Oracle® Transportation Management

Migration Guide

Release 6.5.2

Part No. F60673-01

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Oracle® Transportation Management Migration Guide, Release 6.5.2

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Preface

This manual is for administrators who are responsible for migrating the Oracle Transportation Management databases at your site. This manual provides step-by-step installation instructions for migrating your Oracle Transportation Management databases from one version of Oracle Transportation Management to another.

1. Migrating the Database

General Note on Migrations

Prior to migrating your data, it is very important that you have the latest bug fixes in place. Please see the section titled "General Instructions on Upgrading Oracle transportation Management from One Release to Another" in the Administration Guide.

Migrating Oracle Transportation Management 6.4.3 Database to 6.5.1

Any Oracle Transportation Management migration should be tested in a controlled environment before migrating your production database. This ensures that any potential problems or incompatibilities don't affect your production Oracle Transportation Management instance(s).

> **Note**: If you are migrating from a version earlier than 6.4.3 you must complete each previous version's migration instructions. You cannot skip any migration steps. Please go through all upgrade steps to 6.4.3, as described in the 6.4.3 documentation, prior to starting the 6.4.3 to 6.5.1 migration.

The structure of the database to be migrated should be consistent with the Oracle Transportation Management version 6.4.3 database specification; otherwise, the migration will fail.

You must install Oracle Transportation Management 6.5.1 as per Installation Guide's section "INSTALLING OTM" of 6.5.1 release. Proceed to listed steps below after successful installation of 6.5.1.

> **Note**: Oracle Transportation Management 6.5.1 requires database version 19c. The database must be version 19c with latest recommended database patches applied. Also, the database client must be version 19c (Administrator install) on all application servers.

Pre-migration tasks

1. Ensure that following database init parameters are set to sufficient values for Oracle Transportation Management application. It is recommended that values are set to 3000 or higher.

   ```
   Open_cursors = 3000
   Processes = 3000
   ```

   Run following query on the database to find values.

   ```
   select name, value from v$parameter where name in
   ('open_cursors','processes');
   ```

   Check with the DBA if values are lower than 3000.

2. Run the following script to perform pre-migration checks. The script will check invalid objects, disabled constraints, missing database roles, deprecated data or any other checks required prior to starting migration. Check log file `pre_migration_check_<dbsid>_<timestamp>.log` and make sure that all checks are passed prior to starting migration.

   Two command scripts are provided and the script you use is dependent on your operating system.

   On the application server, change to directory `<otm_install_path>/glog/oracle/script8`

   ```
   UNIX shell script:
   ./pre_migration_check.sh
   ```

3. Shut down all processes running against the database including Oracle Transportation Management application and web servers.

4. **A database backup or database level flashback restore point should be created prior to starting the migration. It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors.**

Migration Steps

1. On the application server, change to directory `<otm_install_path>/glog/oracle/script8`.

2. Apply database changes by running `dbpatch` process. This process is run at the host command line.

   ```
   ./dbpatch_651.sh
   ```

   Enter database connection ID, glogowner password, glogdba password, reportowner password, archive_c password, property file directory location, SYSDBA user password, DBA user name who has privilege to alter database users, and its password when prompted.

To Run in Non-Interactive Mode

Running in non-interactive mode is accomplished by adding the nine arguments when executing the script in the order as specified below.

```
 ./dbpatch_651.sh
<Database TNS id> <GLOGOWNER password> <GLOGDBA password> <REPORTOWNER
password> <ARCHIVE_C password> <Property file path> <SYSDBA password>
<DBA user name, other than SYS with privileges to create users (like
SYSTEM)> <password for this DBA user>

Sample command:
./dbpatch_651.sh otmdb glogownerpwd glogdbapwd reportownerpwd archive_cpwd
../../config syspwd system systempwd
```

Check the log files (dbpatch_<version>_<dbname>_<timestamp>. log ,update_content_<version>_<dbname>_<timestamp>. log or any other generated log file) to ensure they are error free before proceeding to the next step. Look for errors by searching key words like "ORA-", "Caught exception","SP2-", "PLS-","IMP-","Warning:"," Caught exception", "SQL* Loader-" ," SQLException", "SQLRecoverableException" or "<Error>" within the log file.

3. If an error occurs while applying particular patch in the migration, the database rolls back changes made by that patch. It will, however, commit changes once a whole migration patch has been successfully applied, and mark patch as "applied". Migration will not reapply that patch again in case of migration rerun. If an error occurs partway through the process, then you can fix the problem and rerun the process without harm. It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors. If you cannot resolve the error yourself, contact Technical Support and send the entire log file (along with any other logs you have from the day) to our Technical Support team.

4. **Optional Step**

Execute the following command to install database listener job which enables processing of XML transmissions via OAQ.

Note: Oracle Advanced Queueing (OAQ) is no longer supported and will be removed in an upcoming release.

Note: Do not install the database listener job if OAQ is not being use for processing of XML transmissions.

Log into database as GLOGOWNER using SQL PLUS.

```
execute pkg_queue_management.install_queue_listener
```

Refer to the Integration Guide for details on the setup for use of Oracle Advanced Queuing.

The remaining steps are not critical to the upgrade but provide helpful information.

Reviewing Obsolete Tables and Columns

When a table or column becomes obsolete during an upgrade, the table/column is renamed with XX<version object became obsolete>_<original name of table/column>.

To generate SQL for dropping obsolete objects, run: `@gen_obsolete_objects.sql` as GLOGOWNER.

> **Note**: This will not include objects that just became obsolete in the current version, as a safety precaution. This script will generate a SQL script called `drop_obsolete_objects.sql`, which you can review and run at a convenient time. **Do not run `drop_obsolete_objects.sql` script right after the database migration to prevent accidental dropping newly obsolete objects.**

Verifying Saved Queries

After the upgrade, some of your saved queries may no longer be valid due to changes in table structure.

Run the following to verify the saved queries:

```
@validate_saved_query.sql
```

If there are invalid saved queries, you can decide what to do with them (remove the records or modify them to correct the syntax).

Upgrading the Oracle Fusion Transportation Intelligence Database

If Oracle Fusion Transportation Intelligence Historical Database (HDOWNER schema) is installed on Replicated Operational Database, make sure that the ROD database table structure is also upgraded to match with OLTP prior to proceeding.

5. Run the following script to perform pre-migration checks. The script will check invalid objects, disabled constraints, missing database roles, deprecated data or any other checks required prior to starting migration. Check log file `pre_migration_aa_check_<dbsid>_<timestamp>.log.` and make sure that all checks are passed prior to starting migration.

   Two command scripts are provided and the script you use is dependent on your operating system:
   UNIX shell script:

   ```
   ./pre_migration_aa_check.sh
   ```

   On the application server, change to directory `<otm_install_path>/glog/oracle/script8/advanced_analytics`

Apply database changes by running `aa_dbpatch` process. This process is run at the host command line.

```
./aa_dbpatch_651.sh
```

Enter database connection for Oracle Fusion Transportation Intelligence database, hdowner password, sys password, property file location, database connection for OLTP database , and glogowner password for OLTP database when prompted.

After the process has run, verify in the `aa_dbpatch_<version>_<dbsid>_<timestamp>.log`, `aa_update_content_<dbsid>_<timestamp>`.log files or any other generated log file (located in the same directory as source) that there are no errors. Look for errors by searching key words like "ORA-", "Caught exception","SP2-", "PLS-","IMP-","Warning:"," Caught exception", "SQL* Loader-" ," SQLException", "SQLRecoverableException" or "<Error>" within the log file.

If the solution to the error is apparent, then you can fix the problem and then rerun the aa_dbpatch process again, without harm (you may also want to rerun to see if it automatically resolves your problem). It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors. Contact Technical Support if the problem is not resolvable, and send the entire log file (along with any other logs you have from the day) to our Technical Support team. **Do not continue until the aa_dbpatch and aa_update_content logs are clean.**

Migrating Oracle Transportation Management 6.5.1 Database to 6.5.2

Any Oracle Transportation Management migration should be tested in a controlled environment before migrating your production database. This ensures that any potential problems or incompatibilities don't affect your production Oracle Transportation Management instance(s).

> **Note**: If you are migrating from a version earlier than 6.5.1 you must complete each previous version's migration instructions. You cannot skip any migration steps. Please go through all upgrade steps to 6.5.1, as described in the documentation, prior to starting the 6.5.1 to 6.5.2 migration.

The structure of the database to be migrated should be consistent with the Oracle Transportation Management version 6.5.1 database specification; otherwise, the migration will fail.

You must install Oracle Transportation Management 6.5.2 as per Installation Guide's section "INSTALLING OTM" of 6.5.2 release. Proceed to listed steps below after successful installation of 6.5.2.

Pre-migration tasks

1. Ensure that following database init parameters are set to sufficient values for Oracle Transportation Management application. It is recommended that values are set to 3000 or higher.

```
Open_cursors = 3000
Processes = 3000
```

Run following query on the database to find values.

```
select name, value from v$parameter where name in
('open_cursors','processes');
```

Check with the DBA if values are lower than 3000.

2. Run the following script to perform pre-migration checks. The script will check invalid objects, disabled constraints, missing database roles, deprecated data or any other checks required prior to starting migration. Check log file `pre_migration_check_<dbsid>_<timestamp>.log` and make sure that all checks are passed prior to starting migration.

   Two command scripts are provided and the script you use is dependent on your operating system.

   On the application server, change to directory `<otm_install_path>/glog/oracle/script8`

   ```
   UNIX shell script:
   ./pre_migration_check.sh
   ```

3. Shut down all processes running against the database including Oracle Transportation Management application and web servers.
4. **A database backup or database level flashback restore point should be created prior to starting the migration. It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors.**

Migration Steps

5. On the application server, change to directory `<otm_install_path>/glog/oracle/script8`.
6. Apply database changes by running `dbpatch` process. This process is run at the host command line.

   ```
   ./dbpatch_652.sh
   ```

   Enter database connection ID, glogowner password, glogdba password, reportowner password, archive_c password, property file directory location, SYSDBA user password, DBA user name who has privilege to alter database users, and its password when prompted.

To Run in Non-Interactive Mode

Running in non-interactive mode is accomplished by adding the nine arguments when executing the script in the order as specified below.

```
 ./dbpatch_652.sh
<Database TNS id> <GLOGOWNER password> <GLOGDBA password> <REPORTOWNER
password> <ARCHIVE_C password> <Property file path> <SYSDBA password>
<DBA user name, other than SYS with privileges to create users (like
SYSTEM)> <password for this DBA user>

Sample command:
./dbpatch_652.sh otmdb glogownerpwd glogdbapwd reportownerpwd archive_cpwd
../../config syspwd system systempwd
```

Check the log files (dbpatch_<version>_<dbname>_<timestamp>. log ,update_content_<version>_<dbname>_<timestamp>. log or any other generated log file) to ensure they are error free before proceeding to the next step. Look for errors by searching key words like "ORA-", "Caught exception","SP2-", "PLS-","IMP-","Warning:"," Caught exception", "SQL* Loader-" ," SQLException", "SQLRecoverableException" or "<Error>" within the log file.

7. If an error occurs while applying particular patch in the migration, the database rolls back changes made by that patch. It will, however, commit changes once a whole migration patch has been successfully applied, and mark patch as "applied". Migration will not reapply that patch again in case of migration rerun. If an error occurs partway through the process, then you can fix the problem and rerun the process without harm. It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors. If you cannot resolve the error yourself, contact Technical Support and send the entire log file (along with any other logs you have from the day) to our Technical Support team.

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Execute the following command to install database listener job which enables processing of XML transmissions via OAQ.

> **Note**: Oracle Advanced Queueing (OAQ) is no longer supported and will be removed in an upcoming release.

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Log into database as GLOGOWNER using SQL PLUS.

```
execute pkg_queue_management.install_queue_listener
```

Refer to the Integration Guide for details on the setup for use of Oracle Advanced Queuing.

The remaining steps are not critical to the upgrade but provide helpful information.

Reviewing Obsolete Tables and Columns

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> **Note**: This will not include objects that just became obsolete in the current version, as a safety precaution. This script will generate a SQL script called `drop_obsolete_objects.sql`, which you can review and run at a convenient time. **Do not run `drop_obsolete_objects.sql` script right after the database migration to prevent accidental dropping newly obsolete objects.**

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After the upgrade, some of your saved queries may no longer be valid due to changes in table structure.

Run the following to verify the saved queries:

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@validate_saved_query.sql
```

If there are invalid saved queries, you can decide what to do with them (remove the records or modify them to correct the syntax).

Upgrading the Oracle Fusion Transportation Intelligence Database

If Oracle Fusion Transportation Intelligence Historical Database (HDOWNER schema) is installed on Replicated Operational Database, make sure that the ROD database table structure is also upgraded to match with OLTP prior to proceeding.

---

9. Run the following script to perform pre-migration checks. The script will check invalid objects, disabled constraints, missing database roles, deprecated data or any other checks required prior to starting migration. Check log file `pre_migration_aa_check_<dbsid>_<timestamp>.log.` and make sure that all checks are passed prior to starting migration.

Two command scripts are provided and the script you use is dependent on your operating system:
UNIX shell script:

`./pre_migration_aa_check.sh`

On the application server, change to directory `<otm_install_path>/glog/oracle/script8/advanced_analytics`

Apply database changes by running `aa_dbpatch` process. This process is run at the host command line.

`./aa_dbpatch_652.sh`

Enter database connection for Oracle Fusion Transportation Intelligence database, hdowner password, sys password, property file location, database connection for OLTP database , and glogowner password for OLTP database when prompted.

After the process has run, verify in the `aa_dbpatch_<version>_<dbsid>_<timestamp>.log`, aa_update_content_<dbsid>_<timestamp>.log files or any other generated log file (located in the same directory as source) that there are no errors. Look for errors by searching key words like "ORA-", "Caught exception","SP2-", "PLS-","IMP-","Warning:"," Caught exception", "SQL* Loader-" ," SQLException", "SQLRecoverableException" or "<Error>" within the log file.

If the solution to the error is apparent, then you can fix the problem and then rerun the aa_dbpatch process again, without harm (you may also want to rerun to see if it automatically resolves your problem). It may be required to restore the database to pre-migration state in case of a problem during migration, depending on changes made on the database and errors. Contact Technical Support if the problem is not resolvable, and send the entire log file (along with any other logs you have from the day) to our Technical Support team. **Do not continue until the aa_dbpatch and aa_update_content logs are clean.**

2. Migrating Configurations

If you are upgrading from a previous version of Oracle Transportation Management and have any configurations in the system other than customer-defined properties in the glog.properties file or instructions in a property set, you must copy those configurations from your old instance to your new instance. See the "Instructions on Upgrading" section in the Oracle Transportation Management Administration Guide for more details on what exactly needs to be copied. In order to facilitate this copying, a migration script can be generated based on your specific setup by following the directions below.

After the Oracle Transportation Management code has been installed and patched with the latest Roll-Up code and the database migrations have been completed, you will need to create the configuration migration script. Once this script is created it should be reviewed and adapted as needed for your specific setup, then it should be run. This must be done on every application and web server being upgraded.

In order to migrate configurations from a prior release, the following resources must be accessible from the new install:

- the prior release's database
- the prior release's code installation (or a copy of it) with the database connection information properly configured

The following abbreviations will be used in the instructions below:

- $NEWOTM: the directory where the new version of Oracle Transportation Management is installed
- $OLDOTM: the directory where the previous version of Oracle Transportation Management is installed

To create and run the configurations migration script, do the following:

1. Log in as the user that the new version will use.
   a. This user will need full read access to $OLDOTM directory structure.
2. Change directory to `$NEWOTM/install`
3. Create the migration script based on your specific setup.
   a. Execute the following script (depending on operating system) to run a Java program to create the configuration script:
      i. `./create_migration_script.sh $OLDOTM [<script name>]`
   b. This Java program will read the database to determine potential locations of configured files (see the "Instructions on Upgrading" section in the Oracle Transportation Management Administration Guide for more details).
   c. The script creation program takes one mandatory parameter and one optional parameter. The mandatory parameter is the value of `$OLDOTM`; the optional parameter is the name of the script to be generated (default value is `migrate_customizations.sh` depending on the operating system).
4. Carefully review the generated script to make sure it is appropriate for your specific setup (see the "Instructions on Upgrading" section in the Oracle Transportation Management Administration Guide for more details).
5. Once the script is reviewed, run the generated script while still in the `$NEWOTM/install` directory.
   a. Assuming the default script name was used, this would be one of the following, depending on operating system:
      i. `./migrate_customizations.sh`
6. Test the various configurations out thoroughly before rolling into production.

3. Migrating Transportation Intelligence

This chapter is applicable only for existing Oracle Transportation Intelligence (TI) customers and it details the steps to migrate to the Oracle Transportation Intelligence.

The migration process for Transportation Intelligence should follow this sequence:

1. Migrating Transportation Intelligence Historical Database (HD)
2. Upgrading to Oracle Data Integrator 12c
3. Migrating Transportation Intelligence ETL in Oracle Data Integrator 12c
4. Upgrading to Oracle Analytics Server 6.4
5. Migrating Transportation Intelligence Metadata in Oracle Analytics Server
6. Migrating Transportation Intelligence Dashboard Reports in Oracle Analytics Server

Migrating Transportation Intelligence Historical Database (HD)

Pre-Requisites:

Ensure the following steps were done successfully before attempting the migration of the TI Historical database:

1. Successful migration of the Oracle Transportation Management database (glogowner schema).
2. If the ROD is in use, then the successful migration of the ROD database (glogowner schema).

Migration Steps:

Refer to the Migration Steps section for your corresponding Fusion Transportation Intelligence version available under the Migrating the Database chapter (above) for steps to migrate your existing Fusion Transportation Intelligence historical database and its data content.

Migrating the Oracle Data Integrator 12c Artifacts to 6.5.2 version

Upgrade Steps:

Both the TI versions 6.4.3 and 6.5.2 are in the same Oracle Data Integrator version 12.2.1.4. The upgrade step involves merging the shipped out-of-box ODI 6.5.2 code with the 6.4.3. It involves the following steps:

1. Exporting and taking a back-up of 6.4.3 master and work repository
2. Upgrading from 6.4.3 to 6.5.x
3. Setting up of new ODI 12.2.1.4 environment (for 6.5.2 version)
4. Importing the latest shipped out-of-box 652 work repository and topology
5. Adding the custom contents of 6.4.3 version to the new 6.5.2 code manually
6. Setting up of Java EE agent for the new 6.5.2 environment and updating the connection details in topology.
7. Testing the migrated 6.5.2 environment.

> **Note**: Refer the oracle data integrator 12.2.1.4 migration documentation before proceeding with the upgrade to understand the process.

Migrating Transportation Intelligence ETL in Oracle Data Integrator 12c

Exporting and backing-up of ODI artifacts

Ensure the following steps were completed before attempting the migration of the Transportation Intelligence ETL in Oracle Data Integrator 12c:

- The Transportation Intelligence Master and Work repositories are backed-up (shipped out-of-box).
- Export the master and work repositories (previous 6.4.3 version).

Upgrading from 6.4.3 to 6.5.x

Internally as part of one of ODI 12.2.1.4 quarterly bundle patches, the ODI 12.2.1.4 repository version changed from 05.02.02.09 to 05.02.02.11. Version 5.02.02.11 throws the following error when you try to import the 6.5.1 ODI work repository into the 6.4.3 ODI repositories:

> **ODI-14255:** Import file has repository version 05.02.02.11 newer than current repository version 05.02.02.09. This import is not supported.

To fix this issue, complete one or more of the following options and then import the ODI work repository. Try options #1 through 3 in the order shown below.

1. Upgrade to the ODIMP OCT 2022 Bundle Patch 12.2.1.4.221007 (Patch 34678308)
2. If option 1# does not work, then upgrade the ODI repositories.

   Please refer section Starting the Upgrade Assistant in the Oracle® Fusion Middleware > Upgrading Oracle Data Integrator document

   https://docs.oracle.com/en/middleware/fusion-middleware/12.2.1.4/odiug/JAVAEE.html#GUID-4E774AB9-8D22-4C52-8AA5-809790E6613F

3. If 2# does not work then, drop and recreate the ODI repositories.
   Steps to drop the ftiodimaster, ftiodiwork and ftiodistage:

   Log into SQL*Plus as user SYS and run the following script

```
---Dropping ftiodimaster…
   declare
      user_not_exists exception;
      pragma exception_init(user_not_exists,-01918);
   begin
      execute immediate 'drop user ftiodimaster cascade';
   exception
      when user_not_exists then null;
   end;
   /

---Dropping ftiodistage…
   declare
      user_not_exists exception;
      pragma exception_init(user_not_exists,-01918);
   begin
      execute immediate 'drop user ftiodistage cascade';
```

```
    exception
      when user_not_exists then null;
    end;
    /

---Dropping ftiodiwork…
    declare
      user_not_exists exception;
     pragma exception_init(user_not_exists,-01918);
    begin
     execute immediate 'drop user ftiodiwork cascade';
    exception
     when user_not_exists then null;
    end;
    /
```

Recreating FTIODI* users

Log into SQL*Plus as user SYS and run the following script from advanced_analytics directory:

```
<otm_install_path>\glog\oracle\script8\advanced_analytics\create_odi_users.sql
```

Granting required privileges to FTIODI users

```
    grant fti_user to ftiodistage;
    grant fti_user to ftiodimaster;
    grant fti_user to ftiodiwork;

    Grant create view to ftiodimaster;
    Grant create view to ftiodiwork;
    Grant create view to ftiodistage;
```

Refer to Configuring ODI for Oracle FTI ETL section in install guide to ODI Master and work repositories.

Setting up of working ODI 12.2.1.4 version environment

1. Setting up of master repository in ODI 12.2.1.4 version for TI 651. Follow the steps in 'Install Guide
2. Setting up of new work repository in ODI 12.2.1.4. Follow the steps in 'Install Guide'
3. Make the necessary changes to the configuration in Topology after importing the latest topology out-of-box code.
4. Import the shipped out-of-box latest 652 work repository to the environment.
5. Run a sanity using the local Oracle data integrator agent.
6. If test is successful, set up the Java EE agent.
7. Configure the ODI setup in the OTM.
8. Perform an end to end sanity test.

Setting up of Java EE agent and other configurations for the environment

Follow the configuration steps given in OTM install guide end to end for the new 6.5.1 environment. Use the steps given the install guide to create a new Java EE agent, configuring the agent in the new ODI environment and configuring the agent in the OTM.

Migration of Customer-defined ETL

If you have added customer-defined ETL packages to the Transportation Intelligence Work repository in version 6.4.3, perform a manual merge of your customer-defined ETL code into the Transportation Intelligence 6.5.2 ETL package in ODI 12c.

> **Note**: ODI does not provide an out-of-the box utility for merging the Work repository, so it must be done manually.

Post Migration Steps

1. Perform a thorough sanity test of the Transportation Intelligence 6.4.3 ETL on ODI 12c to ensure stability of the ETL process.
    a. Go to **Operator**.
    b. Select **Load Plan and Scenarios**.
    c. Select the **FTI_LOAD Version-001** scenario.
    d. Right click and select **Execute**.
    e. Select **Global** context and click **ok**.
2. Once stable, you can drop the following backed-up Transportation Intelligence 6.4.3 ODI schemas, if they exist:
    - ftiodimaster
    - ftiodiwork
    - ftiodistage

    Note: The above step is required only if you are migrating from version 6.4.3.

    Note: Once the migration is done, if new content has been added – regenerate the whole FTI_ETL project. Start the domain servers for the agent to be active, and run ETL from OTM.

Upgrading to Oracle Analytics Server 6.4 from OBIEE 12c for TI 6.5.2

Prerequisites

Create a backup of bar file from the obiee 12.2.1.4 system (6.4.3 Bar file).

Bar file includes:

1. Rpd
2. Webcat
3. Security configurations

To export the bar file, refer to the Install Guide.

Upgrade Steps

Upgrade from Oracle Business Intelligence Enterprise Edition 12c (OBIEE 12c) to Oracle Analytics Server (OAS).

Refer Migrating from OBIEE 12c or previous version of OAS section under Migrating and Upgrading to Oracle Analytics Server Oracle documentation.

Migrating Transportation Intelligence Metadata to OAS 6.4

Pre-requisites

1. You have a 12c certified release (12.2.1.4) installed for 643.
2. You have installed and configured Oracle analytics server as per Install and Configure Oracle Analytics Server Guide.
3. Stop the BI system running 643 version.
4. Check if all the requirements are met as per the certification matrix for both OBIEE 12c (643) and Oracle Analytics Server 6.4 (652).

Overview

Steps to be followed for migrating TI artifacts from 643 to 652:

1. Setting up of Oracle Analytics Server 5.9
2. Exporting and backing-up of existing 6.4.3 Bar file
3. Importing the 6.4.3 Bar file to the 6.5.2 OAS environment
4. Merging the 6.4.3 RPD with the shipped 6.5.2 RPD for custom metadata content
5. Updating the connection pool passwords in the merged RPD
6. Configuring the OAS environment
7. Accessing the 6.4.3 webcat in OAS server and archiving the custom content
8. Importing the shipped out-of-box 6.5.2 webcat
9. Importing the BI publisher reports
10. Configuring OAS for TI application
11. Unarchive the custom webcat content to the 6.5.2 environment
12. Perform a sanity testing

Setting up of Oracle Analytics Server 6.4

Install the Oracle Analytics Server 6.4. You need to have a working Oracle Analytics Server Environment for migration.

Refer to the Install Guide for installation and configuration of Oracle Analytics Server

Exporting and backing-up of 6.4.3 BAR file

ORACLE_HOME=/obiee12c (where OBIEE installed)

DOMAIN_HOME=/obiee12c/user_projects/domains (Where domain is located)

1. Run this command to export the bar file:

```
[DOMAIN_HOME]/bitools/bin/exportarchive.sh ssi
/<bar_file_export_folder>/<Bar file name>.bar encryptionpassword=<password>
```

     a. bar_file_export_folder – location where ar file gets exported.

     b. encryptionpassword – by default is 'transportationintelligence1' . Key in your password if this was changed.

2. Keep a copy of this bar file to continue with the migration.

Importing the 6.4.3 BAR file to the Oracle Analytics Server Environment

Note: To perform import of bar file, Oracle Analytics Server must be up and running.

3. Navigate to the following path in OAS –

```
[OAS_Install_Path]/user_projects/domains/bi/bitools/bin
```

4. Run the following command to import the 643 bar:

```
./importarchive.sh ssi [exported_643bar_file_location]/643_bar_file_name.bar
encryptionpassword=[password]
```

5. password – by default – 'transportationintelligence1' . Key in the changed password if this was updated.

Merging 6.4.3 RPD with the latest 6.5.2 RPD to migrate custom metadata

Note: This is applicable only when custom contents have been added to 643 RPD.

Merging can be done using the BI administration tool. For detailed steps, refer merging BI repositories section under the Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition (OBIEE 12.2.1.4).

Merge the 643 RPD with the latest 652 out-of-box RPD without the common parent option.

Merged RPD is now available for uploading to the OAS environment.

Update the connection pool passwords in merged RPD manually

Note: Update passwords only if the default passwords have been changed from hdowner/hdowner (rptapp) and glogdba/glogdba (oltp).

This can be done manually by using the BI administration tool.

Refer: OTM install guide on how to update the connection pool passwords.

Import the merged RPD to the OAS environment

Upload the final RPD (which contains 6.5.2 changes as well as customer-defined changes from previous versions) to the Oracle Analytics Server. To do that, run the following command:

1. Navigate to `<OAS59_install_path>/user_projects/domains/bi/bitools/bin`.
2. In the command line, give `./datamodel.sh uploadrpd -I advanced_analytics.rpd -SI ssi -U weblogic -P <weblogic password>`.

     a. The datamodel.sh command is used to upload the rpd.

     b. The uploadrpd parameter denotes that the RPD is being uploaded to the system.

     c. The name of the RPD (the merged one) is given for the –I parameter.

d. The default service instance name is 'ssi' which is given for the –SI parameter.

e. –U and –P require the weblogic username and password to be specified (set at the time of configuration).

3. While executing the command, it asks for the RPD password. The default password for the shipped RPD is 'transportationintelligence1'. If you have changed it, use the changed password.

Setting up of tnsnames.ora file

4. Shutdown the OAS servers. Copy the tnsnames.ora file from the 643 environment.

5. Update the DB urls for both RPTAPP and OLTP connections in the copied tnsnames.ora file.

6. Create a new directory in the path –

```
[OAS_install_path]/user_projects/domains/bi/bidata/components/core/servicein
stances/ssi/oracledb/
```

7. Place the updated tnsnames.ora in this path.

Migrating custom report/dashboard content from 6.4.3 to 6.5.2

8. Start the OAS 652 servers.

   Note: Create users with proper roles/privileges to login into the OAS environment. Refer to the OTM install guide for this.

9. Login into OAS using `[host_address]:[port,by default 9502]/analytics` URL.

10. Go to the catalog section. Use the archive/unarchive utility to archive the custom contents created in 643 with timestamps and permissions.

    Note: Make a note of the paths of the archived content.

Import only the webcat file from the shipped 6.5.2 BAR to the OAS environment

11. Navigate to the path - `<OAS64_install_path>/user_projects/domains/bi/bitools/bin`

12. Import the 652 bar file shipped with only the latest bar file using the command:

```
./importarchive.sh ssi advanced_analytics.bar
encryptionpassword=transportationintelligence1 [nodatasets] [nojobs]
[noconfiguration] [noauthorization] [nodatamodel] [nouserfolders]
[noconnectionparams]
```

This command imports only the latest 652 webcat file. Merged RPD and security configurations (of 643) will remain unaffected.

Import the 6.5.2 BI publisher reports shipped out-of-box

Import the Oracle Analytics Publisher (OAP) contents shipped out-of-box into the OAS environment.

Refer to the OTM install guide for the process.

Migrating the custom webcat content to the OAS server

Unarchive the custom content to their corresponding locations after latest 652 webcat and BIP reports have been imported. Use the unarchive utility in the catalog section after logging into OAS.This content includes both newly created OAP reports/dashboards and BI publisher reports in 6.4.3.

Configuring the Oracle Analytics server for TI 6.5.2 application

Follow the post-installation steps like enabling maps or writeback in Oracle TI install guide to complete the migration.

After this, you can restart the OAS servers to see the migrated metadata and dashboards.

Perform a full sanity testing of TI application to confirm that migration of TI from 6.4.3 to 6.5.2 has happened successfully.

Reference

For more information, refer to the following documentation:

- Installing and Configuring Oracle Analytics Server.
- Migrating and upgrading to Oracle Analytics Server.
- Administer Oracle Analytics Server Guide.
- 'Merging Repositories' under Oracle metadata repository builder's guide for OBIEE 12.2.1.4.
- Compare features with OBIEE 12.2.1.4 (Oracle Analytics Server 6.4 library).

4. Migrating Global Trade Intelligence

This chapter is applicable only for existing Oracle Global Trade Intelligence (GTI) customers and it details the steps to migrate to the Oracle Global Trade Intelligence version 6.5.2.

Please refer to the following sections in Migrating Transportation Intelligence :

- Migrating Transportation Intelligence Historical Database (HD)
- Migrating the Oracle Data Integrator artifacts to 6.5.2 version.
- Migrating the 6.4.3 Oracle business intelligence 12.2.1.4 to Oracle Analytics Server 6.4