



## Rubrik RBS Oracle DBA RMAN Restores

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## Overview

Rubrik RBS backups are standard RMAN incremental merge backups and the Rubrik CDM can provide access to those backup pieces to allow you to do any type of restore available with RMAN. The Rubrik CDM can copy those backup pieces to a location provided on the restore host which is called an export or it can mount an NFS share with the backup pieces at the location provided which is called a mount. In most circumstances the mount will be the better option since it will allow you to start your recovery or duplication faster and it does not require space to land the backup pieces on the restore host.

After the Rubrik CDM mounts or copies the backups on the host those backups need to be added to the RMAN control file catalog before they can be used. Once that is done, all remaining operations are standard RMAN operations and you can use your backups to do anything that RMAN can do. Also note that if you want to do a complete recovery on your source database this is the only method available.

## Determine the Backup Set Required

The first step in files only backup image restore is select the backup pieces to use for the restore. If you are doing a complete restore where you will want the most recent backup set available.

### Latest Restore Point

**!! Important: Always use the most recent recovery point available on the Rubrik CDM if you are attempting a complete database recovery !!**

To select the most recent recovery point select the most recent day on the Recovery Point calendar and then drag the slider as far to the right as possible just before it turns red.

You can also click on the "Latest Recovery Point" in the Overview pane. (Note this only works in CDM 5.0.3 and greater)

### Restore Point Using SCN

If you have a particular SCN you need to restore to you will need to convert that to a time. The backups in the Rubrik CDM are listed by backup time so to determine which backup set you need to first find the time of that SCN.

You can get the time with the following query:

```
SQL> select to_char(scn_to_timestamp(20802300),'YYYY-MM-DD:HH24:MI:SS') from dual;
```

```
TO_CHAR(SCN_TO_TIME)
-----
2019-05-06:15:24:59
```

In the above example, if I want to restore the database to the SCN 20802000, you will need to get a backup set that is between a full snapshot (database backup) and a time later than the returned time from the query (06-MAY-19 03.12.53.000000000 PM).

## Restore Point Using Time

Using a time for the point in time restore is pretty straight forward. We just need to get a backup set that is between a full snapshot (database backup) and a time later than the time we would like to duplicate to.

## Selecting the Backup Set in Rubrik

Start by going to the page for the Oracle database you wish to restore in Rubrik. Then under the Recovery Points select the day you want to duplicate the database from.

Recovery Points

Today

Year Month Day

<

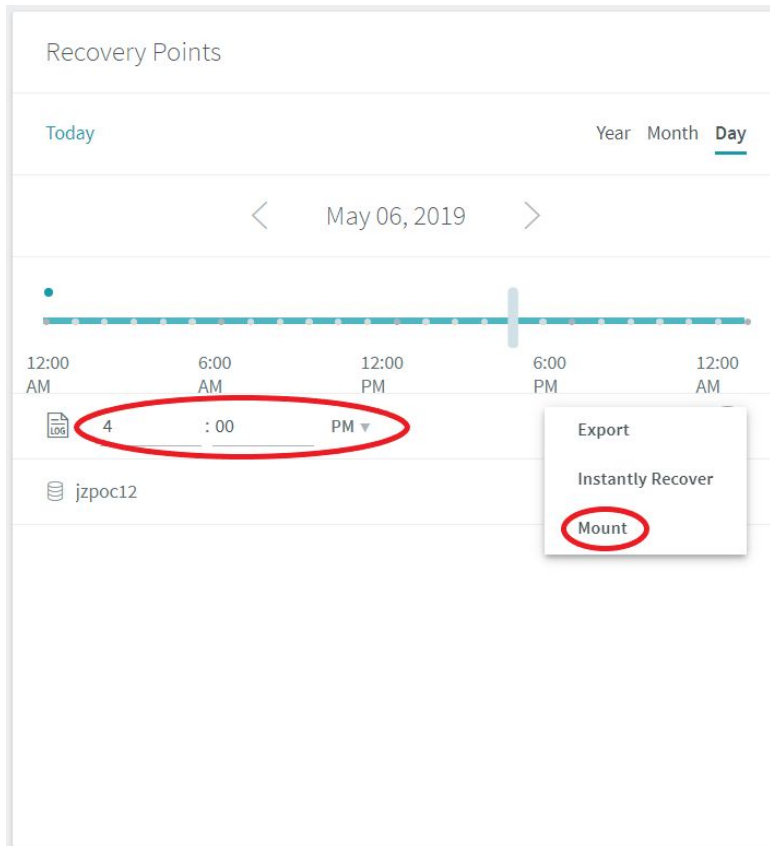
May 2019

>

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Then set the time or drag the slider to set the time. If you are restoring to a particular point in time you need to select a time that is later than (past) the time you wish to restore to but it should be before the next database snapshot (database incremental backup) which is indicated by the green dot above the recovery point timeline.

In this example I am restoring 06-MAY-19 03:12:53 so I will select the 4:00 pm on May 6 recovery point for my backup set.



Once you have the recovery time set, select mount if you would like to restore from the backup sets from NFS shares. If you would like to copy the backup sets to local disk before the restore select Export.

The difference between Export and Mount is Export will copy the backup pieces to local disk at the path provided and Mount will mount NFS disk on Rubrik with the backup pieces at the mount path provided.

## Making the Backup Set Available

On the host where that you wish to restore the database to we will next mount the backup set or copy the backup over to if you selected Export.

Select the "Do not restore, make the backup image available for DBA" check box. Enter the path where you would like to mount (or copy) the backup set. Then select the host where you are doing the backup.

Note that if you are restoring the database on the source (original) host (or cluster) that host (or cluster) will not appear in the list of hosts (or clusters) until you select the "Do not restore, make the backup image available for DBA" check box". Once you select that option you will see that host or cluster appear in the list of choices.

In this example I will mount the backup set over NFS from the Rubrik CDM at /u01/app/oracle/backups.

Mount

Choose from the list of compatible standalone hosts and clusters

Search  
jz-poc-oe17-ora12-04

Hosts/Clusters

jz-poc-oe17-ora12-04

☒ Do not restore, make the backup image available for DBA

Backup image path  
/u01/app/oracle/backups

Cancel Mount

The backup set is now available on the host for any type of RMAN restore or duplicate.

## Start the Oracle Instance and Mount the Control File

Before you can use the backup pieces you must start the Oracle instance and mount the control file.

If the spfile is no longer available you can restore the spfile from the control file autobackup pieces in the backup set mounted (or copied to) on restore host. Once the spfile is restored (or a new init file used

instead) and the instance is started the control file can be restored if necessary. Note if you restore the control file you will need to start the database with the "resetlogs" option.

Please refer to the Oracle documentation for your Oracle version for more detailed instructions.

## Restoring the SP File

If you do not have an spfile or an init file to start the instance you can restore the spfile from the backup pieces.

The backup pieces will be mounted or copied to directories in the location provided. If you go to that directory you will see a directory with a long alphanumeric name. In that directory you will see a directory for each channel used in the backup. Go to the first channel - c0 and list the files. You will see something like the following:

```
[oracle@sh1-ora12o17-02 dbs]$ cd
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c0
[oracle@sh1-ora12o17-02 c0]$ ls
arch_D-SHDB1_id-745672508_S-3213_T-1_A-1005829311_60uegfnr
controlfile_c-745672508-20191017-03
arch_D-SHDB1_id-745672508_S-3214_T-1_A-1005829311_62ueglhr
controlfile_c-745672508-20191017-04
arch_D-SHDB1_id-745672508_S-3215_T-1_A-1005829311_64uegsj0
controlfile_c-745672508-20191017-05
arch_D-SHDB1_id-745672508_S-3216_T-1_A-1005829311_66ueh3n4
controlfile_c-745672508-20191017-06
arch_D-SHDB1_id-745672508_S-3217_T-1_A-1005829311_68uehaqs
controlfile_c-745672508-20191017-07
arch_D-SHDB1_id-745672508_S-3218_T-1_A-1005829311_6auehhu6
controlfile_c-745672508-20191017-08
arch_D-SHDB1_id-745672508_S-3219_T-1_A-1005829311_6cuehp11
data_D-SHDB1_I-745672508_TS-SOE_FNO-10_vftvv7aj
arch_D-SHDB1_id-745672508_S-3220_T-1_A-1005829311_6euei05j
data_D-SHDB1_I-745672508_TS-SOE_FNO-14_vjtvv7b3
controlfile_c-745672508-20191017-00
data_D-SHDB1_I-745672508_TS-SOE_FNO-2_vbtvv7a4
controlfile_c-745672508-20191017-01
data_D-SHDB1_I-745672508_TS-UNDOTBS1_FNO-4_vptvv7bd
controlfile_c-745672508-20191017-02
```

The control file autobackups which include the spfile are the files beginning with "controlfile\_c". Usually using the last one is recommended but usually any of those files will work equally well.

Next start the instance without an spfile:

```
[oracle@sh1-ora12o17-02 dbs]$ rman target /

Recovery Manager: Release 12.1.0.2.0 - Production on Thu Oct 17 15:50:10 2019

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connected to target database (not started)

RMAN> startup force nomount;

startup failed: ORA-01078: failure in processing system parameters
```

```
LRM-00109: could not open parameter file
'/u01/app/oracle/product/12.1.0/dbhome_1/dbs/initshdb1.ora'
```

```
starting Oracle instance without parameter file for retrieval of spfile
Oracle instance started
```

```
Total System Global Area      1073741824 bytes
```

```
Fixed Size                      2932632 bytes
Variable Size                   293601384 bytes
Database Buffers                771751936 bytes
Redo Buffers                    5455872 bytes
```

Now that the instance is running you can restore the spfile. Note there are other ways of restore the spfile from the autobackup but this is a simple and reliable method.

```
RMAN> restore spfile to '/u01/app/oracle/product/12.1.0/dbhome_1/dbs/initshdb1.ora' from
'/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2a
f3c4/c0/controlfile_c-745672508-20191017-07';
```

```
Starting restore at 18-OCT-19
using target database control file instead of recovery catalog
allocated channel: ORA_DISK_1
channel ORA_DISK_1: SID=918 device type=DISK
```

```
channel ORA_DISK_1: restoring spfile from AUTOBACKUP
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c0/controlfile_c-745672508-20191017-07
channel ORA_DISK_1: SPFILE restore from AUTOBACKUP complete
Finished restore at 18-OCT-19
```

Now you can restart the instance in nomount using the restored spfile.

```
RMAN> shutdown;
```

```
Oracle instance shut down
```

```
RMAN> startup nomount;
```

```
Oracle instance started
```

```
Total System Global Area      6593445888 bytes
```

```
Fixed Size                      3725656 bytes
Variable Size                   3523217064 bytes
Database Buffers                3053453312 bytes
Redo Buffers                    13049856 bytes
```

## Restoring the Control File

With the instance up the control file can then be restored from one of the auto backup files which are the files in the backup set beginning with controlfile\_c. Note the paths for the control file destinations as defined in the spfile or init file must exist.



```

RMAN> restore controlfile from
'/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2a
f3c4/c0/controlfile_c-745672508-20191017-07';

Starting restore at 18-OCT-19
using channel ORA_DISK_1

channel ORA_DISK_1: restoring control file
channel ORA_DISK_1: restore complete, elapsed time: 00:00:01
output file name=/u02/oradata/shdb1/control01.ctl
output file name=/u01/app/oracle/fast_recovery_area/shdb1/control02.ctl
Finished restore at 18-OCT-19

```

Now that the control file has been restored you can mount the control file and proceed with the restore.

## Mount the Control File

To mount the control file if the instance is started

```

RMAN> alter database mount;

Statement processed
released channel: ORA_DISK_1

```

or if the instance is not started

```

RMAN> startup mount;

connected to target database (not started)
Oracle instance started
database mounted

Total System Global Area      6593445888 bytes

Fixed Size                     3725656 bytes
Variable Size                  3523217064 bytes
Database Buffers               3053453312 bytes
Redo Buffers                    13049856 bytes

```

## Prepare the Backups for RMAN

The backupset is now available on the host chosen for the restore but before those backup pieces can be used by RMAN they must be cataloged by RMAN

## Clear the RMAN Catalog

Before we catalog the backup pieces all other backup pieces should be cleared from the catalog. This is accomplished by doing a crosscheck and delete expired command for both the copies and backups sets.

## First using RMAN connect to the

```
RMAN> crosscheck copy;
RMAN> delete noprompt expired copy;
RMAN> crosscheck backup;
RMAN> delete noprompt expired backup;
```

## Add the Backup Pieces to RMAN

The backups that were mounted or copied to the host from the Rubrik will need to be added back to the RMAN catalog in the control file. To do that we use the RMAN catalog command providing the location of those backups.

```
RMAN> catalog start with '/u01/app/oracle/backups';
```

```
searching for all files that match the pattern /u01/app/oracle/backups
```

```
List of Files Unknown to the Database
=====
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-EXAMPLE_FNO-5_vltvv7b3
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SOE_FNO-12_vhtvv7aj
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SOE_FNO-8_vdtvv7a4
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SYSTEM_FNO-1_vntvv7ba
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c1/data_D-SHDB1_I-745672508_TS-SOE_FNO-11_vgtvv7aj
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c1/data_D-SHDB1_I-745672508_TS-SOE_FNO-15_vktvv7b3
```

```
...
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c3/data_D-SHDB1_I-745672508_TS-SOE_FNO-9_vetvv7a4
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c3/data_D-SHDB1_I-745672508_TS-SYSAUX_FNO-3_vmtvv7b3
```

```
Do you really want to catalog the above files (enter YES or NO)? YES
```

```
cataloging files...
```

```
cataloging done
```

```
List of Cataloged Files
=====
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-EXAMPLE_FNO-5_vltvv7b3
```

```
File Name:
```

```
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SOE_FNO-12_vhtvv7aj
```

```

File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SOE_FNO-8_vdtvv7a4
File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c2/data_D-SHDB1_I-745672508_TS-SYSTEM_FNO-1_vntvv7ba
File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c1/data_D-SHDB1_I-745672508_TS-SOE_FNO-11_vgtvv7aj
File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c1/data_D-SHDB1_I-745672508_TS-SOE_FNO-15_vktvv7b3
...
File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c3/data_D-SHDB1_I-745672508_TS-SOE_FNO-9_vetvv7a4
File Name:
/u01/app/oracle/backups/f56d3824-57d5-43ae-9241-fdb7bfa72da2_ada022f0-79d3-47d7-858f-9d3bde2af
3c4/c3/data_D-SHDB1_I-745672508_TS-SYSAUX_FNO-3_vmtvv7b3

```

Now that the backup pieces are known to RMAN you can use these backups to do everything RMAN can do with RMAN backup.

## Complete Recovery Example

One type of recovery is an RMAN complete recovery of the source database. That is maybe the most simple type of restore/recovery but it is also maybe the most import. This is accomplished with the RMAN restore database and recover database command. You should always refer to the Oracle documentation for your specific Oracle version but here is an example of a complete RMAN restore and recovery.

```
RMAN> restore database;
```

```
Starting restore at 18-OCT-19
```

```
using channel ORA_DISK_1
using channel ORA_DISK_2
using channel ORA_DISK_3
using channel ORA_DISK_4
```

```

channel ORA_DISK_1: restoring datafile 00001
input datafile copy RECID=9120 STAMP=1021979304 file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c2/data_D-SHDB1_I-745672508_TS-SYSTEM_FNO-1_vntvv7ba
destination for restore of datafile 00001: /u02/oradata/shdb1/system01.dbf
channel ORA_DISK_2: restoring datafile 00002
input datafile copy RECID=9127 STAMP=1021979347 file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/data_D-SHDB1_I-745672508_TS-SOE_FNO-2_vbtvv7a4
destination for restore of datafile 00002: /u02/oradata/shdb1/soe01.dbf
channel ORA_DISK_3: restoring datafile 00003
input datafile copy RECID=9124 STAMP=1021979321 file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c3/data_D-SHDB1_I-745672508_TS-SYSAUX_FNO-3_vmtvv7b3
destination for restore of datafile 00003: /u02/oradata/shdb1/sysaux01.dbf
channel ORA_DISK_4: restoring datafile 00004

```

```

input datafile copy RECID=9128 STAMP=1021979348 file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/data_D-SHDB1_I-745672508_TS-UNDOTBS1_FNO-4_vptvv7bd
destination for restore of datafile 00004: /u02/oradata/shdb1/undotbs01.dbf
channel ORA_DISK_4: copied datafile copy of datafile 00004
output file name=/u02/oradata/shdb1/undotbs01.dbf RECID=0 STAMP=0
channel ORA_DISK_4: restoring datafile 00005
input datafile copy RECID=9117 STAMP=1021979295 file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c2/data_D-SHDB1_I-745672508_TS-EXAMPLE_FNO-5_vltvv7b3
destination for restore of datafile 00005: /u02/oradata/shdb1/example01.dbf
...
channel ORA_DISK_1: copied datafile copy of datafile 00016
output file name=/u02/oradata/shdb1/rubrik01.dbf RECID=0 STAMP=0
channel ORA_DISK_2: copied datafile copy of datafile 00014
output file name=/u02/oradata/shdb1/soe09.dbf RECID=0 STAMP=0
channel ORA_DISK_3: copied datafile copy of datafile 00015
output file name=/u02/oradata/shdb1/soe010.dbf RECID=0 STAMP=0
Finished restore at 18-OCT-19

RMAN> recover database;

Starting recover at 18-OCT-19
using channel ORA_DISK_1
using channel ORA_DISK_2
using channel ORA_DISK_3
using channel ORA_DISK_4

starting media recovery

archived log for thread 1 with sequence 3229 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3229_T-1_A-1005829311_72uej42a
archived log for thread 1 with sequence 3230 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3230_T-1_A-1005829311_74uejanv
archived log for thread 1 with sequence 3231 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3231_T-1_A-1005829311_76uejhp8
archived log for thread 1 with sequence 3232 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3232_T-1_A-1005829311_78uejosf
archived log for thread 1 with sequence 3233 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3233_T-1_A-1005829311_7auek00b
archived log for thread 1 with sequence 3234 is already on disk as file
/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03e0e91
5d/c0/arch_D-SHDB1_id-745672508_S-3234_T-1_A-1005829311_7cuk73g
archived log file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/arch_D-SHDB1_id-745672508_S-3229_T-1_A-1005829311_72uej42a thread=1 sequence=3229
archived log file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/arch_D-SHDB1_id-745672508_S-3230_T-1_A-1005829311_74uejanv thread=1 sequence=3230
archived log file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/arch_D-SHDB1_id-745672508_S-3231_T-1_A-1005829311_76uejhp8 thread=1 sequence=3231
archived log file
name=/u01/app/oracle/backup/f56d3824-57d5-43ae-9241-fdb7bfa72da2_e2ff0b48-eb85-4cd2-a99e-5ce03
e0e915d/c0/arch_D-SHDB1_id-745672508_S-3232_T-1_A-1005829311_78uejosf thread=1 sequence=3232
media recovery complete, elapsed time: 00:00:03
Finished recover at 18-OCT-19

```

```
RMAN> alter database open;
```

```
Statement processed
```

## Files Only Restore Quick Steps

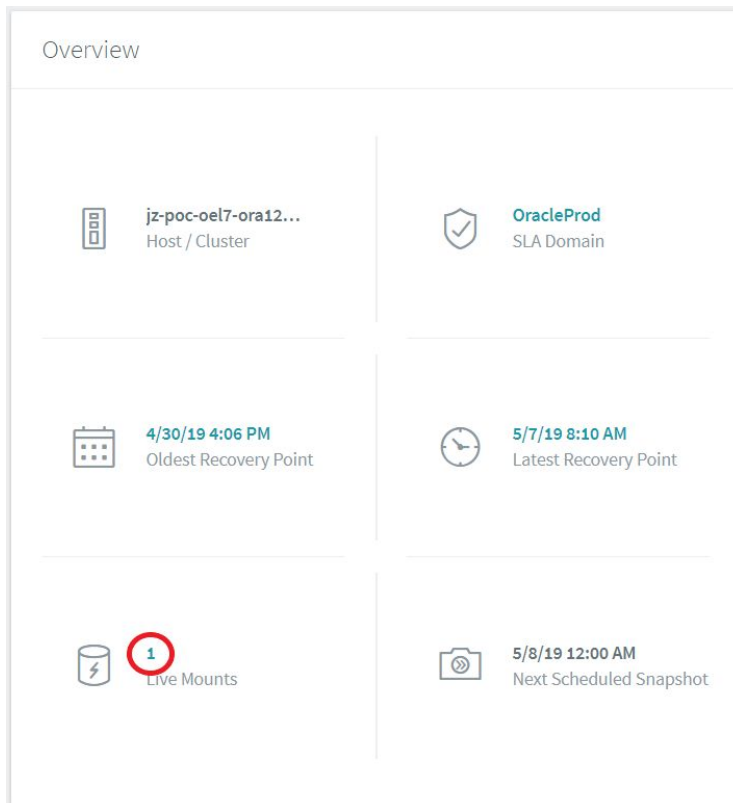
- 1) Select the recovery point in Rubrik and Mount the backup set
- 2) Crosscheck copy and crosscheck backup with RMAN
- 3) Delete the expired backup pieces using RMAN
- 4) Use RMAN to catalog the backup pieces
- 5) Use RMAN to do your restore

## Removing the Rubrik Backups

Once the duplicate is complete and if you no longer need the mounted backup sets you can unmount those from Rubrik. Note if you opted for the export option the backup pieces were copied to the host and not further action need be taken on Rubrik, you can simply delete the unneeded backups.

### Unmounting the Backups

Locate the live mount of the backup set in Rubrik. You can go to the database page and select the live mount link.



That will take you to the live mount page. You can also go directly there.

Search by Source Name				
Name ▼	Host ID	Status	Source Oracle DB	Mounted
jzpoc12	9e662399-4208-43d0-a6d1-2993...	Available	jzpoc12	Julian Zgoda 5/7/19 8:4... <a href="#">Unmount</a>

The NFS shares and their mounts will be removed from the duplicate host.

## Summary

Rubrik provides the capability to Live Mount and Export Oracle databases using the RBS connector but there are situations where you might want to do a different type of restore such as a complete recovery. All of that is possible with the Rubrik backups and RMAN.

We expose the backup sets to the Oracle hosts and then the databases can be restored with standard RMAN commands. That allows the Rubrik Oracle backups to be used for everything that RMAN is capable of without any restricts or limits.