



Ahsay Online Backup Manager v8

Oracle Database Backup and Restore Guide for Linux (CLI)

Ahsay Systems Corporation Limited

7 April 2021

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Revision History

Date	Descriptions	Type of modification
25 January 2021	Initial draft	New
18 February 2021	Added examples for Oracle 18c	Modification
7 April 2021	Updated Ch. 7; Added sub-chapters for the detailed process diagrams in Ch. 7.3, 7.4, 7.4.1, 7.4.2 and 7.5	New / Modifications

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1 Overview

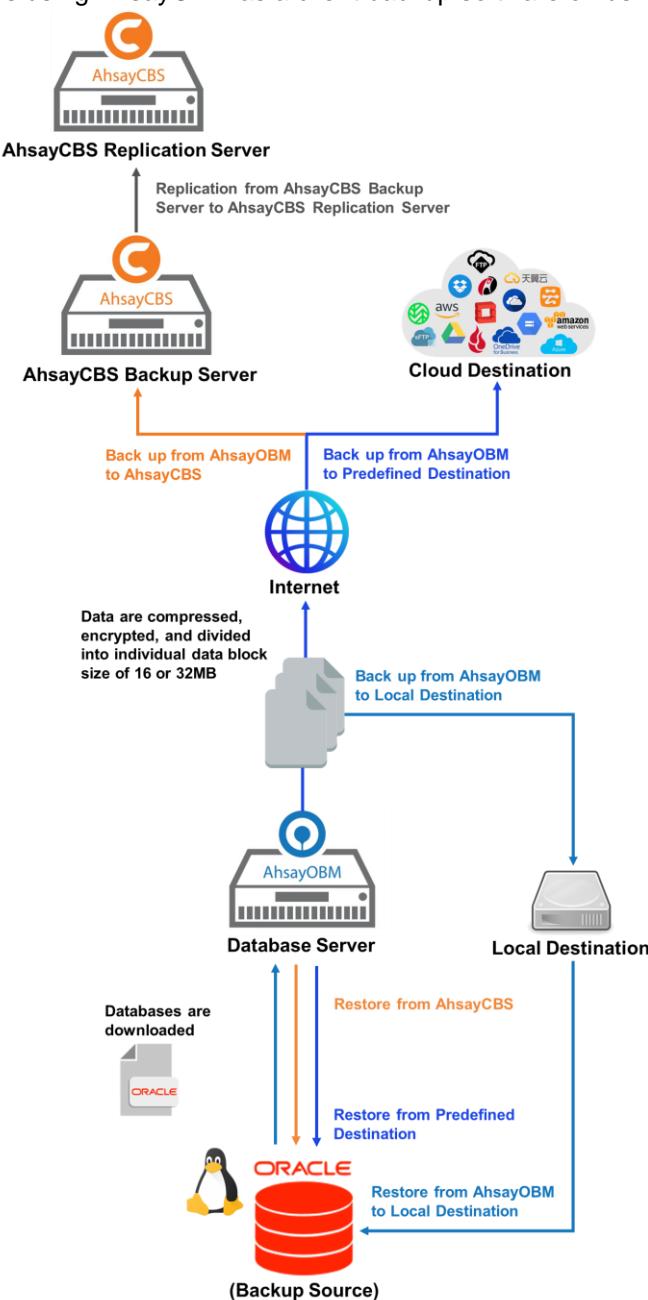
1.1 What is this software?

Ahsay brings you specialized client backup software, namely AhsayOBM, to provide a comprehensive backup solution for your Oracle Database Server. The Oracle Database Server module of AhsayOBM provides you with a set of tools to protect your Oracle Server with both full database and archived log backups while your database is online.

1.2 System Architecture

Below is the system architecture diagram illustrating the major elements involved in the backup process among the Oracle Database Server, AhsayOBM and AhsayCBS.

In this user guide, we will focus on the software installation, as well as the end-to-end backup and restore process using AhsayOBM as a client backup software on using Linux CLI mode.

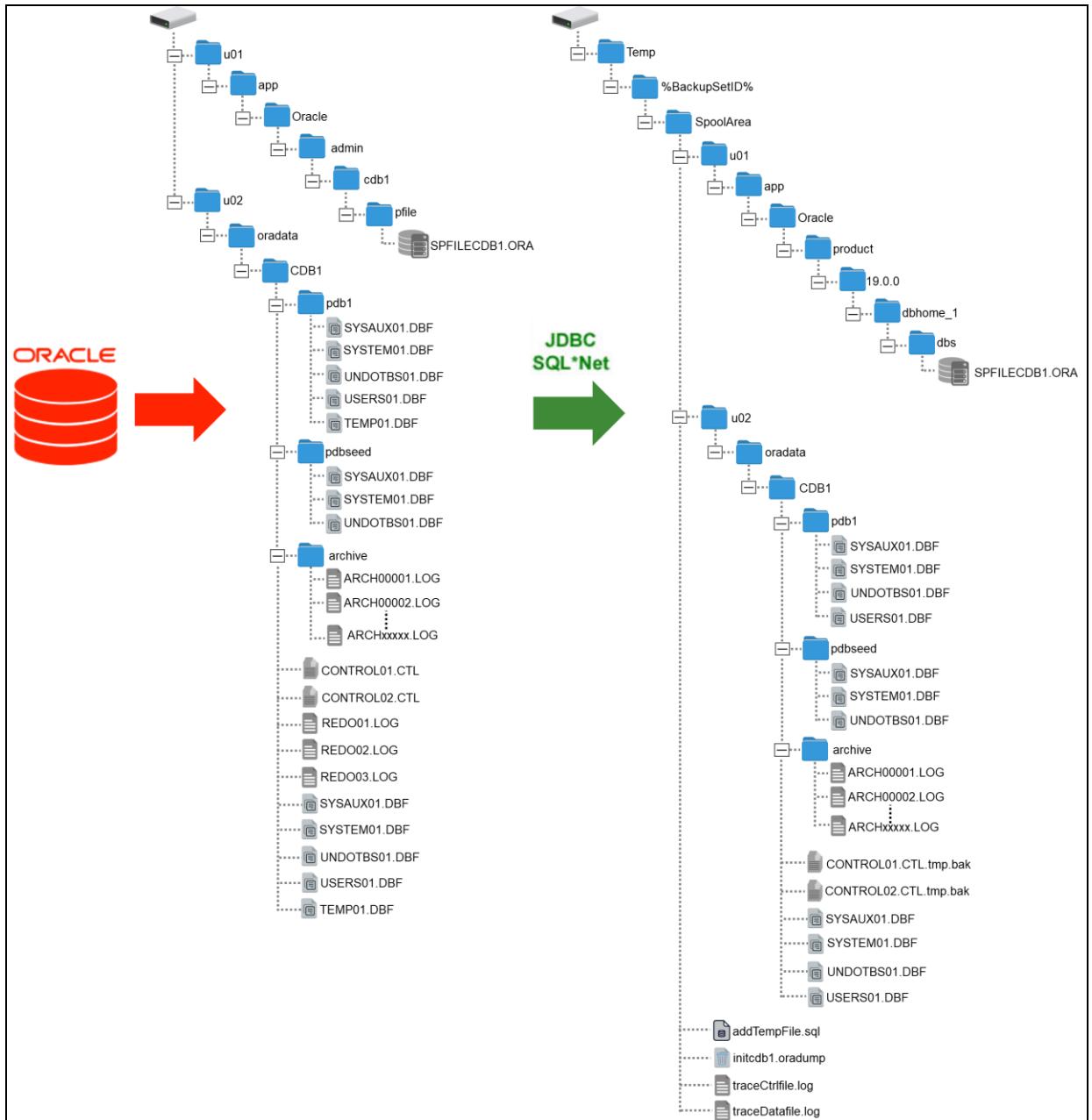


1.3 Oracle Database Backup Mode

Ahsay Oracle database and archived log backups use a spooling method to make a consistent snapshot of the database for backup.

For each database backup job, AhsayOBM will trigger Oracle to spool or make a copy of the following files to the temporary folder:

- Database files (.DBF)
- Archived Log files
- Control files (.CTL)
- Init.ora file



2 Requirements

2.1 Hardware Requirement

Refer to the following article for the list of hardware requirements for AhsayOBM:

[FAQ: Ahsay Hardware Requirement List \(HRL\) for version 8.1 or above](#)

2.2 Software Requirement

Refer to the following article for the list of supported operating systems and application versions:

[FAQ: Ahsay Software Compatibility List \(SCL\) for version 8.1 or above](#)

2.3 AhsayOBM Installation

Make sure the latest version of AhsayOBM is installed directly on the machine where the Oracle database server is hosted.

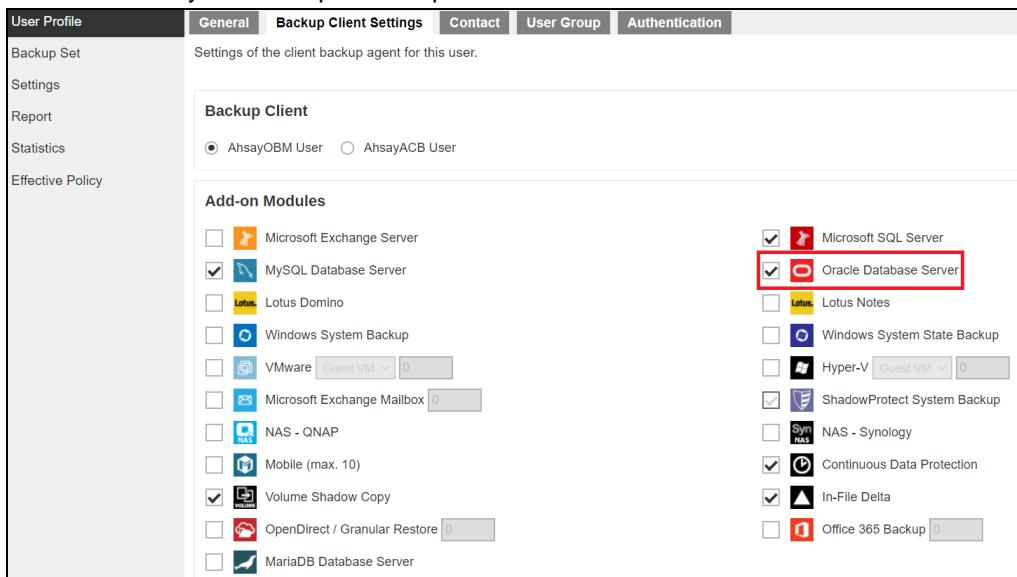
NOTE

Backup and restore of Oracle database(s) running on a remote machine is not supported.

2.4 AhsayOBM Add-On Module Configuration

Make sure the Oracle Database Server add-on module is enabled on your AhsayOBM user account.

Please contact your backup service provider for more details.



2.5 Backup Quota Requirement

Make sure that your AhsayOBM user account has enough storage quota assigned to accommodate the storage of Oracle database server backup set and retention policy.

2.6 Java Heap Size

The default maximum Java heap size setting on AhsayOBM on Linux is 768MB. For Oracle database backup, it is highly recommended to increase the Java heap size setting to be at least 4096MB to improve backup and restore performance. The actual heap size is dependent on the amount of free memory available on your Oracle server.

For details on how to modify the Java heap size setting of AhsayOBM/AhsayACB, refer to the following article:

https://wiki.ahsay.com/doku.php?id=public:8011_faq:how_to_modify_the_java_heap_size_of_a_hsayobc

2.7 Temporary Directory Folder

The Temporary directory folder is used by AhsayOBM during a backup job as the storage of:

- The spooled Oracle database(s) and archived log files
- Any incremental or differential delta files generated

It is strongly recommended that the temporary directory folder is located on a local drive with enough free disk space to be used by the spooled databases and archived log files. The temporary folder should **not** be located on the Oracle Home drive.

NOTE

The calculation of disk space required on the drive where the temporary folder is located is as follows:

(Total Database Size * Delta Ratio) * number of backup destinations = **Minimum Free Space Required**

Example:

If the default Delta ratio is 50% for in-file delta, and if the total Oracle database size is 1TB and there is only one backup destination, the minimum free space needed on the drive where the temporary directory folder is located = 1.5TB:

1TB = Total Oracle database size

500GB = Total maximum size of incremental or differential delta files generated

To obtain the size of the data files on the Oracle database instance, use the Oracle RMAN REPORT SCHEMA feature and sum up the total “List of Permanent Datafiles” by running the following command.

NOTE: The values shown are just examples and might be different on your Oracle instance.

```
$ export ORACLE_SID=cdb1
$ rman target /
Recovery Manager: Release 19.0.0.0.0 - Production on Fri Nov 6 11:04:21 2020
Version 19.3.0.0.0

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connected to target database: CDB1 (DBID=981637913)

RMAN> report schema;

using target database control file instead of recovery catalog
Report of database schema for database with db_unique_name CDB1

List of Permanent Datafiles
=====
File    Size(MB)  Tablespace      RB  segs   Datafile Name
----  -----  -----  -----  -----

```

1	920	SYSTEM	YES	/u02/oradata/CDB1/system01.dbf
3	660	SYSAUX	NO	/u02/oradata/CDB1/sysaux01.dbf
4	335	UNDOTBS1	YES	/u02/oradata/CDB1/undotbs01.dbf
5	270	PDB\$SEED:SYSTEM	NO	/u02/oradata/CDB1/pdbseed/system01.dbf
6	330	PDB\$SEED:SYSAUX	NO	/u02/oradata/CDB1/pdbseed/sysaux01.dbf
7	5	USERS	NO	/u02/oradata/CDB1/users01.dbf
8	100	PDB\$SEED:UNDOTBS1	NO	/u02/oradata/CDB1/pdbseed/undotbs01.dbf
9	270	PDB1:SYSTEM	YES	/u02/oradata/CDB1/pdb1/system01.dbf
10	340	PDB1:SYSAUX	NO	/u02/oradata/CDB1/pdb1/sysaux01.dbf
11	100	PDB1:UNDOTBS1	YES	/u02/oradata/CDB1/pdb1/undotbs01.dbf
12	5	PDB1:USERS	NO	/u02/oradata/CDB1/pdb1/users01.dbf
<i>List of Temporary Files</i>				
=====				
File	Size (MB)	Tablespace	Maxsize (MB)	Tempfile Name
---	-----	-----	-----	-----
1	132	TEMP	32767	/u02/oradata/CDB1/temp01.dbf
2	36	PDB\$SEED:TEMP	32767	/u02/oradata/CDB1/pdbseed/temp012019-05-10_17-58-06-785-PM.dbf
3	36	PDB1:TEMP	32767	/u02/oradata/CDB1/pdb1/temp01.dbf

2.8 Linux Requirements

Ensure that the following Linux requirements and conditions are met.

Supported OS Version

Oracle 19c (from v8.5.0.63 or above)

The backup of Oracle 19c is supported on the following OS versions:

- Red Hat Enterprise Linux 7 and 8 (or above)

Oracle 18c (from v8.5.0.77 or above)

The backup of Oracle 18c is supported on the following OS versions:

- Red Hat Enterprise Linux 6.4 and 7 (or above)

2.9 Oracle Backup Requirements

Ensure that the following requirements and conditions on the Oracle database server are met.

NOTE: Please consult your Oracle database administrator before making any changes.

2.9.1 Oracle Tools

Although the following tools are usually installed by default on all Oracle database installations, ensure that the following tools are installed on the Oracle database server and they are functioning correctly.

- **RMAN (Recovery manager)** - is required by AhsayOBM for both full database and archive log backups.

To verify if RMAN is installed on the Oracle database server and is working properly, run the following command.

Example of RMAN running in Oracle 19c

```
$ export ORACLE_SID=cdb1
$ rman target /

Recovery Manager: Release 19.0.0.0.0 - Production on Fri
Nov 6 11:04:21 2020

Version 19.3.0.0.0

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All rights reserved.

connected to target database: CDB1 (DBID=981637913)

RMAN>
```

- **SQL*Plus** – is required by AhsayOBM during Oracle Backup Set creation, backup and restore.

To verify if SQL*Plus is installed on the Oracle database server and is working properly, run the following command `sqlplus / as sysdba`.

Example of SQL*Plus running in Oracle 19c

```
$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Nov 5
11:32:52 2020

Version 19.3.0.0.0

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Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0
- Production

Version 19.3.0.0.0

SQL>
```

2.9.2 Oracle Internal Process Checking

For the Oracle instance to run smoothly, ensure that the following internal processes are working well:

- **PMON** (Process Monitor)
- **PSP0** (Process Spawner Process)
- **MMAN** (Memory Manager Process)
- **DBW0** (Database Writer)
- **ARC0** (Archive Process)
- **LGWR** (Log Writer)
- **CKPT** (Checkpoint process)
- **SMON** (System Monitor)

- **RECO** (Distributed Recovery Background Process)

To check this, open the Terminal application.

Run the SQLPlus to connect to the Oracle database server. Once connected, use the following SQL query to verify if the internal processes are running.

```
$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Nov 5 11:32:52
2020

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 -
Production

Version 19.3.0.0.0

SQL> select name, description from v$bgprocess where PADDR <>
'00';

NAME      DESCRIPTION
-----
PMON      process cleanup
CLMN      process cleanup
PSP0      process spawner 0
VKTM      Virtual Keeper of TiMe process
GEN0      generic0
MMAN      Memory Manager
M004      MMON slave class 1
GEN1      generic1
SCMN
DIAG      diagnosibility process
OFSD      Oracle File Server BG

NAME      DESCRIPTION
-----
SCMN
DBRM      DataBase Resource Manager
VKRM      Virtual sKeduler for Resource Manager
SVCB      services background monitor
PMAN      process manager
DIA0      diagnosibility process 0
DBWO      db writer process 0
LGWR      Redo etc.
CKPT      checkpoint
LG00      Log Writer Slave
SMON      System Monitor Process
```

NAME	DESCRIPTION
<hr/>	
LG01	<i>Log Writer Slave</i>
SMCO	<i>Space Manager Process</i>
RECO	<i>distributed recovery</i>
W000	<i>space management slave pool</i>
LREG	<i>Listener Registration</i>
W001	<i>space management slave pool</i>
PXMN	<i>PX Monitor</i>
FENC	<i>IOServer fence monitor</i>
MMNL	<i>Manageability Monitor Process 2</i>
MMON	<i>Manageability Monitor Process</i>
D000	<i>Dispatchers</i>
NAME	DESCRIPTION
<hr/>	
S000	<i>Shared servers</i>
TMON	<i>Transport Monitor</i>
M000	<i>MMON slave class 1</i>
M002	<i>MMON slave class 1</i>
TT00	<i>Redo Transport</i>
ARC0	<i>Archival Process 0</i>
TT01	<i>Redo Transport</i>
ARC1	<i>Archival Process 1</i>
ARC2	<i>Archival Process 2</i>
ARC3	<i>Archival Process 3</i>
TT02	<i>Redo Transport</i>
NAME	DESCRIPTION
<hr/>	
AQPC	<i>AQ Process Coord</i>
W002	<i>space management slave pool</i>
CJQ0	<i>Job Queue Coordinator</i>
P000	<i>Parallel query slave</i>
P001	<i>Parallel query slave</i>
P002	<i>Parallel query slave</i>
P003	<i>Parallel query slave</i>
P004	<i>Parallel query slave</i>
P005	<i>Parallel query slave</i>
P006	<i>Parallel query slave</i>
P007	<i>Parallel query slave</i>
NAME	DESCRIPTION
<hr/>	
W003	<i>space management slave pool</i>
M001	<i>MMON slave class 1</i>
W004	<i>space management slave pool</i>
QM02	<i>QMON MS</i>
W005	<i>space management slave pool</i>
W006	<i>space management slave pool</i>
W007	<i>space management slave pool</i>
Q004	<i>QMON MS</i>
M005	<i>MMON slave class 1</i>

```
Q005 QMON MS  
65 rows selected.  
SQL>
```

2.9.3 Supported Oracle Database Server Version

AhsayOBM supports the following version of Oracle database server:

- **Oracle 19c**
- **Oracle 18c**

To verify if the Oracle database server version is supported by AhsayOBM, use the following SQL query.

Oracle 19c

```
$ sqlplus / as sysdba  
  
SQL*Plus: Release 19.0.0.0.0 - Production on Thu Nov 5 11:32:52  
2020  
  
Version 19.3.0.0.0  
  
Copyright (c) 1982, 2019, Oracle. All rights reserved.  
  
Connected to:  
  
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 -  
Production  
  
Version 19.3.0.0.0  
  
SQL>
```

Oracle 18c

```
$ sqlplus / as sysdba  
  
SQL*Plus: Release 18.0.0.0.0 - Production on Mon Jan 4 11:06:36  
2021  
  
Version 18.3.0.0.0  
  
Copyright (c) 1982, 2018, Oracle. All rights reserved.  
  
Connected to:  
  
Oracle Database 18c Enterprise Edition Release 18.0.0.0.0 -  
Production  
  
Version 18.3.0.0.0  
  
SQL>
```

2.9.4 System Identifier (SID)

Make sure the System Identifier (SID) is correct by using the following SQL query.

```
SQL> select instance from v$thread;
```

```
INSTANCE
```

```
-----
```

```
cdb1
```

```
SQL>
```

NOTE: The instance shown is just an example. The SID may be different on your Oracle instance.

Another way to verify the SID is by checking the **init.ora** file. Go to the **/u01/app/oracle/admin/cdb1/pfile** directory and open the **init.ora** file using a text editor (e.g. vi).

```
#####
# Database Identification
#####
db_name="cdb1"
```

2.9.5 Oracle_Home Path

Oracle 19c

The Oracle_Home path can be obtained by using the following SQL query. The Oracle_Home path for Oracle 19c is “**/u01/app/oracle/product/19.0.0/dbhome_1**”.

```
SQL> SELECT file_spec FROM DBA_LIBRARIES WHERE library_name =
      'DBMS_SUMADV_LIB';
```

```
FILE_SPEC
```

```
-----
```

```
/u01/app/oracle/product/19.0.0/dbhome_1/lib/libqsmashr.so
```

```
SQL>
```

NOTE: The directory path shown is just an example. The Oracle_Home path may be different on your Oracle instance.

Another way to verify the Oracle_Home path is by checking the **init.ora** file. Go to the **/u01/app/oracle/admin/cdb1/pfile** directory and open the **init.ora** file using a text editor (e.g., vi).

```
#####
# File Configuration
#####
control_files=("/u01/app/oracle/oradata/CDB1/control01.ctl", "/u01/app/oracle
oradata/cdb1/control02.ctl")
#####
```

Oracle 18c

The Oracle_Home path can be obtained by using the following SQL query. The Oracle_Home path for Oracle 18c is “/u01/app/oracle/product/18.0.0/dbhome_1”.

```
SQL> SELECT file_spec FROM DBA_LIBRARIES WHERE library_name =
  'DBMS_SUMADV_LIB';

FILE_SPEC
-----
/u01/app/oracle/product/18.0.0/dbhome_1/lib/libqsmashr.so

SQL>
```

NOTE: The directory path shown is just an example. The Oracle_Home path may be different on your Oracle instance.

Another way to verify the Oracle_Home path is by checking the **init.ora** file. Go to the **/u01/app/oracle/admin/cdb1/pfile** directory and open the **init.ora** file using a text editor (e.g., vi).

```
#####
# File Configuration
#####
control_files=("/u01/app/oracle/oradata/CDB1/control01.ctl", "/u01/app/oracle
oradata/cdb1/control02.ctl")
#####
```

WARNING: The value of the Oracle_Home path in init.ora file needs to match the value obtained from the SQL query. If the value does not match, please contact the Oracle database administrator for further assistance.

2.9.6 Database Status

Ensure that the status of Oracle instance is “Open”. To check, use the following query.

```
SQL> select instance_name, status from v$instance;

INSTANCE_NAME      STATUS
-----
cdb1              OPEN

SQL>
```

2.9.7 Archived Log Mode

Ensure that the database instance is in Archived Log mode. To check, use the following command.

```
SQL> archive log list;

Database log mode          Archive Mode
Automatic archival        Enabled
Archive destination /u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch
Oldest online log sequence    42
Next log sequence to archive   44
Current log sequence        44

SQL>
```

NOTE: The values shown are just examples and might be different on your Oracle instance.

2.9.8 Java Installation

Java must be installed on the Oracle Database. To check if Java is installed, use the following SQL query. The status of the **JServer JAVA Virtual Machine** and **Oracle Database Java Packages** should be “VALID”.

SQL> <i>select comp_name, status from dba_registry;</i>	
COMP_NAME	STATUS
-----	-----
<i>Oracle Database Catalog Views</i>	<i>VALID</i>
<i>Oracle Database Packages and Types</i>	<i>VALID</i>
<i>Oracle Real Application Clusters</i>	<i>OPTION OFF</i>
COMP_NAME	STATUS
-----	-----
<i>JServer JAVA Virtual Machine</i>	<i>VALID</i>
<i>Oracle XDK</i>	<i>VALID</i>
<i>Oracle Database Java Packages</i>	<i>VALID</i>
COMP_NAME	STATUS
-----	-----
<i>OLAP Analytic Workspace</i>	<i>VALID</i>
<i>Oracle XML Database</i>	<i>VALID</i>
<i>Oracle Workspace Manager</i>	<i>VALID</i>
COMP_NAME	STATUS
-----	-----
<i>Oracle Text</i>	<i>VALID</i>
<i>Oracle Multimedia</i>	<i>VALID</i>
<i>Spatial</i>	<i>VALID</i>
COMP_NAME	STATUS
-----	-----

<i>Oracle OLAP API</i>	<i>VALID</i>
<i>Oracle Label Security</i>	<i>VALID</i>
<i>Oracle Database Vault</i>	<i>VALID</i>
<i>15 rows selected.</i>	
<i>SQL></i>	

2.9.9 JAVASYSPRIV Permission for Oracle System Account

The Oracle **system** account is used by AhsayOBM to connect to the Oracle database server to authenticate the backup and restore process. The following permission must be assigned to the system account. Use the following SQL query to assign.

<i>SQL> select * from DBA_ROLE_PRIVS where upper(grantee)='SYSTEM';</i>						
<i>GRANTEE</i>	<i>GRANTED_ROLE</i>	<i>ADM</i>	<i>DEL</i>	<i>DEF</i>	<i>COM</i>	<i>INH</i>
-----	-----	---	---	---	---	---
<i>SYSTEM</i>	<i>JAVASYSPRIV</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>
<i>SYSTEM</i>	<i>DBA</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>	<i>NO</i>
<i>GRANTEE</i>	<i>GRANTED_ROLE</i>	<i>ADM</i>	<i>DEL</i>	<i>DEF</i>	<i>COM</i>	<i>INH</i>
-----	-----	---	---	---	---	---
<i>SYSTEM</i>	<i>AQ_ADMINISTRATOR_ROLE</i>	<i>YES</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>	<i>NO</i>
<i>SQL></i>						

If not, grant javasyspriv to the system account by using the following SQL query.

<i>SQL> grant javasyspriv to system;</i>						
<i>Grant succeeded.</i>						
<i>SQL></i>						

2.9.10 SYSDBA Privileges for Oracle System Account

To check if the system account has **sysdba** privileges, use the following SQL query.

<i>SQL> select * from v\$pwfile_users where sysdba='TRUE';</i>						
<i>USERNAME SYSDB SYSOP SYSAS SYSBA SYSDG SYSKM ACCOUNT_STATUS</i>						

<i>SYSTEM</i>	<i>TRUE</i>	<i>TRUE</i>	<i>FALSE</i>	<i>FALSE</i>	<i>FALSE</i>	<i>OPEN</i>
<i>SQL></i>						

If not, grant **sysdba** to the system account using the following SQL query.

Oracle 19c and Oracle 18c

```
SQL> grant sysdba to system container=ALL;
```

```
Grant succeeded.
```

```
SQL>
```

2.9.11 TNS Listener Service

TNS listener service must be started to allow connections to the Oracle database server. To check if the TNS listener service is running, use the `lsnrctl status` command.

If the TNS listener service is not started, use the `lsnrctl start` command to start the service.

Example: A running TNS Listener service on Oracle 19c.

```
$ lsnrctl status

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 05-NOV-2020 11:33:44

Copyright (c) 1991, 2019, Oracle. All rights reserved.

Connecting to
  (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP) (HOST=oracle19c.local) (PORT=1521)))
STATUS of the LISTENER
-----
Alias                      LISTENER
Version                    TNSLSNR for Linux: Version 19.0.0.0.0
                           - Production
Start Date                 03-NOV-2020 12:13:24
Uptime                     1 days 23 hr. 20 min. 20 sec
Trace Level                off
Security                   ON: Local OS Authentication
SNMP                       OFF
Listener Parameter File    /u01/app/oracle/product/19.0.0/dbhome_1/network/admin/listener.ora
Listener Log File          /u01/app/oracle/diag/tnslsnr/oracle19c/listener/alert/log.xml
Listening Endpoints Summary...

  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp) (HOST=oracle19c.local) (PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc) (KEY=EXTPROC1521)))
Services Summary...
Service "86b637b62fdf7a65e053f706e80a27ca" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "8886b84fb1e0709de053631e100a76ed" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "cdb1" has 1 instance(s).
```

```

Instance "cdb1", status READY, has 1 handler(s) for this
service...
Service "cdb1XDB" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
Service "pdb1" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
The command completed successfully

```

NOTE: The values shown are just examples and might be different on your Oracle instance.

2.9.12 Localhost is Resolvable

Verify if the localhost IP 127.0.0.1 on the Oracle database server is resolvable using the **ping** command as this will be the IP address that AhsayOBM will use to connect to the Oracle instance.

```

# ping -c4 127.0.0.1

PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.

64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.043 ms
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.043 ms
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.032 ms
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.038 ms

--- 127.0.0.1 ping statistics ---

4 packets transmitted, 4 received, 0% packet loss, time 2999ms

rtt min/avg/max/mdev = 0.032/0.039/0.043/0.004 ms

```

2.9.13 Oracle Port Number

The default Oracle port number is **1521**. To check, use the **netstat** and **tnsping** commands to verify the actual port number.

NETSTAT

```

# netstat -pan|more
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address      Foreign Address      State       PID/Program name
tcp    0      0      0.0.0.0:111        0.0.0.0:*          LISTEN      1/systemd
tcp    0      0      192.168.122.1:53   0.0.0.0:*          LISTEN      6054/dnsmasq
tcp    0      0      0.0.0.0:22        0.0.0.0:*          LISTEN      5218/sshd
tcp    0      0      127.0.0.1:631     0.0.0.0:*          LISTEN      5220/cupsd
tcp    0      0      127.0.0.1:25     0.0.0.0:*          LISTEN      5513/master
tcp    0      0      10.16.30.99:49829  10.16.30.99:1521  ESTABLISHED 6523/ora_1reg_cdb1
tcp6   0      0      :::31181          ::::*           LISTEN      6535/ora_d000_cdb1
tcp6   0      0      :::111            ::::*           LISTEN      1/systemd
tcp6   0      0      :::50000          ::::*           LISTEN      7140/bschJW
tcp6   0      0      :::1521           ::::*           LISTEN      6965/tnslsnr
tcp6   0      0      :::22             ::::*           LISTEN      5218/sshd
tcp6   0      0      :::1:631          ::::*           LISTEN      5220/cupsd
tcp6   0      0      127.0.0.1:60024   ::::*           LISTEN      7140/bschJW
tcp6   0      0      :::1:25           ::::*           LISTEN      5513/master
tcp6   0      0      10.16.30.99:1521  10.16.30.99:49829  ESTABLISHED 6965/tnslsnr

```

NOTE: The values shown are just examples and might be different on your Oracle instance.

TNSPING

```
$ tnsping 127.0.0.1

TNS Ping Utility for Linux: Version 19.0.0.0.0 - Production on
06-NOV-2020 10:18:56

Copyright (c) 1997, 2019, Oracle. All rights reserved.

Used parameter files:
/u01/app/oracle/product/19.0.0/dbhome_1/network/admin/sqlnet.or
a

Used EZCONNECT adapter to resolve the alias
Attempting to contact
(DESCRIPTION=(CONNECT_DATA=(SERVICE_NAME=)) (ADDRESS=(PROTOCOL=t
cp) (HOST=127.0.0.1) (PORT=1521)))
OK (0 msec)
```

3 Best Practices and Recommendations

1. To enable a full Oracle database instance recovery, all databases including **SYSAUX**, **SYSTEM**, **UNDOTBS1**, **USERS** and related application databases except for “TEMP” must be selected in the backup source when creating the backup set. Otherwise, without a backup of these databases, a full Oracle database instance recovery will NOT be possible.
2. Full database backup or incremental / differential database backups should be scheduled when system activity is low to achieve the best possible performance and to minimize the impact on the database server performance (for example: scheduled to run on weekends).
3. For **Archived Log backups**, the backup frequency should be dependent on the number of transactions or activity on the database. Databases with more transaction should run archived log backup more frequently (for example: instead of a daily backup, it should be run multiple times a day).
4. To provide **maximum data protection** and **flexible restore options**, it is recommended to configure:
 - At least one offsite or cloud destination
 - At least one local destination for fast recovery
5. Perform **test restores** periodically to ensure that your backup is set up and data are backed up properly.

Performing recovery tests can also help identify potential issues or gaps in your recovery plan. It's important that you do not try to make the test easier, as the objective of a successful test is not to demonstrate that everything is flawless. There might be flaws identified in the plan throughout the test and it is important to identify those flaws.

6. The **Restore Raw File** option is for advanced Oracle database administrators and should only be used if you have in-depth knowledge and understanding of Oracle database engine, Oracle database schema, knowledge of the database server and network infrastructure. Therefore, it is not recommended to use this restore option as there is need to utilize additional Oracle techniques and scripts to facilitate a manual database restore.

Please refer to the following article of Oracle Database Backup and Recovery User's Guide for details:

Oracle 19c

<https://docs.oracle.com/en/database/oracle/oracle-database/19/bradv/index.html>

Oracle 18c

<https://docs.oracle.com/en/database/oracle/oracle-database/18/bradv/index.html>

7. To ensure an optimal backup/restoration performance, it is highly recommended to set the temporary directory folder to a local disk location with sufficient free disk space. It must **not** be on the location of the Oracle Home drive.

4 Limitations

1. For Oracle database server on Linux CLI environment, AhsayOBM does not fully support all restore options, i.e. Restore to Alternate location is not available.

If possible, it is recommended to use AhsayOBM Linux GUI which supports restore to:

- Original location
 - Alternate location; and
 - Restore Raw File
2. AhsayOBM does not support Oracle Express Edition or Oracle XE.
 3. Backup and restore of Oracle database(s) running on a remote machine is not supported.
 4. AhsayOBM Oracle database module only supports backup and/or restore of standalone Oracle installations. The following advanced Oracle database setups are not supported:
 - Clusterware or RAC (Real Application Clusters)
 - ASM (Automatic Storage Management)
 - Data Guard etc.
 5. An AhsayOBM Oracle database backup set supports the backup and restore of one Oracle instance. For Oracle database server's setup with multiple instances, a separate backup set is required for each instance.
 6. To recover a full Oracle database instance, the following items must be selected in the backup source:
 - Oracle Database Server must be selected.
 - All databases including **SYSAUX**, **SYSTEM**, **UNDOTBS1**, **USERS** and related application databases except for "TEMP" must be selected in the backup source when creating the backup set. Otherwise, without a backup of these databases, a full Oracle database instance recovery will NOT be possible.

NOTE: Even if the "TEMP" is selected in the backup source, this database will be skipped during a backup job.

5 Starting AhsayOBM

To startup AhsayOBM and connect to AhsayCBS, you need to use the **RunConfigurator.sh** script to enter the login name and password. Configure the backup server URL, port, and proxy server settings (if applicable).

```
# cd /usr/local/obm/bin
# sh RunConfigurator.sh

Startup Ahsay Online Backup Manager ...

Hi! XXX

Config file found


Login Menu
-----
(1). Login
(2). Change Network Settings
(3). Forgot Password
(4). Quit
-----
Your Choice: 1

Login Name : user1
Password : *****

Please wait while verifying user account with server...
Your profile has been downloaded and updated.

Main Menu
-----
(1). List Backup Sets
(2). Delete Backup Set
(3). Export Backup Set Settings to XML
(4). Import Backup Set Settings from XML
(5). Generate new Backup Set Settings Template
(6). Change Language [English]
(7). Update Profile Settings
(8). Quit
-----
Your Choice:
```

6 Creating an Oracle Database Backup Set

There are two options to create an Oracle Database Backup Set for Linux.

① [Using AhsayCBS web console](#)

For backup set creation on AhsayCBS web console, most backup set preferences may be configured using AhsayCBS except the following:

- backup set encryption key settings
- Oracle login password

After the backup set preferences are setup on the AhsayCBS web console, to complete the backup set creation process, the **RunConfigurator.sh** script will need to be used on the Oracle database server machine to do the following:

- to set up the backup set encryption key settings
- to export/import the backupSet.xml file to set up the Oracle login password

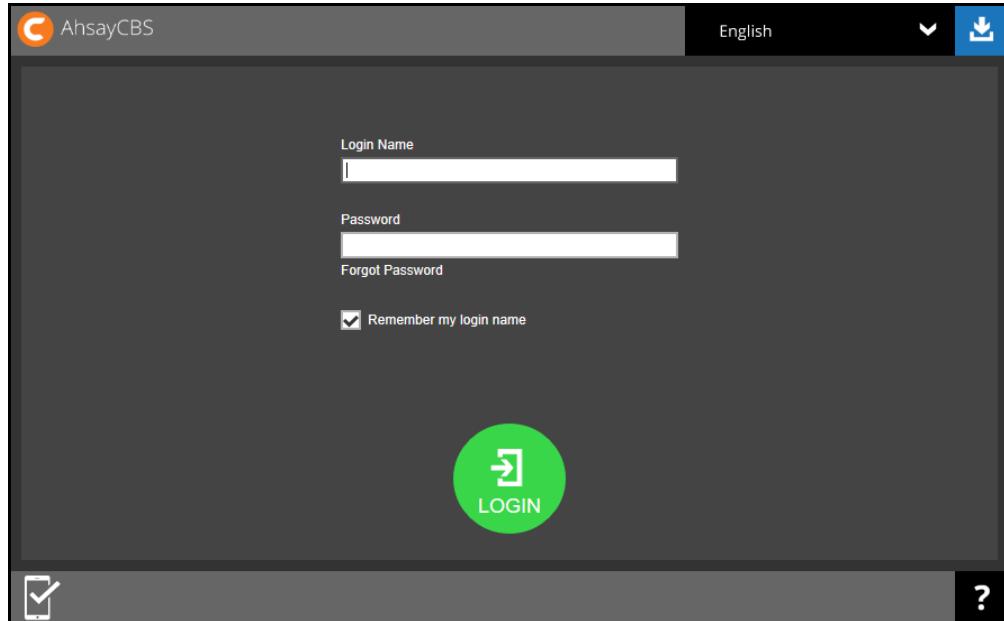
② [Using command line](#)

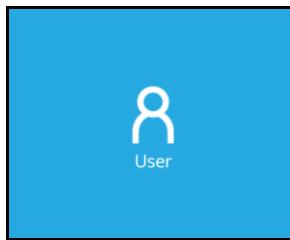
For backup set creation using command line, most backup set preferences may be configured using the **backupSet.xml** file.

To complete the backup set creation process after successfully importing the backupSet.xml file, the RunConfigurator.sh script will need to be used on the Oracle database server machine to set up the backup set encryption key settings.

6.1 Create an Oracle Database Backup Set using AhsayCBS

1. Log in to AhsayCBS and go to **User**.





2. Go to **Backup Set** then click the **[+]** button to create a backup set.

A screenshot of a software interface titled "Manage Backup Set". On the left is a sidebar with links: "User Profile", "Backup Set" (which is selected and highlighted in dark grey), "Settings", "Report", "Statistics", and "Effective Policy". The main area is titled "Manage Backup Set" with a question mark icon. It features a toolbar with icons for creating (+), deleting (-), and updating (edit). Below the toolbar is a table header row with columns: "Name", "Type", "Version", "Owner", and "Execute Job". At the bottom right of the main area is a dark grey bar with a close (X) and help (?) icon.

3. Enter a **Name** for the backup set to be created. Select “Oracle Database Server Backup” as the **Backup set type**. Select “Linux” as the **Platform**. The default **Login ID** is “system”. Update the **Host** and **Port**. Default settings for these are ‘localhost’ and ‘1521’ respectively. Input the Oracle **SID** then click **Next** to proceed.

A screenshot of a "Create Backup Set" dialog box. It has two main sections: "General" and "Oracle Database Server".
General Section:

- Name: BackupSet_01
- Backup set type: Oracle Database Server Backup
- Platform: Linux

Oracle Database Server Section:

- Login ID: system
- Password: (redacted)
- Host: localhost
- Port: 1521
- SID: cdb1

At the bottom right of the dialog is a dark grey bar with a right arrow, a close (X), and a help (?) icon.

4. Add the backup source in the **Other Selected Source** by clicking the **[+]** button. Keep doing this until all the sources are entered. To back up all databases, enter “Oracle Database Server” in the **Other Selected Source**.

Backup Source

Other Selected Source



Path

Oracle Database Server

5. To exclude a source, you can add it under **Deselected Source** by clicking **[+]** button. Keep doing this until all the excluded sources are entered. Click **Next** to proceed.

Deselected Source



Path

Oracle Database Server/PDB\$SEED/TEMP

Oracle Database Server/TEMP

Oracle Database Server/PDB1/TEMP

NOTE: All databases including **SYSAUX**, **SYSTEM**, **UNDOTBS1**, **USERS** and related application databases except for “TEMP” must be selected in the backup source when creating the backup set. Otherwise, without a backup of these databases, a full Oracle database instance recovery will NOT be possible.

Even if the “TEMP” is selected in the backup source, this database will be skipped during a backup job.

6. A backup schedule for a backup job to run automatically at your specified time interval can be configured. The backup schedule is enabled by default. If you do not want to create a backup schedule, you can turn it off by sliding the lever to the left.

Schedule

Run scheduled backup for this backup set

Manage schedule



Name

Type

Weekly

Tablespace Backup Schedule

Archived Redo Log Backup Schedule

Run scheduled backup on computers named

*

There are two types of backup schedule:

- **Tablespace Backup Schedule**

- Archived Redo Log Backup Schedule

Tablespace Backup Schedule – This type of backup scheduler will automatically run weekly every Friday at 23:00.

Backup Schedule

Client version < 8.3.3.20 does not support periodic schedule, periodic schedule will work as normal schedule.

Details

Name

Backup Type

Database Log

Type

Backup on these days of the week

Sun Mon Tue Wed Thu Fri Sat

Start backup

at :

Stop

Run Retention Policy after backup

Archived Redo Log Backup Schedule – This type of backup scheduler will automatically run weekly every Monday, Tuesday, Wednesday and Thursday at 23:00.

Backup Schedule

Client version < 8.3.3.20 does not support periodic schedule, periodic schedule will work as normal schedule.

Details

Name

Archived Redo Log Backup Schedule

Backup Type

Database Log

Type

Weekly

Backup on these days of the week

Sun Mon Tue Wed Thu Fri Sat

Start backup

at :

Stop

until full backup completed

Run Retention Policy after backup

To change the backup schedule settings of an existing schedule, double-click the schedule to be modified. Otherwise, click **Next** to proceed.

7. In the **Destination** window, select the **Backup Mode** then click the **[+]** button to add a backup storage destination.

Destination

Backup Mode

Sequential



Name

Select your desired destination, it could be one or both displayed destinations. Tick the checkbox to select and click the plus sign to add the destination. Click **Next** to proceed.

Add Destination

<input type="checkbox"/>	Name	
<input checked="" type="checkbox"/>	AhsayCBS	
<input type="checkbox"/>	GoogleDrive-1	

+ X ?

Destination

Backup Mode	
<input style="width: 100%; height: 100%; border: none; background-color: #f0f0f0; border-radius: 5px; padding: 2px 5px; font-size: small; font-weight: bold; margin-bottom: 5px;" type="button" value="Sequential"/>	
	
<input type="checkbox"/>	Name
<input type="checkbox"/>	AhsayCBS

- Click on the created backup set.

User Profile	Manage Backup Set ?				
Backup Set					
Settings					
Report					
Statistics					
Effective Policy					
	<input type="checkbox"/>	Name	Type	Version	Owner
	<input type="checkbox"/>	BackupSet_01 (1605522799222)	O	--	--
					Execute Job

- Go to **Others** and input the path of your temporary directory. It is recommended to check the box beside **Remove temporary files after backup** to make sure the spooled database files are cleaned up after each backup job to free up space on the temporary drive. Otherwise, if the temporary drive runs out of space, the database backup job will not run.

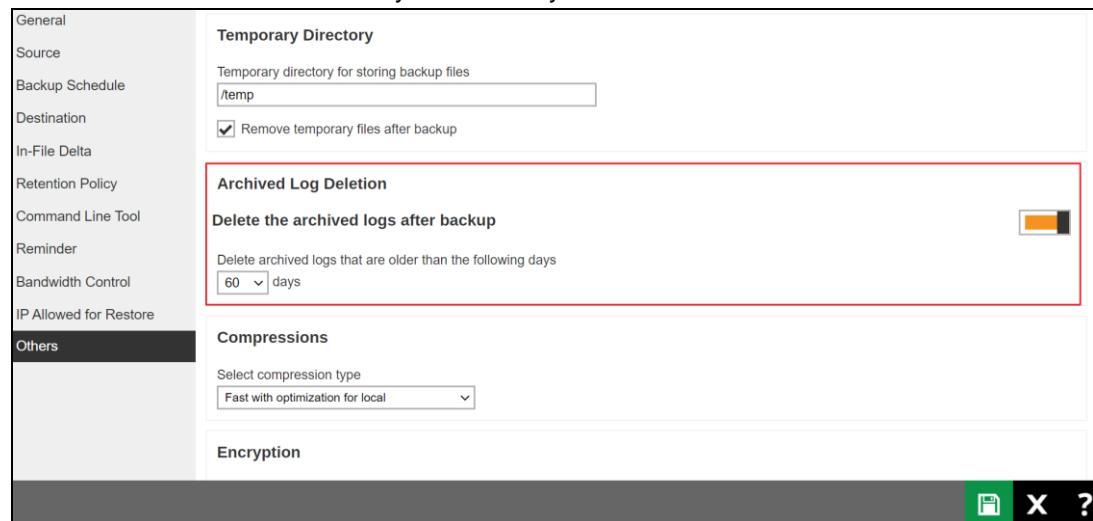
General	Temporary Directory	
Source	Temporary directory for storing backup files <input type="text" value="/temp"/>	
Backup Schedule		
Destination		
In-File Delta		
Retention Policy		
Command Line Tool		
Reminder		
Bandwidth Control		
IP Allowed for Restore		
Others	Temporary Directory Temporary directory for storing backup files <input type="text" value="/temp"/> <input checked="" type="checkbox"/> Remove temporary files after backup	
	Archived Log Deletion Delete the archived logs after backup <input type="checkbox"/>	
	Delete archived logs that are older than the following days <input type="text" value="60"/> days	
	Compressions Select compression type <input type="text" value="Fast with optimization for local"/>	
	Encryption	

F X ?

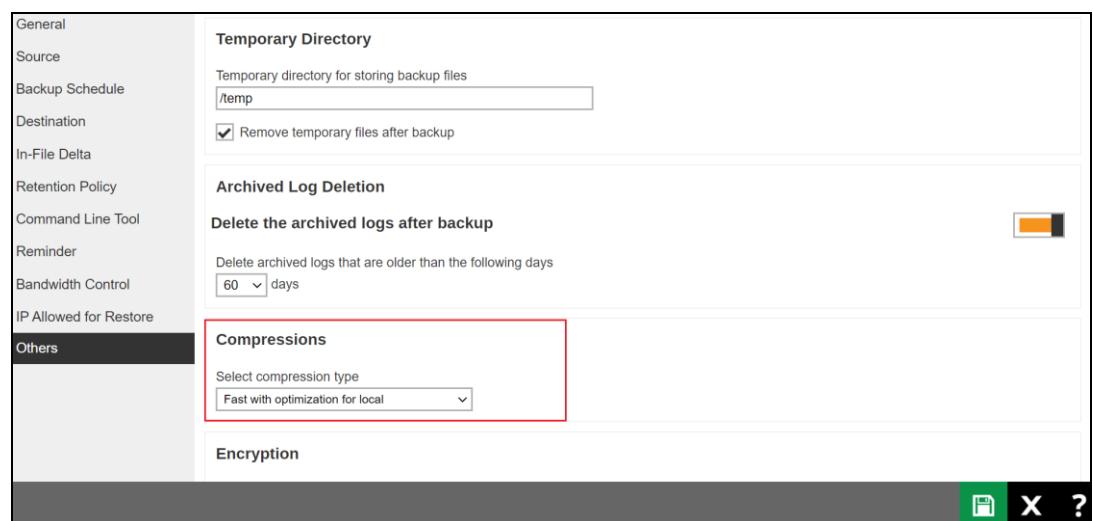
- Optional: **Archived Log Deletion**

The deletion of the archived logs is enabled by default and archived logs more than 60 days are deleted from the Oracle database instance. This process is done after every databases and archived log backup job.

For example, if the Oracle database instance generates a lot of archived log files, you may want to reduce the number of days before they are deleted.



11. Optional: Select your preferred **Compression** type. The compression type is set to **Fast with optimization for local** by default. To change the compression type, go to Others > Compressions.



Select from the following:

- No Compression
- Normal
- Fast (Compressed size larger than normal)
- Fast with optimization for local

Compressions

Select compression type

Fast with optimization for local

No Compression

Normal

Fast (Compressed size larger than normal)

Fast with optimization for local

12. Click **Save** to apply the changes.

13. Open ssh session in the Linux machine and execute the **RunConfigurator.sh** script. The Login Menu will be displayed. Select **(1) . Login** then press Enter to log in. Input your Login Name and Password. Then set the encryption setting for the backup set. Example, option **(2) User password** is selected as the encryption key for this backup set.

```
# cd /usr/local/obm/bin
```

```
# sh RunConfigurator.sh
```

Startup Ahsay Online Backup Manager ...

Hi! XXX

Config file found

Login Menu

(1) . Login

(2) . Change Network Settings

(3) . Forgot Password

(4) . Quit

Your Choice: 1

Login Name : Oracle_LinuxCLI

Password : *****

Please wait while verifying user account with server...

Your profile has been downloaded and updated.

Encryption setting has not been defined for backup set
"BackupSet_01"

Do you want to set the encryption setting for this backup set?
(Y/N) ? Y

Enable Encryption (Y/N) ? Y

Choose Encryption Type

(1) . Default

(2) . User password

(3). Custom

Your Choice: 2

14. Select (1). *List Backup Sets* to list the backup set created in AhsayCBS.

Main Menu

- (1). *List Backup Sets*
(2). *Delete Backup Set*
(3). *Export Backup Set Settings to XML*
(4). *Import Backup Set Settings from XML*
(5). *Generate new Backup Set Settings Template*
(6). *Change Language [English]*
(7). *Update Profile Settings*
(8). *Quit*

Your Choice: 1

15. Select the backup set to show the details by selecting (1). *Name of your backup set*.

Select a Backup Set to show more details

- (1). *BackupSet_01*

Your Choice: 1

Name : *BackupSet_01*
Owner : *oracle19c.local*
Type : *Oracle Database Server*
Selected Source : *Oracle Database Server*
Deselected Source : *Oracle Database Server/PDB\$SEED/TEMP*
Deselected Source : *Oracle Database Server/TEMP*
Deselected Source : *Oracle Database Server/PDB1/TEMP*
Destination Name : *AhsayCBS, Type: OBS*
Encryption Key : *abc123\$%*
Encryption Algorithm : *AES*
Encryption Mode : *CBC*
Encryption Key Length: *256*

Press Enter to continue...

16. Export the backup set to XML by selecting (3). *Export Backup Set Setting to XML*.

Main Menu

- (1). *List Backup Sets*
(2). *Delete Backup Set*

```
(3). Export Backup Set Settings to XML  
(4). Import Backup Set Settings from XML  
(5). Generate new Backup Set Settings Template  
(6). Change Language [English]  
(7). Update Profile Settings  
(8). Quit
```

Your Choice: 3

Choose your backup set to generate XML file

```
(1). BackupSet_01
```

Your Choice: 1

XML file successfully exported to /root/.obm/config/backupSet.xml

17. Exit from the Main Menu then edit the XML file by using an editor (e.g. vi). Add the Value data for Oracle Password to the file then save. Example, the password for system is abc123.

```
# cd /root/.obm/config  
# vi backupSet.xml
```

<!-- Oracle Password -->

```
<Value data="abc123" name="Password" type="string" />
```

18. Import the backup set by selecting **(4). Import Backup Set Setting from XML**. Confirm overwrite of file.

Main Menu

```
(1). List Backup Sets  
(2). Delete Backup Set  
(3). Export Backup Set Settings to XML  
(4). Import Backup Set Settings from XML  
(5). Generate new Backup Set Settings Template  
(6). Change Language [English]  
(7). Update Profile Settings  
(8). Quit
```

Your Choice: 4

Reading xml...

Reading xml...Done

Verifying destination 'AhsayCBS'...

Backup Set 'BackupSet_01' already exist. Confirm overwrite? (Y/N) ?

Y

XML imported, uploading to server...

XML successfully uploaded to server

19. Log in to AhsayCBS web console to check if Oracle Password and Encryption setting were successfully added. To check for the password, go to **General > Password**.

The screenshot shows the 'General' configuration page. On the left sidebar, 'General' is selected. The main area contains the following fields:

- ID: 1605522799222
- Name: BackupSet_01
- Owner: oracle19c.local
- Backup set type: Oracle Database Server Backup
- Oracle Database Server** section:
 - Login ID: system
 - Password: (redacted)
 - Host: localhost
 - Port: 1521
 - SID: cdb1

To check for the encryption setting, go to **Others > Encryption**.

The screenshot shows the 'Others' configuration page. On the left sidebar, 'Others' is selected. The main area contains the following sections:

- Temporary directory for storing backup files: /temp
- Remove temporary files after backup
- Archived Log Deletion** section:
 - Delete the archived logs after backup: (switch is off)
 - Delete archived logs that are older than the following days: 60 days
- Compressions** section:
 - Select compression type: Fast with optimization for local
- Encryption** section (highlighted with a red box):
 - Backup user password is used as the encrypting key since "User Password" encryption type has been applied to this backup set
 - Encrypting key: *****
 - Algorithm: AES
 - Method: CBC
 - Key length: 256

6.2 Create an Oracle Database Backup Set using command line

1. To create an Oracle database backup set, select (5). *Generate new Backup Set Settings Template* from the menu.

```
Main Menu
-----
(1). List Backup Sets
(2). Delete Backup Set
(3). Export Backup Set Settings to XML
(4). Import Backup Set Settings from XML
(5). Generate new Backup Set Settings Template
(6). Change Language [English]
(7). Update Profile Settings
(8). Quit
-----
Your Choice: 5
```

2. Select (4). *Oracle Database Server* to generate an Oracle database backup set template file to `/root/.obm/config` directory.

```
Choose a template from a backup set type
-----
(1). File
(2). MySQL Database
(3). MariaDB
(4). Oracle Database Server
(5). IBM Domino
-----
Your Choice: 4

XML file successfully exported to /root/.obm/config/backupSet.xml

Main Menu
-----
(1). List Backup Sets
(2). Delete Backup Set
(3). Export Backup Set Settings to XML
(4). Import Backup Set Settings from XML
(5). Generate new Backup Set Settings Template
(6). Change Language [English]
(7). Update Profile Settings
(8). Quit
-----
Your Choice:
```

3. **Configuring Oracle Database Backup Set Settings.**

To configure the Oracle database backup set setting, you need to edit the `backupSet.xml` file: `/root/.obm/config/backupSet.xml` using a text editor (e.g. vi).

You can either quit the **RunConfigurator.sh** script or open a new ssh session to edit the `backupSet.xml` file.

Please refer to Appendix [A](#) and [B](#) for details and examples on how to configure backup sets using the `backupSet.xml` file.

NOTES

- i. Before importing the backupSet.xml file, please remove any unused destinations and backup schedule settings. Otherwise, the following error will be displayed “**Failed to import XML file (Reason: Value of name is empty!)**” when trying to import the backupSet.xml file.
- ii. Set up of the following cloud storage destinations: OneDrive, OneDrive for Business, DropBox and Google Drive are not supported in Linux CLI environment, as these cloud storage destinations require authentication using a web browser.

4. Importing the updated backupSet.xml file to AhsayOBM

After you have edited the backupSet.xml file with your chosen backup settings, you need to import the settings back to AhsayOBM, so they can be uploaded to AhsayCBS backup server to create the backup set.

For example: to create a new Oracle database backup set called “Oracle Database 1” with encryption enabled and option **(2) User password** is selected as the encryption key for the backup set.

```
Main Menu
-----
(1). List Backup Sets
(2). Delete Backup Set
(3). Export Backup Set Settings to XML
(4). Import Backup Set Settings from XML
(5). Generate new Backup Set Settings Template
(6). Change Language [English]
(7). Update Profile Settings
(8). Quit

-----
Your Choice: 4

Reading xml...
Reading xml...Done
Verifying destination 'AhsayCBS'...
New backup set created.
Enable Encryption (Y/N) ? y

Choose Encryption Type
-----
(1). Default
(2). User password
(3). Custom

-----
Your Choice: 2

XML imported, uploading to server...
XML successfully uploaded to server
```

5. Verify the Backup Set Settings

To verify if the uploaded backup set settings are correct, select **(1). List Backup Sets** and then select the backup you wish to verify. For example, backup set named “Oracle Database 1”.

```
Select a Backup Set to show more details
-----
(1). Oracle Database 1
```

Your Choice: 1

Name	:	Oracle Database 1
Owner	:	oracle19c.local
Type	:	Oracle Database Server
Selected Source	:	Oracle Database Server
Deselected Source	:	Oracle Database Server/PDB\$SEED/TEMP
Deselected Source	:	Oracle Database Server/TEMP
Deselected Source	:	Oracle Database Server/PDB1/TEMP
Destination Name	:	AhsayCBS, Type: OBS
Encryption Key	:	abc123\$%
Encryption Algorithm	:	AES
Encryption Mode	:	CBC
Encryption Key Length:	256	

Press Enter to continue...

Congratulations! The backup set configuration is now complete!

NOTES

- i. We would like to stress that it is very important to keep a separate record of your encryption key in a safe place, as you will not be able to restore your data without the correct key.
- ii. If you re-install AhsayOBM or install AhsayOBM on another machine, the encryption key will be required for restoring data from the backup set.

7 Overview on the Backup Process

The following steps are performed during an Oracle Server backup job in Database and Archived Log backup modes.

7.1 Database Backup

For an overview of the detailed process for Steps 3, 5, 11, and 14, please refer to the following chapters.

- [Periodic Data Integrity Check \(PDIC\) Process \(Step 3\)](#)
- [Backup Set Index Handling Process
 - \[Start Backup Job \\(Step 5\\)\]\(#\)
 - \[Completed Backup Job \\(Step 14\\)\]\(#\)](#)
- [Data Validation Check Process \(Step 11\)](#)



7.2 Archived Log Backup

For an overview of the detailed process for Steps 3, 5, 11, and 14, please refer to the following chapters.

- [Periodic Data Integrity Check \(PDIC\) Process \(Step 3\)](#)
- [Backup Set Index Handling Process
 - \[Start Backup Job \\(Step 5\\)\]\(#\)
 - \[Completed Backup Job \\(Step 14\\)\]\(#\)](#)
- [Data Validation Check Process \(Step 11\)](#)



7.3 Periodic Data Integrity Check (PDIC) Process

For AhsayOBM v8.3.6.0 (or above), the PDIC will run on the first backup job that falls on the corresponding day of the week from **Monday to Friday**.

To minimize the impact of the potential load of large number of PDIC jobs running at the same time on the AhsayCBS server, the schedule of a PDIC job for each backup set is automatically determined by the result of the following formula:

<i>PDIC schedule = %BackupSetID% modulo 5</i>
or
<i>%BackupSetID% mod 5</i>

The calculated **result** will map to the corresponding day of the week (i.e., from Monday to Friday).

0	Monday
1	Tuesday
2	Wednesday
3	Thursday
4	Friday

NOTE: The PDIC schedule cannot be changed.

Example:

Backup set ID: 1594627447932

Calculation: 1594627447932 mod 5 = 2

2	Wednesday
----------	------------------

In this example:

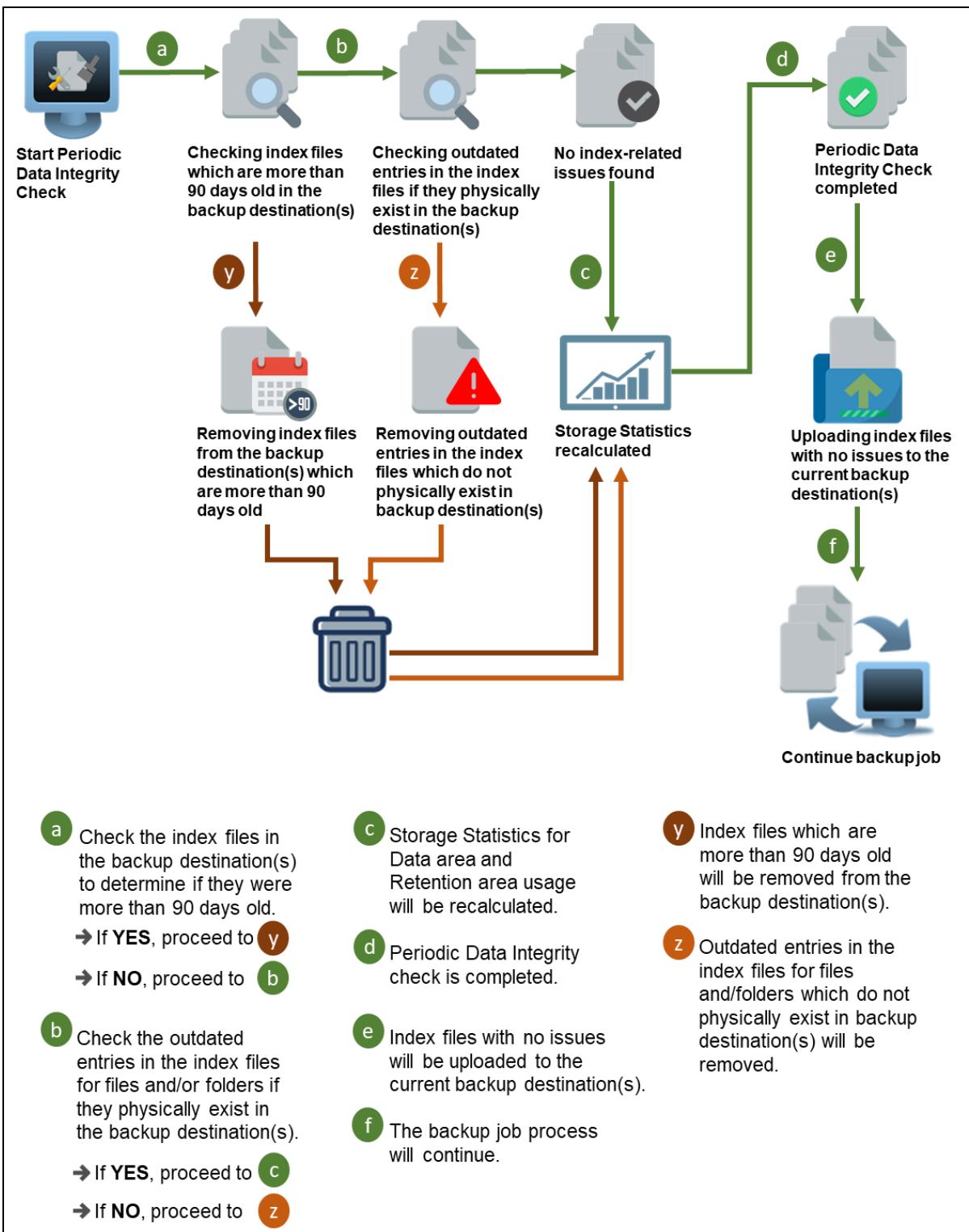
- the PDIC will run on the first backup job that falls on Wednesday; or
- if there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

NOTE

Although according to the PDIC formula for determining the schedule is ***%BackupSetID% mod 5***, this schedule only applies if the previous PDIC job was actually run more than 7 days prior.

Under certain conditions, the PDIC may not run strictly according to this formula. For example:

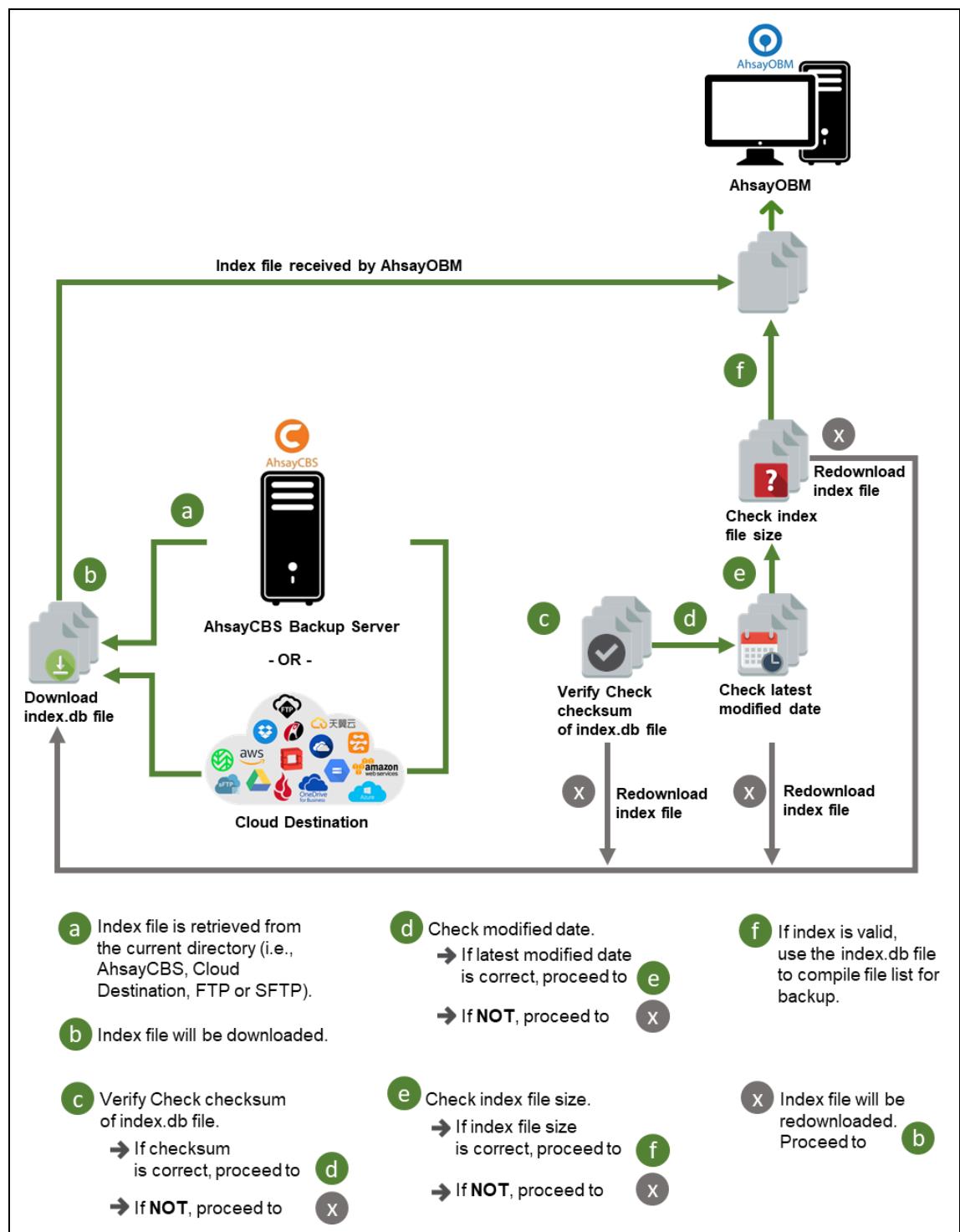
1. If AhsayOBM was upgraded to v8.5 (or above) from an older version v6, v7, or pre-8.3.6.0 version. In this case, the PDIC job will run on the first backup job after upgrade.
2. If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more than 7 days ago.



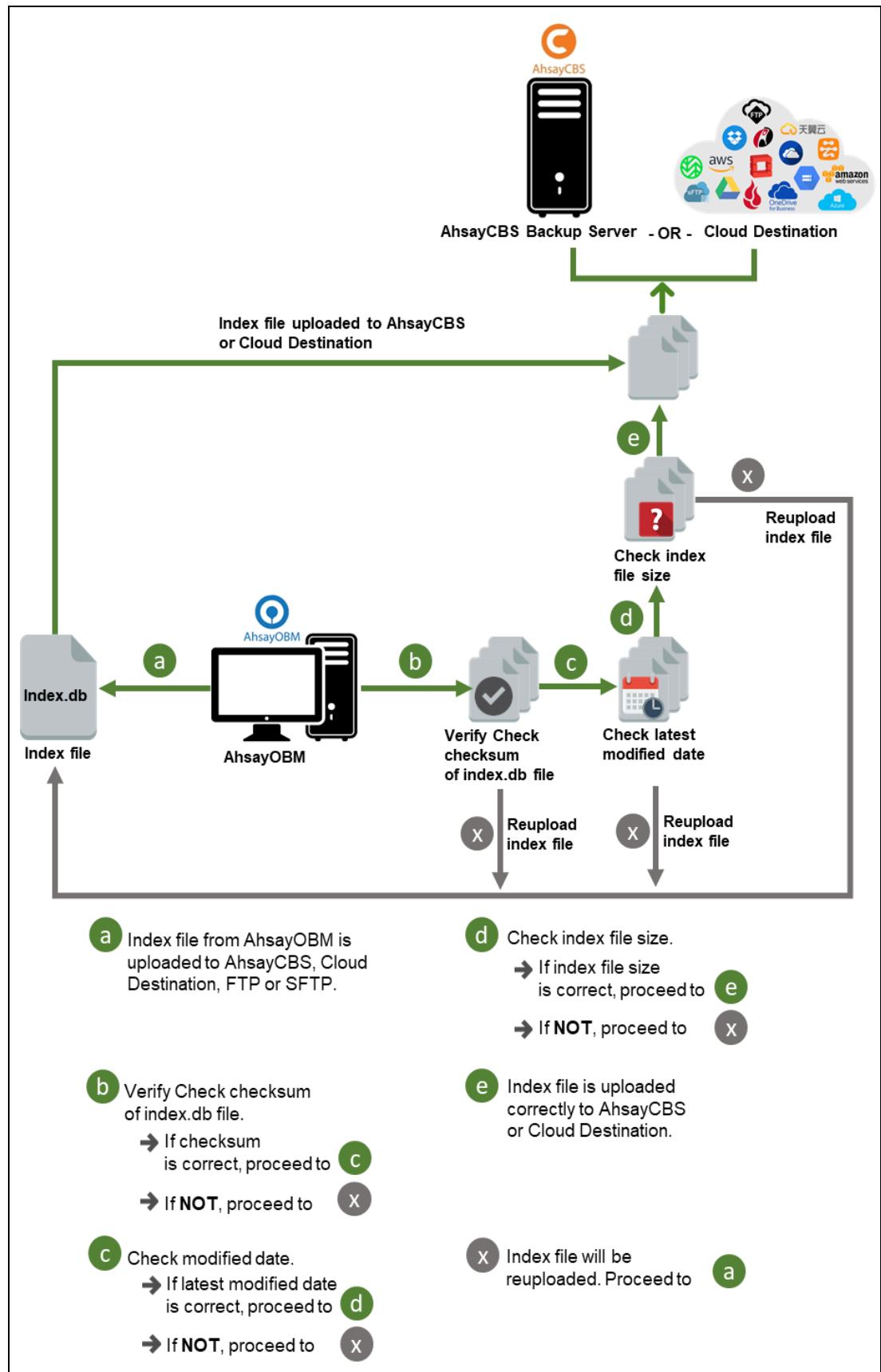
7.4 Backup Set Index Handling Process

To minimize the possibility of index related issues affecting backups, each time index files are downloaded from and uploaded to backup destination(s); the file size, last modified date, and checksum is verified to ensure index file integrity.

7.4.1 Start Backup Job

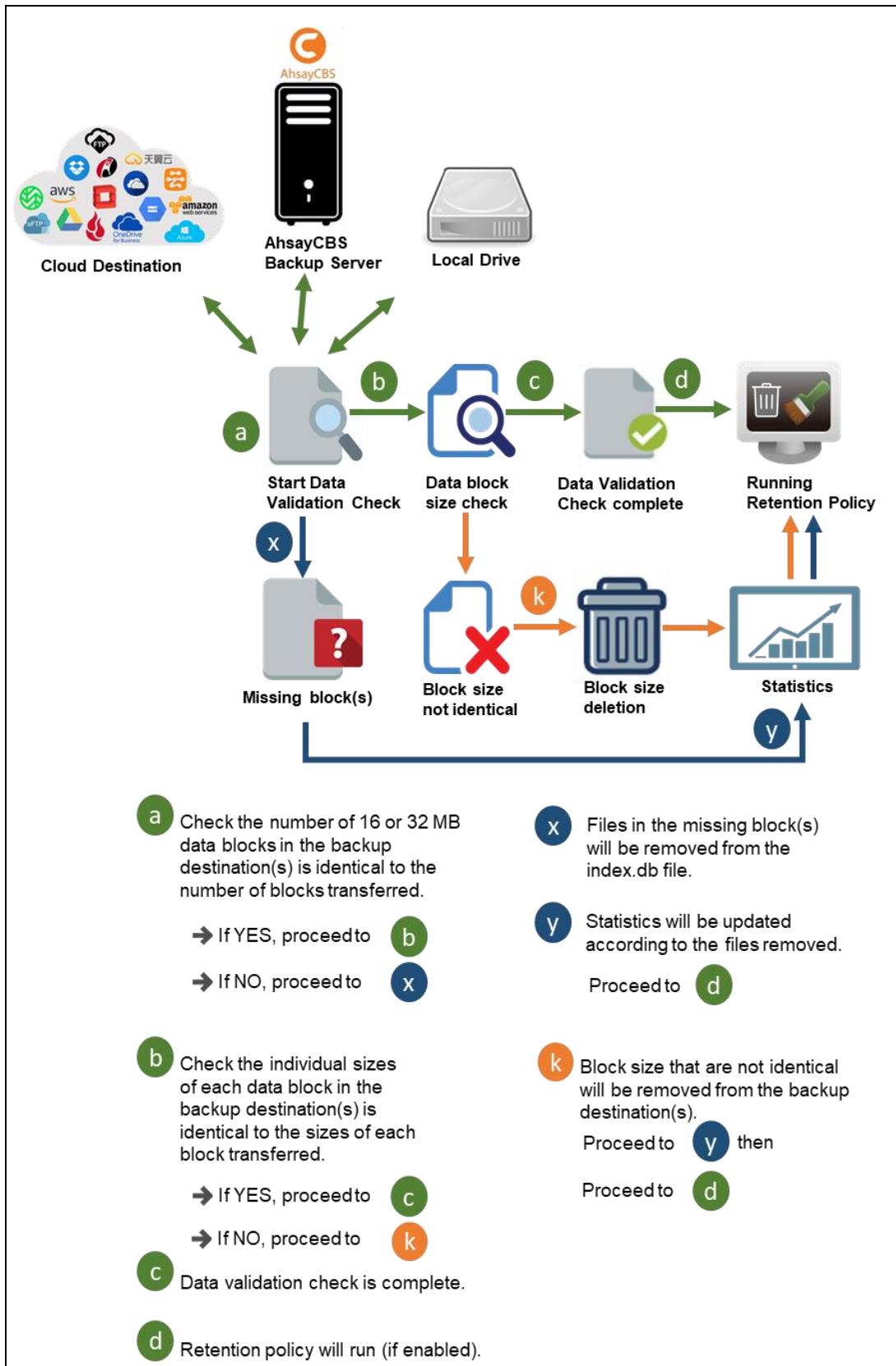


7.4.2 Completed Backup Job



7.5 Data Validation Check Process

As an additional measure to ensure that all files transferred to the backup destination(s) are received and saved correctly, both the number of 16 or 32 MB data block files and the size of each block file are checked again after the files are transferred.



8 Running Backup Jobs

To manually run a backup job, you need to use the **RunBackupSet.sh** script followed by the selected backup set which you would like to back up.

For example:

RunBackupSet.sh <BackupSetName>

After doing so, the backup job will run according to the configured backup set settings. For more details and examples on how to configure a backup set using the **backupSet.xml** file before running a backup, refer to Appendices [A](#) and [B](#).

8.1 Database Backup

The following example only shows the main process of database backup. To see the complete backup log of database backup, refer to [Appendix C](#).

```
# sh RunBackupSet.sh "Oracle DB backup"

-
Using APP_HOME      : /usr/local/obm
Using SETTING_HOME  :
Using JAVA_HOME     : /usr/local/obm/jvm
Using JAVA_EXE      : /usr/local/obm/jvm/bin/java
Using JAVA_OPTS     : -Xrs -Xms128m -Xmx768m -
XX:MaxDirectMemorySize=512m -client -
Dsun.nio.PageAlignDirectMemory=true
Using JNI_PATH       : -Djava.library.path=.:./LinX64
Using CLASSPATH     : ./cb.jar
-

Running Backup Set - 'Oracle DB backup' ...
[2020/11/20 10:03:25] [info] [-] Start [ AhsayOBM v8.4.0.16 ]
[2020/11/20 10:03:25] [info] [-] Saving encrypted backup set
encryption keys to server...
[2020/11/20 10:03:27] [info] [1605866412892] Start Backup ...
Database(Tablespaces, Control & Init File, Archived Logs) [In-File
Delta: Incremental]
[2020/11/20 10:03:27] [info] [1605866412892] Using Temporary
Directory /temp/1605866367637/OBS@1605866412892
[2020/11/20 10:03:29] [info] [-] Start running pre-commands
[2020/11/20 10:03:29] [info] [-] Finished running pre-commands
[2020/11/20 10:03:30] [info] [1605866412892] Downloading server file
list... Completed
[2020/11/20 10:03:31] [info] [-] Initializing Oracle module...
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace
"PDB$SEED/TEMP"
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace
"PDB1/TEMP"
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace "TEMP"
[2020/11/20 10:03:32] [info] [-] Start backing up tablespace
"PDB$SEED/SYSAUX"
```

```

[2020/11/20 10:03:32] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdbseed/sysaux01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
{1}
[2020/11/20 10:03:45] [info] [-] End backing up tablespace
"PDB$SEED/SYSAUX"
[2020/11/20 10:03:45] [info] [-] Start backing up tablespace
"PDB$SEED/SYSTEM"
[2020/11/20 10:03:45] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdbseed/system01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdbseed/system01.dbf"
{1}
[2020/11/20 10:03:52] [info] [-] End backing up tablespace
"PDB$SEED/SYSTEM"
[2020/11/20 10:05:48] [info] [-] Start backing up tablespace
"UNDOTBS1"
[2020/11/20 10:05:48] [info] [-] Backing up datafile
"/u02/oradata/CDB1/undotbs01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/undotbs01.dbf" {1}
[2020/11/20 10:06:01] [info] [-] End backing up tablespace "UNDOTBS1"
[2020/11/20 10:06:03] [info] [-] Generating create script for temp
files to "/temp/1605866367637/SpoolArea/addTempFile.sql"
[2020/11/20 10:06:03] [info] [-] Backing up initialization file
(pfile)
[2020/11/20 10:06:03] [info] [-] Backing up initialization file
(spfile)
[2020/11/20 10:06:05] [info] [-] Backing up control file
[2020/11/20 10:06:05] [info] [-] Start "Archived Log" backup
[2020/11/20 10:06:05] [info] [-] End "Archived Log" backup
[2020/11/20 10:06:05] [info] [1605866412892] Backup Database "cdb1"
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u02/oradata/CDB1/pdbseed
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u01/app/oracle/product
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u01/app/oracle/product/19.0.0
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u01/app/oracle/product/19.0.0/dbhome_1
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]...
Oracle Database Server/u02/oradata/CDB1/pdb1
[2020/11/20 10:06:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/addTempFile.sql"
[2020/11/20 10:09:21] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/control01.ctl"
[2020/11/20 10:09:22] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/control02.ctl"
[2020/11/20 10:12:15] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdbl.ora"

```

```

[2020/11/20 10:12:18] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.
dbf"
[2020/11/20 10:12:33] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.
dbf"
[2020/11/20 10:19:19] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886
.dbf"
[2020/11/20 10:19:39] [info] [1605866412892] Start validating the
presence and size of backup data in destination "AhsayCBS"...
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000000.bak", Size:
10,227,616, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000070.bak", Size:
34,930, OK
[2020/11/20 10:19:39] [info] [1605866412892] Finished validating the
presence and size of backup data in destination "AhsayCBS"
[2020/11/20 10:19:39] [info] [1605866412892] Total New Files = 74
[2020/11/20 10:19:39] [info] [1605866412892] Total New Directories =
13
[2020/11/20 10:19:39] [info] [1605866412892] Total New Links = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Updated Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Attributes Changed
Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted
Directories = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted Links = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Moved Files = 0
[2020/11/20 10:19:39] [info] [-] Deleting temporary file
/temp/1605866367637/SpoolArea
[2020/11/20 10:19:39] [info] [-] Removing archived logs older than 60
day(s)
[2020/11/20 10:19:39] [info] [-] [Delete archived logs]
/u01/app/oracle/product/19.0.0/dbhome_1/bin/rman target
system/********@cdb1 nocatalog cmdfile=UpdateOracleRmanRecords.rman
'60'
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Recovery
Manager: Release 19.0.0.0.0 - Production on Fri Nov 20 10:19:40 2020
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Version
19.3.0.0.0
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Copyright (c)
1982, 2019, Oracle and/or its affiliates. All rights reserved.
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] connected to
target database: CDB1 (DBID=981637913)
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] RMAN> run {
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 2> DELETE
ARCHIVELOG ALL COMPLETED BEFORE 'SYSDATE-60';

```

```
[2020/11/20 10:19:46] [info] [-] [Delete archived logs] Recovery Manager complete.
[2020/11/20 10:19:47] [info] [1605866412892] Saving encrypted backup file index to 1605866367637/blocks at destination AhsayCBS...
[2020/11/20 10:19:48] [info] [1605866412892] Saving encrypted backup file index to 1605866367637/blocks/2020-11-20-10-03-14 at destination AhsayCBS...
[2020/11/20 10:19:49] [info] [-] Start running post-commands
[2020/11/20 10:19:49] [info] [-] Finished running post-commands
[2020/11/20 10:19:52] [info] [1605866412892] Deleting temporary file /temp/1605866367637/OBS@1605866412892
[2020/11/20 10:19:54] [info] [1605866412892] Backup Completed Successfully
```

8.2 Archived Log Backup

1. To run an archived log backup, you need to configure the **RunBackupSet.sh** script file using a text editor (e.g., vi).

For example:

```
# vi RunBackupSet.sh
```

2. Change the value of **BACKUP_TYPE** to “LOG” for archived log backup.

```
# cd /usr/local/obm/bin
# vi RunBackupSet.sh

#!/bin/sh

#####
# You can use this shell script to run any of your backup sets from the#
# command line. Just customize the "User Defined Section" below with    #
# your values for your backup action.                                     #
#####

#####
# START: User Defined Section #####
# ----- BACKUP_SET -----
# | The name or ID of the backup set that you want to run           |
# | If backup set name is not in English, please use ID instead.     |
# | e.g. BACKUP_SET="1119083740107"                                    |
# | or   BACKUP_SET="FileBackupSet-1"                                    |
# | |
# | You can leave this parameter blank if you have only 1 backup set. |
# | ----- |
BACKUP_SET=""

# ----- BACKUP_DESTS -----
# | The list of name or ID of the backup destinations that you want to |
# | run.                                                               |
# | If backup destination name is not in English, please use ID instead.|
# | e.g. BACKUP_DESTS="1740107119083"                                    |
# | or   BACKUP_DESTS="Destination-1, Destination-2"                    |
# | or   BACKUP_DESTS="ALL"                                              |
# | |
# | You can specify multiple destinations in comma-separated format,  |
# |
```

```

# | or use "ALL" to run backup for all destinations.
#
# -----
BACKUP_DESTS="ALL"

# ----- BACKUP_TYPE -----
# | Set backup type. You don't need to change this if you are backing
# | up a file backup set.
# | Options available: FILE/DATABASE/DIFFERENTIAL/LOG
# |
# | e.g. BACKUP_TYPE="FILE"           for file backup
# | or BACKUP_TYPE="DATABASE"        for Full database backup
# | or BACKUP_TYPE="DIFFERENTIAL"   for Differential database backup
# | or BACKUP_TYPE="LOG"            for Log database backup
# -----
BACKUP_TYPE="LOG"
# ----- SETTING_HOME -----
# | Directory to your setting home.
# | Default to ${HOME}/.obm when not set.
# |
# | e.g. SETTING_HOME="${HOME}/.obm"
# -----
SETTING_HOME=""

# ----- DELTA_MODE -----
# | Set In-File Delta mode.
# | Options available: Incremental/Differential/Full (I/D/F)
# | e.g. DELTA_MODE="I"    for Incremental In-file delta backup
# | or  DELTA_MODE="D"    for Differential In-file delta backup
# | or  DELTA_MODE="F"    for Full File backup
# | or  DELTA_MODE=""   for using backup set in-file delta setting
# -----
DELTA_MODE=""

# ----- CLEANUP_MODE -----
# | You can enable Cleanup mode to remove obsolete files from your
# | backup destinations after backup.
# | Options available: ENABLE-CLEANUP/DISABLE-CLEANUP
# | e.g. CLEANUP_MODE="ENABLE-CLEANUP"
# | or  CLEANUP_MODE="DISABLE-CLEANUP"
# -----
CLEANUP_MODE="DISABLE-CLEANUP"

# ----- DEBUG_MODE -----
# | Set Debug mode.
# | Options available: ENABLE-DEBUG/DISABLE-DEBUG
# | e.g. DEBUG_MODE="ENABLE-DEBUG"
# | or  DEBUG_MODE="DISABLE-DEBUG"
# -----
DEBUG_MODE="DISABLE-DEBUG"
#####
##### END: User Defined Section #####

```

3. After the **RunBackupSet.sh** script is configured, the backup job will run in archived log mode.

The following example only shows the main process of archived log backup. To see the complete backup log of archived log backup, refer to [Appendix C](#).

```

# sh RunBackupSet.sh "Archived Log Backup"

-
Using APP_HOME      : /usr/local/obm
Using SETTING_HOME :
Using JAVA_HOME     : /usr/local/obm/jvm
Using JAVA_EXE      : /usr/local/obm/jvm/bin/java
Using JAVA_OPTS     : -Xrs -Xms128m -Xmx768m -
XX:MaxDirectMemorySize=512m -client -
Dsun.nio.PageAlignDirectMemory=true
Using JNI_PATH       : -Djava.library.path=.:./LinX64
Using CLASSPATH     : ./cb.jar
-

Running Backup Set - 'Archived Log Backup' ...
[2020/11/20 11:35:55] [info] [-] Start [ AhsayOBM v8.4.0.16 ]
[2020/11/20 11:35:55] [info] [-] Saving encrypted backup set
encryption keys to server...
[2020/11/20 11:36:02] [info] [1605808472685] Start Backup ...
Archived Log [In-File Delta: Incremental]
[2020/11/20 11:36:02] [info] [1605808472685] Using Temporary
Directory /temp/1605808427508/OBS@1605808472685
[2020/11/20 11:36:04] [info] [-] Start running pre-commands
[2020/11/20 11:36:04] [info] [-] Finished running pre-commands
[2020/11/20 11:36:04] [info] [1605808472685] Downloading server
file list...
[2020/11/20 11:36:05] [info] [1605808472685] Download valid index
files from backup job "Current" to
"/temp/1605808427508/OBS@1605808472685/index".
[2020/11/20 11:36:05] [info] [1605808472685] Downloading server
file list... Completed
[2020/11/20 11:36:06] [info] [-] Initializing Oracle module...
[2020/11/20 11:36:12] [info] [-] Start "Archived Log" backup
[2020/11/20 11:36:12] [info] [-] End "Archived Log" backup
[2020/11/20 11:36:12] [info] [1605808472685] Backup Database
"cdb1"
[2020/11/20 11:36:13] [info] [1605808472685] [New File]... 44% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211
886.dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211
886.dbf"
[2020/11/20 11:36:21] [info] [1605808472685] Start validating the
presence and size of backup data in destination "AhsayCBS"...
[2020/11/20 11:36:21] [info] [1605808472685] File:
"1605808427508/blocks/2020-11-20-11-35-44/0/000000.bak", Size:
3,078,464, OK
[2020/11/20 11:36:21] [info] [1605808472685] Finished validating
the presence and size of backup data in destination "AhsayCBS"

```

```

[2020/11/20 11:36:21] [info] [1605808472685] Total New Files = 2
[2020/11/20 11:36:21] [info] [1605808472685] Total New Directories
= 0
[2020/11/20 11:36:21] [info] [1605808472685] Total New Links = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Updated Files =
0
[2020/11/20 11:36:21] [info] [1605808472685] Total Attributes
Changed Files = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted Files =
0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted
Directories = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted Links =
0
[2020/11/20 11:36:21] [info] [1605808472685] Total Moved Files = 0
[2020/11/20 11:36:21] [-] Deleting temporary file
/temp/1605808472508/SpoolArea
[2020/11/20 11:36:21] [-] Removing archived logs older than
60 day(s)
[2020/11/20 11:36:21] [-] [Delete archived logs]
/u01/app/oracle/product/19.0.0/dbhome_1/bin/rman target
system/********@cdb1 nocatalog cmdfile=UpdateOracleRmanRecords.rman
'60'
[2020/11/20 11:36:21] [-] [Delete archived logs]
[2020/11/20 11:36:21] [-] [Delete archived logs] Recovery
Manager: Release 19.0.0.0.0 - Production on Fri Nov 20 11:36:21
2020
[2020/11/20 11:36:21] [-] [Delete archived logs] Version
19.3.0.0.0
[2020/11/20 11:36:21] [-] [Delete archived logs]
[2020/11/20 11:36:21] [-] [Delete archived logs] Copyright
(c) 1982, 2019, Oracle and/or its affiliates. All rights
reserved.
[2020/11/20 11:36:21] [-] [Delete archived logs]
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] connected
to target database: CDB1 (DBID=981637913)
[2020/11/20 11:36:23] [-] [Delete archived logs] using
target database control file instead of recovery catalog
[2020/11/20 11:36:23] [-] [Delete archived logs]
[2020/11/20 11:36:23] [-] [Delete archived logs] RMAN> run
{
[2020/11/20 11:36:23] [-] [Delete archived logs] 2> DELETE
ARCHIVELOG ALL COMPLETED BEFORE 'SYSDATE-60';
[2020/11/20 11:36:24] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 11:36:24] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:24] [-] [Delete archived logs] released
channel: ORA_DISK_1
[2020/11/20 11:36:25] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:25] [-] [Delete archived logs] validation
succeeded for archived log

```

```

[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.dbf RECID=47 STAMP=1056319233
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.dbf RECID=48 STAMP=1056319279
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211886.dbf RECID=100 STAMP=1056972967
[2020/11/20 11:36:25] [info] [-] [Delete archived logs]
Crosschecked 56 objects
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] released channel: ORA_DISK_1
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] channel ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:25] [info] [-] [Delete archived logs]
specification does not match any archived log in the repository
[2020/11/20 11:36:26] [info] [-] [Delete archived logs]
Recovery Manager complete.
[2020/11/20 11:36:26] [info] [1605808472685] Saving encrypted backup file index to 1605808427508/blocks at destination AhsayCBS...
[2020/11/20 11:36:26] [info] [1605808472685] Saving encrypted backup file index to 1605808427508/blocks/2020-11-20-11-35-44 at destination AhsayCBS...
[2020/11/20 11:36:27] [info] [-] Start running post-commands
[2020/11/20 11:36:27] [info] [-] Finished running post-commands
[2020/11/20 11:36:30] [info] [1605808472685] Deleting temporary file /temp/1605808427508/OBS@1605808472685
[2020/11/20 11:36:32] [info] [1605808472685] Backup Completed Successfully

```

9 Restoring Backup for Oracle Database Server

9.1 Restoring Data

There are two (2) restore options to choose from in Linux CLI mode:

- **Original location** – AhsayOBM will restore the database(s) from the backup destination and apply them to the original production Oracle instance.
- **Restore raw file** – AhsayOBM will restore the Oracle database files to a location on the local machine, which then can be copied to another Oracle server on another machine for recovery.

The **Restore Raw File** option is for advanced Oracle database administrators and should only be used if you have in-depth knowledge and understanding of Oracle database engine, Oracle database schema, knowledge of the database server and network infrastructure. Therefore, it is not recommended to use this restore option as there is need to utilize additional Oracle techniques and scripts to facilitate a manual database restore.

Please refer to the following article of Oracle Database Backup and Recovery User's Guide for details:

Oracle 19c

<https://docs.oracle.com/en/database/oracle/oracle-database/19/bradv/index.html>

Oracle 18c

<https://docs.oracle.com/en/database/oracle/oracle-database/18/bradv/index.html>

9.2 Restore to Original Location

This feature is used to restore files from your backup destination and automatically apply them to the Oracle database server in the original location.

1. TNS listener service must be started to allow connections to the Oracle database server for the restore process. To check if the TNS listener service is running, use the `lsnrctl status` command. If the TNS listener service is not started, use the `lsnrctl start` command to start the service.

Example: A running TNS Listener service on Oracle 19c.

```
$ lsnrctl status

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 05-NOV
2020 11:33:44

Copyright (c) 1991, 2019, Oracle. All rights reserved.

Connecting to
(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP) (HOST=oracle19c.local) (POR
T=1521)))
STATUS of the LISTENER
-----
Alias                      LISTENER
Version                    TNSLSNR for Linux: Version 19.0.0.0.0
                           - Production
Start Date                 03-NOV-2020 12:13:24
```

```

Uptime                                1 days 23 hr. 20 min. 20 sec
Trace Level                         off
Security                            ON: Local OS Authentication
SNMP                                OFF
Listener Parameter File
/u01/app/oracle/product/19.0.0/dbhome_1/network/admin/listener.ora
Listener Log File
/u01/app/oracle/diag/tnslnsr/oracle19c/listener/alert/log.xml
Listening Endpoints Summary...

(DESCRIPTION=(ADDRESS=(PROTOCOL=tcp) (HOST=oracle19c.local) (PORT=1521)))
(DESCRIPTION=(ADDRESS=(PROTOCOL=ipc) (KEY=EXTPROC1521)))
Services Summary...
Service "86b637b62fdf7a65e053f706e80a27ca" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "8886b84fb1e0709de053631e100a76ed" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "cdb1" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "cdb1XDB" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
Service "pdb1" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this service...
The command completed successfully

```

NOTE: The values shown are just examples and might be different on your Oracle instance.

- Run the `sqlplus / as sysdba` command to verify if the Oracle service is active.

The following is just an example after an Oracle instance failure due to corrupted data and/or configuration files. It might be different on your Oracle instance.

```

$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Mon Nov 9 15:23:12
2020
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to an idle instance.

```

- Open the **Restore.sh** script using a text editor (e.g. vi) and configure the restore settings:
 - BACKUP_SET** – the name of the backup set which you would like to restore.
 - DESTINATION** – the destination where the backup will be restored from. You can leave this blank if you only have one (1) destination.

- **RESTORE_TO** – the location which the backup will be restored. This setting should be left blank if restoring to **Original Location**.
- **RESTORE_FROM** – the file or directory which you would like to restore.
- **POINT_IN_TIME** – the specific successful backup that you would like to restore. You can use **Current** if you want to use the latest backup snapshot.
- **RESTORE_PERMISSION** – the setting where you can enable or disable the restore file permissions.
- **SKIP_INVALID_KEY** – the setting where you can choose to skip the restore file with invalid key or prompt user to input a correct key.
- **SYNC_OPTION** – the setting where you can choose to delete extra files by selecting from the following sync options:
 - SYNC_OPTION="Y" -> to enable sync option
 - SYNC_OPTION="N" -> to disable sync option
 - SYNC_OPTION="" -> to prompt for selection
- **REPLACE_EXISTING_FILE** – the setting where you can choose if you want to replace or keep existing files with the same filename, or prompt for selection:
 - REPLACE_EXISTING_FILE="--all" -> to replace all existing file(s) of the same filename
 - REPLACE_EXISTING_FILE="--none" -> to skip all existing file(s) with the same filename
 - REPLACE_EXISTING_FILE="" -> to prompt for selection
- **SETTING_HOME** – the directory of setting home.
- **FILTER** – the setting where you can filter the files which you would like to restore.
- **TEMP_DIR** – the temporary directory of the backup that will be restored.
- **VERIFY_CHKSUM** – the setting where you can enable or disable the in-file delta file checksum to be verified during restore.

NOTE

The **RESTORE_TO=""** setting must be blank when restoring to Original Location.

```
# cd /usr/local/obm/bin
# vi Restore.sh

#!/bin/sh

#####
# Restore.sh #####
# You can use this shell script to restore backup files using command-
# line.
# Just customize the "User Define Section" below with values for your
# restore action.
#####

##### Start: User Defined Section #####
# ----- BACKUP_SET -----
# | The name or ID of the backup set that you want to restore.
# | If backup set name is not in English, please use ID instead.
# | e.g. BACKUP_SET="1119083740107"
# | or BACKUP_SET="FileBackupSet-1"
# |
```

```

# | You can leave this parameter blank if you have only 1 backupset. |
# -----
BACKUP_SET="Oracle DB backup"

# ----- DESTINATION -----
# | The name or ID of the backup destination that you want to restore |
# | from. |
# | If backup destination name is not in English, please use ID instead. |
# | e.g. DESTINATION="1740107119083" |
# | or DESTINATION="Destination-1" |
# |
# | You can leave this parameter blank if you have only 1 destination. |
# -----
DESTINATION=""

# ----- RESTORE_TO -----
# | Directory to where you want files to be restored |
# | set to "" to restore files to original location |
# | e.g. RESTORE_TO="/tmp" |
# |
RESTORE_TO=""

# ----- RESTORE_FROM -----
# | File/Directory on the backup server that you would like to restore |
# | e.g. RESTORE_FROM="/Data" |
# |
RESTORE_FROM="Oracle Database Server"

# ----- POINT_IN_TIME -----
# | The point-in-time snapshot (successful backup) that you want to |
# | restore |
# | from the backup server. Use "Current" for the latest backup snapshot |
# | e.g. POINT_IN_TIME="2006-10-04-12-57-13" |
# | or POINT_IN_TIME="Current" |
# |
# | You can retrieve the point in time by using the ListBackupJob.sh |
# |
POINT_IN_TIME="Current"

# ----- RESTORE_PERMISSION -----
# | set to "Y" if you want to restore file permissions |
# | set to "N" if you do NOT want to restore file permissions |
# |
RESTORE_PERMISSION="N"

# ----- SKIP_INVALID_KEY -----
# | set to "Y" if you want to skip restore file with invalid key |
# | set to "N" if you want to prompt user to input a correct key |
# |
SKIP_INVALID_KEY="N"

# ----- SYNC_OPTION -----
# | Delete extra files |
# | set to "Y" if you want to enable sync option |
# | set to "N" if you do NOT want to enable sync option |
# | set to "" to prompt for selection |
# |
SYNC_OPTION="N"

# ----- REPLACE_EXISTING_FILE -----
# | set to "--all" to replace all existing file(s) of the same filename |
# | set to "--none" to skip all existing file(s) with the same filename |
# | set to "" to prompt for selection |
# |
REPLACE_EXISTING_FILE="--all"

# ----- SETTING_HOME -----
# | Directory to your setting home. |

```

```

# | Default to ${HOME}/.obm when not set.
# | e.g. SETTING_HOME="${HOME}/.obm"
#
# -----
SETTING_HOME=""

# ----- FILTER -----
# | Filter out what files you want to restore
# | -Pattern=xxx-Type=yyy-Target=zzz
# | where xxx is the filter pattern,
# |     yyy is the filter type, which can be one of the following:
# |         [exact | exactMatchCase | contains | containsMatchCase|
# |             startWith | startWithMatchCase | endWith |
# |             endWithMatchCase]
# |         zzz is the filter target, which can be one of the following:
# |             [toFile | toFileDir | toDir]
#
# | e.g. FILTER="-Pattern=.txt-Type=exact-Target=toFile"
#
# -----
FILTER=""

# ----- TEMP_DIR -----
# | Directory to where you want to store restore files temporarily
# | set to "" to use the temporary directory in the backup set
# | e.g. TEMP_DIR="/tmp"
#
# -----
TEMP_DIR="/temp"

# ----- VERIFY_CHKSUM -----
# | set to "Y" if you want to verify in-file delta file checksum during
# | restore
# | set to "N" if you do NOT want to verify in-file delta file checksum
# | during restore
#
# -----
VERIFY_CHKSUM="N"

#####
#      R E T R I E V E          A P P _ H O M E          P A T H      #
#####
##### END: User Defined Section #####
#####
```

- After the **Restore.sh** script is configured, the files can be restored automatically to the Oracle Database Server. When the **Database is required to shutdown. Continue?** appeared, select **1.YES**.

The following example only shows the main process of restore to original location. To see the complete restore log, refer to [Appendix D](#).

```

# cd /usr/local/obm/bin
# sh Restore.sh

Using APP_HOME:          : /usr/local/obm
Using BACKUP_SET:        : Oracle DB backup
Using RESTORE_FROM:      : Oracle Database Server
Using RESTORE_TO:         :
Using POINT_IN_TIME:     : Current
Using RESTORE_PERMISSION: : N
Using TEMP_DIR:          :

Filter Pattern not set, filter would not apply to restore
Temporary directory not set, use the temporary directory in the
backup set

[2020-11-20 14:32:56] Start [ AhsayOBM v8.4.0.16 ]
```

```

[2020-11-20 14:32:56] OS: Linux 3.10.0-957.12.1.el7.x86_64
(oracle19c.local); CPU Model: VMware-Intel(R) Xeon(R) CPU
E5520 @ 2.27GHz, Intel(R) Xeon(R) CPU E5520 @
2.27GHz; Number of Processors: 4; Heap Size: 79.2MB (Current) /
683MB (Maximum); Physical Memory: 334.6MB (Free) / 7.6GB (Total)
[2020-11-20 14:32:56] start,Start [ AhsayOBM
v8.4.0.16 ],0,0,0,,0,0
[2020-11-20 14:32:56] Selected job: 2020-11-20-14-32-39
[2020-11-20 14:32:56] Selected source: [Oracle Database Server]
[2020-11-20 14:32:56] Info: [followLink=true
marshalTargetPath=false deleteForSync=false skipFaultKey=false
verifyDeltaFileChecksum=false restorePermission=false
[RestoreLocation] type=ORIGINAL path=[null]]
[2020-11-20 14:32:56] Initializing decrypt action...
[2020-11-20 14:32:56] Initializing decrypt action... Completed
[2020-11-20 14:32:58] Start restore database "cdb1"
[2020-11-20 14:33:01] Initializing Oracle module...
Database is required to shutdown. Continue?
1.YES 2.YES TO ALL 3.NO 4.NO TO ALL >>1
[2020-11-20 14:33:16] Shutdown database
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/control01.ctl"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/control02.ctl"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1 redo03.log"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1 redo02.log"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1 redo01.log"
[2020-11-20 14:33:50] Removed file
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.
dbf"
[2020-11-20 14:33:50]
RESTORE_EXISTING_ITEM_FOUND,RESTORE_OVERWRITE...
/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora
[2020-11-20 14:33:50] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora"
(Total 3K bytes)
[2020-11-20 14:33:50] Downloading...
"/u02/oradata/CDB1/control01.ctl" (Total 17.89M bytes)
[2020-11-20 14:33:50] Downloading...
"/u02/oradata/CDB1/control02.ctl" (Total 17.89M bytes)
[2020-11-20 14:33:51]
file,/u02/oradata/CDB1/control02.ctl,42334,18759680,160583796400
0,,1605854031001,1605854031526
[2020-11-20 14:33:51]
file,/u02/oradata/CDB1/control01.ctl,42334,18759680,160583796400
0,,1605854030902,1605854031827
[2020-11-20 14:33:52] Mount database
[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886
.dbf" (Total 36.87M bytes)

```

```

[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886
.dbf" (Total 41.04M bytes)
[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886
.dbf" (Total 37.84M bytes)
[2020-11-20 14:34:41]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_105621
1886.dbf,8649950,43034112,1605276032000,,1605854063842,160585408
1750
[2020-11-20 14:34:41] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886
.dbf" (Total 42.26M bytes)
[2020-11-20 14:34:43]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_105621
1886.dbf,7830894,38656512,1605257996000,,1605854063718,160585408
3933
[2020-11-20 14:47:27] Downloading...
"/u02/oradata/CDB1/users01.dbf" (Total 5.01M bytes)
[2020-11-20 14:49:22]
file,/u02/oradata/CDB1/undotbs01.dbf,63806142,351281152,16058379
59000,,1605854847883,1605854962739
[2020-11-20 14:49:22]
file,/u02/oradata/CDB1/users01.dbf,175198,5251072,1605837961000,
,1605854962775,1605854962829
[2020-11-20 14:56:22]
file,/u02/oradata/CDB1/system01.dbf,230606542,985669632,16058379
47000,,1605854803699,1605855382527
[2020-11-20 14:56:46] Recover database
[2020-11-20 14:56:51] Reset database logs
[2020-11-20 14:58:00] Restart database
[2020-11-20 14:59:05] Restore Completed Successfully
[2020-11-20 14:59:05] end,RESTORE_STOP_SUCCESS,0,0,0,,0,0

```

- After the restore job is completed, verify if the Oracle database instance has been restored using the following SQL query to verify if the instance is online.

```

$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Nov 5 11:32:52
2020

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 -
Production

Version 19.3.0.0.0

SQL> select instance from v$thread;

```

```
INSTANCE
```

```
-----
```

```
cdb1
```

```
SQL>
```

9.3 Restore Raw File

This feature is used to restore the Oracle database(s) from your storage destination to a location on disk and manually recover the databases.

1. TNS listener service must be started to allow connections to the Oracle database server for the restore process. To check if the TNS listener service is running, use the `lsnrctl status` command. If the TNS listener service is not started, use the `lsnrctl start` command to start the service.

Example: A running TNS Listener service on Oracle 19c.

```
$ lsnrctl status

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 05-NOV
2020 11:33:44

Copyright (c) 1991, 2019, Oracle. All rights reserved.

Connecting to
  (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP) (HOST=oracle19c.local) (POR
T=1521)))
STATUS of the LISTENER
-----
Alias                      LISTENER
Version                    TNSLSNR for Linux: Version 19.0.0.0.0
                           - Production
Start Date                 03-NOV-2020 12:13:24
Uptime                     1 days 23 hr. 20 min. 20 sec
Trace Level                off
Security                   ON: Local OS Authentication
SNMP                       OFF
Listener Parameter File   /u01/app/oracle/product/19.0.0/dbhome_1/network/admin/listener
                           .ora
Listener Log File          /u01/app/oracle/diag/tnslnsr/oracle19c/listener/alert/log.xml
Listening Endpoints Summary...

  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp) (HOST=oracle19c.local) (POR
T=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc) (KEY=EXTPROC1521)))
Services Summary...
Service "86b637b62fdf7a65e053f706e80a27ca" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
Service "8886b84fb1e0709de053631e100a76ed" has 1 instance(s).
```

```

Instance "cdb1", status READY, has 1 handler(s) for this
service...
Service "cdb1" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
Service "cdb1XDB" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
Service "pdb1" has 1 instance(s).
  Instance "cdb1", status READY, has 1 handler(s) for this
  service...
The command completed successfully

```

NOTE: The values shown are just examples and might be different on your Oracle instance.

- Run the `sqlplus / as sysdba` command to verify if the Oracle service is active.

The following is just an example after an Oracle instance failure due to corrupted data and/or configuration files. It might be different on your Oracle instance.

```

$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Mon Nov 9 15:23:12
2020
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to an idle instance.

```

- Open the **Restore.sh** script using a text editor (e.g. vi) and configure the restore settings:

- **BACKUP_SET** – the name of the backup set which you would like to restore.
- **DESTINATION** – the destination where the backup will be restored from. You can leave this blank if you only have one (1) destination.
- **RESTORE_TO** – the location which the backup will be restored.
- **RESTORE_FROM** – the file or directory which you would like to restore.
- **POINT_IN_TIME** – the specific successful backup that you would like to restore. You can use **Current** if you want to use the latest backup snapshot.
- **RESTORE_PERMISSION** – the setting where you can enable or disable the restore file permissions.
- **SKIP_INVALID_KEY** – the setting where you can choose to skip the restore file with invalid key or prompt user to input a correct key.
- **SYNC_OPTION** – the setting where you can choose to delete extra files by selecting from the following sync options:
 - `SYNC_OPTION="Y"` -> to enable sync option
 - `SYNC_OPTION="N"` -> to disable sync option
 - `SYNC_OPTION=""` -> to prompt for selection

- **REPLACE_EXISTING_FILE** – the setting where you can choose if you want to replace or keep existing files with the same filename, or prompt for selection:
 - REPLACE_EXISTING_FILE="--all" -> to replace all existing file(s) of the same filename
 - REPLACE_EXISTING_FILE="--none" -> to skip all existing file(s) with the same filename
 - REPLACE_EXISTING_FILE="" -> to prompt for selection
- **SETTING_HOME** – the directory of setting home.
- **FILTER** – the setting where you can filter the files which you would like to restore.
- **TEMP_DIR** – the temporary directory of the backup that will be restored.
- **VERIFY_CHKSUM** – the setting where you can enable or disable the in-file delta file checksum to be verified during restore.

```
# cd /usr/local/obm/bin
# vi Restore.sh

#!/bin/sh

#####
# You can use this shell script to restore backup files using command-
# line.
# Just customize the "User Define Section" below with values for your
# restore action.
#####

##### Start: User Defined Section #####
# ----- BACKUP_SET -----
# | The name or ID of the backup set that you want to restore.
# | If backup set name is not in English, please use ID instead.
# | e.g. BACKUP_SET="1119083740107"
# | or BACKUP_SET="FileBackupSet-1"
#
# | You can leave this parameter blank if you have only 1 backupset.
# -----
BACKUP_SET="Oracle DB backup"

# ----- DESTINATION -----
# | The name or ID of the backup destination that you want to restore
# | from.
# | If backup destination name is not in English, please use ID instead.
# | e.g. DESTINATION="1740107119083"
# | or DESTINATION="Destination-1"
#
# | You can leave this parameter blank if you have only 1 destination.
# -----
DESTINATION=""

# ----- RESTORE_TO -----
# | Directory to where you want files to be restored
# | set to "" to restore files to original location
# | e.g. RESTORE_TO="/tmp"
# -----
RESTORE_TO="/raw_file"

# ----- RESTORE_FROM -----
# | File/Directory on the backup server that you would like to restore
# | e.g. RESTORE_FROM="/Data"
# -----
RESTORE_FROM="Oracle Database Server"
```

```

# ----- POINT_IN_TIME -----
# | The point-in-time snapshot (successful backup) that you want to |
# | restore |
# | from the backup server. Use "Current" for the latest backup snapshot |
# | e.g. POINT_IN_TIME="2006-10-04-12-57-13" |
# | or POINT_IN_TIME="Current" |
# |
# | You can retrieve the point in time by using the ListBackupJob.sh |
# |
POINT_IN_TIME="Current"

# ----- RESTORE_PERMISSION -----
# | set to "Y" if you want to restore file permissions |
# | set to "N" if you do NOT want to restore file permissions |
# |
RESTORE_PERMISSION="N"

# ----- SKIP_INVALID_KEY -----
# | set to "Y" if you want to skip restore file with invalid key |
# | set to "N" if you want to prompt user to input a correct key |
# |
SKIP_INVALID_KEY="N"

# ----- SYNC_OPTION -----
# | Delete extra files |
# | set to "Y" if you want to enable sync option |
# | set to "N" if you do NOT want to enable sync option |
# | set to "" to prompt for selection |
# |
SYNC_OPTION="N"

# ----- REPLACE_EXISTING_FILE -----
# | set to "--all" to replace all existing file(s) of the same filename |
# | set to "--none" to skip all existing file(s) with the same filename |
# | set to "" to prompt for selection |
# |
REPLACE_EXISTING_FILE="--all"

# ----- SETTING_HOME -----
# | Directory to your setting home. |
# | Default to ${HOME}/.obm when not set. |
# | e.g. SETTING_HOME="${HOME}/.obm" |
# |
SETTING_HOME=""

# ----- FILTER -----
# | Filter out what files you want to restore |
# | -Pattern=xxx-Type=yyy-Target=zzz |
# | where xxx is the filter pattern, |
# |     yyy is the filter type, which can be one of the following: |
# |         [exact | exactMatchCase | contains | containsMatchCase |
# |             startWith | startWithMatchCase | endWith |
# |             endWithMatchCase] |
# |     zzz is the filter target, which can be one of the following: |
# |         [toFile | toFileDir | toDir] |
# |
# | e.g. FILTER="-Pattern=.txt-Type=exact-Target=toFile" |
# |
FILTER=""

# ----- TEMP_DIR -----
# | Directory to where you want to store restore files temporarily |
# | set to "" to use the temporary directory in the backup set |
# | e.g. TEMP_DIR="/tmp" |
# |
TEMP_DIR="/temp"

```

```

# ----- VERIFY_CHKSUM -----
# | set to "Y" if you want to verify in-file delta file checksum during|
# | restore |
# | set to "N" if you do NOT want to verify in-file delta file checksum|
# | during restore |
# -----
VERIFY_CHKSUM="N"

#####
#----- User Defined Section -----#
#####

##### R E T R I E V E          A P P _ H O M E          P A T H #####
##
#####

```

4. After the **Restore.sh** script is configured, the files can be restored from your storage destination to a location on disk.

```

# sh Restore.sh

Using APP_HOME:           : /usr/local/obm
Using BACKUP_SET:         : Oracle DB backup
Using RESTORE_FROM:       : Oracle Database Server
Using RESTORE_TO:          : /raw_file
Using POINT_IN_TIME:       : Current
Using RESTORE_PERMISSION:  : N
Using TEMP_DIR:            :
Filter Pattern not set, filter would not apply to restore
Temporary directory not set, use the temporary directory in the
backup set

[2020-11-20 16:03:14] Start [ AhsayOBM v8.4.0.16 ]
[2020-11-20 16:03:14] OS: Linux 3.10.0-957.12.1.el7.x86_64
(oracle19c.local); CPU Model: VMware-Intel(R) Xeon(R) CPU
E5520 @ 2.27GHz,Intel(R) Xeon(R) CPU E5520 @
2.27GHz; Number of Processors: 4; Heap Size: 71.3MB (Current) /
683MB (Maximum); Physical Memory: 274MB (Free) / 7.6GB (Total)
[2020-11-20 16:03:14] start,Start [ AhsayOBM
v8.4.0.16 ],0,0,0,,0,0
[2020-11-20 16:03:14] Selected job: 2020-11-20-16-02-58
[2020-11-20 16:03:14] Selected source: [Oracle Database Server]
[2020-11-20 16:03:14] Info: [followLink=true
marshalTargetPath=false deleteForSync=false skipFaultKey=false
verifyDeltaFileChecksum=false restorePermission=false
[RestoreLocation] type=RAW path=[/raw_file]]
[2020-11-20 16:03:14] Initializing decrypt action...
[2020-11-20 16:03:14] Initializing decrypt action... Completed
[2020-11-20 16:03:14] Creating new directory...
"/raw_file/Oracle Database Server"
[2020-11-20 16:03:14] Creating new directory...
"/raw_file/Oracle Database Server/u01"
[2020-11-20 16:03:15] Creating new directory...
"/raw_file/Oracle Database Server/u01/app"
[2020-11-20 16:03:15] Creating new directory...
"/raw_file/Oracle Database Server/u01/app/oracle"
[2020-11-20 16:03:15] Creating new directory...
"/raw_file/Oracle Database Server/u01/app/oracle/product"
[2020-11-20 16:03:15] Creating new directory...
"/raw_file/Oracle Database Server/u01/app/oracle/product/19.0.0"
[2020-11-20 16:03:15] Creating new directory...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1"
[2020-11-20 16:03:15] Creating new directory...

```

```

"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs"
[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_10562
11886.dbf" (Total 36.87M bytes)
[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_10562
11886.dbf" (Total 41.04M bytes)
[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_10562
11886.dbf" (Total 37.84M bytes)
[2020-11-20 16:08:58] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_105621
1886.dbf" (Total 36.94M bytes)
[2020-11-20 16:08:59] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_10562
11886.dbf,1893358,7854080,1605837964000,,1605859738962,160585973
9162
[2020-11-20 16:08:59] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_105621
1886.dbf" (Total 41.84M bytes)
[2020-11-20 16:09:26] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_105621
1886.dbf" (Total 36.88M bytes)
[2020-11-20 16:09:27] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_105621
1886.dbf,8092734,40497152,1605189679000,,1605859753478,160585976
7542
[2020-11-20 16:09:27] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora
" (Total 3K bytes)
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_105621
1886.dbf,7961054,38588928,1605205806000,,1605859766651,160585978
2273
[2020-11-20 16:09:42] Creating new directory...
"/raw_file/Oracle Database Server/u02"
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora
,718,3584,1605837963000,,1605859782276,1605859782277
[2020-11-20 16:09:42] Creating new directory...
"/raw_file/Oracle Database Server/u02/oradata"
[2020-11-20 16:09:42] Creating new directory...
"/raw_file/Oracle Database Server/u02/oradata/CDB1"
[2020-11-20 16:09:42] Creating new directory...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/pdb1"
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/sysaux01.dbf" (Total 370.01M bytes)
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/system01.dbf" (Total 280.01M bytes)
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_105621
1886.dbf,7825406,38672896,1605237286000,,1605859767735,160585978

```

```

2785
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/undotbs01.dbf" (Total 100.01M
bytes)
[2020-11-20 16:11:20] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/sysaux01.dbf,40076622,387981312,160
5837854000,,1605859782452,1605859880355
[2020-11-20 16:11:20] Downloading... "/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/users01.dbf" (Total 5.01M bytes)
[2020-11-20 16:11:22] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/system01.dbf,58827262,293609472,160
5837870000,,1605859782859,1605859882785
[2020-11-20 16:11:22] Creating new directory...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/pdbseed"
[2020-11-20 16:11:22] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf" (Total 330.01M
bytes)
[2020-11-20 16:11:22] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/users01.dbf,12398,5251072,160583787
3000,,1605859882848,1605859882878
[2020-11-20 16:11:22] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/system01.dbf" (Total 270.01M
bytes)
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/addTempFile.sql" (Total 508 bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/users01.dbf,175198,5251072,1605837961000
,,1605860401066,1605860401109
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/addTempFile.sql,238,508,1605837963000,,1605860401112,1605
860401112
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/initcdb1.oradump" (Total 592 bytes)
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/traceCtrlfile.log" (Total 3K bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/initcdb1.oradump,398,592,1605837963000,,1605860401295,160
5860401295
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/traceDatafile.log" (Total 484 bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/traceCtrlfile.log,1518,3820,1605837962000,,1605860401299,
1605860401299
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/traceDatafile.log,190,484,1605837965000,,1605860401301,16
05860401301
[2020-11-20 16:21:08] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/system01.dbf,230606542,985669632,1605837
947000,,1605860033475,1605860468114
[2020-11-20 16:21:08] Restore Completed Successfully
[2020-11-20 16:21:08] end,RESTORE_STOP_SUCCESS,0,0,0,,0,0

```

5. After the restore job is completed, verify if the Oracle database(s) have been restored. Locate the path where you restored the Oracle database files to.

For example: RESTORE_TO="/raw_file"

```
# ls -la "/raw_file/Oracle Database Server/u02/oradata/CDB1"

total 2391876

dr-xr-xr-x. 4 root root      4096 Nov 20 16:20 .
dr-xr-xr-x. 3 root root      18 Nov 20 16:09 ..
-rwxr-xr-x. 1 root root    18759680 Nov 20 10:06 control01.ctl
-rwxr-xr-x. 1 root root    18759680 Nov 20 10:06 control02.ctl
dr-xr-xr-x. 2 root root      86 Nov 20 16:11 pdb1
dr-xr-xr-x. 2 root root      67 Nov 20 16:12 pdbseed
-rwxr-xr-x. 1 root root 1069555712 Nov 20 10:05 sysaux01.dbf
-rwxr-xr-x. 1 root root  985669632 Nov 20 10:05 system01.dbf
-rwxr-xr-x. 1 root root 351281152 Nov 20 10:05 undotbs01.dbf
-rwxr-xr-x. 1 root root   5251072 Nov 20 10:06 users01.dbf
```

6. Recovering RAW Oracle databases

To recover RAW databases, please refer to the following article of Oracle Database Backup and Recovery User's Guide for details:

Oracle 19c

<https://docs.oracle.com/en/database/oracle/oracle-database/19/bradv/index.html>

Oracle 18c

<https://docs.oracle.com/en/database/oracle/oracle-database/18/bradv/index.html>

10 Contacting Ahsay

10.1 Technical Assistance

To contact Ahsay support representatives for technical assistance, visit the Partner Portal:

<https://www.ahsay.com/partners/>

Also use the Ahsay Wikipedia for resource such as Hardware Compatibility List, Software Compatibility List, and other product information:

<https://wiki.ahsay.com/>

10.2 Documentation

Documentations for all Ahsay products are available at:

https://www.ahsay.com/jsp/en/home/index.jsp?pageContentKey=ahsay_downloads_documentation_guides

You can send us suggestions for improvements or report on issues in the documentation by contacting us at:

<https://www.ahsay.com/partners/>

Please specify the specific document title as well as the change required/suggestion when contacting us.

Appendix

Appendix A Oracle Database Backup Set XML Template (Raw)

```
<?xml version="1.0" encoding="UTF-8"?>

<Setting>

    <!-- This is the backup set setting -->
    <Key name="Backup Set Setting" allowMultiple="Y">
        <!-- Backup set ID (Read Only) -->
        <Value data="1605866367637" name="ID" type="string" />
        <!-- Backup set type (Read Only) -->
        <Value data="Oracle Database Server" name="Type" type="string" />
        <!-- Backup set name -->
        <Value data="Oracle DB backup" name="Name" type="string" />
        <!-- Temporary directory for storing backup files -->
        <Value data="/temp" name="Temporary Working Directory" type="string" />
        <!-- Remove temporary files after backup -->
        <!-- Y: Yes -->
        <!-- N: No -->
        <Value data="Y" name="Delete temporary files after backup" type="boolean" />
        <!-- Select compression type -->
        <!-- GzipDefaultCompression : Normal -->
        <!-- GzipBestSpeedCompression: Fast (Compressed size larger than normal) -->
            <!-- SnappyDefaultCompression: Fast with optimization for local -->
            <!-- Leave the field blank for no compression -->
            <Value data="SnappyDefaultCompression" name="Compression Type" type="string" />
            <!-- Delete archived logs that are older than the following days -->
                <!-- 1, 2, 3, 4... -->
                <!-- Enter -1 to turn off log retention -->
                <Value data="60" name="Days of log retention" type="integer" />
                <!-- This shows the Oracle Database Server setting -->
                <Key name="Oracle Database Server Setting">
                    <!-- Oracle Login ID -->
                    <Value data="system" name="Login ID" type="string" />
                    <!-- Oracle Password -->
                    <Value data="abc123" name="Password" type="string" />
                    <!-- Oracle Host -->
                    <Value data="localhost" name="Host" type="string" />
                    <!-- Oracle Port -->
                    <Value data="1521" name="Port" type="string" />
                    <!-- Oracle SID -->
```

```

<Value data="cdb1" name="SID" type="string" />
</Key>
<!-- This includes the database you want to backup -->
<!-- Copy and paste the whole <Key> to add more selected
sources -->
<Key name="Selected Source" allowMultiple="Y">
    <!-- Please enter the path in the format of "Oracle
Database Server/_YOUR_FILE_NAME_" -->
        <Value data="Oracle Database Server" name="Path"
type="string" />
    </Key>
    <!-- Settings for your scheduled backups -->
    <Key name="Schedule Settings">
        <!-- Enable scheduled backup on this computer -->
        <!-- Y: Yes -->
        <!-- N: No -->
        <Value data="N" name="Enable" type="boolean" />
        <!-- Weekly settings -->
        <!-- Copy and paste the whole <Key> to add more
weekly schedules -->
        <Key name="Weekly Schedule Settings"
allowMultiple="Y">
            <!-- Schedule ID (Read Only) -->
            <Value data="1434946034821" name="ID" type="string" />
            <!-- Name of schedule -->
            <Value data="Tablespace Backup Schedule" name="Name"
type="string" />
            <!-- Start hour -->
            <!-- 0, 1, 2... 23 -->
            <!-- This value will be ignored if the schedule is
set to be periodic ("Interval" field contains value other than -1) -->
            <Value data="23" name="Hour" type="integer" />
            <!-- Start minute -->
            <!-- 0, 1, 2... 59 -->
            <!-- This value will be ignored if the schedule is set
to be periodic ("Interval" field contains value other than -1) -->
            <Value data="0" name="Minute" type="integer" />
            <!-- Type of backup -->
            <!-- DATABASE: Database(Tablespaces, Control & Init
File, Archived Logs) -->
            <!-- LOG      : Archived Log -->
            <Value data="DATABASE" name="Backup type"
type="string" />
            <!-- Interval -->
            <!-- 1   : 1 minute -->
            <!-- 2   : 2 minutes -->
            <!-- 3   : 3 minutes -->
            <!-- 4   : 4 minutes -->
            <!-- 5   : 5 minutes -->
            <!-- 6   : 6 minutes -->
            <!-- 10  : 10 minutes -->
            <!-- 12  : 12 minutes -->
            <!-- 15  : 15 minutes -->

```

```

        <!-- 20 : 20 minutes -->
        <!-- 30 : 30 minutes -->
        <!-- 60 : 1 hour -->
        <!-- 120: 2 hours -->
        <!-- 180: 3 hours -->
        <!-- 240: 4 hours -->
        <!-- 360: 6 hours -->
        <!-- 480: 8 hours -->
        <!-- 720: 12 hours -->
<!-- A value of -1 means a non-periodic normal schedule -->
<Value data="-1" name="Interval" type="integer" />
<!-- Backup on these days of the week -->
<!-- Y: Yes -->
<!-- N: No -->
<Value data="N" name="Sunday" type="boolean" />
<Value data="N" name="Monday" type="boolean" />
<Value data="N" name="Tuesday" type="boolean" />
<Value data="N" name="Wednesday" type="boolean" />
<Value data="N" name="Thursday" type="boolean" />
<Value data="Y" name="Friday" type="boolean" />
<Value data="N" name="Saturday" type="boolean" />
</Key>
<!-- Weekly settings -->
<!-- Copy and paste the whole <Key> to add more weekly
schedules -->
<Key name="Weekly Schedule Settings" allowMultiple="Y">
<!-- Schedule ID (Read Only) -->
<Value data="1434946034822" name="ID" type="string" />
<!-- Name of schedule -->
<Value data="Archived Redo Log Backup Schedule" name="Name"
type="string" />
<!-- Start hour -->
<!-- 0, 1, 2... 23 -->
<!-- This value will be ignored if the schedule is set to be
periodic ("Interval" field contains value other than -1) -->
<Value data="23" name="Hour" type="integer" />
<!-- Start minute -->
<!-- 0, 1, 2... 59 -->
<!-- This value will be ignored if the schedule is set to be
periodic ("Interval" field contains value other than -1) -->
<Value data="0" name="Minute" type="integer" />
<!-- Type of backup -->
<!-- DATABASE: Database(Tablespaces, Control & Init File,
Archived Logs) -->
<!-- LOG      : Archived Log -->
<Value data="LOG" name="Backup type" type="string" />
<!-- Interval -->
<!-- 1 : 1 minute -->
<!-- 2 : 2 minutes -->
<!-- 3 : 3 minutes -->
<!-- 4 : 4 minutes -->
<!-- 5 : 5 minutes -->
<!-- 6 : 6 minutes -->

```

```

<!-- 10 : 10 minutes -->
<!-- 12 : 12 minutes -->
<!-- 15 : 15 minutes -->
<!-- 20 : 20 minutes -->
<!-- 30 : 30 minutes -->
<!-- 60 : 1 hour -->
<!-- 120: 2 hours -->
<!-- 180: 3 hours -->
<!-- 240: 4 hours -->
<!-- 360: 6 hours -->
<!-- 480: 8 hours -->
<!-- 720: 12 hours -->
<!-- A value of -1 means a non-periodic normal schedule -->
<Value data="-1" name="Interval" type="integer" />
    <!-- Backup on these days of the week -->
    <!-- Y: Yes -->
    <!-- N: No -->
    <Value data="N" name="Sunday" type="boolean" />
    <Value data="Y" name="Monday" type="boolean" />
    <Value data="Y" name="Tuesday" type="boolean" />
    <Value data="Y" name="Wednesday" type="boolean" />
    <Value data="Y" name="Thursday" type="boolean" />
    <Value data="N" name="Friday" type="boolean" />
    <Value data="N" name="Saturday" type="boolean" />
</Key>
</Key>
    <!-- This is the collection of destinations -->
    <Key name="Destination Settings">
        <Value data="1" name="concurrency-level" type="integer" />
    </Key>
    <!-- This shows the in-file delta setting -->
    <Key name="In-file Delta Setting">
        <!-- Enable in-file delta backup -->
        <!-- Y: Yes -->
        <!-- N: No -->
        <Value data="Y" name="Enable" type="boolean" />
        <!-- Default in-file delta type -->
        <!-- D: Differential -->
        <!-- I: Incremental -->
        <Value data="I" name="Default Delta Type" type="string" />
    </Key>
</Key>
</Setting>

```

Appendix B Oracle Database Backup Set XML Template (with explanation)

This appendix explains all configurable items with their available options, highlighted in red, in this file backup set XML scripts.

Backup Set Setting

The following items define the basic configurations of the Oracle database backup set.

- **Backup set type** – enter the backup set type, for instance, Oracle Database Server.
- **Backup set name** – name your backup set.
- **Temporary directory for storing backup files** – enter the directory path where you would like to have the backup files stored temporarily. The temporary directory is used for various purposes, such as storage of:
 - the spooled Oracle database(s) and archived log files
 - any incremental or differential delta files generated
- **Remove temporary files after backup** – choose whether to remove temporary files after a backup job.
- **Select compression type** – choose the backup compression mode among Normal, Fast, Fast with optimization for local or No compression.
- **Delete archived logs that are older than the following days** – the deletion of the archived logs is enabled by default and archived logs more than 60 days are deleted from the Oracle database instance. This process is done after every databases and archived log backup job.

For example, if the Oracle database instance generates a lot of archived log files, you may want to reduce the number of days before they are deleted.

```
<?xml version="1.0" encoding="UTF-8"?>

<Setting>

    <!-- This is the backup set setting -->
    <Key name="Backup Set Setting" allowMultiple="Y">
        <!-- Backup set ID (Read Only) -->
        <Value data="1605866367637" name="ID" type="string"
    />
        <!-- Backup set type (Read Only) -->
        <Value data="Oracle Database Server" name="Type"
    type="string" />
        <!-- Backup set name -->
        <Value data="Oracle DB backup" name="Name"
    type="string" />
        <!-- Temporary directory for storing backup files -->
        <Value data="/temp" name="Temporary Working
    Directory" type="string" />
        <!-- Remove temporary files after backup -->
        <!-- Y: Yes -->
        <!-- N: No -->
        <Value data="Y" name="Delete temporary files after
    backup" type="string" />
    </Key>
</Setting>
```

```

    backup" type="boolean" />
        <!-- Select compression type -->
        <!-- GzipDefaultCompression : Normal -->
        <!-- GzipBestSpeedCompression: Fast (Compressed size
larger than normal) -->
            <!-- SnappyDefaultCompression: Fast with
optimization for local -->
            <!-- Leave the field blank for no compression -->
            <Value data="SnappyDefaultCompression" name="Compression Type" type="string" />
                <!-- Delete archived logs that are older than the
following days -->
                    <!-- 1, 2, 3, 4... -->
                    <!-- Enter -1 to turn off log retention -->
                    <Value data="60" name="Days of log retention"
type="integer" />

```

Oracle Setting

Configure the login and network settings for the Oracle Database Server.

- **Oracle Login ID** – enter the login ID of the Oracle server. The default login ID is “*system*”.
- **Oracle Password** – enter the password of the login account.
- **Oracle Host** – this value is set to “*localhost*”.
- **Oracle Port** – the port where the connections to the Oracle server is made. The default port is “*1521*”.
- **Oracle SID** – the Oracle System Identifier. For more details, please refer to [Ch. 2.9.4](#).

```

<!-- This shows the Oracle Database Server setting -->
<Key name="Oracle Database Server Setting">
    <!-- Oracle Login ID -->
        <Value data="system" name="Login ID" type="string" />
    <!-- Oracle Password -->
        <Value data="abc123" name="Password" type="string" />
    <!-- Oracle Host -->
        <Value data="localhost" name="Host" type="string" />
    <!-- Oracle Port -->
        <Value data="1521" name="Port" type="string" />
    <!-- Oracle SID -->
        <Value data="cdb1" name="SID" type="string" />
</Key>

```

Selected Source

Enter the location of the database(s) that you would like to back up.

```

<!-- This includes the database you want to backup -->
    <!-- Copy and paste the whole <Key> to add more
selected sources -->
    <Key name="Selected Source" allowMultiple="Y">
        <!-- Please enter the path in the format of
"Oracle Database Server/_YOUR_FILE_NAME_" -->
        <Value data="Oracle Database Server" name="Path"
type="string" />

```

```
</Key>
```

Schedule Settings

Set backup jobs to run daily at the time you specified (start backup "at" or normal backup schedule) or at intervals of minutes/hours (start backup "every" or periodic backup schedule).

- **Start hour** – the starting hour of the backup, from 0-23. This value will apply for normal backup schedule or start backup "at".
- **Start minute** – the starting minute of the backup, from 0-59. This value will apply for normal backup schedule or start backup "at".
- **Type of backup** – the type of backup schedule:
 - **Tablespace Backup Schedule** - This type of backup scheduler will automatically run weekly every Friday at 23:00.
 - **Archived Redo Log Backup Schedule** – This type of backup scheduler will automatically run weekly every Monday, Tuesday, Wednesday and Thursday at 23:00.
- **Interval** – the frequency in minutes or hours when the backup would start, from 1-30 in minutes and 60-720 in hours. This value will apply for periodic backup schedule or start backup "every".

```
<!-- Settings for your scheduled backups -->
<Key name="Schedule Settings">
    <!-- Enable scheduled backup on this computer -->
        <!-- Y: Yes -->
        <!-- N: No -->
    <Value data="N" name="Enable" type="boolean" />
        <!-- Weekly settings -->
            <!-- Copy and paste the whole <Key> to add
more weekly schedules -->
        <Key name="Weekly Schedule Settings"
allowMultiple="Y">
            <!-- Schedule ID (Read Only) -->
            <Value data="1434946034821" name="ID"
type="string" />
            <!-- Name of schedule -->
            <Value data="Tablespace Backup Schedule"
name="Name" type="string" />
                <!-- Start hour -->
                <!-- 0, 1, 2... 23 -->
                <!-- This value will be ignored if the
schedule is set to be periodic ("Interval" field contains value
other than -1) -->
                <Value data="23" name="Hour" type="integer" />
                <!-- Start minute -->
                <!-- 0, 1, 2... 59 -->
                <!-- This value will be ignored if the schedule
is set to be periodic ("Interval" field contains value other than
-1) -->
                <Value data="0" name="Minute" type="integer" />
            <!-- Type of backup -->
```

```

        <!-- DATABASE: Database(Tablespaces, Control &
Init File, Archived Logs) -->
        <!-- LOG      : Archived Log -->
        <Value data="DATABASE" name="Backup type"
type="string" />
        <!-- Interval -->
        <!-- 1   : 1 minute -->
        <!-- 2   : 2 minutes -->
        <!-- 3   : 3 minutes -->
        <!-- 4   : 4 minutes -->
        <!-- 5   : 5 minutes -->
        <!-- 6   : 6 minutes -->
        <!-- 10  : 10 minutes -->
        <!-- 12  : 12 minutes -->
        <!-- 15  : 15 minutes -->
        <!-- 20  : 20 minutes -->
        <!-- 30  : 30 minutes -->
        <!-- 60  : 1 hour -->
        <!-- 120: 2 hours -->
        <!-- 180: 3 hours -->
        <!-- 240: 4 hours -->
        <!-- 360: 6 hours -->
        <!-- 480: 8 hours -->
        <!-- 720: 12 hours -->
        <!-- A value of -1 means a non-periodic normal
schedule -->
        <Value data="-1" name="Interval" type="integer" />
        <!-- Backup on these days of the week -->
        <!-- Y: Yes -->
        <!-- N: No -->
        <Value data="N" name="Sunday" type="boolean" />
        <Value data="N" name="Monday" type="boolean" />
        <Value data="N" name="Tuesday" type="boolean" />
        <Value data="N" name="Wednesday" type="boolean" />
        <Value data="N" name="Thursday" type="boolean" />
        <Value data="Y" name="Friday" type="boolean" />
        <Value data="N" name="Saturday" type="boolean" />
    </Key>
    <!-- Weekly settings -->
    <!-- Copy and paste the whole <Key> to add more weekly
schedules -->
    <Key name="Weekly Schedule Settings" allowMultiple="Y">
        <!-- Schedule ID (Read Only) -->
        <Value data="1434946034822" name="ID" type="string" />
        <!-- Name of schedule -->
        <Value data="Archived Redo Log Backup Schedule"
name="Name" type="string" />
        <!-- Start hour -->
        <!-- 0, 1, 2... 23 -->
        <!-- This value will be ignored if the schedule is set
to be periodic ("Interval" field contains value other than -1) -->
        <Value data="23" name="Hour" type="integer" />
        <!-- Start minute -->

```

```

<!-- 0, 1, 2... 59 -->
<!-- This value will be ignored if the schedule is set
to be periodic ("Interval" field contains value other than -1) -->
<Value data="0" name="Minute" type="integer" />
<!-- Type of backup -->
<!-- DATABASE: Database(Tablespaces, Control & Init
File, Archived Logs) -->
<!-- LOG      : Archived Log -->
<Value data="LOG" name="Backup type" type="string" />
<!-- Interval -->
<!-- 1   : 1 minute -->
<!-- 2   : 2 minutes -->
<!-- 3   : 3 minutes -->
<!-- 4   : 4 minutes -->
<!-- 5   : 5 minutes -->
<!-- 6   : 6 minutes -->
<!-- 10  : 10 minutes -->
<!-- 12  : 12 minutes -->
<!-- 15  : 15 minutes -->
<!-- 20  : 20 minutes -->
<!-- 30  : 30 minutes -->
<!-- 60  : 1 hour -->
<!-- 120: 2 hours -->
<!-- 180: 3 hours -->
<!-- 240: 4 hours -->
<!-- 360: 6 hours -->
<!-- 480: 8 hours -->
<!-- 720: 12 hours -->
<!-- A value of -1 means a non-periodic normal
schedule -->
<Value data="-1" name="Interval" type="integer" />
<!-- Backup on these days of the week -->
<!-- Y: Yes -->
<!-- N: No -->
<Value data="N" name="Sunday" type="boolean" />
<Value data="Y" name="Monday" type="boolean" />
<Value data="Y" name="Tuesday" type="boolean" />
<Value data="Y" name="Wednesday" type="boolean" />
<Value data="Y" name="Thursday" type="boolean" />
<Value data="N" name="Friday" type="boolean" />
<Value data="N" name="Saturday" type="boolean" />
</Key>
</Key>
```

There are two (2) types of backup schedule:

- **Tablespace Backup Schedule**
- **Archived Redo Log Backup Schedule**

Tablespace Backup Schedule - This type of backup scheduler will automatically run weekly every Friday at 23:00.

```

<!-- Settings for your scheduled backups -->
<Key name="Schedule Settings">
<!-- Enable scheduled backup on this computer -->
```

```

        <!-- Y: Yes -->
        <!-- N: No -->
<Value data="N" name="Enable" type="boolean" />
        <!-- Weekly settings -->
        <!-- Copy and paste the whole <Key> to add
more weekly schedules -->
<Key name="Weekly Schedule Settings"
allowMultiple="Y">
        <!-- Schedule ID (Read Only) -->
<Value data="1434946034821" name="ID"
type="string" />
        <!-- Name of schedule -->
<Value data="Tablespace Backup Schedule"
name="Name" type="string" />
        <!-- Start hour -->
        <!-- 0, 1, 2... 23 -->
        <!-- This value will be ignored if the schedule
is set to be periodic ("Interval" field contains value other than -1)
-->
        <Value data="23" name="Hour" type="integer" />
        <!-- Start minute -->
        <!-- 0, 1, 2... 59 -->
        <!-- This value will be ignored if the schedule
is set to be periodic ("Interval" field contains value other than -1)
-->
        <Value data="0" name="Minute" type="integer" />
        <!-- Type of backup -->
        <!-- DATABASE: Database(Tablespaces, Control &
Init File, Archived Logs) -->
        <!-- LOG      : Archived Log -->
<Value data="DATABASE" name="Backup type"
type="string" />
        <!-- Interval -->
        <!-- 1   : 1 minute -->
        <!-- 2   : 2 minutes -->
        <!-- 3   : 3 minutes -->
        <!-- 4   : 4 minutes -->
        <!-- 5   : 5 minutes -->
        <!-- 6   : 6 minutes -->
        <!-- 10  : 10 minutes -->
        <!-- 12  : 12 minutes -->
        <!-- 15  : 15 minutes -->
        <!-- 20  : 20 minutes -->
        <!-- 30  : 30 minutes -->
        <!-- 60  : 1 hour -->
        <!-- 120: 2 hours -->
        <!-- 180: 3 hours -->
        <!-- 240: 4 hours -->
        <!-- 360: 6 hours -->
        <!-- 480: 8 hours -->
        <!-- 720: 12 hours -->
        <!-- A value of -1 means a non-periodic normal
schedule -->

```

```

<Value data="-1" name="Interval" type="integer" />
<!-- Backup on these days of the week -->
<!-- Y: Yes -->
<!-- N: No -->
<Value data="N" name="Sunday" type="boolean" />
<Value data="N" name="Monday" type="boolean" />
<Value data="N" name="Tuesday" type="boolean" />
<Value data="N" name="Wednesday" type="boolean" />
<Value data="N" name="Thursday" type="boolean" />
<Value data="Y" name="Friday" type="boolean" />
<Value data="N" name="Saturday" type="boolean" />
</Key>
```

Archived Redo Log Backup Schedule – This type of backup scheduler will automatically run weekly every Monday, Tuesday, Wednesday and Thursday at 23:00.

```

<!-- Weekly settings -->
    <!-- Copy and paste the whole <Key> to add more weekly
schedules -->
        <Key name="Weekly Schedule Settings" allowMultiple="Y">
            <!-- Schedule ID (Read Only) -->
            <Value data="1434946034822" name="ID" type="string" />
            <!-- Name of schedule -->
            <Value data="Archived Redo Log Backup Schedule" name="Name" type="string" />
                <!-- Start hour -->
                <!-- 0, 1, 2... 23 -->
                <!-- This value will be ignored if the schedule is set
to be periodic ("Interval" field contains value other than -1) -->
                <Value data="23" name="Hour" type="integer" />
                <!-- Start minute -->
                <!-- 0, 1, 2... 59 -->
                <!-- This value will be ignored if the schedule is set
to be periodic ("Interval" field contains value other than -1) -->
                <Value data="0" name="Minute" type="integer" />
                <!-- Type of backup -->
                <!-- DATABASE: Database(Tablespaces, Control & Init
File, Archived Logs) -->
                    <!-- LOG      : Archived Log -->
                    <Value data="LOG" name="Backup type" type="string" />
                    <!-- Interval -->
                    <!-- 1   : 1 minute -->
                    <!-- 2   : 2 minutes -->
                    <!-- 3   : 3 minutes -->
                    <!-- 4   : 4 minutes -->
                    <!-- 5   : 5 minutes -->
                    <!-- 6   : 6 minutes -->
                    <!-- 10  : 10 minutes -->
                    <!-- 12  : 12 minutes -->
                    <!-- 15  : 15 minutes -->
                    <!-- 20  : 20 minutes -->
                    <!-- 30  : 30 minutes -->
                    <!-- 60  : 1 hour -->
                    <!-- 120 : 2 hours -->
```

```

<!-- 180: 3 hours -->
<!-- 240: 4 hours -->
<!-- 360: 6 hours -->
<!-- 480: 8 hours -->
<!-- 720: 12 hours -->
<!-- A value of -1 means a non-periodic normal schedule -->
<Value data="-1" name="Interval" type="integer" />
<!-- Backup on these days of the week -->
<!-- Y: Yes -->
<!-- N: No -->
<Value data="N" name="Sunday" type="boolean" />
<Value data="Y" name="Monday" type="boolean" />
<Value data="Y" name="Tuesday" type="boolean" />
<Value data="Y" name="Wednesday" type="boolean" />
<Value data="Y" name="Thursday" type="boolean" />
<Value data="N" name="Friday" type="boolean" />
<Value data="N" name="Saturday" type="boolean" />
</Key>
</Key>

```

Destination Settings

This shows the number of configured destination which the backup files will be stored.

```

<!-- This is the collection of destinations -->
<Key name="Destination Settings">
<Value data="1" name="concurrency-level" type="integer" />
</Key>

```

If more than one destination is configured, the following settings will be shown.

- **AhsayCBS Destination Settings** – this option allows backup files to be stored on the server.
- **Local Destination Settings** – this option allows backup files to be stored on your local computer. Enter the directory path where you would like the backup files to be stored.

```

<!-- This is the collection of destinations -->
<Key name="Destination Settings">
<Value data="1" name="concurrency-level" type="integer" />
<!-- AhsayCBS destination is where the files are backup to server -->
<Key name="AhsayCBS Destination Settings" allowMultiple="Y">
</Key>
<!-- Local destination means backup files are stored in your computer -->
<!-- Copy and paste the whole <Key> to add more local destinations -->
<Key name="Local Destination Settings" allowMultiple="Y">
<!-- Name of your destination -->
<Value data="" name="Name" type="string" />
<!-- Directory to store your backup files -->
<!-- e.g. /tmp -->
<Value data="" name="Local Path" type="string" />
</Key>

```

In-file Delta Setting

In-File delta technology is an advanced data block matching algorithm with the intelligence to pick up changes (delta) of file content between two files. You can choose between **Differential** and **Incremental** in this setting.

- **Differential** - the delta is generated by comparing with the last uploaded full file only. The delta generated with this method will grow daily and uses more bandwidth. However, for restoration, the full file and a single delta is required to be restored and merged.
- **Incremental** - the delta is generated by comparing with the last uploaded full or delta file. The delta generated with this method is smaller and uses the least bandwidth. However, for restoration, the full file and all deltas chain up to the required point-in-time are required to be restored and merged. This is prone to data lost (e.g. broken delta chain).

```
<!-- This shows the in-file delta setting -->
<Key name="In-file Delta Setting">
    <!-- Enable in-file delta backup -->
    <!-- Y: Yes -->
    <!-- N: No -->
    <Value data="Y" name="Enable" type="boolean" />
    <!-- Default in-file delta type -->
    <!-- D: Differential -->
    <!-- I: Incremental -->
    <Value data="I" name="Default Delta Type"
type="string" />
</Key>
</Key>
</Setting>
```

Appendix C Example of Backup Log

This appendix shows the complete backup log for each backup mode: **Database** and **Archived Log** backup

Database backup

Example of database backup

```
# sh RunBackupSet.sh "Oracle DB backup"

-
Using APP_HOME      : /usr/local/obm
Using SETTING_HOME  :
Using JAVA_HOME     : /usr/local/obm/jvm
Using JAVA_EXE       : /usr/local/obm/jvm/bin/java
Using JAVA_OPTS      : -Xrs -Xms128m -Xmx768m -
XX:MaxDirectMemorySize=512m -client -
Dsun.nio.PageAlignDirectMemory=true
Using JNI_PATH        : -Djava.library.path=.:./LinX64
Using CLASSPATH       : ./cb.jar

-
Running Backup Set - 'Oracle DB backup' ...
[2020/11/20 10:03:25] [info] [-] Start [ AhsayOBM v8.4.0.16 ]
[2020/11/20 10:03:25] [info] [-] Saving encrypted backup set
encryption keys to server...
[2020/11/20 10:03:27] [info] [1605866412892] Start Backup ...
Database(Tablespaces, Control & Init File, Archived Logs) [In-File
Delta: Incremental]
[2020/11/20 10:03:27] [info] [1605866412892] Using Temporary Directory
/temp/1605866367637/OBS@1605866412892
[2020/11/20 10:03:29] [info] [-] Start running pre-commands
[2020/11/20 10:03:29] [info] [-] Finished running pre-commands
[2020/11/20 10:03:29] [info] [1605866412892] Downloading server file
list...
[2020/11/20 10:03:30] [info] [1605866412892] Downloading server file
list... Completed
[2020/11/20 10:03:31] [info] [-] Initializing Oracle module...
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace
"PDB$SEED/TEMP"
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace
"PDB1/TEMP"
[2020/11/20 10:03:32] [info] [-] Skipping temporary tablespace "TEMP"
[2020/11/20 10:03:32] [info] [-] Start backing up tablespace
"PDB$SEED/SYSAUX"
[2020/11/20 10:03:32] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdbseed/sysaux01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
{1}
[2020/11/20 10:03:45] [info] [-] End backing up tablespace
"PDB$SEED/SYSAUX"
[2020/11/20 10:03:45] [info] [-] Start backing up tablespace
```

```
"PDB$SEED/SYSTEM"
[2020/11/20 10:03:45] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdbseed/system01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdbseed/system01.dbf"
{1}
[2020/11/20 10:03:52] [info] [-] End backing up tablespace
"PDB$SEED/SYSTEM"
[2020/11/20 10:03:52] [info] [-] Start backing up tablespace
"PDB$SEED/UNDOTBS1"
[2020/11/20 10:03:52] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdbseed/undotbs01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdbseed/undotbs01.dbf"
{1}
[2020/11/20 10:03:54] [info] [-] End backing up tablespace
"PDB$SEED/UNDOTBS1"
[2020/11/20 10:03:55] [info] [-] Start backing up tablespace
"PDB1/SYSAUX"
[2020/11/20 10:03:55] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdb1/sysaux01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdb1/sysaux01.dbf" {1}
[2020/11/20 10:04:15] [info] [-] End backing up tablespace
"PDB1/SYSAUX"
[2020/11/20 10:04:15] [info] [-] Start backing up tablespace
"PDB1/SYSTEM"
[2020/11/20 10:04:15] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdb1/system01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdb1/system01.dbf" {1}
[2020/11/20 10:04:31] [info] [-] End backing up tablespace
"PDB1/SYSTEM"
[2020/11/20 10:04:31] [info] [-] Start backing up tablespace
"PDB1/UNDOTBS1"
[2020/11/20 10:04:31] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdb1/undotbs01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdb1/undotbs01.dbf"
{1}
[2020/11/20 10:04:32] [info] [-] End backing up tablespace
"PDB1/UNDOTBS1"
[2020/11/20 10:04:33] [info] [-] Start backing up tablespace
"PDB1/USERS"
[2020/11/20 10:04:33] [info] [-] Backing up datafile
"/u02/oradata/CDB1/pdb1/users01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/pdb1/users01.dbf" {1}
[2020/11/20 10:04:33] [info] [-] End backing up tablespace
"PDB1/USERS"
[2020/11/20 10:04:35] [info] [-] Start backing up tablespace "SYSAUX"
[2020/11/20 10:04:35] [info] [-] Backing up datafile
"/u02/oradata/CDB1/sysaux01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/sysaux01.dbf" {1}
[2020/11/20 10:05:15] [info] [-] End backing up tablespace "SYSAUX"
[2020/11/20 10:05:15] [info] [-] Start backing up tablespace "SYSTEM"
[2020/11/20 10:05:15] [info] [-] Backing up datafile
"/u02/oradata/CDB1/system01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/system01.dbf" {1}
```

```
[2020/11/20 10:05:47] [info] [-] End backing up tablespace "SYSTEM"
[2020/11/20 10:05:48] [info] [-] Start backing up tablespace
"UNDOTBS1"
[2020/11/20 10:05:48] [info] [-] Backing up datafile
"/u02/oradata/CDB1/undotbs01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/undotbs01.dbf" {1}
[2020/11/20 10:06:01] [info] [-] End backing up tablespace "UNDOTBS1"
[2020/11/20 10:06:01] [info] [-] Start backing up tablespace "USERS"
[2020/11/20 10:06:01] [info] [-] Backing up datafile
"/u02/oradata/CDB1/users01.dbf" to
"/temp/1605866367637/SpoolArea/u02/oradata/CDB1/users01.dbf" {1}
[2020/11/20 10:06:01] [info] [-] End backing up tablespace "USERS"
[2020/11/20 10:06:03] [info] [-] Generating create script for temp
files to "/temp/1605866367637/SpoolArea/addTempFile.sql"
[2020/11/20 10:06:03] [info] [-] Backing up initialization file
(pfile)
[2020/11/20 10:06:03] [info] [-] Backing up initialization file
(spfile)
[2020/11/20 10:06:05] [info] [-] Backing up control file
[2020/11/20 10:06:05] [info] [-] Start "Archived Log" backup
[2020/11/20 10:06:05] [info] [-] End "Archived Log" backup
[2020/11/20 10:06:05] [info] [1605866412892] Backup Database "cdb1"
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u02
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u02/oradata
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u02/oradata
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u02/oradata/CDB1
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app/oracle
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u02/oradata/CDB1/pdbseed
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app/oracle/product
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app/oracle/product/19.0.0
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app/oracle/product/19.0.0/dbhome_1
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
Database Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs
[2020/11/20 10:06:07] [info] [1605866412892] [New Directory]... Oracle
```

```
Database Server/u02/oradata/CDB1/pdb1
[2020/11/20 10:06:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/addTempFile.sql"
[2020/11/20 10:06:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/traceCtrlfile.log"
[2020/11/20 10:06:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/traceDatafile.log"
[2020/11/20 10:06:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/initcdb1.oradump"
[2020/11/20 10:06:14] [info] [1605866412892] [New File]... 12% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:15] [info] [1605866412892] [New File]... 14% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:19] [info] [1605866412892] [New File]... 20% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:20] [info] [1605866412892] [New File]... 26% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:22] [info] [1605866412892] [New File]... 24% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:26] [info] [1605866412892] [New File]... 32% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:26] [info] [1605866412892] [New File]... 28% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:29] [info] [1605866412892] [New File]... 32% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:30] [info] [1605866412892] [New File]... 37% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:32] [info] [1605866412892] [New File]... 35% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:36] [info] [1605866412892] [New File]... 41% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:38] [info] [1605866412892] [New File]... 46% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:40] [info] [1605866412892] [New File]... 45% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:06:43] [info] [1605866412892] [New File]... 52% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:06:43] [info] [1605866412892] [New File]... 49% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:07:16] [info] [1605866412892] [New File]... 58% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:07:17] [info] [1605866412892] [New File]... 52% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:07:19] [info] [1605866412892] [New File]... 64% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:07:20] [info] [1605866412892] [New File]... 55% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:07:23] [info] [1605866412892] [New File]... 69% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
[2020/11/20 10:07:23] [info] [1605866412892] [New File]... 59% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:07:27] [info] [1605866412892] [New File]... 75% of
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
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[2020/11/20 10:07:30] [info] [1605866412892] [New File]... 82% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:07:35] [info] [1605866412892] [New File]... 89% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:07:35] [info] [1605866412892] [New File]... 62% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:07:38] [info] [1605866412892] [New File]... 65% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:07:40] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:07:42] [info] [1605866412892] [New File]... 69% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:07:45] [info] [1605866412892] [New File]... 73% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:18] [info] [1605866412892] [New File]... 77% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:21] [info] [1605866412892] [New File]... 81% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:24] [info] [1605866412892] [New File]... 85% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:27] [info] [1605866412892] [New File]... 89% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 23% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 39% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 52% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 66% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 80% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 94% of  
"Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:29] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"  
[2020/11/20 10:08:30] [info] [1605866412892] [New File]... 93% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:34] [info] [1605866412892] [New File]... 13% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:34] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"  
[2020/11/20 10:08:38] [info] [1605866412892] [New File]... 29% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:42] [info] [1605866412892] [New File]... 45% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:46] [info] [1605866412892] [New File]... 63% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:50] [info] [1605866412892] [New File]... 82% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:54] [info] [1605866412892] [New File]... 97% of  
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"  
[2020/11/20 10:08:54] [info] [1605866412892] [New File]... 100% of
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"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 25% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 40% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 55% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 71% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 87% of
"Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:19] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database Server/u02/oradata/CDB1/system01.dbf"
[2020/11/20 10:09:21] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/users01.dbf"
[2020/11/20 10:09:21] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/control01.ctl"
[2020/11/20 10:09:22] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/control02.ctl"
[2020/11/20 10:09:28] [info] [1605866412892] [New File]... 39% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:09:34] [info] [1605866412892] [New File]... 61% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:09:40] [info] [1605866412892] [New File]... 86% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:09:43] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:09:47] [info] [1605866412892] [Checksum File]... 50% of
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
[2020/11/20 10:09:47] [info] [1605866412892] [Checksum File]... 67% of
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
[2020/11/20 10:09:47] [info] [1605866412892] [Checksum File]... 93% of
"Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
[2020/11/20 10:09:47] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
[2020/11/20 10:09:51] [info] [1605866412892] [New File]... 22% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:09:54] [info] [1605866412892] [New File]... 37% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:09:58] [info] [1605866412892] [New File]... 55% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:10:01] [info] [1605866412892] [New File]... 74% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:10:05] [info] [1605866412892] [New File]... 90% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:10:06] [info] [1605866412892] [New File]... 100% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020/11/20 10:10:32] [info] [1605866412892] [Checksum File]... 51% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:10:32] [info] [1605866412892] [Checksum File]... 73% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020/11/20 10:10:32] [info] [1605866412892] [Checksum File]... 99% of
"Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
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[2020/11/20 10:10:32] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf"  
[2020/11/20 10:10:36] [info] [1605866412892] [New File]... 64% of  
"Oracle Database Server/u02/oradata/CDB1/pdbseed/undotbs01.dbf"  
[2020/11/20 10:10:39] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/pdbseed/undotbs01.dbf"  
[2020/11/20 10:10:56] [info] [1605866412892] [Checksum File]... 63% of  
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"  
[2020/11/20 10:10:56] [info] [1605866412892] [Checksum File]... 84% of  
"Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"  
[2020/11/20 10:10:56] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/pdbseed/system01.dbf"  
[2020/11/20 10:11:02] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/pdbseed/undotbs01.dbf"  
[2020/11/20 10:11:03] [info] [1605866412892] [New File]... 34% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:11:07] [info] [1605866412892] [New File]... 21% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:11:08] [info] [1605866412892] [New File]... 54% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:11:10] [info] [1605866412892] [New File]... 35% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:11:14] [info] [1605866412892] [New File]... 51% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:11:14] [info] [1605866412892] [New File]... 76% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:11:17] [info] [1605866412892] [New File]... 70% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:11:20] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:11:21] [info] [1605866412892] [New File]... 86% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:11:23] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:12:04] [info] [1605866412892] [Checksum File]... 60% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:12:04] [info] [1605866412892] [Checksum File]... 81% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:12:04] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"  
[2020/11/20 10:12:09] [info] [1605866412892] [New File]... 54% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/undotbs01.dbf"  
[2020/11/20 10:12:12] [info] [1605866412892] [New File]... 100% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/undotbs01.dbf"  
[2020/11/20 10:12:14] [info] [1605866412892] [Checksum File]... 46% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:12:14] [info] [1605866412892] [Checksum File]... 65% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:12:14] [info] [1605866412892] [Checksum File]... 88% of  
"Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:12:14] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"  
[2020/11/20 10:12:15] [info] [1605866412892] [New File]... 100% of
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"Oracle Database Server/u02/oradata/CDB1/pdb1/users01.dbf"
[2020/11/20 10:12:15] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora"
[2020/11/20 10:12:17] [info] [1605866412892] [New File]... 47% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf"
[2020/11/20 10:12:18] [info] [1605866412892] [New File]... 97% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf"
[2020/11/20 10:12:18] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf"
[2020/11/20 10:12:33] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf"
[2020/11/20 10:12:35] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf"
[2020/11/20 10:12:36] [info] [1605866412892] [New File]... 99% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf"
[2020/11/20 10:12:36] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf"
[2020/11/20 10:12:42] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database Server/u02/oradata/CDB1/pdb1/undotbs01.dbf"
[2020/11/20 10:12:43] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.d
bf"
[2020/11/20 10:12:45] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.d
bf"
[2020/11/20 10:12:51] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf"
[2020/11/20 10:12:53] [info] [1605866412892] [New File]... 47% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
bf"
[2020/11/20 10:12:55] [info] [1605866412892] [New File]... 97% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
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bf"
[2020/11/20 10:12:55] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
bf"
[2020/11/20 10:12:57] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.d
bf"
[2020/11/20 10:12:59] [info] [1605866412892] [New File]... 51% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.d
bf"
[2020/11/20 10:13:00] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.d
bf"
[2020/11/20 10:13:11] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
bf"
[2020/11/20 10:13:12] [info] [1605866412892] [New File]... 48% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf"
[2020/11/20 10:13:13] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.d
bf"
[2020/11/20 10:13:14] [info] [1605866412892] [New File]... 97% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf"
[2020/11/20 10:13:14] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf"
[2020/11/20 10:13:14] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf"
[2020/11/20 10:13:16] [info] [1605866412892] [New File]... 99% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf"
[2020/11/20 10:13:16] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf"
[2020/11/20 10:13:26] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf"
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[2020/11/20 10:13:27] [info] [1605866412892] [New File]... 48% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.
dbf"
[2020/11/20 10:13:29] [info] [1605866412892] [New File]... 98% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.
dbf"
[2020/11/20 10:13:29] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.
dbf"
[2020/11/20 10:13:30] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf"
[2020/11/20 10:13:31] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.
dbf"
[2020/11/20 10:13:33] [info] [1605866412892] [New File]... 99% of
"Oracle Database
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dbf"
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Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.dbf"
[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 48% of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.dbf"
[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 95% of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.dbf"
```

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[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.
dbf"
[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 40% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.
dbf"
[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 75% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.
dbf"
[2020/11/20 10:17:04] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.
dbf"
[2020/11/20 10:17:06] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf"
[2020/11/20 10:17:07] [info] [1605866412892] [New File]... 99% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf"
[2020/11/20 10:17:07] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf"
[2020/11/20 10:17:16] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.
dbf"
[2020/11/20 10:17:17] [info] [1605866412892] [New File]... 48% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf"
[2020/11/20 10:17:18] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf"
[2020/11/20 10:17:19] [info] [1605866412892] [New File]... 97% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf"
[2020/11/20 10:17:19] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf"
[2020/11/20 10:17:19] [info] [1605866412892] [New File]... 52% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf"
[2020/11/20 10:17:21] [info] [1605866412892] [New File]... 98% of
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"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf"
[2020/11/20 10:17:21] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf"
[2020/11/20 10:17:33] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf"
[2020/11/20 10:17:35] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf"
[2020/11/20 10:17:35] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf"
[2020/11/20 10:17:36] [info] [1605866412892] [New File]... 98% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf"
[2020/11/20 10:17:36] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf"
[2020/11/20 10:17:37] [info] [1605866412892] [New File]... 47% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf"
[2020/11/20 10:17:39] [info] [1605866412892] [New File]... 95% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf"
[2020/11/20 10:17:39] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf"
[2020/11/20 10:17:51] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf"
[2020/11/20 10:17:52] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf"
[2020/11/20 10:17:53] [info] [1605866412892] [New File]... 48% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.
dbf"
[2020/11/20 10:17:54] [info] [1605866412892] [New File]... 49% of
"Oracle Database

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Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.  
dbf"  
[2020/11/20 10:17:55] [info] [1605866412892] [New File]... 99% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.  
dbf"  
[2020/11/20 10:17:55] [info] [1605866412892] [New File]... 100% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.  
dbf"  
[2020/11/20 10:17:55] [info] [1605866412892] [New File]... 98% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.  
dbf"  
[2020/11/20 10:17:55] [info] [1605866412892] [New File]... 100% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.  
dbf"  
[2020/11/20 10:18:09] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.  
dbf"  
[2020/11/20 10:18:09] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.  
dbf"  
[2020/11/20 10:18:11] [info] [1605866412892] [New File]... 52% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.  
dbf"  
[2020/11/20 10:18:11] [info] [1605866412892] [New File]... 48% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.  
dbf"  
[2020/11/20 10:18:13] [info] [1605866412892] [New File]... 99% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.  
dbf"  
[2020/11/20 10:18:13] [info] [1605866412892] [New File]... 100% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.  
dbf"  
[2020/11/20 10:18:13] [info] [1605866412892] [New File]... 98% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.  
dbf"  
[2020/11/20 10:18:13] [info] [1605866412892] [New File]... 100% of  
"Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.  
dbf"  
[2020/11/20 10:18:26] [info] [1605866412892] [Checksum File]... 100%  
of "Oracle Database  
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.
```

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dbf"
[2020/11/20 10:18:27] [info] [1605866412892] [New File]... 47% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf"
[2020/11/20 10:18:28] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.
dbf"
[2020/11/20 10:18:28] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.
dbf"
[2020/11/20 10:18:28] [info] [1605866412892] [New File]... 80% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.
dbf"
[2020/11/20 10:18:28] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.
dbf"
[2020/11/20 10:18:29] [info] [1605866412892] [New File]... 96% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf"
[2020/11/20 10:18:29] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf"
[2020/11/20 10:18:30] [info] [1605866412892] [New File]... 50% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf"
[2020/11/20 10:18:32] [info] [1605866412892] [New File]... 98% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf"
[2020/11/20 10:18:32] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf"
[2020/11/20 10:18:43] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 42% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 77% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.
dbf"
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[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 51% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 98% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.
dbf"
[2020/11/20 10:18:44] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.
dbf"
[2020/11/20 10:18:46] [info] [1605866412892] [New File]... 47% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf"
[2020/11/20 10:18:46] [info] [1605866412892] [New File]... 49% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf"
[2020/11/20 10:18:47] [info] [1605866412892] [New File]... 99% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf"
[2020/11/20 10:18:47] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf"
[2020/11/20 10:18:48] [info] [1605866412892] [New File]... 98% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf"
[2020/11/20 10:18:48] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf"
[2020/11/20 10:19:00] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf"
[2020/11/20 10:19:02] [info] [1605866412892] [New File]... 48% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [Checksum File]... 100%
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of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 43% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 81% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 97% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf"
[2020/11/20 10:19:03] [info] [1605866412892] [New File]... 44% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 10:19:04] [info] [1605866412892] [New File]... 85% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 10:19:04] [info] [1605866412892] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 10:19:19] [info] [1605866412892] [Checksum File]... 100%
of "Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf"
[2020/11/20 10:19:39] [info] [1605866412892] Start validating the
presence and size of backup data in destination "AhsayCBS"...
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000000.bak", Size:
10,227,616, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000001.bak", Size:
33,554,432, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000001_000001.bak", Size:
33,554,432, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000001_000002.bak", Size:
33,554,432, OK

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[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000001_000003.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000001_000004.bak", Size:  
683,984, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000001.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000002.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000003.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000004.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000005.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000002_000006.bak", Size:  
29,279,952, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000003.bak", Size:  
900,963, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000004.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000004_000001.bak", Size:  
30,251,712, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000005.bak", Size:  
840,064, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000006.bak", Size: 42,336,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000007.bak", Size: 42,336,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000008.bak", Size:  
33,554,432, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000008_000001.bak", Size:  
1,461,296, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000009.bak", Size:
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301,152, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000a.bak", Size:
33,554,432, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000a_000001.bak", Size:
23,399,680, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000b.bak", Size:
292,105, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000c.bak", Size:
15,824,480, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000d.bak", Size:
240,310, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000e.bak", Size:
33,554,432, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000e_000001.bak", Size:
6,522,192, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/00000f.bak", Size: 88,825,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000010.bak", Size:
33,554,432, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000010_000001.bak", Size:
25,272,832, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000011.bak", Size:
249,300, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000012.bak", Size:
19,188,032, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000013.bak", Size:
327,768, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000014.bak", Size:
8,424,064, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000015.bak", Size: 34,997,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000016.bak", Size:
8,373,008, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637/blocks/2020-11-20-10-03-14/0/000017.bak", Size: 89,310,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
```

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"1605866367637/blocks/2020-11-20-10-03-14/0/000018.bak", Size:  
7,660,688, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000019.bak", Size: 35,348,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001a.bak", Size:  
8,999,616, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001b.bak", Size: 33,110,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001c.bak", Size:  
8,092,736, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001d.bak", Size: 37,512,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001e.bak", Size:  
7,961,056, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00001f.bak", Size: 34,561,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000020.bak", Size:  
7,825,408, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000021.bak", Size: 32,955,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000022.bak", Size:  
7,830,896, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000023.bak", Size: 33,059,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000024.bak", Size:  
8,649,952, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000025.bak", Size: 33,044,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000026.bak", Size:  
7,868,656, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000027.bak", Size: 36,805,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000028.bak", Size:  
8,840,816, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000029.bak", Size: 33,871,  
OK
```

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[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002a.bak", Size:  
9,791,280, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002b.bak", Size: 37,954,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002c.bak", Size:  
8,681,456, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002d.bak", Size: 39,763,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002e.bak", Size:  
9,816,608, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00002f.bak", Size: 37,217,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000030.bak", Size:  
7,743,792, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000031.bak", Size: 40,731,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000032.bak", Size:  
8,039,232, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000033.bak", Size: 32,953,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000034.bak", Size:  
9,007,824, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000035.bak", Size: 33,894,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000036.bak", Size:  
7,809,072, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000037.bak", Size: 38,037,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000038.bak", Size:  
8,889,216, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000039.bak", Size: 33,283,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00003a.bak", Size:  
9,576,800, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00003b.bak", Size: 38,591,
```

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OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00003c.bak", Size:
8,732,592, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00003d.bak", Size: 39,783,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00003e.bak", Size:
8,451,968, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00003f.bak", Size: 37,179,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000040.bak", Size:
7,850,832, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000041.bak", Size: 35,581,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000042.bak", Size:
8,140,320, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000043.bak", Size: 33,316,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000044.bak", Size:
8,780,208, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000045.bak", Size: 33,966,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000046.bak", Size:
8,291,424, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000047.bak", Size: 37,084,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000048.bak", Size:
9,709,360, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/000049.bak", Size: 35,310,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00004a.bak", Size:
8,194,496, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00004b.bak", Size: 39,787,
OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
"1605866367637(blocks/2020-11-20-10-03-14/0/00004c.bak", Size:
8,686,448, OK
[2020/11/20 10:19:39] [info] [1605866412892] File:
```

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"1605866367637/blocks/2020-11-20-10-03-14/0/00004d.bak", Size: 33,761,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00004e.bak", Size:  
8,586,096, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00004f.bak", Size: 36,741,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000050.bak", Size:  
7,690,192, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000051.bak", Size: 36,396,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000052.bak", Size:  
8,163,296, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000053.bak", Size: 33,096,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000054.bak", Size:  
6,794,336, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000055.bak", Size: 33,120,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000056.bak", Size:  
9,123,504, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000057.bak", Size: 28,561,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000058.bak", Size:  
7,977,312, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000059.bak", Size: 38,209,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005a.bak", Size:  
8,052,416, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005b.bak", Size: 33,695,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005c.bak", Size:  
8,198,544, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005d.bak", Size: 34,016,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005e.bak", Size:  
8,128,624, OK
```

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[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00005f.bak", Size: 33,305,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000060.bak", Size:  
9,151,520, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000061.bak", Size: 34,570,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000062.bak", Size: 38,550,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000063.bak", Size:  
8,614,832, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000064.bak", Size:  
8,265,264, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000065.bak", Size: 34,603,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000066.bak", Size:  
8,129,760, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000067.bak", Size: 36,535,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000068.bak", Size:  
7,906,176, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000069.bak", Size: 33,518,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006a.bak", Size: 33,238,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006b.bak", Size:  
8,668,000, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006c.bak", Size:  
8,280,592, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006d.bak", Size: 34,711,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006e.bak", Size:  
8,361,984, OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/00006f.bak", Size: 36,713,  
OK  
[2020/11/20 10:19:39] [info] [1605866412892] File:  
"1605866367637/blocks/2020-11-20-10-03-14/0/000070.bak", Size: 34,930,
```

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OK
[2020/11/20 10:19:39] [info] [1605866412892] Finished validating the
presence and size of backup data in destination "AhsayCBS"
[2020/11/20 10:19:39] [info] [1605866412892] Total New Files = 74
[2020/11/20 10:19:39] [info] [1605866412892] Total New Directories =
13
[2020/11/20 10:19:39] [info] [1605866412892] Total New Links = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Updated Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Attributes Changed
Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted Files = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted Directories
= 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Deleted Links = 0
[2020/11/20 10:19:39] [info] [1605866412892] Total Moved Files = 0
[2020/11/20 10:19:39] [info] [-] Deleting temporary file
/temp/1605866367637/SpoolArea
[2020/11/20 10:19:39] [info] [-] Removing archived logs older than 60
day(s)
[2020/11/20 10:19:39] [info] [-] [Delete archived logs]
/u01/app/oracle/product/19.0.0/dbhome_1/bin/rman target
system/********@cdb1 nocatalog cmdfile=UpdateOracleRmanRecords.rman '60'
[2020/11/20 10:19:40] [info] [-] [Delete archived logs]
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Recovery
Manager: Release 19.0.0.0.0 - Production on Fri Nov 20 10:19:40 2020
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Version
19.3.0.0.0
[2020/11/20 10:19:40] [info] [-] [Delete archived logs]
[2020/11/20 10:19:40] [info] [-] [Delete archived logs] Copyright (c)
1982, 2019, Oracle and/or its affiliates. All rights reserved.
[2020/11/20 10:19:40] [info] [-] [Delete archived logs]
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] connected to
target database: CDB1 (DBID=981637913)
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] using target
database control file instead of recovery catalog
[2020/11/20 10:19:43] [info] [-] [Delete archived logs]
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] RMAN> run {
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 2> DELETE
ARCHIVELOG ALL COMPLETED BEFORE 'SYSDATE-60';
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 3> CROSSCHECK
ARCHIVELOG ALL;
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 4> DELETE
EXPIRED ARCHIVELOG ALL;
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 5> }
[2020/11/20 10:19:43] [info] [-] [Delete archived logs] 6> Exit
[2020/11/20 10:19:44] [info] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 10:19:44] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 10:19:44] [info] [-] [Delete archived logs]
[2020/11/20 10:19:44] [info] [-] [Delete archived logs] released
channel: ORA_DISK_1
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] allocated

```

```
channel: ORA_DISK_1
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.db
f RECID=44 STAMP=1056250816
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.db
f RECID=45 STAMP=1056286822
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.db
f RECID=46 STAMP=1056302054
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.db
f RECID=47 STAMP=1056319233
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.db
f RECID=48 STAMP=1056319279
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.db
f RECID=49 STAMP=1056335406
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.db
f RECID=50 STAMP=1056366886
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.d
bf RECID=51 STAMP=1056387598
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
```

```
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.d  
bf RECID=52 STAMP=1056405634  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.d  
bf RECID=53 STAMP=1056405680  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.d  
bf RECID=54 STAMP=1056434427  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.d  
bf RECID=55 STAMP=1056442535  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.d  
bf RECID=56 STAMP=1056449162  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.d  
bf RECID=57 STAMP=1056463223  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.d  
bf RECID=58 STAMP=1056471136  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.d  
bf RECID=59 STAMP=1056484818  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.d  
bf RECID=60 STAMP=1056492039  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
```

```
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.d
bf RECID=61 STAMP=1056513648
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.d
bf RECID=62 STAMP=1056520857
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.d
bf RECID=63 STAMP=1056528983
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.d
bf RECID=64 STAMP=1056535612
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.d
bf RECID=65 STAMP=1056549619
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.d
bf RECID=66 STAMP=1056553291
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.d
bf RECID=67 STAMP=1056567640
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.d
bf RECID=68 STAMP=1056578439
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.d
bf RECID=69 STAMP=1056596460
```

```
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.d
bf RECID=70 STAMP=1056615429
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.d
bf RECID=71 STAMP=1056636457
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.d
bf RECID=72 STAMP=1056646482
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.d
bf RECID=73 STAMP=1056664831
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.d
bf RECID=74 STAMP=1056664879
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.d
bf RECID=75 STAMP=1056690037
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.d
bf RECID=76 STAMP=1056704578
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.d
bf RECID=77 STAMP=1056706022
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.d
```

```
bf RECID=78 STAMP=1056710859
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.d
bf RECID=79 STAMP=1056712393
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.d
bf RECID=80 STAMP=1056713634
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.d
bf RECID=81 STAMP=1056731533
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.d
bf RECID=82 STAMP=1056751233
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.d
bf RECID=83 STAMP=1056751277
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.d
bf RECID=84 STAMP=1056780060
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.d
bf RECID=85 STAMP=1056794445
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.d
bf RECID=86 STAMP=1056816004
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
```

```
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.d  
bf RECID=87 STAMP=1056837631  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.d  
bf RECID=88 STAMP=1056837681  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.d  
bf RECID=89 STAMP=1056866428  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.d  
bf RECID=90 STAMP=1056891609  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.d  
bf RECID=91 STAMP=1056894082  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.d  
bf RECID=92 STAMP=1056906029  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.d  
bf RECID=93 STAMP=1056907242  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.d  
bf RECID=94 STAMP=1056909835  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.d  
bf RECID=95 STAMP=1056924043  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
```

```

file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.d
bf RECID=96 STAMP=1056931205
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.d
bf RECID=97 STAMP=1056963640
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.d
bf RECID=98 STAMP=1056966633
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.d
bf RECID=99 STAMP=1056967564
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] Crosschecked
56 objects
[2020/11/20 10:19:45] [info] [-] [Delete archived logs]
[2020/11/20 10:19:45] [info] [-] [Delete archived logs]
[2020/11/20 10:19:45] [info] [-] [Delete archived logs] released
channel: ORA_DISK_1
[2020/11/20 10:19:46] [info] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 10:19:46] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 10:19:46] [info] [-] [Delete archived logs] specification
does not match any archived log in the repository
[2020/11/20 10:19:46] [info] [-] [Delete archived logs]
[2020/11/20 10:19:46] [info] [-] [Delete archived logs] Recovery
Manager complete.
[2020/11/20 10:19:47] [info] [1605866412892] Saving encrypted backup
file index to 1605866367637/blocks at destination AhsayCBS...
[2020/11/20 10:19:48] [info] [1605866412892] Saving encrypted backup
file index to 1605866367637/blocks/2020-11-20-10-03-14 at destination
AhsayCBS...
[2020/11/20 10:19:49] [info] [-] Start running post-commands
[2020/11/20 10:19:49] [info] [-] Finished running post-commands
[2020/11/20 10:19:52] [info] [1605866412892] Deleting temporary file
/temp/1605866367637/OBS@1605866412892
[2020/11/20 10:19:54] [info] [1605866412892] Backup Completed
Successfully

```

Archived Log backup

Example of archived log backup

```
# sh RunBackupSet.sh "Archived Log Backup"

-
Using APP_HOME      : /usr/local/obm
Using SETTING_HOME  :
Using JAVA_HOME     : /usr/local/obm/jvm
Using JAVA_EXE      : /usr/local/obm/jvm/bin/java
Using JAVA_OPTS     : -Xrs -Xms128m -Xmx768m -
XX:MaxDirectMemorySize=512m -client -
Dsun.nio.PageAlignDirectMemory=true
Using JNI_PATH       : -Djava.library.path=.:./LinX64
Using CLASSPATH     : ./cb.jar

-
Running Backup Set - 'Archived Log Backup' ...
[2020/11/20 11:35:55] [info] [-] Start [ AhsayOBM v8.4.0.16 ]
[2020/11/20 11:35:55] [info] [-] Saving encrypted backup set
encryption keys to server...
[2020/11/20 11:36:02] [info] [1605808472685] Start Backup ... Archived
Log [In-File Delta: Incremental]
[2020/11/20 11:36:02] [info] [1605808472685] Using Temporary Directory
/temp/1605808427508/OBS@1605808472685
[2020/11/20 11:36:04] [info] [-] Start running pre-commands
[2020/11/20 11:36:04] [info] [-] Finished running pre-commands
[2020/11/20 11:36:04] [info] [1605808472685] Downloading server file
list...
[2020/11/20 11:36:05] [info] [1605808472685] Download valid index
files from backup job "Current" to
"/temp/1605808427508/OBS@1605808472685/index".
[2020/11/20 11:36:05] [info] [1605808472685] Downloading server file
list... Completed
[2020/11/20 11:36:06] [info] [-] Initializing Oracle module...
[2020/11/20 11:36:12] [info] [-] Start "Archived Log" backup
[2020/11/20 11:36:12] [info] [-] End "Archived Log" backup
[2020/11/20 11:36:12] [info] [1605808472685] Backup Database "cdb1"
[2020/11/20 11:36:13] [info] [1605808472685] [New File]... 44% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 85% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 48% of
"Oracle Database
```

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Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211886.
dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 96% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211886.
dbf"
[2020/11/20 11:36:14] [info] [1605808472685] [New File]... 100% of
"Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211886.
dbf"
[2020/11/20 11:36:21] [info] [1605808472685] Start validating the
presence and size of backup data in destination "AhsayCBS"...
[2020/11/20 11:36:21] [info] [1605808472685] File:
"1605808427508/blocks/2020-11-20-11-35-44/0/000000.bak", Size:
3,078,464, OK
[2020/11/20 11:36:21] [info] [1605808472685] Finished validating the
presence and size of backup data in destination "AhsayCBS"
[2020/11/20 11:36:21] [info] [1605808472685] Total New Files = 2
[2020/11/20 11:36:21] [info] [1605808472685] Total New Directories = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total New Links = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Updated Files = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Attributes Changed
Files = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted Files = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted Directories
= 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Deleted Links = 0
[2020/11/20 11:36:21] [info] [1605808472685] Total Moved Files = 0
[2020/11/20 11:36:21] [info] [-] Deleting temporary file
/temp/1605808427508/SpoolArea
[2020/11/20 11:36:21] [info] [-] Removing archived logs older than 60
day(s)
[2020/11/20 11:36:21] [info] [-] [Delete archived logs]
/u01/app/oracle/product/19.0.0/dbhome_1/bin/rman target
system/********@cdb1 nocatalog cmdfile=UpdateOracleRmanRecords.rman '60'
[2020/11/20 11:36:21] [info] [-] [Delete archived logs]
[2020/11/20 11:36:21] [info] [-] [Delete archived logs] Recovery
Manager: Release 19.0.0.0.0 - Production on Fri Nov 20 11:36:21 2020
[2020/11/20 11:36:21] [info] [-] [Delete archived logs] Version
19.3.0.0.0
[2020/11/20 11:36:21] [info] [-] [Delete archived logs]
[2020/11/20 11:36:21] [info] [-] [Delete archived logs] Copyright (c)
1982, 2019, Oracle and/or its affiliates. All rights reserved.
[2020/11/20 11:36:21] [info] [-] [Delete archived logs]
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] connected to
target database: CDB1 (DBID=981637913)
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] using target
database control file instead of recovery catalog
[2020/11/20 11:36:23] [info] [-] [Delete archived logs]
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] RMAN> run {
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] 2> DELETE
ARCHIVELOG ALL COMPLETED BEFORE 'SYSDATE-60';
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] 3> CROSSCHECK

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ARCHIVELOG ALL;
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] 4> DELETE
EXPIRED ARCHIVELOG ALL;
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] 5> }
[2020/11/20 11:36:23] [info] [-] [Delete archived logs] 6> Exit
[2020/11/20 11:36:24] [info] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 11:36:24] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:24] [info] [-] [Delete archived logs]
[2020/11/20 11:36:24] [info] [-] [Delete archived logs] released
channel: ORA_DISK_1
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.db
f RECID=45 STAMP=1056286822
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.db
f RECID=46 STAMP=1056302054
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.db
f RECID=47 STAMP=1056319233
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.db
f RECID=48 STAMP=1056319279
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.db
f RECID=49 STAMP=1056335406
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.db
f RECID=50 STAMP=1056366886
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
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succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.d
bf RECID=51 STAMP=1056387598
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.d
bf RECID=52 STAMP=1056405634
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.d
bf RECID=53 STAMP=1056405680
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.d
bf RECID=54 STAMP=1056434427
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.d
bf RECID=55 STAMP=1056442535
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.d
bf RECID=56 STAMP=1056449162
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.d
bf RECID=57 STAMP=1056463223
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.d
bf RECID=58 STAMP=1056471136
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.d
bf RECID=59 STAMP=1056484818
```

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[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.d
bf RECID=60 STAMP=1056492039
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.d
bf RECID=61 STAMP=1056513648
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.d
bf RECID=62 STAMP=1056520857
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.d
bf RECID=63 STAMP=1056528983
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.d
bf RECID=64 STAMP=1056535612
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.d
bf RECID=65 STAMP=1056549619
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.d
bf RECID=66 STAMP=1056553291
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.d
bf RECID=67 STAMP=1056567640
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.d
```

```
bf RECID=68 STAMP=1056578439
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.d
bf RECID=69 STAMP=1056596460
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.d
bf RECID=70 STAMP=1056615429
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.d
bf RECID=71 STAMP=1056636457
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.d
bf RECID=72 STAMP=1056646482
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.d
bf RECID=73 STAMP=1056664831
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.d
bf RECID=74 STAMP=1056664879
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.d
bf RECID=75 STAMP=1056690037
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.d
bf RECID=76 STAMP=1056704578
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
```

```
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.d  
bf RECID=77 STAMP=1056706022  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.d  
bf RECID=78 STAMP=1056710859  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.d  
bf RECID=79 STAMP=1056712393  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.d  
bf RECID=80 STAMP=1056713634  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.d  
bf RECID=81 STAMP=1056731533  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.d  
bf RECID=82 STAMP=1056751233  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.d  
bf RECID=83 STAMP=1056751277  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.d  
bf RECID=84 STAMP=1056780060  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log  
file  
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.d  
bf RECID=85 STAMP=1056794445  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation  
succeeded for archived log  
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
```

```
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.d
bf RECID=86 STAMP=1056816004
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.d
bf RECID=87 STAMP=1056837631
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.d
bf RECID=88 STAMP=1056837681
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.d
bf RECID=89 STAMP=1056866428
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.d
bf RECID=90 STAMP=1056891609
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.d
bf RECID=91 STAMP=1056894082
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.d
bf RECID=92 STAMP=1056906029
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.d
bf RECID=93 STAMP=1056907242
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.d
bf RECID=94 STAMP=1056909835
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
```

```

[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.d
bf RECID=95 STAMP=1056924043
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.d
bf RECID=96 STAMP=1056931205
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.d
bf RECID=97 STAMP=1056963640
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.d
bf RECID=98 STAMP=1056966633
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.d
bf RECID=99 STAMP=1056967564
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] validation
succeeded for archived log
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] archived log
file
name=/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_59_1056211886.d
bf RECID=100 STAMP=1056972967
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] Crosschecked
56 objects
[2020/11/20 11:36:25] [info] [-] [Delete archived logs]
[2020/11/20 11:36:25] [info] [-] [Delete archived logs]
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] released
channel: ORA_DISK_1
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] allocated
channel: ORA_DISK_1
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] channel
ORA_DISK_1: SID=24 device type=DISK
[2020/11/20 11:36:25] [info] [-] [Delete archived logs] specification
does not match any archived log in the repository
[2020/11/20 11:36:26] [info] [-] [Delete archived logs]
[2020/11/20 11:36:26] [info] [-] [Delete archived logs] Recovery
Manager complete.
[2020/11/20 11:36:26] [info] [1605808472685] Saving encrypted backup
file index to 1605808427508/blocks at destination AhsayCBS...
[2020/11/20 11:36:26] [info] [1605808472685] Saving encrypted backup
file index to 1605808427508/blocks/2020-11-20-11-35-44 at destination

```

```
AhsayCBS...
[2020/11/20 11:36:27] [info] [-] Start running post-commands
[2020/11/20 11:36:27] [info] [-] Finished running post-commands
[2020/11/20 11:36:30] [info] [1605808472685] Deleting temporary file
/temp/1605808427508/OBS@1605808472685
[2020/11/20 11:36:32] [info] [1605808472685] Backup Completed
Successfully
```

Appendix D Example of Restore Log

This appendix shows the complete restore log for each restore option: **Restore to Original Location** and **Restore Raw File**

Restore to Original Location

Example of restore to original location

```
# cd /usr/local/obm/bin
# sh Restore.sh

Using APP_HOME:          : /usr/local/obm
Using BACKUP_SET:        : Oracle DB backup
Using RESTORE_FROM:      : Oracle Database Server
Using RESTORE_TO:         :
Using POINT_IN_TIME:     : Current
Using RESTORE_PERMISSION: : N
Using TEMP_DIR:          :

Filter Pattern not set, filter would not apply to restore
Temporary directory not set, use the temporary directory in the backup
set

[2020-11-20 14:32:56] Start [ AhsayOBM v8.4.0.16 ]
[2020-11-20 14:32:56] OS: Linux 3.10.0-957.12.1.el7.x86_64
(oracle19c.local); CPU Model: VMware-Intel(R) Xeon(R) CPU
E5520 @ 2.27GHz,Intel(R) Xeon(R) CPU           E5520 @ 2.27GHz;
Number of Processors: 4; Heap Size: 79.2MB (Current) / 683MB
(Maximum); Physical Memory: 334.6MB (Free) / 7.6GB (Total)
[2020-11-20 14:32:56] start,Start [ AhsayOBM v8.4.0.16 ],0,0,0,,0,0
[2020-11-20 14:32:56] Selected job: 2020-11-20-14-32-39
[2020-11-20 14:32:56] Selected source: [Oracle Database Server]
[2020-11-20 14:32:56] Info: [followLink=true marshalTargetPath=false
deleteForSync=false skipFaultKey=false verifyDeltaFileChecksum=false
restorePermission=false [RestoreLocation] type=ORIGINAL path=[null]]
[2020-11-20 14:32:56] Initializing decrypt action...
[2020-11-20 14:32:56] Initializing decrypt action... Completed
[2020-11-20 14:32:58] Start restore database "cdb1"
[2020-11-20 14:33:01] Initializing Oracle module...
Database is required to shutdown. Continue?
1.YES   2.YES TO ALL   3.NO    4.NO TO ALL  >>1
[2020-11-20 14:33:16] Shutdown database
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/control01.ctl"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/control02.ctl"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/redo03.log"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/redo02.log"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/redo01.log"
[2020-11-20 14:33:50] Removed file
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.dbf"
[2020-11-20 14:33:50] Removed file
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.dbf"
[2020-11-20 14:33:50] Removed file
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.dbf"
[2020-11-20 14:33:50] Removed file
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.dbf"
```



```

[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdb1/sysaux01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdbseed/undotbs01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdb1/undotbs01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdb1/system01.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/sysaux01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdbseed/sysaux01.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/users01.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/undotbs01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdbseed/system01.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/system01.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/temp01.dbf"
[2020-11-20 14:33:50] Removed file
"/u02/oradata/CDB1/pdbseed/temp012019-05-10_17-58-06-785-PM.dbf"
[2020-11-20 14:33:50] Removed file "/u02/oradata/CDB1/pdb1/temp01.dbf"
[2020-11-20 14:33:50] RESTORE_EXISTING_ITEM_FOUND,RESTORE_OVERWRITE...
/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora
[2020-11-20 14:33:50] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora" (Total 3K
bytes)
[2020-11-20 14:33:50] Downloading... "/u02/oradata/CDB1/control01.ctl"
(Total 17.89M bytes)
[2020-11-20 14:33:50] Downloading... "/u02/oradata/CDB1/control02.ctl"
(Total 17.89M bytes)
[2020-11-20 14:33:51]
file,/u02/oradata/CDB1/control02.ctl,42334,18759680,1605837964000,,160
5854031001,1605854031526
[2020-11-20 14:33:51]
file,/u02/oradata/CDB1/control01.ctl,42334,18759680,1605837964000,,160
5854030902,1605854031827
[2020-11-20 14:33:52] Mount database
[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.dbf"
(Total 36.87M bytes)
[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.dbf"
(Total 41.04M bytes)
[2020-11-20 14:34:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.dbf"
(Total 37.84M bytes)
[2020-11-20 14:34:41]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.d
bf,8649950,43034112,1605276032000,,1605854063842,1605854081750
[2020-11-20 14:34:41] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.dbf"
(Total 42.26M bytes)
[2020-11-20 14:34:43]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.d

```

```

bf,7830894,38656512,1605257996000,,1605854063718,1605854083933
[2020-11-20 14:34:43] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.dbf"
(Total 44.37M bytes)
[2020-11-20 14:34:55]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.d
bf,7868654,39673344,1605276078000,,1605854081813,1605854095819
[2020-11-20 14:34:56] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.dbf"
(Total 41.49M bytes)
[2020-11-20 14:35:01]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.d
bf,8840814,44311552,1605304821000,,1605854084003,1605854101832
[2020-11-20 14:35:01] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.dbf"
(Total 45.41M bytes)
[2020-11-20 14:35:20]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.d
bf,9791278,46528000,1605312933000,,1605854096630,1605854120067
[2020-11-20 14:35:20] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.dbf"
(Total 36.8M bytes)
[2020-11-20 14:35:22]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.d
bf,8681454,43504640,1605319561000,,1605854101905,1605854122253
[2020-11-20 14:35:22] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.dbf"
(Total 37.79M bytes)
[2020-11-20 14:35:41]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.d
bf,7743790,38589440,1605341536000,,1605854122361,1605854141867
[2020-11-20 14:35:41] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.dbf"
(Total 42.38M bytes)
[2020-11-20 14:35:42]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.d
bf,9816606,47614976,1605333622000,,1605854120129,1605854142660
[2020-11-20 14:35:42] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.dbf"
(Total 37.1M bytes)
[2020-11-20 14:35:56]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.d
bf,8039230,39624704,1605355218000,,1605854141932,1605854156660
[2020-11-20 14:35:56] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.dbf"
(Total 43M bytes)
[2020-11-20 14:35:59]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.d
bf,9007822,44439552,1605362438000,,1605854142778,1605854159275
[2020-11-20 14:35:59] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.dbf"
(Total 44.37M bytes)
[2020-11-20 14:36:09]

```

```
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.d  
bf,7809070,38900224,1605384045000,,1605854156726,1605854169796  
[2020-11-20 14:36:09] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.dbf"  
(Total 41.44M bytes)  
[2020-11-20 14:36:14]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.d  
bf,8889214,45089792,1605391255000,,1605854159364,1605854174246  
[2020-11-20 14:36:14] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.dbf"  
(Total 39.74M bytes)  
[2020-11-20 14:36:26]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.d  
bf,9576798,46528000,1605399378000,,1605854169872,1605854186142  
[2020-11-20 14:36:26] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.dbf"  
(Total 37.17M bytes)  
[2020-11-20 14:36:29]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.d  
bf,8732590,43450368,1605406012000,,1605854174310,1605854189086  
[2020-11-20 14:36:29] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.dbf"  
(Total 37.95M bytes)  
[2020-11-20 14:36:42]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.d  
bf,8451966,41666048,1605420018000,,1605854186213,1605854202670  
[2020-11-20 14:36:42] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.dbf"  
(Total 41.38M bytes)  
[2020-11-20 14:36:44]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.d  
bf,7850830,38974464,1605423688000,,1605854189164,1605854204190  
[2020-11-20 14:36:44] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.dbf"  
(Total 39.4M bytes)  
[2020-11-20 14:36:58]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.d  
bf,8140318,39795712,1605438038000,,1605854202739,1605854218703  
[2020-11-20 14:36:58] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.dbf"  
(Total 44.37M bytes)  
[2020-11-20 14:37:01]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.d  
bf,8780206,43390976,1605448838000,,1605854205202,1605854221823  
[2020-11-20 14:37:01] Downloading in-file delta backup file...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.dbf"  
(Total 37.66M bytes)  
[2020-11-20 14:37:15]  
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.d  
bf,8291422,41312256,1605466860000,,1605854218771,1605854235020  
[2020-11-20 14:37:15] Downloading...  
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.dbf"  
(Total 10.2M bytes)
```

```

[2020-11-20 14:37:23]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.d
bf,9709358,46528000,1605485826000,,1605854221884,1605854243501
[2020-11-20 14:37:23] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.dbf"
(Total 40.96M bytes)
[2020-11-20 14:37:36]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.d
bf,8194494,39485952,1605506856000,,1605854235073,1605854256086
[2020-11-20 14:37:36] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.dbf"
(Total 40.61M bytes)

[2020-11-20 14:37:45]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.d
bf,2257294,10690560,1605516882000,,1605854264996,1605854265253
[2020-11-20 14:37:45] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.dbf"
(Total 36.96M bytes)
[2020-11-20 14:37:53]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.d
bf,8686446,42952192,1605535226000,,1605854256305,1605854273117
[2020-11-20 14:37:53] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.dbf"
(Total 36.99M bytes)
[2020-11-20 14:37:59]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.d
bf,8586094,42581504,1605535274000,,1605854265357,1605854279793
[2020-11-20 14:37:59] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.dbf"
(Total 800K bytes)
[2020-11-20 14:38:06]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.d
bf,7690190,38758912,1605560434000,,1605854273184,1605854286129
[2020-11-20 14:38:06] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.dbf"
(Total 5.62M bytes)
[2020-11-20 14:38:06]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.d
bf,235390,819712,1605576422000,,1605854286133,1605854286161
[2020-11-20 14:38:06] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.dbf"
(Total 4.74M bytes)
[2020-11-20 14:38:06]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.d
bf,1302366,5892608,1605581259000,,1605854286163,1605854286313
[2020-11-20 14:38:06] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.dbf"
(Total 3.93M bytes)
[2020-11-20 14:38:06]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.d
bf,1067678,4972544,1605582793000,,1605854286316,1605854286441
[2020-11-20 14:38:06] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.dbf"

```

```

(Total 39.05M bytes)
[2020-11-20 14:38:06]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.d
bf,1112638,4125696,1605584033000,,1605854286444,1605854286572
[2020-11-20 14:38:06] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.dbf"
(Total 31.88M bytes)
[2020-11-20 14:38:13]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.d
bf,8163294,38788608,1605574974000,,1605854279858,1605854293731
[2020-11-20 14:38:13] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.dbf"
(Total 42.62M bytes)
[2020-11-20 14:38:22]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.db
f,8424062,40947712,1605121216000,,1605854286681,1605854302814
[2020-11-20 14:38:22] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.dbf"
(Total 37.61M bytes)
[2020-11-20 14:38:27]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.d
bf,6794334,33427456,1605601933000,,1605854293798,1605854307258
[2020-11-20 14:38:27] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.dbf"
(Total 37.95M bytes)
[2020-11-20 14:38:40]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.d
bf,9123502,44686848,1605621631000,,1605854302870,1605854320608
[2020-11-20 14:38:40] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.dbf"
(Total 37.16M bytes)
[2020-11-20 14:38:42]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.d
bf,7977310,39435264,1605621675000,,1605854307353,1605854322381
[2020-11-20 14:38:42] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.dbf"
(Total 38.58M bytes)
[2020-11-20 14:38:54]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.d
bf,8052414,39798272,1605650460000,,1605854320676,1605854334185
[2020-11-20 14:38:54] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.dbf"
(Total 42.95M bytes)
[2020-11-20 14:38:56]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.d
bf,8198542,38968320,1605664844000,,1605854322450,1605854336177
[2020-11-20 14:38:56] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.dbf"
(Total 40.77M bytes)
[2020-11-20 14:39:12]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.d
bf,8128622,40456704,1605686404000,,1605854334274,1605854352220
[2020-11-20 14:39:12] Downloading in-file delta backup file...

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```
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.dbf"
(Total 38.56M bytes)
[2020-11-20 14:39:15]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.dbf,9151518,45032448,1605708030000,,1605854336549,1605854355662
[2020-11-20 14:39:15] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.dbf"
(Total 37.43M bytes)
[2020-11-20 14:39:26]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.dbf,8614830,42749440,1605708081000,,1605854352285,1605854366839
[2020-11-20 14:39:26] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.dbf"
(Total 39.44M bytes)
[2020-11-20 14:39:34]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.dbf,8265262,40437248,1605736826000,,1605854355726,1605854374605
[2020-11-20 14:39:34] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.dbf"
(Total 1.24M bytes)
[2020-11-20 14:39:46]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.dbf,8129758,39248384,1605762009000,,1605854366921,1605854386045
[2020-11-20 14:39:46] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.dbf"
(Total 37.08M bytes)
[2020-11-20 14:39:46]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.dbf,348030,1296896,1605764482000,,1605854386049,1605854386089
[2020-11-20 14:39:46] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.dbf"
(Total 1.53M bytes)
[2020-11-20 14:39:50]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.dbf,8373006,41352704,1605157220000,,1605854374666,1605854390146
[2020-11-20 14:39:50] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.dbf"
(Total 4.65M bytes)
[2020-11-20 14:39:50]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.dbf,414622,1605120,1605777642000,,1605854390149,1605854390202
[2020-11-20 14:39:50] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.dbf"
(Total 40.97M bytes)
[2020-11-20 14:39:50]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.dbf,1021902,4878848,1605780235000,,1605854390206,1605854390341
[2020-11-20 14:39:50] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.dbf"
(Total 38.73M bytes)
[2020-11-20 14:40:00]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.dbf,7906174,38883840,1605776429000,,1605854386152,1605854400517
```

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[2020-11-20 14:40:00] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.dbf"
(Total 38.98M bytes)
[2020-11-20 14:40:05]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.d
bf,8667998,42956800,1605794442000,,1605854390404,1605854405434
[2020-11-20 14:40:05] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.dbf"
(Total 1.4M bytes)
[2020-11-20 14:40:19]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.d
bf,8280590,40610304,1605801604000,,1605854400588,1605854419520
[2020-11-20 14:40:19] Downloading...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.dbf"
(Total 7.49M bytes)
[2020-11-20 14:40:19]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.d
bf,383646,1472512,1605837033000,,1605854419523,1605854419579
[2020-11-20 14:40:19] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.dbf"
(Total 36.94M bytes)
[2020-11-20 14:40:19]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.d
bf,1893358,7854080,1605837964000,,1605854419584,1605854419881
[2020-11-20 14:40:19] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.dbf"
(Total 41.84M bytes)
[2020-11-20 14:40:25]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.d
bf,8361982,40868352,1605834039000,,1605854405490,1605854425192
[2020-11-20 14:40:25] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.dbf"
(Total 38.62M bytes)
[2020-11-20 14:40:36]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.db
f,7660686,38739456,1605172451000,,1605854419938,1605854436449
[2020-11-20 14:40:36] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.dbf"
(Total 36.8M bytes)
[2020-11-20 14:40:42]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.db
f,8999614,43874816,1605189633000,,1605854425264,1605854442856
[2020-11-20 14:40:42] Downloading in-file delta backup file...
"/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.dbf"
(Total 36.88M bytes)
[2020-11-20 14:40:50]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.db
f,8092734,40497152,1605189679000,,1605854436509,1605854450690
[2020-11-20 14:40:50] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdb1/sysaux01.dbf" (Total 370.01M bytes)
[2020-11-20 14:40:56]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.db
f,7961054,38588928,1605205806000,,1605854442923,1605854456881

```

```
[2020-11-20 14:40:56] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdb1/system01.dbf" (Total 280.01M bytes)
[2020-11-20 14:41:08]
file,/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.db
f,7825406,38672896,1605237286000,,1605854450765,1605854468437
[2020-11-20 14:41:08] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdb1/undotbs01.dbf" (Total 100.01M bytes)
[2020-11-20 14:42:17]
file,/u02/oradata/CDB1/pdb1/sysaux01.dbf,40076622,387981312,1605837854
000,,1605854456949,1605854537695
[2020-11-20 14:42:17] Downloading...
"/u02/oradata/CDB1/pdb1/users01.dbf" (Total 5.01M bytes)
[2020-11-20 14:42:42]
file,/u02/oradata/CDB1/pdb1/undotbs01.dbf,19188030,104865792,160583787
2000,,1605854537770,1605854562402
[2020-11-20 14:42:42] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdbseed/sysaux01.dbf" (Total 330.01M bytes)
[2020-11-20 14:42:42]
file,/u02/oradata/CDB1/pdb1/users01.dbf,12398,5251072,1605837873000,,1
605854562405,1605854562437
[2020-11-20 14:42:42] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdbseed/system01.dbf" (Total 270.01M bytes)
[2020-11-20 14:43:35]
file,/u02/oradata/CDB1/pdbseed/sysaux01.dbf,35015726,346038272,1605837
824000,,1605854562497,1605854615257
[2020-11-20 14:43:35] Downloading in-file delta backup file...
"/u02/oradata/CDB1/pdbseed/undotbs01.dbf" (Total 100.01M bytes)
[2020-11-20 14:43:52]
file,/u02/oradata/CDB1/pdb1/system01.dbf,58827262,293609472,1605837870
000,,1605854468535,1605854632956
[2020-11-20 14:43:52] Downloading in-file delta backup file...
"/u02/oradata/CDB1/sysaux01.dbf" (Total 1,020.01M bytes)
[2020-11-20 14:44:39]
file,/u02/oradata/CDB1/pdbseed/undotbs01.dbf,15824478,104865792,160583
7834000,,1605854633091,1605854679655
[2020-11-20 14:44:39] Downloading in-file delta backup file...
"/u02/oradata/CDB1/system01.dbf" (Total 940.01M bytes)
[2020-11-20 14:46:43]
file,/u02/oradata/CDB1/pdbseed/system01.dbf,56954110,283123712,1605837
831000,,1605854615311,1605854803590
[2020-11-20 14:46:43] Downloading in-file delta backup file...
"/u02/oradata/CDB1/undotbs01.dbf" (Total 335.01M bytes)
[2020-11-20 14:47:27]
file,/u02/oradata/CDB1/sysaux01.dbf,134901710,1069555712,1605837914000
,,1605854679739,1605854847823
[2020-11-20 14:47:27] Downloading... "/u02/oradata/CDB1/users01.dbf"
(Total 5.01M bytes)
[2020-11-20 14:49:22]
file,/u02/oradata/CDB1/undotbs01.dbf,63806142,351281152,1605837959000,
,1605854847883,1605854962739
[2020-11-20 14:49:22]
file,/u02/oradata/CDB1/users01.dbf,175198,5251072,1605837961000,,16058
54962775,1605854962829
```

```

[2020-11-20 14:56:22]
file,/u02/oradata/CDB1/system01.dbf,230606542,985669632,1605837947000,
,1605854803699,1605855382527
[2020-11-20 14:56:46] Recover database
[2020-11-20 14:56:51] Reset database logs
[2020-11-20 14:58:00] Restart database
[2020-11-20 14:59:05] Restore Completed Successfully
[2020-11-20 14:59:05] end,RESTORE_STOP_SUCCESS,0,0,0,,0,0

```

Restore Raw File

Example of restore raw file

```

# sh Restore.sh

Using APP_HOME:          : /usr/local/obm
Using BACKUP_SET          : Oracle DB backup
Using RESTORE_FROM        : Oracle Database Server
Using RESTORE_TO           : /raw_file
Using POINT_IN_TIME        : Current
Using RESTORE_PERMISSION   : N
Using TEMP_DIR             :
Filter Pattern not set, filter would not apply to restore
Temporary directory not set, use the temporary directory in the backup
set

[2020-11-20 16:03:14] Start [ AhsayOBM v8.4.0.16 ]
[2020-11-20 16:03:14] OS: Linux 3.10.0-957.12.1.el7.x86_64
(oracle19c.local); CPU Model: VMware-Intel(R) Xeon(R) CPU
E5520 @ 2.27GHz,Intel(R) Xeon(R) CPU E5520 @ 2.27GHz;
Number of Processors: 4; Heap Size: 71.3MB (Current) / 683MB
(Maximum); Physical Memory: 274MB (Free) / 7.6GB (Total)
[2020-11-20 16:03:14] start,Start [ AhsayOBM v8.4.0.16 ],0,0,0,,0,0
[2020-11-20 16:03:14] Selected job: 2020-11-20-16-02-58
[2020-11-20 16:03:14] Selected source: [Oracle Database Server]
[2020-11-20 16:03:14] Info: [followLink=true marshallTargetPath=false
deleteForSync=false skipFaultKey=false verifyDeltaFileChecksum=false
restorePermission=false [RestoreLocation] type=RAW path=[/raw_file]]
[2020-11-20 16:03:14] Initializing decrypt action...
[2020-11-20 16:03:14] Initializing decrypt action... Completed
[2020-11-20 16:03:14] Creating new directory... "/raw_file/Oracle
Database Server"
[2020-11-20 16:03:14] Creating new directory... "/raw_file/Oracle
Database Server/u01"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app/oracle"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app/oracle/product"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app/oracle/product/19.0.0"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app/oracle/product/19.0.0/dbhome_1"
[2020-11-20 16:03:15] Creating new directory... "/raw_file/Oracle
Database Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs"
[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.
dbf" (Total 36.87M bytes)

```

```

[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.
dbf" (Total 41.04M bytes)
[2020-11-20 16:03:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.
dbf" (Total 37.84M bytes)
[2020-11-20 16:03:30] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_10_1056211886.
dbf,7830894,,38656512,1605257996000,,1605859396188,1605859410751
[2020-11-20 16:03:30] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.
dbf" (Total 42.26M bytes)
[2020-11-20 16:03:32] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_11_1056211886.
dbf,8649950,,43034112,1605276032000,,1605859396297,1605859412222
[2020-11-20 16:03:32] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.
dbf" (Total 44.37M bytes)
[2020-11-20 16:03:45] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_13_1056211886.
dbf,8840814,,44311552,1605304821000,,1605859412290,1605859425389
[2020-11-20 16:03:45] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.
dbf" (Total 41.49M bytes)
[2020-11-20 16:03:45] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_12_1056211886.
dbf,7868654,,39673344,1605276078000,,1605859411024,1605859425935
[2020-11-20 16:03:45] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.
dbf" (Total 45.41M bytes)
[2020-11-20 16:04:00] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_15_1056211886.
dbf,8681454,,43504640,1605319561000,,1605859426002,1605859440689
[2020-11-20 16:04:00] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.
dbf" (Total 36.8M bytes)
[2020-11-20 16:04:01] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_14_1056211886.
dbf,9791278,,46528000,1605312933000,,1605859425462,1605859441897
[2020-11-20 16:04:01] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.
dbf" (Total 37.79M bytes)
[2020-11-20 16:04:21] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_17_1056211886.
dbf,7743790,,38589440,1605341536000,,1605859441968,1605859461437
[2020-11-20 16:04:21] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.
dbf" (Total 42.38M bytes)
[2020-11-20 16:04:24] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_16_1056211886.
dbf,9816606,,47614976,1605333622000,,1605859440844,1605859464691
[2020-11-20 16:04:24] Downloading in-file delta backup file...

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```

"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.
dbf" (Total 37.1M bytes)
[2020-11-20 16:04:37] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_18_1056211886.
dbf,8039230,39624704,1605355218000,,1605859461498,1605859477487
[2020-11-20 16:04:37] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.
dbf" (Total 43M bytes)
[2020-11-20 16:04:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_19_1056211886.
dbf,9007822,44439552,1605362438000,,1605859464756,1605859482739
[2020-11-20 16:04:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.
dbf" (Total 44.37M bytes)
[2020-11-20 16:04:54] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_20_1056211886.
dbf,7809070,38900224,1605384045000,,1605859477627,1605859494005
[2020-11-20 16:04:54] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.
dbf" (Total 41.44M bytes)
[2020-11-20 16:05:00] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_21_1056211886.
dbf,8889214,45089792,1605391255000,,1605859482870,1605859500696
[2020-11-20 16:05:00] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.
dbf" (Total 39.74M bytes)
[2020-11-20 16:05:15] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_22_1056211886.
dbf,9576798,46528000,1605399378000,,1605859494058,1605859515433
[2020-11-20 16:05:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.
dbf" (Total 37.17M bytes)
[2020-11-20 16:05:18] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_23_1056211886.
dbf,8732590,43450368,1605406012000,,1605859500764,1605859518774
[2020-11-20 16:05:18] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.
dbf" (Total 37.95M bytes)
[2020-11-20 16:05:29] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_24_1056211886.
dbf,8451966,41666048,1605420018000,,1605859515504,1605859529630
[2020-11-20 16:05:29] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.
dbf" (Total 41.38M bytes)
[2020-11-20 16:05:32] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_25_1056211886.
dbf,7850830,38974464,1605423688000,,1605859518839,1605859532005
[2020-11-20 16:05:32] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.
dbf" (Total 39.4M bytes)
[2020-11-20 16:05:43] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_26_1056211886.

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dbf,8140318,39795712,1605438038000,,1605859529712,1605859543355
[2020-11-20 16:05:43] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.
dbf" (Total 44.37M bytes)
[2020-11-20 16:05:47] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_27_1056211886.
dbf,8780206,43390976,1605448838000,,1605859532121,1605859547013
[2020-11-20 16:05:47] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.
dbf" (Total 37.66M bytes)
[2020-11-20 16:06:00] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_28_1056211886.
dbf,8291422,41312256,1605466860000,,1605859543479,1605859560789
[2020-11-20 16:06:00] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.
dbf" (Total 10.2M bytes)
[2020-11-20 16:06:06] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_29_1056211886.
dbf,9709358,46528000,1605485826000,,1605859547181,1605859566855
[2020-11-20 16:06:06] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.
dbf" (Total 40.96M bytes)
[2020-11-20 16:06:14] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_30_1056211886.
dbf,8194494,39485952,1605506856000,,1605859560886,1605859574593
[2020-11-20 16:06:14] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.
dbf" (Total 40.61M bytes)
[2020-11-20 16:06:25] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_31_1056211886.
dbf,2257294,10690560,1605516882000,,1605859585655,1605859585955
[2020-11-20 16:06:25] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.
dbf" (Total 36.96M bytes)
[2020-11-20 16:06:30] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_32_1056211886.
dbf,8686446,42952192,1605535226000,,1605859574694,1605859590873
[2020-11-20 16:06:30] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.
dbf" (Total 36.99M bytes)
[2020-11-20 16:06:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_33_1056211886.
dbf,8586094,42581504,1605535274000,,1605859586029,1605859602389
[2020-11-20 16:06:42] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.
dbf" (Total 800K bytes)
[2020-11-20 16:06:44] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_34_1056211886.
dbf,7690190,38758912,1605560434000,,1605859590960,1605859604836
[2020-11-20 16:06:44] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.
dbf" (Total 5.62M bytes)
[2020-11-20 16:06:44] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_36_1056211886.
dbf,235390,819712,1605576422000,,1605859604840,1605859604865

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[2020-11-20 16:06:44] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.
dbf" (Total 4.74M bytes)
[2020-11-20 16:06:45] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_37_1056211886.
dbf,1302366,5892608,1605581259000,,1605859604869,1605859605019
[2020-11-20 16:06:45] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.
dbf" (Total 3.93M bytes)
[2020-11-20 16:06:45] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_38_1056211886.
dbf,1067678,4972544,1605582793000,,1605859605023,1605859605147
[2020-11-20 16:06:45] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf" (Total 39.05M bytes)
[2020-11-20 16:06:45] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_39_1056211886.
dbf,1112638,4125696,1605584033000,,1605859605150,1605859605276
[2020-11-20 16:06:45] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf" (Total 31.88M bytes)
[2020-11-20 16:06:55] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_35_1056211886.
dbf,8163294,38788608,1605574974000,,1605859602474,1605859615719
[2020-11-20 16:06:55] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf" (Total 42.62M bytes)
[2020-11-20 16:07:00] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_3_1056211886.d
bf,8424062,40947712,1605121216000,,1605859605426,1605859620612
[2020-11-20 16:07:00] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf" (Total 37.61M bytes)
[2020-11-20 16:07:10] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_40_1056211886.
dbf,6794334,33427456,1605601933000,,1605859615807,1605859630835
[2020-11-20 16:07:10] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf" (Total 37.95M bytes)
[2020-11-20 16:07:18] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_41_1056211886.
dbf,9123502,44686848,1605621631000,,1605859620684,1605859638315
[2020-11-20 16:07:18] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf" (Total 37.16M bytes)
[2020-11-20 16:07:24] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_42_1056211886.
dbf,7977310,39435264,1605621675000,,1605859630901,1605859644392
[2020-11-20 16:07:24] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.
dbf" (Total 38.58M bytes)
[2020-11-20 16:07:31] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_43_1056211886.
dbf,8052414,39798272,1605650460000,,1605859638381,1605859651890

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[2020-11-20 16:07:31] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.
dbf" (Total 42.95M bytes)
[2020-11-20 16:07:38] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_44_1056211886.
dbf,8198542,38968320,1605664844000,,1605859644474,1605859658778
[2020-11-20 16:07:38] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.
dbf" (Total 40.77M bytes)
[2020-11-20 16:07:52] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_45_1056211886.
dbf,8128622,40456704,1605686404000,,1605859651960,1605859672817
[2020-11-20 16:07:52] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.
dbf" (Total 38.56M bytes)
[2020-11-20 16:08:01] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_46_1056211886.
dbf,9151518,45032448,1605708030000,,1605859658916,1605859681399
[2020-11-20 16:08:01] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf" (Total 37.43M bytes)
[2020-11-20 16:08:10] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_47_1056211886.
dbf,8614830,42749440,1605708081000,,1605859672878,1605859690276
[2020-11-20 16:08:10] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf" (Total 39.44M bytes)
[2020-11-20 16:08:20] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_48_1056211886.
dbf,8265262,40437248,1605736826000,,1605859681464,1605859700618
[2020-11-20 16:08:20] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.
dbf" (Total 1.24M bytes)
[2020-11-20 16:08:29] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_49_1056211886.
dbf,8129758,39248384,1605762009000,,1605859690345,1605859709229
[2020-11-20 16:08:29] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf" (Total 37.08M bytes)
[2020-11-20 16:08:29] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_50_1056211886.
dbf,348030,1296896,1605764482000,,1605859709232,1605859709274
[2020-11-20 16:08:29] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.
dbf" (Total 1.53M bytes)
[2020-11-20 16:08:37] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_4_1056211886.d
bf,8373006,41352704,1605157220000,,1605859700700,1605859717491
[2020-11-20 16:08:37] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.
dbf" (Total 4.65M bytes)
[2020-11-20 16:08:37] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_52_1056211886.
dbf,414622,1605120,1605777642000,,1605859717495,1605859717542
[2020-11-20 16:08:37] Downloading in-file delta backup file...

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"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf" (Total 40.97M bytes)
[2020-11-20 16:08:37] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_53_1056211886.
dbf,1021902,4878848,1605780235000,,1605859717544,1605859717656
[2020-11-20 16:08:37] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf" (Total 38.73M bytes)
[2020-11-20 16:08:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_51_1056211886.
dbf,7906174,38883840,1605776429000,,1605859709343,1605859722461
[2020-11-20 16:08:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf" (Total 38.98M bytes)
[2020-11-20 16:08:52] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_54_1056211886.
dbf,8667998,42956800,1605794442000,,1605859717743,1605859732308
[2020-11-20 16:08:52] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.
dbf" (Total 1.4M bytes)
[2020-11-20 16:08:58] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_55_1056211886.
dbf,8280590,40610304,1605801604000,,1605859722594,1605859738915
[2020-11-20 16:08:58] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf" (Total 7.49M bytes)
[2020-11-20 16:08:58] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_57_1056211886.
dbf,383646,1472512,1605837033000,,1605859738919,1605859738959
[2020-11-20 16:08:58] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.d
bf" (Total 36.94M bytes)
[2020-11-20 16:08:59] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_58_1056211886.
dbf,1893358,7854080,1605837964000,,1605859738962,1605859739162
[2020-11-20 16:08:59] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
bf" (Total 41.84M bytes)
[2020-11-20 16:09:10] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_56_1056211886.
dbf,8361982,40868352,1605834039000,,1605859732374,1605859750793
[2020-11-20 16:09:10] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.d
bf" (Total 38.62M bytes)
[2020-11-20 16:09:13] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_5_1056211886.d
bf,7660686,38739456,1605172451000,,1605859739225,1605859753337
[2020-11-20 16:09:13] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf" (Total 36.8M bytes)
[2020-11-20 16:09:26] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_6_1056211886.d
bf,8999614,43874816,1605189633000,,1605859750865,1605859766569
[2020-11-20 16:09:26] Downloading in-file delta backup file...

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"/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf" (Total 36.88M bytes)
[2020-11-20 16:09:27] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_7_1056211886.d
bf,8092734,40497152,1605189679000,,1605859753478,1605859767542
[2020-11-20 16:09:27] Downloading... "/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora"
(Total 3K bytes)
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_8_1056211886.d
bf,7961054,38588928,1605205806000,,1605859766651,1605859782273
[2020-11-20 16:09:42] Creating new directory... "/raw_file/Oracle
Database Server/u02"
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/spfilecdb1.ora,718,3
584,1605837963000,,1605859782276,1605859782277
[2020-11-20 16:09:42] Creating new directory... "/raw_file/Oracle
Database Server/u02/oradata"
[2020-11-20 16:09:42] Creating new directory... "/raw_file/Oracle
Database Server/u02/oradata/CDB1"
[2020-11-20 16:09:42] Creating new directory... "/raw_file/Oracle
Database Server/u02/oradata/CDB1/pdb1"
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/pdb1/sysaux01.dbf"
(Total 370.01M bytes)
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/pdb1/system01.dbf"
(Total 280.01M bytes)
[2020-11-20 16:09:42] file,/raw_file/Oracle Database
Server/u01/app/oracle/product/19.0.0/dbhome_1/dbs/arch1_9_1056211886.d
bf,7825406,38672896,1605237286000,,1605859767735,1605859782785
[2020-11-20 16:09:42] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/pdb1/undotbs01.dbf"
(Total 100.01M bytes)
[2020-11-20 16:11:20] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/sysaux01.dbf,40076622,387981312,160583785
4000,,1605859782452,1605859880355
[2020-11-20 16:11:20] Downloading... "/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/users01.dbf" (Total 5.01M bytes)
[2020-11-20 16:11:22] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/system01.dbf,58827262,293609472,160583787
0000,,1605859782859,1605859882785
[2020-11-20 16:11:22] Creating new directory... "/raw_file/Oracle
Database Server/u02/oradata/CDB1/pdbseed"
[2020-11-20 16:11:22] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf" (Total 330.01M bytes)
[2020-11-20 16:11:22] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/users01.dbf,12398,5251072,1605837873000,,1605859882848,1605859882878
[2020-11-20 16:11:22] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/system01.dbf" (Total 270.01M bytes)
[2020-11-20 16:12:15] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdb1/undotbs01.dbf,19188030,104865792,16058378
72000,,1605859880411,1605859935680
[2020-11-20 16:12:15] Downloading in-file delta backup file...
"/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/undotbs01.dbf" (Total 100.01M bytes)
[2020-11-20 16:12:59] file,/raw_file/Oracle Database

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Server/u02/oradata/CDB1/pdbseed/sysaux01.dbf,35015726,346038272,1605837824000,,1605859882935,1605859979483
[2020-11-20 16:12:59] Downloading... "/raw_file/Oracle Database
Server/u02/oradata/CDB1/control01.ctl" (Total 17.89M bytes)
[2020-11-20 16:13:45] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/undotbs01.dbf,15824478,104865792,1605837834000,,1605859979601,1605860025721
[2020-11-20 16:13:45] Downloading... "/raw_file/Oracle Database
Server/u02/oradata/CDB1/control02.ctl" (Total 17.89M bytes)
[2020-11-20 16:13:45] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/control01.ctl,42334,18759680,1605837964000,,1605860025791,1605860025886
[2020-11-20 16:13:45] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/sysaux01.dbf"
(Total 1,020.01M bytes)
[2020-11-20 16:13:46] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/control02.ctl,42334,18759680,1605837964000,,1605860025972,1605860026071
[2020-11-20 16:13:46] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/system01.dbf"
(Total 940.01M bytes)
[2020-11-20 16:13:53] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/pdbseed/system01.dbf,56954110,283123712,1605837831000,,1605859935879,1605860033263
[2020-11-20 16:13:53] Downloading in-file delta backup file...
"/raw_file/Oracle Database Server/u02/oradata/CDB1/undotbs01.dbf"
(Total 335.01M bytes)
[2020-11-20 16:17:48] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/sysaux01.dbf,134901710,1069555712,160583791400
0,,1605860026243,1605860268317
[2020-11-20 16:17:48] Downloading... "/raw_file/Oracle Database
Server/u02/oradata/CDB1/users01.dbf" (Total 5.01M bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/undotbs01.dbf,63806142,351281152,1605837959000
,,1605860268433,1605860401027
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/addTempFile.sql" (Total 508 bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/users01.dbf,175198,5251072,1605837961000,,1605860401066,1605860401109
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/addTempFile.sql,238,508,1605837963000,,1605860401112,160586040112
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/initcdb1.oradump" (Total 592 bytes)
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/traceCtrlfile.log" (Total 3K bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/initcdb1.oradump,398,592,1605837963000,,1605860401295,1605860401295
[2020-11-20 16:20:01] Downloading... "/raw_file/Oracle Database
Server/traceDatafile.log" (Total 484 bytes)
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/traceCtrlfile.log,1518,3820,1605837962000,,1605860401299,1605860401299
[2020-11-20 16:20:01] file,/raw_file/Oracle Database
Server/traceDatafile.log,190,484,1605837965000,,1605860401301,1605860401301
[2020-11-20 16:21:08] file,/raw_file/Oracle Database
Server/u02/oradata/CDB1/system01.dbf,230606542,985669632,1605837947000
,,1605860033475,1605860468114

```

[2020-11-20 16:21:08] **Restore Completed Successfully**
[2020-11-20 16:21:08] end,RESTORE_STOP_SUCCESS,0,0,0,,0,0