot policy in ONTAP. You might also want to understand how the consolidated policies are assigned to the transitioned volumes or qtrees with or without reusing a matching existing policy on the target SVM.

Example of consolidating NFS export rules for transition

NFS export rules in 7-Mode and ONTAP before transition

7-Mode export rules

```
/vol/vol1       -sec=sys,rw,nosuid
/vol/vol2       -sec=sys,rw,nosuid
/vol/vol3       -sec=sys,rw,nosuid
```

Export policies existing in ONTAP

```
cluster-2::> vserver export-policy show -vserver vs1
Vserver          Policy Name
---------------  -------------------
vs1              default
vs1              export_policy_1
```

The existing export policy export_policy_1 has the following export rule:

```
cluster-2::> vserver export-policy rule show -vserver vs1 -policyname
export_policy_1
             Policy          Rule    Access   Client                RO
Vserver      Name            Index   Protocol Match                 Rule
------------ --------------- ------  -------- ---------------------
---------
vs1          export_policy_1 1       nfs      0.0.0.0/0             sys
```

Export policies in ONTAP after transition with consolidation (no reuse)

Volumes vol1, vol2, and vol3 have similar export rules in 7-Mode; therefore, a new consolidated export policy, transition_export_policy_1, is assigned to these volumes after transition:

```
cluster-2::> vserver export-policy show -vserver vs1
Vserver          Policy Name
---------------  -------------------
vs1              default
vs1              export_policy_1
vs1              transition_export_policy_1
3 entries were displayed.
```

```
cluster-2::> vserver export-policy rule show -vserver vs1 -policyname
transition_export_policy_1
             Policy          Rule    Access   Client                RO
Vserver      Name            Index   Protocol Match                 Rule
------------ --------------- ------  -------- ---------------------
---------
vs1          transition_export_policy_1
                             1       nfs      0.0.0.0/0             sys
```

```
cluster-2::> volume show -vserver vs1 -volume vol1,vol2,vol3 -fields
policy
vserver volume policy
------- ------ -------------------------
vs1     vol1   transition_export_policy_1
vs1     vol2   transition_export_policy_1
vs1     vol3   transition_export_policy_1
3 entries were displayed.
```

Export policies in ONTAP after transition with consolidation and reuse

Volumes vol1, vol2, and vol3 have similar export rules in 7-Mode; therefore, a consolidated export policy is assigned to these volumes after transition. The export policy, export_policy_1, which matches the 7-Mode export rules, already exists on the SVM. Therefore, the policy is applied to these volumes:

```
cluster-2::> vserver export-policy show -vserver vs1
Vserver          Policy Name
---------------  -------------------
vs1              default
vs1              export_policy_1
2 entries were displayed.
```

```
cluster-2::> vserver export-policy rule show -vserver vs1 -policyname
export_policy_1
             Policy          Rule    Access   Client                RO
Vserver      Name            Index   Protocol Match                 Rule
------------ --------------- ------  -------- ---------------------
---------
vs1          export_policy_1 1       nfs      0.0.0.0/0             sys
```

```
cluster-2::> volume show -vserver vs1 -volume vol1,vol2,vol3 -fields
policy
vserver volume policy
------- ------ --------------------------
vs1     vol1   export_policy_1
vs1     vol2   export_policy_1
vs1     vol3   export_policy_1
3 entries were displayed.
```

Example of consolidating Snapshot policies for transition

Snapshot schedules in 7-Mode and ONTAP before transition

7-Mode schedule

7-Mode volume	7-Mode Snapshot schedule
vol1	0 2 4@8,12,16,20 (weekly Snapshot copies: 0, daily Snapshot copies: 2, hourly Snapshot copies: 6 at 2, 4, 8, 12, 16, 20 hours)
vol2	0 2 4@8,12,16,20
vol3	0 2 4@8,12,16,20

7-Mode volume	7-Mode Snapshot schedule
vol4	1 2 3@8,12,16 (weekly Snapshot copies: 1, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)
vol5	2 2 3@8,12,16 (weekly Snapshot copies: 2, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)

Snapshot policies existing in ONTAP

Snapshot policy name	Policy details
ScheduleWeekly	Weekly, count: 1
ScheduleDailyHourly4	**Schedule details** • Schedule1: daily, count1: 2 • Schedule2: hourly, count2: 4 every 8, 12, 16, 20 hours
ScheduleHourly1	Hourly at 8, 12, 16, 20 hours, count: 4

Snapshot policy in ONTAP after transition with consolidation (no reuse)

7-Mode volume	7-Mode Snapshot schedule	Snapshot policy in ONTAP
vol1	0 2 4@8,12,16,20 (weekly Snapshot copies: 0, daily Snapshot copies: 2, hourly Snapshot copies: 4 at 8, 12, 16, 20 hours)	**Consolidated policy for vol1, vol2, and vol3** • Name: transition_snapshot_policy_0 • Schedule details ◦ Schedule1: daily, count1: 2 ◦ Schedule2: hourly, count2: 4 every 8, 12, 16, 20 hours
vol2	0 2 4@8,12,16,20	vol3
0 2 4@8,12,16,20	vol4	1 2 3@8,12,16 (weekly Snapshot copies: 1, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)

7-Mode volume	7-Mode Snapshot schedule	Snapshot policy in ONTAP
• Name: transition_snapshot_policy_1 • Schedule details ◦ Schedule1: weekly, count1: 1 ◦ Schedule2: daily, count2: 2 ◦ Schedule3: hourly, count3: 3 every 8,12,16 hours	vol5	2 2 3@8,12,16 (weekly Snapshot copies: 2, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)

Snapshot policy in ONTAP after transition with consolidation and reuse

7-Mode volume	7-Mode Snapshot schedule	Snapshot policy in ONTAP
vol1	0 2 4@8,12,16,20 (weekly Snapshot copies: 0, daily Snapshot copies: 2, hourly Snapshot copies: 4 at 2, 4, 8, 12, 16, 20 hours)	Consolidated policy for vol1, vol2, and vol3 for which the existing ONTAP policy is reused Name: ScheduleDailyHourly4
vol2	0 2 4@8,12,16,20	vol3
0 2 4@8,12,16,20	vol4	1 2 3@8,12,16 (weekly Snapshot copies: 1, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)
• Name: transition_snapshot_policy_1 • Schedule details ◦ Schedule1: weekly, count1: 1 ◦ Schedule2: daily, count2: 2 ◦ Schedule3: hourly, count3: 3 every 8,12,16 hours	vol5	2 2 3@8,12,16 (weekly Snapshot copies: 2, daily Snapshot copies: 2, hourly Snapshot copies: 3 at 8,12,16 hours)

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