



Deploying and running the scripts

SnapManager Oracle

NetApp
August 30, 2024

This PDF was generated from https://docs.netapp.com/us-en/snapmanager-oracle/unix-administration/concept_support_for_oracle_rac_asm_databases.html on August 30, 2024. Always check docs.netapp.com for the latest.

Table of Contents

- Deploying and running the scripts 1
 - Support for Oracle RAC ASM databases without ASMLib 3
 - Support for Oracle 10g ASM databases without ASMLib 3

Deploying and running the scripts

You can deploy and run the `asmmain.sh` and `asmquerydisk.sh` scripts to support ASM databases without ASMLib.

These scripts do not follow the pre-scripts or post-scripts syntax and workflow is called when `initasm disks` is enabled. You can change anything related to your configuration settings in the scripts. It is recommended to verify if everything in the scripts are working as expected by performing a quick dry run.



These scripts do not harm your system on failures nor will they impact your system. These scripts are executed to update the ASM-related disks to have proper permissions and ownership, so that the disks will always be under ASM instance control.

1. Create the ASM disk groups with the partitioned disks.
2. Create the Oracle database on the DISK GROUPS.
3. Stop the SnapManager for Oracle server.



In an RAC environment, you need perform this step on all the RAC nodes.

4. Modify the `smo.conf` to include the following parameters:
 - a. `oracleasm.support.without.asmlib = true`
 - b. `oracleasm.support.without.asmlib.ownership = true`
 - c. `oracleasm.support.without.asmlib.username = user name of your ASM instance environment`
 - d. `oracleasm.support.without.asmlib.groupname = group name of your ASM instance environment`

These modifications set the permissions for the absolute path only, which means instead of partition device, permissions will be set only for `dm-*` device.
5. Modify the plugins scripts available in `/opt/NetApp/smo/plugins/examples/noasmlib` to include your configuration settings in the scripts.
6. Copy the scripts to `/opt/NetApp/smo/plugins/noasmlib` before starting the SnapManager for Oracle server on the host.
7. Navigate to the `/opt/NetApp/smo` directory and perform a dry run by running the following script: `sh plugins/noasmlib/asmmain.sh`

The `etc/initasm disks` file is created, which is the main file that is used.

You can confirm that the `etc/initasm disks` file contains all the devices related to configured the ASM database, such as:

```

chown -R grid:oinstall /dev/mapper/360a98000316b61396c3f394645776863p1
chmod 777 /dev/mapper/360a98000316b61396c3f394645776863p1
chown -R grid:oinstall
/dev/mapper/360a980003754322f7a2b433469714239p1
chmod 777 /dev/mapper/360a980003754322f7a2b433469714239p1
chown -R grid:oinstall
/dev/mapper/360a980003754322f7a2b433469714241p1
chmod 777 /dev/mapper/360a980003754322f7a2b433469714241p1
chown -R grid:oinstall
/dev/mapper/360a980003754322f7a2b433469714243p1
chmod 777 /dev/mapper/360a980003754322f7a2b433469714243p1

```

8. Start the SnapManager for Oracle server.
9. Configure SnapDrive for UNIX by adding the following to snapdrive.conf file.disconnect-luns-before-vbsr=on
10. Restart the SnapDrive for UNIX server.



In an RAC environment, you need perform the Step 3 through Step 10 for all the RAC nodes.

The /etc/initasmdisks file created, must be executed from either one of the startup scripts or from a script that is newly defined in the rc3.d. The /etc/initasmdisks file should always be executed before the oracleha service starts.

Example

```

# ls -ltr *ohasd*
lrwxrwxrwx 1 root root 17 Aug  7 02:34 S96ohasd ->
/etc/init.d/ohasd
lrwxrwxrwx 1 root root 17 Aug  7 02:34 K15ohasd ->
/etc/init.d/ohasd

```

In the following example, sh -x/etc/initasmdisks will not be available by default, and you need to append it as the first line in the function start_stack() in an ohasd script:

```

start_stack()
{
sh -x /etc/initasmdisks
# see init.ohasd.sbs for a full rationale case $PLATFORM in Linux
}

```

Support for Oracle RAC ASM databases without ASMLib

If you are using Oracle RAC databases, the RAC nodes must be updated with the `initasmdisks` file whenever an operation is performed in the master RAC node.

If no authentication is required to log in into the RAC nodes from the master node, the `asmmain.sh` performs a secure copy (SCP) of `initasmdisks` to all the RAC nodes. The master node's `initasmdisks` file will be called whenever restore happens, and the `asmmain.sh` script can be updated to invoke the same script in all the RAC nodes.

The `/etc/initasmdisks` file created that must be executed from either one of the startup scripts or from a newly defined script in the `rc3.d`. The `/etc/initasmdisks` file should always be executed before the `oracleha` service starts.

Support for Oracle 10g ASM databases without ASMLib

If you are using Oracle 10g, the `asmcmd` command is not available for listing disks. You can use the sql query to obtain the disks list.

The `disk_list.sql` script is included in the existing scripts provided in the examples directory to support sql queries. When you execute the `asmquerydisk.sh` script, the `disk_list.sql` script must be executed manually. The example script lines are added with comments in the `asmquerydisk.sh` file. This file can either be placed in the `/home/grid` location or another location of your choice.

Copyright information

Copyright © 2024 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.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

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.