



Configuration steps for ANF Cross-Region Replication

NetApp Solutions

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Configuration steps for ANF Cross-Region Replication

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A few preparation steps must be performed at the disaster recovery site before volume replication can be configured.

- A NetApp account must be available and configured with the same Azure subscription as the source.
- A capacity pool must be available and configured using the above NetApp account.
- A virtual network must be available and configured.
- Within the virtual network, a delegated subnet must be available and configured for use with ANF.

Protection volumes can now be created for the HANA data, the HANA shared and the HANA log backup volume. The following table shows the configured destination volumes in our lab setup.



To achieve the best latency, the volumes must be placed close to the VMs that run the SAP HANA in case of a disaster failover. Therefore, the same pinning process is required for the DR volumes as for any other SAP HANA production system.

HANA volume	Source	Destination	Replication schedule
HANA data volume	PR1-data-mnt00001	PR1-data-mnt00001-sm-dest	Daily
HANA shared volume	PR1-shared	PR1-shared-sm-dest	Hourly
HANA log/catalog backup volume	hanabackup	hanabackup-sm-dest	Hourly

For each volume, the following steps must be performed:

1. Create a new protection volume at the DR site:
 - a. Provide the volume name, capacity pool, quota, and network information.
 - b. Provide the protocol and volume access information.
 - c. Provide the source volume ID and a replication schedule.
 - d. Create a target volume.
2. Authorize replication at the source volume.
 - Provide the target volume ID.

The following screenshots show the configuration steps in detail.

At the disaster recovery site, a new protection volume is created by selecting volumes and clicking Add Data Replication. Within the Basics tab, you must provide the volume name, capacity pool and network information.



The quota of the volume can be set based on capacity requirements, because volume performance does not have an effect on the replication process. In the case of a disaster recovery failover, the quota must be adjusted to fulfill the real performance requirements.



If the capacity pool has been configured with manual QoS, you can configure the throughput in addition to the capacity requirements. Same as above, you can configure the throughput with a low value during normal operation and increase it in case of a disaster recovery failover.

Create a new protection volume

Basics Protocol Replication Tags Review + create

This page will help you create an Azure NetApp Files volume in your subscription and enable you to access the volume from within your virtual network. [Learn more about Azure NetApp Files](#)

Volume details

Volume name *	<input type="text" value="PR1-data-mnt00001-sm-dest"/> ✓
Capacity pool * ⓘ	<input type="text" value="dr-sap-pool1"/> ▼
Available quota (GiB) ⓘ	<div><div>4096</div><div>4 TiB</div></div>
Quota (GiB) * ⓘ	<input type="text" value="500"/> ✓ 500 GiB
Virtual network * ⓘ	<input type="text" value="dr-vnet (10.2.0.0/16,10.0.2.0/24)"/> ▼ Create new
Delegated subnet * ⓘ	<input type="text" value="default (10.0.2.0/28)"/> ▼ Create new
Show advanced section	<input type="checkbox"/>

Review + create

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Next : Protocol >

In the Protocol tab, you must provide the network protocol, the network path, and the export policy.



The protocol must be the same as the protocol used for the source volume.

Create a new protection volume

Basics Protocol Replication Tags Review + create

Configure access to your volume.

Access

Protocol type ☒ NFS ☐ SMB ☐ Dual-protocol (NFSv3 and SMB)

Configuration

File path * ⓘ

Versions * ▼

Kerberos ☐ Enabled ☒ Disabled

Export policy

Configure the volume's export policy. This can be edited later. [Learn more](#)

↑ Move up ↓ Move down ↕ Move to top ⬇ Move to bottom 🗑 Delete

<input checked="" type="checkbox"/>	Index	Allowed clients	Access	Root Access	
<input checked="" type="checkbox"/>	1	<input type="text" value="0.0.0.0/0"/>	<input type="text" value="Read & Write"/> ▼	<input type="text" value="On"/> ▼	...
		<input type="text"/>	<input type="text"/> ▼	<input type="text"/> ▼	

Review + create

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Next : Replication >

Within the Replication tab, you must configure the source volume ID and the replication schedule. For data volume replication, we configured a daily replication schedule for our lab setup.



The source volume ID can be copied from the Properties screen of the source volume.

Create a new protection volume

Basics Protocol Replication Tags Review + create

Source volume ID ⓘ

/subscriptions/28cfc403-f3f6-4b07-9847-4eb16109e870/resourceGroups/rg...✓

Replication schedule ⓘ

Daily^

Every 10 minutes

Hourly

Daily

Review + create

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Next : Tags >

As a final step, you must authorize replication at the source volume by providing the ID of the target volume.



You can copy the destination volume ID from the Properties screen of the destination volume.

I-data-mnt00001)



PR1-data-mnt00001 (saponanf/sap-pool1/PR1-data-mnt00001) | Replication

Volume

Search (Ctrl+/)



Authorize

Overview

Activity log

Access control (IAM)

Tags

Settings

Properties

Locks

Storage service

Mount instructions

Export policy

Snapshots

Replication

You don't have any data protection volumes. Click Add data protection to get started.

Authorize



Authorize

Update the replication schedule

Destination volume id ⓘ

ol1/volumes/PR1-data-mnt00001-sm-de✓

The same steps must be performed for the HANA shared and the log backup volume.

Next: [Monitoring ANF Cross-Region Replication.](#)

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