



# **Requirements for cloning an Oracle database**

## **SnapCenter Software**

Soumik Das, Archana  
June 11, 2021

This PDF was generated from [https://docs.netapp.com/us-en/snapcenter/protect-sco/reference\\_requirements\\_for\\_cloning\\_an\\_oracle\\_database.html](https://docs.netapp.com/us-en/snapcenter/protect-sco/reference_requirements_for_cloning_an_oracle_database.html) on June 24, 2021. Always check docs.netapp.com for the latest.

# Table of Contents

Requirements for cloning an Oracle database ..... 1

# Requirements for cloning an Oracle database

Before cloning an Oracle database, you should ensure that prerequisites are completed.

- You should have created a backup of the database using SnapCenter.

You should have successfully created online data and log backups or offline (mount or shutdown) backups for the cloning operation to succeed.

- If you want to customize the control file or redo log file paths, you should have preprovisioned the required file system or Automatic Storage Management (ASM) disk group.

By default, redo log and control files of the cloned database are created on the ASM disk group or the file system provisioned by SnapCenter for the data files of the clone database.

- If you are using ASM over NFS, you should add `/var/opt/snapcenter/scu/clones/*/*` to the existing path defined in the `asm_diskstring` parameter.
- In the `asm_diskstring` parameter, you should configure `AFD:*` if you are using ASMFD or configure `ORCL:*` if you are using ASMLIB.

For information on how to edit the `asm_diskstring` parameter, see [How to add disk paths to `asm\_diskstring`](#).

- If you are creating the clone on an alternate host, the alternate host should meet the following requirements:
  - SnapCenter Plug-in for Oracle Database should be installed on the alternate host.
  - The clone host should be able to discover LUNs from primary or secondary storage.
    - If you are cloning from primary storage or secondary (Vault or Mirror) storage to an alternate host, then make sure that an iSCSI session is either established between the secondary storage and the alternate host, or zoned properly for FC.
      - [Linux Host Utilities Installation and Setup Guide](#)
      - [AIX Host Utilities Installation and Setup Guide](#)
    - If you are cloning from Vault or Mirror storage to the same host, then make sure that an iSCSI session is either established between the Vault or Mirror storage and the host, or zoned properly for FC.
    - If you are cloning in a virtualized environment, ensure that an iSCSI session is either established between the primary or secondary storage and the ESX server hosting the alternate host, or zoned properly for FC.
  - If the source database is an ASM database:
    - The ASM instance should be up and running on the host where the clone will be performed.
    - The ASM disk group should be provisioned prior to the clone operation if you want to place archive log files of the cloned database in a dedicated ASM disk group.
    - The name of the data disk group can be configured, but ensure that the name is not used by any other ASM disk group on the host where the clone will be performed.

Data files residing on the ASM disk group are provisioned as part of the SnapCenter clone workflow.

- The protection type for the data LUN and the log LUN, such as mirror, vault, or mirror-vault, should be the same to discover secondary locators during cloning to an alternate host using log backups.

- You should set the value of `exclude_seed_cdb_view` to `FALSE` in the source database parameter file to retrieve seed PDB related information for cloning a backup of 12c database.

The seed PDB is a system-supplied template that the CDB can use to create PDBs. The seed PDB is named `PDB$SEED`. For information about `PDB$SEED`, see the Oracle Doc ID 1940806.1.



You should set the value before backing up 12c database.

- SnapCenter supports backup of file systems that are managed by the autofs subsystem. If you are cloning the database, ensure that data mount points are not under the root of the autofs mount point because the root user of the plug-in host does not have permission to create directories under the root of the autofs mount point.

If control and redo log files are under data mount point, you should modify the control file path, and then redo log file path accordingly.



You can manually register the new cloned mount points with the autofs subsystem. The new cloned mount points will not be registered automatically.

- If you have a TDE (auto login) and want to clone the database on the same or alternate host, you should copy wallet (key files) under `/etc/ORACLE/WALLET/$ORACLE_SID` from the source database to the cloned database.
- You should set the value of `use_lvmetad = 0` in `/etc/lvm/lvm.conf` and stop the `lvm2-lvmetad` service to successfully perform cloning in storage area network (SAN) environments on Oracle Linux 7 or later or Red Hat Enterprise Linux (RHEL) 7 or later.
- You should install the 13366202 Oracle patch if you are using Oracle database 11.2.0.3 or later and the database ID for the auxiliary instance is changed using an NID script.
- You should ensure that the aggregates hosting the volumes should be in the assigned aggregates list of the storage virtual machine (SVM).

## Copyright Information

Copyright © 2021 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system- without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.