Oracle® Retail Data Warehouse

Release Notes
Release 13.0.7.1
E92822-01
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This document highlights a fix available on My Oracle Support to address Data Privacy.

> **Note:** this application's base code is not changing for this numbered version unless the fix referenced below is applied.

The fix is located at the following patch number on My Oracle Support:

- ARU#21866309

> **Note**: The code listed at the My Oracle Support number above is associated in My Oracle Support with a later version of this application; however, you should use that code download location for the line of code referenced in these Release Notes. In other words, the referenced fix above is applicable to multiple versions of this application, including this one.

Data Privacy Overview

As a Data Privacy enhancement, Oracle has created a Platform Data Privacy command line tool to provide retailers with services for requesting access to personal information for review and forget/update the personal information if requested.

Some of the examples of the personal information can be:

- Full Name
- Home address
- Email address
- Date of birth, etc.

The following features are handled as part of RDW data privacy enhancements using the Platform Data Privacy command line tool.

- End User Access/Right to Access (RTA): Enable retailers to accept and respond to end-user requests for data access, correction, and deletion for individual end-user data records they store in the Oracle service.
- Right to be Forgotten (RTF): Based on end-user's right to request to forget/update their personal information, enable the retailers to delete/update (mask) end-user's personal data during the services period. Some of the data critical for the business or is part of a legal requirement might not be deleted.

Installation

Setting up the Java Development Kit (JDK)

Java 1.8 is a prerequisite to install and test the Platform Data Privacy command line tool. This section contains instructions on how to set up the Java Development Kit (JDK).

Download and Install Java 8

Download the latest 64-bit version of the Java SE Development Kit 8. Install in a location on your machine. Ensure that the installation folder name does not contain any whitespaces (for example: Program Files).

Define Environment Variables for JDK

To effectively use the JDK on your workstation you will need to define environment variables on your system.

Define the JAVA_HOME Variable

Define a new environment system variable named JAVA_HOME with a value referring to the path where your JDK is installed. For example:

```
JAVA_HOME=D:\Java\jdk1.8_66
```

Testing your JDK Installation

1. Start a new command line window by selecting Start>Run>Open> and then type cmd.exe.
2. Go to the root directory by typing: cd c:\ <enter>
3. Run the Java compiler and query its version by typing: javac –version

   The command should return with the Java version information. Make sure it matches the JDK version you just installed.

The command should return with the Java version information similar to what is shown below. Make sure it matches with the JDK version you just installed.

```
D:\gdpr>java -version
java version "1.8.0_66"
Java(TM) SE Runtime Environment (build 1.8.0_66-b18)
Java HotSpot(TM) 64-Bit Server VM (build 25.66-b18, mixed mode)

D:\gdpr>javac -version
javac 1.8.0_66
```

Platform Data Privacy Command Line Tool

Download the hotfix#27358178. The hotfix contains:

- RetailAppsDataPrivTool.jar
- ContextOverride.properties
- DATAPRIV-Global.xml
- DATAPRIV-ValidateForget.xml
- DATAPRIV-Get.xml
- DATAPRIV-Forget.xml

1. Create a folder named DataPrivacy and copy the RetailAppsDataPrivTool.jar into this folder.
2. Create a folder named RDWDataPrivConfig under the DataPrivacy folder and copy DATAPRIV-Global.xml, DATAPRIV-ValidateForget.xml, DATAPRIV-Get.xml and DATAPRIV-Forget.xml into this folder.

Configure the Configuration Files

There are a few changes necessary to some of the configuration files.

- ContextOverride.properties – Contains details of the connection string to be used in case of using Oracle Wallet. This needs to be modified to enter the correct database information.
  - The JDBC URL must comply with the following format to reference Oracle Wallet credentials at runtime:
  - A forward slash "/" must be specified BEFORE the "@" character. This instructs the Oracle database driver to be aware of Oracle Wallet aliases.
  - The identifiers following the "@" character must be registered as an alias in the Oracle Wallet. The wallet creation and configuration steps is explained in the next section.

  Datasoure string format - datasource-url=jdbc:oracle:thin:/@hostname:port/SID For example:

  ```
  datasource-url=jdbc:oracle:thin:/@myhost:1521/mydb
  ```

- DATAPRIV-Global.xml – Contains DB connection details as well as details of customer-id-format. No changes necessary for this file.
- DATAPRIV-Get.xml – Contains the SQL query or function to perform the right to access. No changes necessary for this file.
- DATAPRIV-Forget.xml - Contains the SQL query or function to perform the right to forget. No changes necessary for this file.
- DATAPRIV-ValidateForget.xml - Contains validations to perform prior to right to forget. No changes necessary for this file.

Creating and configuring Oracle Wallet

The Platform Data Privacy command line tool uses Oracle Wallet to securely store the database credentials. The wallet can be created using the RetailAppsDataPrivTool.jar.

Here are the steps to be performed to create and configure the Oracle Wallet for the Platform Data Privacy command line tool.

1. Create an empty wallet file in a DataPrivacy directory by running the below command in a command prompt (cmd) in DataPrivacy folder.

   ```
   java -classpath RetailAppsDataPrivTool.jar
   oracle.security.pki.OracleSecretStoreTextUI
        -wrl <wallet directory> -create
   ```

   For example:

   ```
   java -classpath ./RetailAppsDataPrivTool.jar
   oracle.security.pki.OracleSecretStoreTextUI -wrl ./tmp_wallet -create
   ```

   A password will be prompted. This will be the password to manage the contents of the wallet files. Note this password as it will be needed in succeeding commands against the wallet files.

2. Add the database credentials into the wallet by running the below command in the command prompt (cmd) in the DataPrivacy folder. This will prompt to enter the password you created in step 1.

   ```
   java -classpath RetailAppsDataPrivTool.jar
   oracle.security.pki.OracleSecretStoreTextUI
        -wrl <wallet directory>
   ```

```
      -createCredential  <db connect string>  <db user>  <db password>
```

<db connect string> - is the database connection string included in a JDBC connection URL in the ContextOverride.properties.xml. It is the part of the JDBC URL after the "@" character.

It is specified using the format: <hostname>:<port>/<SID>

For example: myhost:1521/mydb

–   <db user> - DB user to connect to the RDW database.

–   <db password> - password to connect to the RDW database.

For example:

```
 java –classpath ./RetailAppsDataPrivTool.jar
oracle.security.pki.OracleSecretStoreTextUI –wrl ./tmp_wallet –
createCredential myhost:1521/mydb rdwuser password
```

3. Verify the database credentials in the wallet by running the following command in the command prompt (cmd).

```
java –classpath RetailAppsDataPrivTool.jar
oracle.security.pki.OracleSecretStoreTextUI
      -wrl <wallet directory>
      -listCredential
```

For example:

```
 java –classpath ./RetailAppsDataPrivTool.jar
oracle.security.pki.OracleSecretStoreTextUI –wrl ./tmp_wallet –listCredential
```

Make sure the credential information shown by the command is as expected.

Using the Platform Data Privacy Command Line Tool

The Platform Data Privacy command line tool is an executable JAR file that uses the "java –jar" option:

```
java  -DContextOverride.properties=<Context Override Properties file>
      -Duse.jdbc.oracle.wallet=true
      -Doracle.net.wallet_location=<Oracle Wallet directory>
      -Dconfig.xml.dir=<configuration files directory>
      -Ddatapriv.action=<action>
      -Dcustomer.id=<query parameters for the tool>
      -Did.type=<table_used>
      -Dinvoked.by=<user ID>
      -Doutput.file.dir=<output file directory>
      -jar RetailAppsDataPrivServices-7.0.1-RetailAppsDataPrivTool.jar
```

The parameters are given to the command line via system property JVM arguments (-D options).

Understanding the Command Line Parameters

System Property/Parameter	Required	Description
ContextOverride.properties	Always	The path to a Java properties file that will contain the connection details of the database the Platform Data Privacy command line tool will connect to. Refer to 'Configure the configuration files' for more details.

System Property/Parameter	Required	Description
use.jdbc.oracle.wallet	Always	Set to true to use Oracle Wallet files as a source for database credentials. Refer to 'Creating and configuring Oracle Wallet' for more details.
oracle.net.wallet_location	Always	The path to the Oracle Wallet directory. Refer to 'Creating and configuring Oracle Wallet' for more details.
config.xml.dir	Always	The directory that contains the DATAPRIV configuration XML files
datapriv.action	Always	The data privacy action to be performed: Valid values: access forget
customer.id	Always	The input parameters to the query/update the personal data.
id.type	Always	The table for which the data privacy action will be performed.
invoked.by	Always	The ID of the user calling the command line tool (for audit purposes).
output.file.dir	No	The output files directory. Default is the user's home directory.

Command Query

Format for datapriv.action=access (Right to Access)

For example:

Employee:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=access -
Dcustomer.id="-1" -Did.type=employee -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
```

Employee Result:

Employee Information

Employee Name	Employee Identity	Employee Role
Velmurugan Sankar	10108	B

Supplier:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=access -
Dcustomer.id="123" -Did.type=supplier -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
```

Supplier Result:

Supplier Information

Supplier Description	Supplier Identification	Supplier Domestic Code	Supplier Domestic Description	Supplier Country Code	Supplier Country Description
Battery Supplier	3020	F	Foreign	CAD	Canada Dollar

Customer:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=access -
Dcustomer.id="-1" -Did.type=customerRecord -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
```

Customer Result:

Basic Customer Information

Customer First Name	Last Name	Middle Name	Title	Address	City country State or Province	Country	Postal Code	Email	Date of Birth
Velu	Sankar								

Customer.id format for datapriv.action= forget (Right to Forget)

Query example:

Employee:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=forget -
Dcustomer.id="-1" -Did.type=employee -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
Employee Result in XML format:
```

```xml
<?xml version="1.0" encoding="UTF-8" standalone="true"?>
- <dataPrivCommandLineResult>
    - <parameter>
          <name>output.file.dir</name>
          <value>D:\RDW\out</value>
      </parameter>
    - <parameter>
          <name>customer.id</name>
          <value>5</value>
      </parameter>
    - <parameter>
          <name>id.type</name>
          <value>employee</value>
      </parameter>
    - <parameter>
          <name>datapriv.action</name>
          <value>forget</value>
      </parameter>
    - <parameter>
          <name>invoked.by</name>
          <value>Velu</value>
      </parameter>
    - <result>
          <name>forgetSuccessful</name>
          <value>true</value>
      </result>
  </dataPrivCommandLineResult>
```

Supplier:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=forget -
Dcustomer.id="123" -Did.type=supplier -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
```

Customer:

```
java -DContextOverride.properties=D:\DataPriv\RDW\ContextOverride.properties -
Duse.jdbc.oracle.wallet=true -Doracle.net.wallet_location=./tmp_wallet -
Dconfig.xml.dir=D:\DataPriv\RDW\RIDataPrivConfig -Ddatapriv.action=forget -
Dcustomer.id="-1" -Did.type= customerRecord -Dinvoked.by=user -
Doutput.file.dir=D:\DataPriv\RDW\out -jar RetailAppsDataPrivServices-7.0.1-
RetailAppsDataPrivTool.jar
```

Understanding the Command Output Files

The command line tool produces the output files after execution.

All files are generated by default in the user's home directory.   Parameters are available to configure the directory.

Action Summary XML

Each successful call to the tool produces an action summary XML file written in the directory specified in the output.file.dir parameter.

Access Result File

For customer information access results (datapriv.action=access), a human readable report file is generated in the format indicated in the access.output.format parameter.

Out-of-the box format options include HTML or Text formats.

Value-Added Reseller (VAR) Language

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