Restore cloud-native Oracle databases
BlueXP backup and recovery

NetApp
October 23, 2023
Table of Contents

Restore cloud-native Oracle databases .................................................. 1
  Restore cloud-native Oracle databases to original location ....................... 1
  Restore cloud-native Oracle databases to alternate location ..................... 2
Restore cloud-native Oracle databases

Restore cloud-native Oracle databases to original location

In the event of data loss, you can restore the data files, control files, or both to original location and then recover the database.

**Before you begin**

If the Oracle 21c database is in STARTED state, the restore operation fails. You should run the following command to restore the database successfully.

```
cp -f <ORACLE_HOME>/jdbc/lib/ojdbc8.jar
/opt/NetApp/snapcenter/spl/plugins/sco/lib/ojdbc8-8.jar
```

**Steps**

1. Click corresponding to the database that you want to restore and click Restore.
2. Select the restore point to which the database should be restored and click Restore to original location.
3. In the Restore Scope section, perform the following actions:

<table>
<thead>
<tr>
<th>If you…</th>
<th>Do this…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to restore only the data files</td>
<td>Select All Data Files.</td>
</tr>
<tr>
<td>Want to restore only the control files</td>
<td>Select Control Files</td>
</tr>
<tr>
<td>Want to restore both data files and control files</td>
<td>Select All Data Files and Control Files.</td>
</tr>
</tbody>
</table>

You can also select Force in-place restore checkbox.

In Amazon FSx for NetApp ONTAP or Cloud Volumes ONTAP SAN layout, if SnapCenter Plug-in for Oracle finds any foreign files other than Oracle data files on the ASM diskgroup, connect and copy restore method is performed. The foreign files could be one or more of the following types:

- Parameter
- Password
- archive log
- online log
- ASM parameter file.

The Force in-place restore option overrides the foreign files of type parameter, password, and archive log. You should use the latest backup when Force in-place restore option is selected.

4. In the Recovery Scope section, perform the following actions:

<table>
<thead>
<tr>
<th>If you…</th>
<th>Do this…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to recover to the last transaction</td>
<td>Select All Logs.</td>
</tr>
<tr>
<td>If you…</td>
<td>Do this…</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Want to recover to a specific System Change Number (SCN)</td>
<td>Select Until SCN and specify the SCN.</td>
</tr>
<tr>
<td>Want to recover to a specific date and time</td>
<td>Select Date and Time.</td>
</tr>
<tr>
<td>Do not want to recover</td>
<td>Select No recovery.</td>
</tr>
</tbody>
</table>

For the selected recovery scope, in the Archive Log Files Locations field you can optionally specify the location that contains the archive logs required for recovery.

Select the check box if you want to open the database in READ-WRITE mode after recovery.

5. Click **Next** and review the details.
6. Click **Restore**.

**Restore cloud-native Oracle databases to alternate location**

In the event of data loss, you can restore the Oracle database to alternate location only on Azure NetApp Files. The alternate location can be on a different host or on the same host.

**Before you begin**

- If the Oracle 21c database is in STARTED state, the restore operation fails. You should run the following command to restore the database successfully.

  ```bash
  cp -f <ORACLE_HOME>/jdbc/lib/ojdbc8.jar
  /opt/NetApp/snapcenter/spl/plugins/sco/lib/ojdbc8-8.jar
  ```

- You should ensure that the Oracle version on the alternate host is same as that of the original host.

**About this task**

While initiating the restore operation, you are not allowed to modify the configurations except the Oracle home, maximum volume throughput, Oracle SID, and database credentials.

Full recovery is enabled by default with **Until cancel** set to true.

Archive log mode is turned off by default for the restored database. You can enable archive log mode and keep the archive logs on the NetApp volume if required.

**Steps**

1. Click *** corresponding to the database that you want to restore and click **Restore**.
2. Select the restore point to which the database should be restored and click **Restore to alternate location > Next**.
3. In the Configuration page, specify the details of the alternate location, SID, Oracle_Home, database credentials, and storage throughput.

   For the database credential, if the OS User authentication is disabled, you should provide a password for the sys user to connect to the restored database on the same or target host.
4. Click **Next**, review the details and click **Restore**.

The progress of the restore operation can be viewed in the Job Monitor page. After the job is completed, click **Refresh Discovery** to view the restored database. However, you cannot protect the database that is restored to alternate location.
Copyright information

Copyright © 2023 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.