Oracle® Healthcare Data Repository

Installation Guide

Release 7.0

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Oracle Healthcare Data Repository Installation Guide, Release 7.0

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Contents

Preface

Welcome to the Installation Guide for Oracle Healthcare Data Repository (HDR) Version 7.0.

Audience

This document is intended for an audience of Oracle Applications DBAs who plan to install the Oracle Healthcare Data Repository (HDR) either locally or through a VPN connection to the servers.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

The following set of documents have been referenced in this installation guide. All of these documents should be downloaded or printed from My Oracle Support and used as your guide during all HDR installations. You will find that you will add your own comments and corrections to these documents. Should you find errors, inconsistencies or missing information in any of these documents, please log an SR via My Oracle Support so that the documentation error can be corrected. It is recommended that you return to My Oracle Support and check for updates to these documents on a regular basis.

Note that you may obtain the following documents by either downloading these from https://edelivery.oracle.com/ or from the appropriate media (CD or DVD) in the physical media pack. For downloading a document from *My Oracle Support*, use My Oracle Support Article ID to search for the particular document.

Integration and Other Product References:

Oracle Healthcare Data Repository Javadoc. This document describes the HDR Application Programming Interface. It defines all of the Classes and Interfaces included in the release.

Oracle Healthcare Data Repository Implementation Guide. This document details all of the steps required to implement the variable functional components of the HDR Platform. Once analysis has been performed to determine which parts of the HDR Platform will be utilized, this document will detail the prerequisites and process steps needed to implement the functionality.

Oracle Healthcare Data Repository Programmer's Guide. This document is organized around code samples that address common setup functions and application features, with emphasis on application functionality typically used in healthcare settings. The examples include code samples targeted to developers writing code for HDR setup and application development.

1

Installation Overview

This document includes the installation and initial setup of Oracle Healthcare Data Repository Version 7.0. The approach of this document is to assist the installer by asking relevant questions and, where necessary, providing answers to these questions to help finalize the environment details and content required during and after the installation.

Throughout the document there are references to other information available to provide further details on the process steps and tools. If you have any questions or concerns about any of the process steps in this document, open a Service Request via My Oracle Support. This lets us resolve your questions and concerns as well as provides feedback and improvement on this document.

1.1 Software Requirements

The following list details the required software and versions for the installation of Oracle Healthcare Data Repository version 7.0. Each of these products is available for download from the Oracle E-Delivery website (https://edelivery.oracle.com/) or the Oracle Technology Network (http://www.oracle.com/us/technology/products/index.html).

- Java 1.7.0_45 or JDK 1.7.0_51 executable in path

- Oracle Database 12 c (12.1.0.1.0) or 11g R2

- WebLogic Server 12.1.2 with Coherence option

  For more information, refer to the *Oracle WebLogic Server Installation Guide*.

- Oracle Enterprise Linux 5.5 or later

2

Installing Oracle Healthcare Data Repository

This chapter contains the following topics:

2.1 Prerequisites

Set the following environment variables on the Linux machine from where the HDR installer will be run:

- **JAVA_HOME** - JDK1.7 install directory

- **ANT_HOME** - Ant home path (Ant 1.7.1 or later)

- **ORACLE_HOME** - Oracle database home directory

- **TWO_TASK** - Oracle Service Name

- **ORACLE_HOME_LISTENER** - Oracle database listener home directory

- **PATH** - $ORACLE_HOME/bin :$PATH

- **WL_HOME** - WebLogic home directory

2.2 Installing HDR using the Oracle Universal Installer

This section explains how to install the HDR application using the Oracle Universal Installer. The HDR application has to be installed in two stages:

2.2.1 Running Installer for HDR Database Tier Installation

This section explains how to create CTB and HCT schemas and respective database objects in the CTB and HCT schemas.

To install the HDR database tier, perform the following:

1. Copy HDR_Installer.zip and artifacts.zip folders to the database server machine.

2. Extract the files from HDR_Installer.zip and artifacts.zip to a directory.

   For example, /home/hdrinstaller.

3. Navigate to the /hdrinstaller/Disk1 directory using the following command:

   ```
   cd /hdrinstaller/Disk1
   ```

4. Execute the following script:

   ```
   ./runInstaller.sh
   ```

   The Oracle Universal Installer screen is displayed.

Figure 2–1   Oracle Universal Installer

5. Click **Next**.

   The Select a Product to Install screen is displayed.

Figure 2–2   Select a Product to Install
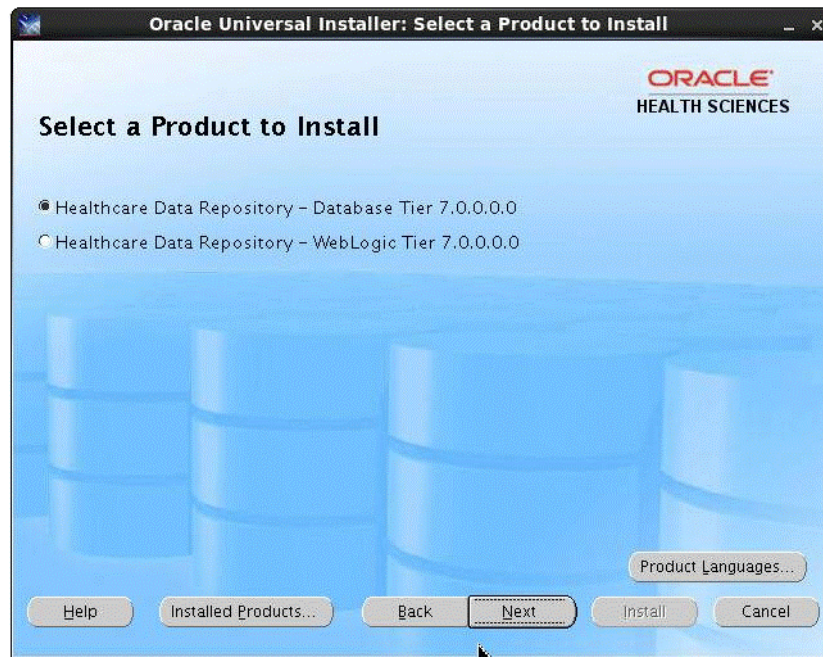
6. Select the **Healthcare Data Repository - Database Tier 7.0.0.0.0** option for HDR database schema and click **Next**.

    The Specify Home Details screen is displayed.

Figure 2–3   Specify Home Details

7. Enter the following values in the corresponding fields:

Table 2–1   Field Values

Field	Value
Name	Enter the name of HDR Home.
Path	Enter the path for HDR Home.

This is the location where the HDR product artifacts, including the HDR J2EE application are copied.

> **Note:**   By default, the Oracle database home directory path is displayed. Ensure to change the values to HDR home and its path.

8. Click **Next**.

The Database Details screen is displayed

Figure 2–4   Database Details
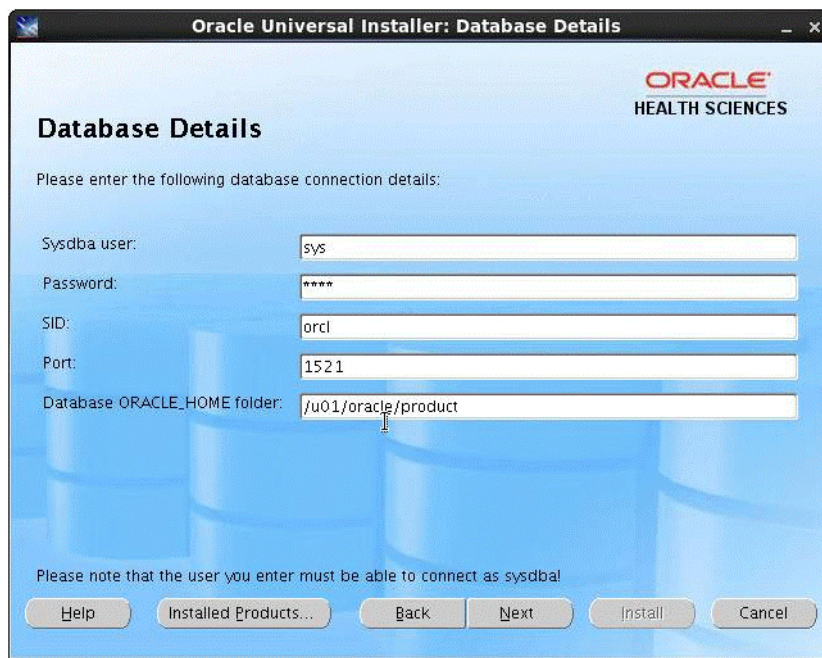
9. Enter the following values in the corresponding fields:

Table 2–2   Field Values

Field	Value
Sysdba user	Enter the Oracle system user name.
Password	Enter the system user password.
SID	Enter the Oracle SID.
Port	Enter the Oracle database port number.
Database ORACLE_HOME folder	Enter the path of ORACLE_HOME.

10. Click **Next**.

The Tablespace Properties screen is displayed.

Figure 2–5 Tablespace Properties

11. Enter the following values in the corresponding fields:

Table 2–3   Field Values

Field	Value
HCT user tablespace name	Enter the table space name for the HCT schema.
HCT user tablespace file	Enter the database file path (.dbf file) of the HCT tablespace.
CTB user tablespace name	Enter the table space name for the CTB schema.
CTB user tablespace file	Enter the database file path (.dbf file) of the CTB tablespace.
Context tablespace name	Enter the table space name for ETS context indexes.
Context tablespace file	Enter the database file path (.dbf file) of the Context tablespace.
Index tablespace name	Enter the tablespace name for all CTB and HCT indexes.
Index tablespace file	Enter the database file path (.dbf file) of the Index tablespace.

12. Click **Next**.

The HCT User Password screen is displayed.

13. Enter the following values in the corresponding fields:

- **Enter Password** - Enter the HCT user password.
- **Confirm Password** - Re-enter the HCT user password to confirm.

14. Click **Next**.

The CTB User Password screen is displayed.

15. Enter the following values in the corresponding fields:

Table 2–4   Field Values

Field	Value
Enter Password	Enter the CTB user password.
Confirm Password	Re-enter the CTB user password to confirm.

16. Click **Next**.

The ETS Concurrent Programs Settings screen is displayed.

Figure 2–6   ETS Concurrent Programs Settings

17. Enter the following values in the corresponding fields:

Table 2–5   Field Values

Field	Value
Absolute path of the Java executable	Enter the complete JDK bin/java path.
HDR middle-tier user name for service locator login	Enter the WebLogic HDR user name.
HDR middle-tier user password for the service locator login	Enter the WebLogic HDR user password.
Note: The WebLogic HDR user name and password should match the WebLogic domain user name and password mentioned in Section 2.2.2.	
Confirm the middle-tier user password	Re-enter the WebLogic HDR password to confirm.

18. Click **Next**.

   The Summary screen is displayed.

19. Click **Install**.

   > **Note:** Any errors during the installation are logged in the files under the <user_home_dir /oraInventory/logs folder.

   On successful completion of installation, the End of Installation screen is displayed.

20. Click **Exit**.

2.2.2 Running Installer for HDR Middle-Tier Installation

To install the HDR middle-tier, perform the following:

1. Copy HDR_Installer.zip and artifacts.zip folders to the WebLogic server machine.

2. Extract the files from HDR_Installer.zip and artifacts.zip to a directory.

   For example, /home/hdrinstaller.

3. Navigate to the hdrinstaller directory using the following command:

   ```
   cd hdrinstaller/Disk1
   ```

4. Execute the following script:

   ```
   ./runInstaller.sh
   ```

   The Oracle Universal Installer screen is displayed.

5. Click **Next**.

   The Select a Product to Install screen is displayed.

6. Select the **Healthcare Data Repository – WebLogic Tier 7.0.0.0.0** option and click **Next**.

   The Specify Home Details screen is displayed.

7. Enter the following values in the corresponding fields:

Table 2–6   Field Values

Field	Value
Name	Enter the name of HDR Home.
Path	Enter the path for HDR Home.

   > **Notes:** ■By default, the Oracle database Home directory path is displayed. Ensure the values are changed to enter HDR home and its path.
   >
   > ■ You can choose the same machine for both the middle tier and the database tier.

8. Click **Next**.

   The Choose WebLogic Home Directory screen is displayed.

9. Enter the WebLogic home path in the **WebLogic home folder** field.

10. Click **Next**.

The HDR Domain Properties screen is displayed.

Figure 2–7   HDR Domain Properties

11. Enter the following values in the corresponding fields:

Table 2–7   Field Values

Field	Value
Domain name	Enter the WebLogic domain name under which the HDR application has to be deployed.
Domain admin user	Enter the WebLogic domain admin user name.
Domain admin password	Enter the WebLogic domain admin password.
Confirm domain admin password	Re-enter the WebLogic domain admin password.
Admin server listen port	Enter the admin port number of the HDR domain.
Admin server SSL listen port	Enter the SSL port number.

12. Click **Next**.

The HDR Managed Server Properties screen is displayed.

Figure 2–8   HDR Managed Server Properties

13. Enter the following values in the corresponding fields:

Table 2–8   Field Values

Field	Value
Server name	Enter the HDR Managed server name.
Listen port	Enter the port number on which HDR managed server can listen.
SSL Listen port	Enter the SSL listen port number.
HDR Deployment name	Enter the HDR application name.

14. Click **Next**.

The IHE XDS User Password screen is displayed.

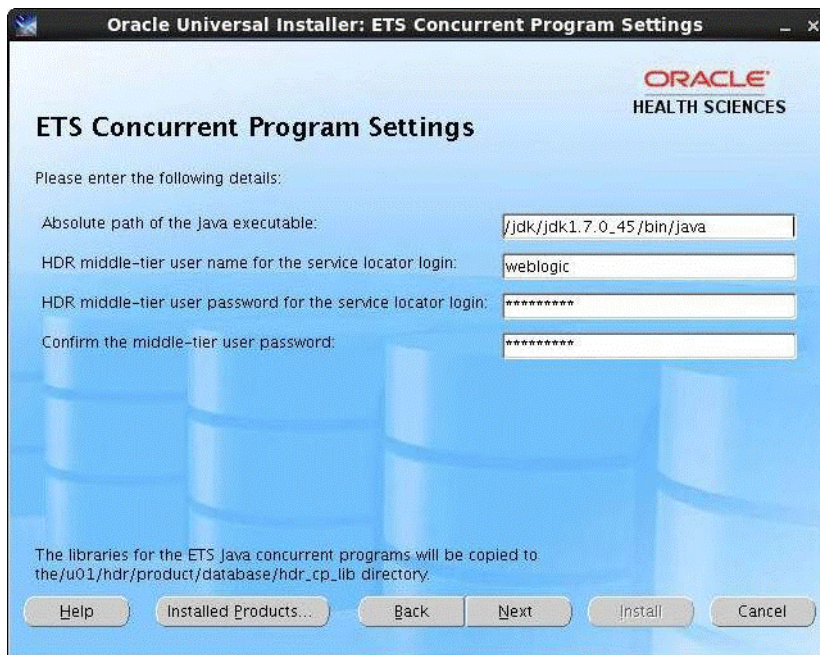**15.** Enter the following values in the corresponding fields:

Table 2–9   Field Values

Field	Value
Enter Password	Enter the password for IHE XDS user.
Confirm Password	Re-enter the password for IHE XDS user.

16. Click **Next**.

The DataSource properties screen is displayed.

Figure 2–9   DataSource properties
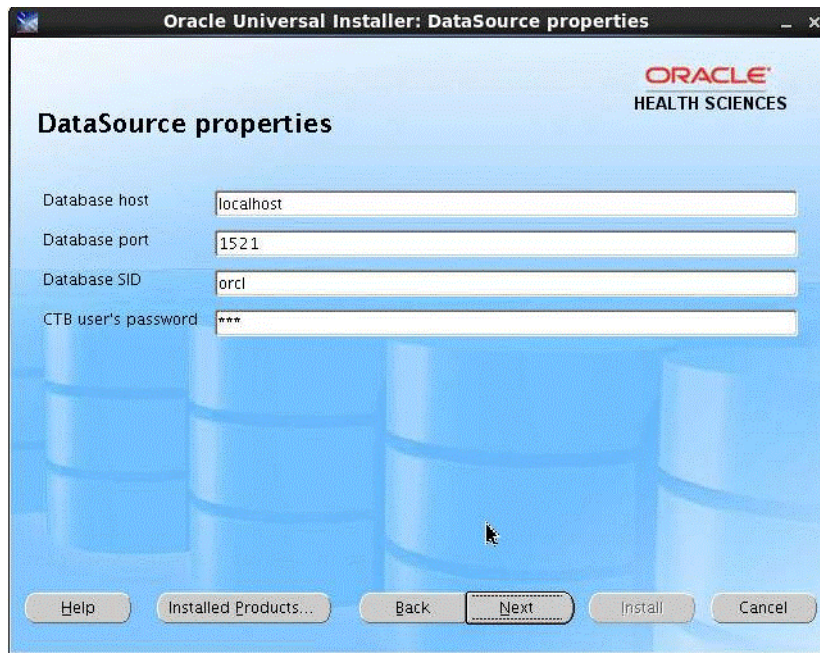
17. Enter the following values in the corresponding fields:

Table 2–10   Field Values

Field	Value
Database host	Enter the host name or IP address of the Oracle database server where HDR is installed.
Database port	Enter the database port number.
Database SID	Enter the database SID.
CTB user's password	Enter the CTB schema user password.

18. Click **Next**.

    The OIDs and Empi Configuration screen is displayed.

Figure 2–10   OIDs and Empi Configuration
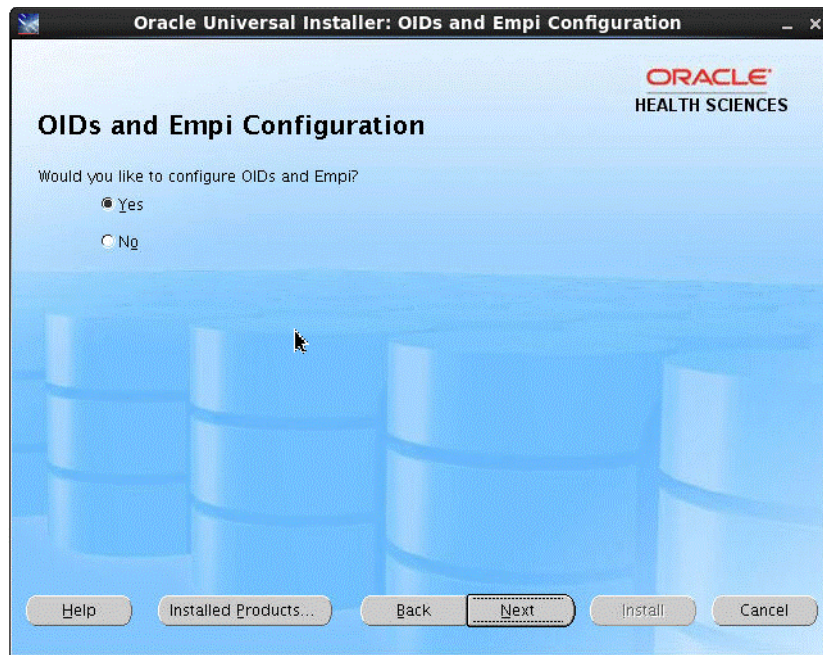
19. Select one of the following options:

   a.   Select **Yes**, if the HDR database is a fresh installation.

      The OID Values screen is displayed.

Figure 2–11   OID Values

   b.   Select **No**, if the HDR database is upgraded from HTB 5.3 or 6.1.1.

20. Enter the values in the fields as required.

21. Click **Next**.

The Oracle Wallet Details screen is displayed.

Figure 2–12   Oracle Wallet Details

22. Enter the values in the fields as required.

23. Click **Next**.

   The IHE Profile Options screen is displayed.

24. To access the IHE Web Services, select **Yes**. Else, select **No**.

25. Select **Yes** and click **Next**.

   The IHE Profile Options screen is displayed.

Figure 2–13   IHE Profile Options

26. Enter the values in the fields as required.

> **Note:**   For more information on IHE Profile options, see the *Oracle Healthcare Data Repository Implementation Guide*.

27. Click **Next**.

    The Summary screen is displayed.

28. Click **Install**.

    The following message is displayed after successful installation:

    The installation of Oracle Healthcare Data Repository - WebLogic tier was successful.

    > **Note:**   Installer log files are created under the <user_home_ dir>/OraInventory/logs folder. Refer these log files for any errors during the installation.

29. Click **Exit** to exit the installer.

30. Copy all the MTK custom schema/MIFs from HTB 6.1/6.1.1 instance to HDR 7.0 instance by running the following command:

    > **Note:**   This step is applicable when you upgrade from HTB 6.1/6.1.1 to HDR 7.0.

    ```
    Copy $JAVA_TOP/oracle/apps/ctb/message/defs/customSchema/* to $HDR_
    HOME/hdr_exploded_app/oracle/apps/ctb/message/defs/customSchema
    ```

31. Copy the tCDA configuration XMLs from HTB 6.1/6.1.1 instance to the HDR 7.0 instance by running the following command:

> **Note:** This step is applicable when you upgrade from HTB 6.1/6.1.1 to HDR 7.0.

```
Copy $JAVA_TOP/oracle/apps/ctb/ccd/metadata/configuration/server/*.xml
to $HDR_HOME/hdr_exploded_
app/oracle/apps/ctb/ccd/metadata/configuration/server
```

32. Start the WebLogic hdr_domain admin server.

For example, > nohup ./startWebLogic.sh &

33. Start the hdr_server managed server.

For example, > nohup ./startManagedWebLogic.sh <hdr-nodemanger

>http://<ip-address>:<port -number> hdr_server.log &

2.3 Installing HDR without using the Oracle Universal Installer

You can install HDR without using the Oracle Universal Installer. To install HDR without using the Oracle Universal Installer, perform the following:

- Extract the files from artifacts.zip and follow the instructions as mentioned in the /artifacts/docs/HDR_installation_readme.txt file.

2.4 Creating Gather Statistics Procedure for ETS Jobs

Execute the following PL/SQL block by connecting to the HCT schema:

```
SET VERIFY OFF;
WHENEVER SQLERROR EXIT SQL.SQLCODE ROLLBACK;
WHENEVER OSERROR EXIT FAILURE ROLLBACK;

CREATE OR REPLACE PACKAGE BODY HCT_GATHER_TABLES_STATS  AS

-- Gather stage table statistics
PROCEDURE gather_stage_tables_statistic(x_gathered_stage_tbs_stats OUT NOCOPY
NUMBER)
AS
v_StageTableName  ALL_TABLES.TABLE_NAME%TYPE; --varible stores stage table name
v_StageTableOwner ALL_TABLES.OWNER%TYPE;  -- varible stores stage table owner

CURSOR cur_sttb_name IS
select OWNER, TABLE_NAME
from all_tables
where table_name like 'HCT_ST%' ;

BEGIN
x_gathered_stage_tbs_stats := 0;

OPEN cur_sttb_name ;

LOOP
FETCH cur_sttb_name INTO v_StageTableOwner, v_StageTableName;
EXIT WHEN cur_sttb_name%NOTFOUND;
```

```
DBMS_STATS.GATHER_TABLE_STATS (
    ownname=>v_StageTableOwner, --Stage table owner name.
    tabname=>v_StageTableName, -- Stage table name.
    estimate_percent=>DBMS_STATS.auto_sample_size,
    method_opt=>'FOR ALL INDEXED COLUMNS'
    );

x_gathered_stage_tbs_stats := x_gathered_stage_tbs_stats + 1;
END LOOP;

CLOSE cur_sttb_name ;

END gather_stage_tables_statistic;

-- gather active table statistics
PROCEDURE gather_active_tables_statistic (x_gathered_active_tbs_stats OUT NOCOPY
NUMBER)
AS
v_ActiveTableName ALL_TABLES.TABLE_NAME%TYPE;
v_ActiveTableOwner ALL_TABLES.OWNER%TYPE;

CURSOR cur_ettb_name IS
select OWNER, TABLE_NAME
from all_tables
where table_name like 'HCT_ET%' ;

BEGIN
x_gathered_active_tbs_stats := 0;

OPEN cur_ettb_name;
LOOP
FETCH cur_ettb_name INTO v_ActiveTableOwner, v_ActiveTableName;
EXIT WHEN cur_ettb_name%NOTFOUND;

DBMS_STATS.GATHER_TABLE_STATS (
    ownname=>v_ActiveTableOwner, --Stage table owner name.
    tabname=>v_ActiveTableName, -- Stage table name.
    estimate_percent=>DBMS_STATS.auto_sample_size,
    method_opt=>'FOR ALL INDEXED COLUMNS'
    );

x_gathered_active_tbs_stats := x_gathered_active_tbs_stats + 1;
END LOOP;

CLOSE cur_ettb_name;

END gather_active_tables_statistic;

END HCT_GATHER_TABLES_STATS;
/
commit;
show errors;
```

2.5 Verifying HDR Installation

To verify the HDR installation, execute the SessionTest.java code supplied. This code tests the creation of a session, user login, ETSService, Profile Options Service, and MasterCatalogService.

To execute the SessionTest.java file, perform the following:

1. Create a folder 'src' on your system and copy the SessionTest.java file and the jndi.properties file to the folder.

2. Edit application server details in the jndi.properties file.

3. Install the client-side libraries.

   For a list of the client-side libraries, refer to the *Healthcare Data Repository Programmer's Guide*.

4. Execute the SessionTest.java file after the compilation.

2.6 Uninstalling HDR

This section contains the following topics:

- "Uninstalling Database Objects" on page 2-16

- "Uninstalling the HDR Middle-Tier Application" on page 2-16

2.6.1 Uninstalling Database Objects

To uninstall the database objects (CTB and HCT user schemas), perform the following:

- Execute the following SQL scripts from sqlplus/sqldeveloper as sys user:

  - `exec dbms_scheduler.drop_job('HDR_ETS_MAINTENANCE', TRUE);`

  - `exec dbms_scheduler.drop_job('HDR_ETS_LOADER', TRUE);`

  - `exec dbms_scheduler.drop_job('HDR_ETS_IMPORTER', TRUE);`

  - `exec dbms_scheduler.drop_program('hdr_ets_maintenance_program');`

  - `exec dbms_scheduler.drop_program('hdr_ets_loader_program');`

  - `exec dbms_scheduler.drop_program('hdr_ets_importer_program');`

  - `drop user HCT cascade;`

  - `drop user CTB cascade;`

  - `drop tablespace CTB_TBS INCLUDING CONTENTS and datafiles;`

  - `drop tablespace HCT_TBS INCLUDING CONTENTS and datafiles;`

  - `drop tablespace IDX_TBS INCLUDING CONTENTS and datafiles;`

  - `drop tablespace CTX_TBS INCLUDING CONTENTS and datafiles;`

2.6.2 Uninstalling the HDR Middle-Tier Application

To uninstall the HDR middle-tier application, perform the following:

1. Stop the hdr_domain and hdr_server node mangers.

2. Delete the hdr_domain folder completely.

3. Edit WebLogic Oracle_Home/domain-registry.xml and remove the entry for hdr_domain.

4. Delete the HDR home directory (that you provided during install) completely.

3

Upgrading HTB to HDR

This section contains the following topics:

3.1 Upgrading HTB 5.3 to HDR 7.0

This section contains the following topics:

3.1.1 Prerequisites

Take backup of the existing HTB 5.3 schemas for CTB and HCT. Export the CTB, HCT, and the following tables from the APPLSYS schema to a dump:

- FND_PROFILE_OPTIONS
- FND_PROFILE_OPTIONS_TL
- FND_PROFILE_OPTION_VALUES
- FND_USER
- FND_LANGUAGES
- FND_APPLICATION

Following is an example for an exporting dump:

expdp system/<password>@<SID> schemas=CTB,HCT,APPLSYS exclude=GRANT,USER,STATISTICS,TABLESPACE_QUOTA,DEFAULT_ROLE

directory=htb_dmp_dir dumpfile=<dump file name>.dmp

logfile=htb_dump.log

Set the following environment variables on the Linux machine from where the HDR installer will be run:

- **JAVA_HOME** - JDK1.7 install directory
- **ANT_HOME** - Ant home path (Ant 1.7.1 or later)

- **ORACLE_HOME** - Oracle database home directory
- **TWO_TASK** - <Oracle Service Name>
- **ORACLE_HOME_LISTENER** - Oracle database listener home directory
- **PATH** - $ORACLE_HOME/bin:$PATH
- **WL_HOME** - WebLogic home directory

3.1.2 Upgrading the HTB 5.3 Database Schema to HDR 7.0

To upgrade the HTB 5.3 database schema to HDR 7.0, perform the following:

1. Download the Oracle Healthcare Data Repository 7.0 software from the Oracle E-Delivery website (https://edelivery.oracle.com/).

2. Extract the files from HDR_Installer.zip and artifacts.zip to the database machine folder, /home/HDR70.

3. Navigate to the artifacts/migration_scripts/HTB5.3_HDR7.0/HTB5.3_HDR7.0_PARTITION_KEY directory.

4. Create the following tablespaces on the HDR70 target database by connecting as the sys user:

   a. Tablespace for HCT user

   b. Tablespace for CTB user

   c. Tablespace for Context

   d. Tablespace for Indexes

   For example, execute the following script to create the tablespaces:

   ```
   Create TABLESPACE <tablespace name>
   LOGGING
   DATAFILE '<data file path>/hdr_hcttb.dbf'
   SIZE <100M>
   AUTOEXTEND ON
   NEXT <100M> MAXSIZE UNLIMITED
   EXTENT MANAGEMENT LOCAL;
   ```

5. Create the HCT and the CTB schema users by executing the following script:

   ```
   sh create_hdr_user.sh
   ```

6. Execute the following script (by connecting as sys user) to create a directory, HTB_DUMP_DIR on the Oracle database where the HTB 6.1/6.1.1 dump file is located:

   ```
   CREATE OR REPLACE DIRECTORY HTB_DMP_DIR as '<path>';
   ```

7. Import the HCT objects from HTB 5.3 to the target HCT schema.

   For example, execute the following script to import the HCT objects:

   > **Notes:** Ensure that appropriate tablespace names, dump path, and log file path are mentioned in the script.

   ```
   impdp system/<password> schemas=hct remap_schema=apps:hct
   remap_schema=applsys:hct remap_tablespace=APPS_TS_SEED:hct_tbs
   remap_tablespace=APPS_TS_TX_DATA:<hct_tbs>
   remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
   remap_tablespace=APPS_TS_NOLOGGING:<hct_tbs>
   remap_tablespace=APPS_TS_MEDIA:<hct_tbs>
   ```

```
remap_tablespace=APPS_TS_INTERFACE:<hct_tbs>
remap_tablespace=APPS_TS_QUEUES:<hct_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<hct_tbs>
remap_tablespace=APPS_TS_SUMMARY:<hct_tbs>
remap_tablespace=APPS_TS_TOOLS:<hct_tbs> directory=HTB_DMP_DIR
dumpfile=< HTB 5.3 dump file name >.dmp logfile=htb_hct_import.log
```

8. Import the CTB objects from HTB 5.3 to the target CTB schema.

   For example, execute the following script to import the CTB objects:

   > **Note:** Ensure that appropriate tablespace names, dump path, and log
   > file path are mentioned in the script.

```
impdp system/<password> schemas=ctb remap_schema=apps:ctb
remap_schema=applsys:ctb remap_tablespace=APPS_TS_SEED:ctb_tbs
remap_tablespace=APPS_TS_TX_DATA:<ctb_tbs>
remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
remap_tablespace=APPS_TS_NOLOGGING:<ctb_tbs>
remap_tablespace=APPS_TS_MEDIA:<ctb_tbs>
remap_tablespace=APPS_TS_INTERFACE:<ctb_tbs>
remap_tablespace=APPS_TS_QUEUES:<ctb_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<ctb_tbs>
remap_tablespace=APPS_TS_SUMMARY:<ctb_tbs>
remap_tablespace=APPS_TS_TOOLS:<ctb_tbs> directory=HTB_DMP_DIR
dumpfile=<HTB 5.3 dump file name>.dmp logfile=htb_ctb_import.log
```

9. Import the following tables from APPLSYS from HTB 5.3 to the HCT schema on
   target database:

   For example, execute the following script to import the tables:

   > **Notes:**
   >
   > - Ensure that appropriate tablespace names, dump path, and log
   >   file path are mentioned in the script.
   >
   > - Before importing the dumps to the target database, ensure that
   >   there is enough tablespace available on the target database.

```
impdp system/<password>
tables=APPLSYS.FND_LANGUAGES,APPLSYS.FND_USER,APPLSYS.FND_
APPLICATION,APPLSYS.FND_PROFILE_OPTIONS,APPLSYS.FND_PROFILE_OPTIONS_
TL,APPLSYS.FND_PROFILE_OPTION_VALUES
remap_schema=apps:hct remap_schema=applsys:hct remap_tablespace=APPS_TS_
SEED:<hct_tbs>
remap_tablespace=APPS_TS_TX_DATA:<hct_tbs>
remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
remap_tablespace=APPS_TS_NOLOGGING:<hct_tbs>
remap_tablespace=APPS_TS_MEDIA:<hct_tbs>
remap_tablespace=APPS_TS_INTERFACE:<hct_tbs>
remap_tablespace=APPS_TS_QUEUES:<hct_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<hct_tbs>
remap_tablespace=APPS_TS_SUMMARY:<hct_tbs>
remap_tablespace=APPS_TS_TOOLS:<hct_tbs> directory=HTB_DMP_DIR
dumpfile=<HTB 5.3 dump file name>.dmp logfile=hct_fnd_import.log
```

> **Note:** Ignore the following errors while importing the dump:
>
> - `ORA-01917`: User or role <role/user> does not exist.
> - `ORA-39083`: Object type OBJECT_GRANT failed to create with error.
> - `ORA-39146`: The APPLSYS schema does not exist.

10. Specify the degree of parallelism (DOP) for running the migration scripts in parallel.

11. Execute the following script to upgrade the HCT schema to HDR:

    > sh migrate_hct_db_objects.sh

    The script prompts you to enter HCT user name, password, and tablespace name details.

12. Execute the following script to upgrade the CTB Schema to HDR:

    > sh migrate_ctb_db_objects.sh

    The script prompts you to enter CTB user name, password, and tablespace name details. When the script prompts for the ETS language, enter the value as ENUS.

13. Check the actual usage of all the preceding tablespaces and optimize the tablespace accordingly.

3.1.3 Installing the HDR Middle-Tier using the Oracle Universal Installer

For information on how to install the HDR middle-tier using the Oracle universal installer, see Section 2.2.2.

For information on how to install the HDR middle-tier without using the Oracle Universal installer, see Section 2.3.

3.1.4 Running the HDR Terminology Jobs

To run the HDR Terminology Jobs, perform the following:

1. Create gather statistics procedure for ETS jobs as mentioned in Section 2.4.

2. Navigate to artifacts/migration_scripts/ETS where the artifacts.zip is extracted.

3. Execute the execute_ets_job.sh shell script.

3.2 Upgrading HTB 6.1/6.1.1 to HDR 7.0

This section contains the following topics:

3.2.1 Prerequisites

- Take backup of the existing HTB 6.1/6.1.1 schemas for CTB and HCT. Export the following tables from the APPLSYS schema to a dump:

  - FND_PROFILE_OPTIONS

  - FND_PROFILE_OPTIONS_TL

  - FND_PROFILE_OPTION_VALUES

  - FND_USER

  - FND_LANGUAGES

  - FND_APPLICATION

Following is an example of a dump:

```
expdp system/<password>@<SID> schemas=CTB,HCT,APPLSYS
exclude=GRANT,USER,STATISTICS,TABLESPACE_QUOTA,DEFAULT_ROLE
directory=htb_dmp_dir dumpfile=<dump file name>.dmp
logfile=htb_dump.log
```
Set the following environment variables on the Linux machine from where the HDR installer will be run:

- **JAVA_HOME** - JDK1.7 install directory

- **ANT_HOME** - Ant home path (Ant 1.7.1 or later)

- **ORACLE_HOME** - Oracle database home directory

- **TWO_TASK** - <Oracle Service Name>

- **ORACLE_HOME_LISTENER** - Oracle database listener home directory

- **PATH** - $ORACLE_HOME/bin :$PATH

- **WL_HOME** - WebLogic home directory

3.2.2 Upgrading the HTB 6.1/6.1.1 Database Schema to HDR 7.0

To upgrade the HTB 6.1/6.1.1 database schema to HDR 7.0, perform the following:

1. Download the Oracle Healthcare Data Repository 7.0 software from the Oracle E-Delivery website (https://edelivery.oracle.com/).

2. Extract the files from HDR_Installer.zip and artifacts.zip to the database machine folder, /home/HDR70.

3. Create the following tablespaces on the HDR70 target database by connecting as the sys user:

    a. Tablespace for HCT user

    b. Tablespace for CTB user

    c. Tablespace for Context

    d. Tablespace for Indexes

    For example, execute the following script to create the tablespaces:

```
Create TABLESPACE <tablespace name>
LOGGING
DATAFILE '<data file path>/hdr_hcttb.dbf'
SIZE <100M>
AUTOEXTEND ON
NEXT <100M> MAXSIZE UNLIMITED
EXTENT MANAGEMENT LOCAL;
```

4. If the CTB schema tables are already partitioned using the HTB partition patches, then navigate to the artifacts/migration_scripts/HTB6.1_HDR7.0/HTB6.1_ HDR7.0/ folder. Else, navigate to the artifacts/migration_scripts/HTB6.1_ HDR7.0/HTB6.1_ HDR7.0_PARTITION_KEY folder.

5. Create the HCT schema and the CTB schema users by executing the following script:

```
sh create_hdr_user.sh
```

6. Execute the following script (by connecting as the sys user) to create the HTB_ DUMP_DIR directory on the Oracle database where the HTB 6.1/6.1.1 dump file is located:

```
CREATE OR REPLACE DIRECTORY HTB_DMP_DIR  as '<path>';
```

7. Import the HCT objects from HTB 6.1/6.1.1 to the target HCT schema.

For example, execute the following script to import the HCT objects:

> **Note:** Ensure that appropriate tablespace names, dump path, and log file path are mentioned in the script.

```
impdp system/<password> schemas=hct remap_schema=apps:hct remap_
schema=applsys:hct remap_tablespace=APPS_TS_SEED:hct_tbs
remap_tablespace=APPS_TS_TX_DATA:<hct_tbs>
remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
remap_tablespace=APPS_TS_NOLOGGING:<hct_tbs>
remap_tablespace=APPS_TS_MEDIA:<hct_tbs>
remap_tablespace=APPS_TS_INTERFACE:<hct_tbs>
remap_tablespace=APPS_TS_QUEUES:<hct_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<hct_tbs>
remap_tablespace=APPS_TS_SUMMARY:<hct_tbs>
remap_tablespace=APPS_TS_TOOLS:<hct_tbs> directory=HTB_DMP_DIR
dumpfile=< HTB 6.1/6.1.1 dump file name >.dmp logfile=htb_hct_import.log
```

8. Import the CTB objects from HTB 6.1/6.1.1 to the target CTB schema.

For example, execute the following script to import the CTB objects:

> **Notes:** Ensure that appropriate tablespace names, dump path, and log file path are mentioned in the script.

```
impdp system/<password> schemas=ctb remap_schema=apps:ctb remap_
schema=applsys:ctb remap_tablespace=APPS_TS_SEED:ctb_tbs
remap_tablespace=APPS_TS_TX_DATA:<ctb_tbs>
remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
remap_tablespace=APPS_TS_NOLOGGING:<ctb_tbs>
remap_tablespace=APPS_TS_MEDIA:<ctb_tbs>
remap_tablespace=APPS_TS_INTERFACE:<ctb_tbs>
remap_tablespace=APPS_TS_QUEUES:<ctb_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<ctb_tbs>
remap_tablespace=APPS_TS_SUMMARY:<ctb_tbs>
remap_tablespace=APPS_TS_TOOLS:<ctb_tbs> directory=HTB_DMP_DIR
dumpfile=<HTB 6.1/6.1.1 dump file name>.dmp logfile=htb_ctb_import.log
```

9. Import the following tables from APPLSYS from HTB 6.1/6.1.1 to the HCT schema on the target database:

For example, execute the following script to import the tables:

> **Notes:**
>
> - Ensure that appropriate tablespace names, dump path, and log file path are mentioned in the script.
>
> - Before importing the dumps to the target database, ensure that there is enough tablespace available for on the target database.

```
impdp system/<password>
tables=APPLSYS.FND_LANGUAGES,APPLSYS.FND_USER,APPLSYS.FND_
APPLICATION,APPLSYS.FND_PROFILE_OPTIONS,APPLSYS.FND_PROFILE_OPTIONS_
TL,APPLSYS.FND_PROFILE_OPTION_VALUES
remap_schema=apps:hct remap_schema=applsys:hct remap_tablespace=APPS_TS_
SEED:<hct_tbs>
remap_tablespace=APPS_TS_TX_DATA:<hct_tbs>
remap_tablespace=APPS_TS_TX_IDX:<idx_tbs>
remap_tablespace=APPS_TS_NOLOGGING:<hct_tbs>
remap_tablespace=APPS_TS_MEDIA:<hct_tbs>
remap_tablespace=APPS_TS_INTERFACE:<hct_tbs>
remap_tablespace=APPS_TS_QUEUES:<hct_tbs>
remap_tablespace=APPS_TS_ARCHIVE:<hct_tbs>
remap_tablespace=APPS_TS_SUMMARY:<hct_tbs>
remap_tablespace=APPS_TS_TOOLS:<hct_tbs> directory=HTB_DMP_DIR
dumpfile=<HTB 6.1/6.1.1 dump file name>.dmp logfile=hct_fnd_import.log
```

> **Note:** Ignore the following errors while importing the dump:
>
> - `ORA-01917`: User or role <role/user> does not exist.
>
> - `ORA-39083`: Object type OBJECT_GRANT failed to create with error.
>
> - `ORA-39146`: The APPLSYS schema does not exist.

10. Specify the degree of parallelism.

11. Execute the following script to upgrade the HCT schema to HDR.

    `> sh migrate_hct_db_objects.sh`

    The script prompts you to enter HCT user name, password, and tablespace name details.

12. Execute the following script to upgrade the CTB schema to HDR:

    `> sh migrate_ctb_db_objects.sh`

    The script prompts you to enter CTB user name, password, and tablespace name details. When the script prompts for the ETS language, enter the value as ENS.

13. Check the actual usage of all the preceding tablespaces and optimize the tablespace accordingly.

3.2.3 Installing the HDR Middle-Tier using the Oracle Universal Installer

For information on how to install the HDR middle-tier using the Oracle Universal Installer, see Section 2.2.2.

For information on how to install the HDR middle -tier application without using the Oracle Universal installer, see Section 2.3.

3.2.4 Running the HDR Terminology Jobs

To run the HDR Terminology Jobs, perform the following:

1. Create gather statistics procedure for ETS jobs as mentioned in Section 2.4.

2. Navigate to artifacts/migration_scripts/ETS where the artifacts.zip is extracted.

3. Execute the `execute_ets_job.sh` shell script.