Oracle® Healthcare Data Repository
Release Notes

8.2.0.2

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ORACLE

Oracle Healthcare Data Repository Release Notes, 8.2.0.2

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Preface

This preface contains the following sections:

- Documentation Accessibility
- Diversity and Inclusion

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.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1

Oracle Healthcare Data Repository

This patch set contains new enhancement/bugs for Oracle Healthcare Data Repository FHIR module. Apply this patch set to Oracle Healthcare Data Repository release 8.2/8.2.0.1 to upgrade to Oracle Healthcare Data Repository release 8.2.0.2.

For details on installing Healthcare Data Repository release 8.2.0.2, see the Installation chapter.

- What's New
- What's Fixed

What's New

- Now HDR FHIR server is upgraded to HAPI FHIR 6.8.8 version libraries.
- Now HDR FHIR server also supports FHIR stable R5 (5.0.0) version.
- Now HDR FHIR server also supports MDM and IPS for FHIR R4 version, not for FHIR 4B and R5 versions.

What's Fixed

The following HDR FHIR bugs/enhancements are fixed in this release:

Table 1-1   Fixed in 8.2.0.2

Bug Number	Description
Enhancement 36980569	The HDR FHIR server was not supporting FHIR stable R5 (5.0.0) version.
	Now the HDR FHIR server is upgraded to HAPI FHIR 6.8.8 version that supports FHIR stable R5 (5.0.0) version.
Bug 37215524	The HDR FHIR server was unable to load the custom MDM rules JSON file from the specified location.
	Now the HDR FHIR server will load the custom MDM rules JSON file from the specified location using the **mdm_rules_json_file_location** property in the hdr_fhir.yaml file. For example: mdm_rules_json_file_location: file:D:/fhir/mdm-rules.json
	If this property is not defined in the configuration file, the default MDM rules JSON file packaged inside the WAR file will be used.

2

Installation

To install the Healthcare Data Repository patch, you need to download and install it. You then need to perform some post-installation steps.

See the following topics for details.

- Download the Patch
  Oracle distributes the patch set in a zip file.

- Install the Patch
  To install the patch, you must first extract the contents of the patch set file, install the patch on database tier, and then install it on the middle tier.

- Perform the Post-Installation Step
  Perform the following post-installation steps:

Download the Patch

Oracle distributes the patch set in a zip file.

To locate and download the patch set:

1. Log in to My Oracle Support at support.oracle.com/signin.

2. Click the **Patches & Updates** tab. The Patches and Updates page appears and displays the Patch Search region.

3. In the **Patch Name** or **Number** field, enter the primary bug number fixed in this patch (**36980569**).

4. Select **Search** to open the Patch Search page to the patch you entered.

5. Select the patch number. You can review details about the patch. You can also review the Readme file before downloading the patch.

6. Select **Download** to open the File Download dialog box.

7. Browse to a temporary directory where you want to download the file. Select **Continue**.

8. Select **Save**.

9. Transfer the patch .zip file to the necessary servers.

Install the Patch

To install the patch, you must first extract the contents of the patch set file, install the patch on database tier, and then install it on the middle tier.

Extract the contents of the patch set file (**p36980569_HDR_82020_Generic.zip**) to a temporary directory <hdr8202_patch_dir>. The following directories and files are extracted:

- **db** - contains db scripts to be applied on HDR FHIR schema.

- **server** - contains the following artifacts for middle tier:

- Updated oracle-fhir-server.war file to be deployed on the WebLogic server.

- Updated hdr_fhir.yaml file to be used for HDR FHIR application.

- Updated log4j2.properties file to be used for HDR FHIR application.

- **hdrfhircli** - contains the following updated zip file to be used for the FHIR CLI module. Extract the zip file and use the features of the FHIR CLI module.

  - hdr-fhir-cli-app-8.1.0-SNAPSHOT.zip

- **ReadMe_HDR_8_2_0_2.htm** - contains the location of the most current user documentation and release notes.

- Install the Patch on Database Tier
  Extract the contents of **p36980569_HDR_82020_Generic.zip** file to a directory on the database tier.

- Install the Patch on Middle Tier
  After you extract the contents of the patch set file and install the patch on the database tier, you can install the patch on the middle tier.

Install the Patch on Database Tier

Extract the contents of **p36980569_HDR_82020_Generic.zip** file to a directory on the database tier.

- Important: Ensure you have read and write permissions to these directories, subdirectories, and their files.

- Set **HDR_HOME** environment variable to a directory where **p36980569_HDR_82020_Generic.zip** file is extracted

- Create HDR FHIR Database Schema
  To setup HDR FHIR Database schema on DB version 19c, perform the following.

- Upgrade HDR FHIR Database Schema to HDR 8.2.0.2
  If you are already using HDR FHIR 8.2/8.2.0.1 schema, you can upgrade to HDR FHIR 8.2.0.2 schema.

- Create HDR FHIR Database Schema on ATP
  If you want to use OCI Autonomous Transaction Processing Database, this section describes steps to configure the HDR FHIR schemas on Autonomous Database system.

Create HDR FHIR Database Schema

To setup HDR FHIR Database schema on DB version 19c, perform the following.

Create Tablespaces

Execute create_tablespace.sh script to create the tablespaces for HDR FHIR schema.

1. Navigate to `$HDR_HOME/db/fhir/create-hdr-fhir-schema`

2. Run chmod 700 on `create_tablespace.sh`

3. Run `create_tablespace.sh`

Example

```
sh $HDR_HOME/db/fhir/create-hdr-fhir-schema/create_tablespace.sh
<ORACLE_HOME> <SYS_USER> <DB_HOST> <DB_SERVICE_NAME> <DB_PORT>
<TABLESPACE_LOCAION> <FHIR_TABLESPACE_NAME> <INDEX_TABLESPACE_NAME>
```

```
sh create_tablespace.sh /scratch/app/oracle/product/19c sys localhost
servicename 1521 /scratch/app/oracle/oradata OHF_FHIR_DATA_TBS
OHF_FHIR_IDX_TBS
```

The script prompts you to enter SYS user password, provide valid values and hit enter.
Required tablespaces are created for HDR FHIR user.

Create HDR FHIR User

Execute create_hdr_fhir_user.sh script to create the HDR FHIR user.

1. Navigate to `$HDR_HOME/db/fhir/create-hdr-fhir-schema`

2. Run chmod 700 on `create_hdr_fhir_user.sh`

3. Run `create_hdr_fhir_user.sh`

Example

```
sh $HDR_HOME/db/fhir/create-hdr-fhir-schema/create_hdr_fhir_user.sh
<ORACLE_HOME> <SYS_USER> <DB_HOST> <DB_SERVICE_NAME> <DB_PORT>
<HDR_FHIR_USER_NAME>

sh create_hdr_fhir_user.sh /scratch/app/oracle/product/19c sys localhost
servicename 1521 HDR_FHIR
```

The script prompts you to enter SYS user and HDR FHIR user password, provide valid values
and hit enter. HDR FHIR user is created.

Create HDR FHIR user Database Objects

Execute create_hdr_fhir_database.sh script to create the HDR FHIR schema required
database object like tables, indexes etc.

1. Navigate to `$HDR_HOME/db/fhir/create-hdr-fhir-schema`

2. Run chmod 700 on `create_hdr_fhir_database.sh`

3. Run `create_hdr_fhir_database.sh`

Example

```
sh $HDR_HOME/db/fhir/create-hdr-fhir-schema/create_hdr_fhir_database.sh
<ORACLE_HOME> <SYS_USER> <DB_HOST> <DB_SERVICE_NAME> <DB_PORT>
<HDR_FHIR_USER_NAME>

sh create_hdr_fhir_database.sh /scratch/app/oracle/product/19c sys localhost
servicename 1521 HDR_FHIR
```

The script prompts you to enter SYS user and HDR FHIR user password, provide valid values
and hit enter. Required database objects like tables, sequences, indexes etc. are created for
HDR FHIR user.

Upgrade HDR FHIR Database Schema to HDR 8.2.0.2

If you are already using HDR FHIR 8.2/8.2.0.1 schema, you can upgrade to HDR FHIR 8.2.0.2 schema.

To upgrade HDR FHIR 8.2/8.2.0.1 Database schema to HDR8.2.0.2, perform the following:

1. Navigate to `$HDR_HOME/db/fhir/upgrade-hdr-fhir-schema-to-8202`

2. Run chmod 700 on `upgrade_fhir_schema_from_82_to_8202.sh`

3. Run `upgrade_fhir_schema_from_82_to_8202.sh`

Example

```
sh $HDR_HOME/db/fhir/upgrade-hdr-fhir-schema-to-8202/
upgrade_fhir_schema_from_82_to_8202.sh <ORACLE_HOME> <SYS_USER_NAME>
<DB_HOST> <DB_SERVICE_NAME> <DB_PORT> <HDR_FHIR_USER_NAME>

sh upgrade_fhir_schema_from_82_to_8202.sh /scratch/app/oracle/product/19c sys
localhost servicename 1521 HDR_FHIR
```

The script prompts you to enter SYS user password, HDR FHIR user password, HDR FHIR user current data tablespace name and HDR FHIR user current index tablespace name, provide valid values and hit enter. Required database objects like tables, sequences, indexes etc. are upgraded to HDR FHIR 8.2.0.2 schema.

> **✎ Note:**
>
> The upgrade is not a data migration, it's only a FHIR schema upgrade to HAPI 6.8.8 version compatible.

Create HDR FHIR Database Schema on ATP

If you want to use OCI Autonomous Transaction Processing Database, this section describes steps to configure the HDR FHIR schemas on Autonomous Database system.

Prerequisites

Ensure that the Autonomous Transaction Processing Database is already set up and configured in the user Tenancy.

- Ensure that the Autonomous Transaction Processing Database is already set up and configured in the user Tenancy.

- The wallet file is (Wallet_<DBNAME>.zip) downloaded to your local instance.

- Ensure your local SQL client (e.g., SQL*Plus) is able to connect to ATP using the downloaded Wallet file.

- Set HDR_HOME environment variable to a directory where p36980569_HDR_82020_Generic.zip file is extracted.

Create HDR FHIR User

Execute create_hdr_fhir_user.sh script to create the HDR FHIR user.

1. Navigate to `$HDR_HOME/db/fhir/atpdb`

2. Run chmod 700 on `create_hdr_fhir_user.sh`

3. Run `create_hdr_fhir_user.sh`

Example

```
sh $HDR_HOME/db/fhir/atpdb/create_hdr_fhir_user.sh <ORACLE_HOME>
<ADMIN_USER_NAME> <TNS_NAME>

sh create_hdr_fhir_user.sh /scratch/app/oracle/product/19c admin
hdrdevdb_tpurgent
```

The script prompts you to enter ADMIN user password, HDR FHIR user name (eg: HDR_FHIR) and HDR FHIR user password, provide valid values and hit enter.

HDR FHIR database user is created.

Create HDR FHIR Database Objects

Execute create_hdr_fhir_database.sh script to create the HDR FHIR schema required database object like tables, sequences, indexes, seed data, packages etc.

1. Navigate to `$HDR_HOME/db/fhir/atpdb`

2. Run chmod 700 on `create_hdr_fhir_database.sh`

3. Run `create_hdr_fhir_database.sh`

Example

```
sh $HDR_HOME/db/fhir/atpdb/create_hdr_fhir_database.sh <ORACLE_HOME>
<TNS_NAME>

sh create_hdr_fhir_database.sh /scratch/app/oracle/product/19c
hdrdevdb_tpurgent
```

The script prompts to enter HDR FHIR username and password, provide valid values and hit enter. Required database objects like tables, sequences, indexes, seed data, packages etc. are created for HDR FHIR user.

Install the Patch on Middle Tier

After you extract the contents of the patch set file and install the patch on the database tier, you can install the patch on the middle tier.

To install the patch on the middle tier:

1. Before you apply the patch, take a backup of the HDR FHIR 8.2/8.2.0.1 war file (oracle-fhir-server.war) in case you want to revert.

2. Navigate to the WebLogic Web administration interface and undeploy the HDR FHIR WAR module to remove it.

3. Extract the contents of **p36980569_HDR_82020_Generic.zip** to a directory on the middle tier.

4. Ensure that **HDR FHIR DataSource** (**FhirDataSource**) with corresponding jndi name (**jdbc/FhirDataSource**) is already created and pointing to the new HDR FHIR 8.2.0.2 database schema.

5. Stop HDR FHIR WebLogic managed server.

6. Copy the **<hdr8202_patch_dir>**/server/hdr_fhir.yaml to <fhir_domain>/config/fhir.

7. Copy the **<hdr8202_patch_dir>**/server/log4j2.properties to <fhir_domain>/config/fhir.

8. Ensure that the following JVM argument under JAVA_OPTIONS are properly configured in the startManagedWebLogic.sh file (for example: $WL_HOME/user_projects/domains/fhir_domain/bin/startManagedWebLogic.sh).

   a. `-Dlogging.config=$DOMAIN_HOME\config\fhir\log4j2.properties`

   b. `-Dhdr_fhir_config_location=$DOMAIN_HOME\config\fhir\hdr_fhir.yaml`

   Example:

   ```
   JAVA_OPTIONS="-Dhdr_fhir_config_location=$DOMAIN_HOME/config/fhir/
   hdr_fhir.yaml -Dlogging.config =$DOMAIN_HOME/config/fhir/
   log4j2.properties ${JAVA_OPTIONS}" && export JAVA_OPTIONS
   ```

9. Start the FHIR WebLogic managed server.

10. Deploy the new version of the HDR FHIR war (**oracle-fhir-server.war**) module as follows:

    a. Navigate to the WebLogic Web administration interface.

    b. Select **Local packaged file or directory that is accessible from the Application Server**.

    c. Browse to the **<hdr8202_patch_dir>** directory where you extracted the patch file (**oracle-fhir-server.war**) to select and deploy the FHIR war file.

Perform the Post-Installation Step

Perform the following post-installation steps:

1. Stop and start the WebLogic Admin server and the HDR FHIR Managed server.

2. Extract the updated HDR FHIR CLI module file on the middle tier:

   ```
   <hdr8202_patch_dir>/hdrfhircli/hdr-fhir-cli-app-8.1.0-SNAPSHOT.zip
   ```

3. Use the features of HDR FHIR command line module.

3

Product Documentation

Oracle Healthcare Data Repository comes with a full documentation set for 8.2 or later.

You can find the product documentation in the following locations:

- **My Oracle Support**: support.oracle.com/signin
- **Oracle Help Center**: Healthcare Data Repository 8.2 product page: Oracle Healthcare Data Repository. Oracle may not update all documents for every release. Therefore, you may see a release with guides that include different versions. For example, Release Notes can show the latest patch version number and the User Guide shows the full release number.