



# **Prepare the target host**

## **NetApp Solutions**

Dorian Henderson, Ivana Devine  
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# Prepare the target host

[Previous: Disaster recovery testing.](#)

This section describes the preparation steps required at the server, which is used for disaster recovery failover testing.

During normal operation, the target host is typically used for other purposes, for example as a HANA QA or test system. Therefore, most of these steps must be run when disaster failover testing is performed. On the other hand, the relevant configuration files, like `/etc/fstab` and `/usr/sap/sapservices`, can be prepared and then put into production by simply copying the configuration file. The disaster recovery testing procedure ensures that the relevant prepared configuration files are configured correctly.

The target host preparation also includes shutting down the HANA QA or test system, as well as stopping all services using `systemctl stop sapinit`.

## Target server host name and IP address

The host name of the target server must be identical to the host name of the source system. The IP address can be different.



Proper fencing of the target server must be established so that it cannot communicate with other systems. If proper fencing is not in place, then the cloned production system might exchange data with other production systems, resulting in logically corrupted data.

## Install required software

The SAP host agent software must be installed at the target server. For more information, see the [SAP Host Agent](#) at the SAP help portal.



If the host is used as a HANA QA or test system, the SAP host agent software is already installed.

## Configure users, ports, and SAP services

The required users and groups for the SAP HANA database must be available at the target server. Typically, central user management is used; therefore, no configuration steps are necessary at the target server. The required ports for the HANA database must be configured at the target hosts. The configuration can be copied from the source system by copying the `/etc/services` file to the target server.

The required SAP services entries must be available at the target host. The configuration can be copied from the source system by copying the `/usr/sap/sapservices` file to the target server. The following output shows the required entries for the SAP HANA database used in the lab setup.

```
vm-pr1:~ # cat /usr/sap/sapservices
#!/bin/sh
LD_LIBRARY_PATH=/usr/sap/PR1/HDB01/exe:$LD_LIBRARY_PATH;export
LD_LIBRARY_PATH;/usr/sap/PR1/HDB01/exe/sapstartsrv
pf=/usr/sap/PR1/SYS/profile/PR1_HDB01_vm-pr1 -D -u prladm
limit.descriptors=1048576
```

## Prepare HANA log volume

Because the HANA log volume is not part of the replication, an empty log volume must exist at the target host. The log volume must include the same subdirectories as the source HANA system.

```
vm-pr1:~ # ls -al /hana/log/PR1/mnt00001/
total 16
drwxrwxrwx 5 root    root    4096 Feb 19 16:20 .
drwxr-xr-x 3 root    root      22 Feb 18 13:38 ..
drwxr-xr-- 2 prladm sapsys 4096 Feb 22 10:25 hdb00001
drwxr-xr-- 2 prladm sapsys 4096 Feb 22 10:25 hdb00002.00003
drwxr-xr-- 2 prladm sapsys 4096 Feb 22 10:25 hdb00003.00003
vm-pr1:~ #
```

## Prepare log backup volume

Because the source system is configured with a separate volume for the HANA log backups, a log backup volume must also be available at the target host. A volume for the log backups must be configured and mounted at the target host.

If log backup volume replication is part of the disaster recovery setup, a new volume based on a snapshot is mounted at the target host, and it is not necessary to prepare an additional log backup volume.

## Prepare file system mounts

The following table shows the naming conventions used in the lab setup. The volume names of the new volumes at the disaster recovery site are included in `/etc/fstab`. These volume names are used in the volume creation step in the next section.

HANA PR1 volumes	New volume and subdirectories at disaster recovery site	Mount point at target host
Data volume	PR1-data-mnt00001-sm-dest-clone	/hana/data/PR1/mnt00001
Shared volume	PR1-shared-sm-dest-clone/shared PR1-shared-sm-dest-clone/usr-sap-PR1	/hana/shared /usr/sap/PR1
Log backup volume	hanabackup-sm-dest-clone	/hanabackup



The mount points listed in this table must be created at the target host.

Here are the required `/etc/fstab` entries.

```
vm-pr1:~ # cat /etc/fstab
# HANA ANF DB Mounts
10.0.2.4:/PR1-data-mnt00001-sm-dest-clone /hana/data/PR1/mnt00001 nfs
rw,vers=4,minorversion=1,hard,timeo=600,rsz=262144,wsz=262144,intr,noa
time,lock,_netdev,sec=sys 0 0
10.0.2.4:/PR1-log-mnt00001-dr /hana/log/PR1/mnt00001 nfs
rw,vers=4,minorversion=1,hard,timeo=600,rsz=262144,wsz=262144,intr,noa
time,lock,_netdev,sec=sys 0 0
# HANA ANF Shared Mounts
10.0.2.4:/PR1-shared-sm-dest-clone/hana-shared /hana/shared nfs
rw,vers=4,minorversion=1,hard,timeo=600,rsz=262144,wsz=262144,intr,noa
time,lock,_netdev,sec=sys 0 0
10.0.2.4:/PR1-shared-sm-dest-clone/usr-sap-PR1 /usr/sap/PR1 nfs
rw,vers=4,minorversion=1,hard,timeo=600,rsz=262144,wsz=262144,intr,noa
time,lock,_netdev,sec=sys 0 0
# HANA file and log backup destination
10.0.2.4:/hanabackup-sm-dest-clone /hanabackup nfs
rw,vers=3,hard,timeo=600,rsz=262144,wsz=262144,nconnect=8,bg,noatime,n
oalock 0 0
```

Next: [Create new volumes based on snapshot backups at the disaster recovery site.](#)

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