



Restoring databases after primary storage failure

Snap Creator Framework

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Restoring databases after primary storage failure

After a primary storage failure, or when all Snapshot copies are deleted from the volumes at the primary storage, Snap Creator will not be able to handle the restore, because there will no longer be a SnapVault relationship on the primary storage systems.

Restoring databases after a primary storage failure with Data ONTAP operating in 7-Mode

You can restore an SAP HANA database after a primary storage system running Data ONTAP operating in 7-Mode fails.

1. In this case, the restore has to be executed directly on the secondary storage system by using the following command: `snapvault restore --s snapshot_name -S backup_controller:backup_volumesource_controller:source_volume`

Perform this step for all volumes belonging to the SAP HANA database.

```
hanala> snapvault restore -s Backup-ANA-SV_hourly_20140410103943 -S
hana2b:/vol/backup_data_00001/mnt00001 hanala:/vol/data_00001/mnt00001
Restore will overwrite existing data in /vol/data_00001/mnt00001.
Are you sure you want to continue? y
Thu Apr 10 11:55:55 CEST [hanala:vdisk.qtreePreserveComplete:info]:
Qtree preserve is complete for /vol/data_00001/mnt00001.
Transfer started.
Monitor progress with 'snapvault status' or the snapmirror log.
```

```
hanala> snapvault restore -s Backup-ANA-SV_hourly_20140410103943 -S
hana2b:/vol/backup_data_00003/mnt00003 hanala:/vol/data_00003/mnt00003
Restore will overwrite existing data in /vol/data_00003/mnt00003.
Are you sure you want to continue? y
Thu Apr 10 11:58:18 CEST [hanala:vdisk.qtreePreserveComplete:info]:
Qtree preserve is complete for /vol/data_00003/mnt00003.
Transfer started.
Monitor progress with 'snapvault status' or the snapmirror log.
```

```
hana1b> snapvault restore -s Backup-ANA-SV_hourly_20140410103943 -S
hana2b:/vol/backup_data_00002/mnt00002 hana1b:/vol/data_00002/mnt00002
Restore will overwrite existing data in /vol/data_00002/mnt00002.
Are you sure you want to continue? y
Thu Apr 10 12:01:29 CEST [hana1b:vdisk.qtreePreserveComplete:info]:
Qtree preserve is complete for /vol/data_00002/mnt00002.
Transfer started.
Monitor progress with 'snapvault status' or the snapmirror log.
```

When the restore process is finished, you use SAP HANA to perform the recovery.

Restoring databases after a primary storage failure with clustered Data ONTAP

You can restore an SAP HANA database after a primary storage system running clustered Data ONTAP fails.

Assuming the primary volume is lost completely, you need to create a new primary volume and then restore from the backup volume.

1. Create a primary volume with type data protection.

```
hana::> volume create -vserver hanala -volume hana_data -aggregate
aggr_sas_101 -size 300G -state online -type DP -policy default -autosize
-mode grow_shrink -space-guarantee none
-snapshot-policy none -foreground true
[Job 6744] Job is queued: Create hana_data.
[Job 6744] Job succeeded: Successful
```

2. Restore all data from the backup volume.

```
hana::> snapmirror restore -destination-path hanala:hana_data -source
-path hana2b:backup_hana_data -source-snapshot sc-backup-
daily_20140505121000
[Job 6746] Job is queued: snapmirror restore from source
"hana2b:backup_hana_data" for the
snapshot sc-backup-daily_20140505121000.
```

```
hana::> job show -id 6746
```

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Job ID	Name	Vserver	Node	State
6746	SnapMirror restore	hana	hana01	Running

Description: snapmirror restore from source
"hana2b:backup_hana_data" for the snapshot sc-backup-
daily_20140505121000

When the restore process is finished, you use SAP HANA to perform the recovery.

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