

Oracle Financial Services
Analytical Applications
Infrastructure (OFS AAI)
Installation & Configuration
Guide

Version 8.0.2.2.0



DOCUMENT CONTROL

Version Number	Revision Date	Changes Done
1.0	January 2018	Created document to capture OFSAAI 8.0.2.2.0 Maintenance Level Release
2.0	Jan 2018	Added details of the mandatory one-off patch 27394297.
3.0	Feb 2018	Updated mandatory one-off patch 27394297 to 27490489.
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Executive Summary

This document includes the necessary instructions to apply the OFS AAI 8.0.2.2.0 Maintenance Level Release and perform the required post install configurations. You can find the latest copy of this document in the [OHC Documentation Library](#) which includes all the recent additions/revisions (if any).

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1 OFS AAI Release 8.0.2.2.0

OFS AAI 8.0.2.2.0 Maintenance Level (ML) includes all the bug fixes and minor enhancements done since the previous GA (General Availability) release, that is, 8.0.2.0.0.

This ML release of OFS AAI can be installed on a setup with any OFSAA 8.0.2.0.0 Application Pack.

Conventions and Acronyms

Conventions	Description
Screen actions are indicated in Bold	
IR	Interim Release
ML	Maintenance Level Release
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OHC	Oracle Help Center
AIX	Advanced Interactive eXecutive
RHEL	Red Hat Enterprise Linux
OEL	Oracle Enterprise Linux
OS	Operating System
EAR / WAR	Enterprise Archive / Web Archive
J2EE	Java 2 Enterprise Edition
OTN	Oracle Technology Network
Atomic Schema	Database schema where the application data model is uploaded.
Configuration Schema	Database schema which contains setup related configurations and metadata.

1.1 Pre Installation Requirements

- You should have OFS AAI version **8.0.2.0.0** as the minimum patch set level.
- Download the one-off patch 27490489 from [My Oracle Support](#).
- *Bug 23251358-Object Registration is failing with duplicate Constraint Names* is regularized in this OFS AAI 8.0.2.2.0 version. This is bundled as a utility - **Update Constraints Utility**, and is executed as part of the 8.0.2.2.0 patch installation.

Perform the following steps and apply the change before you proceed further with the patch upgrade.

1. Backup the Atomic Schema for each Information Domain in the OFSAA instance before applying the patch.
2. Execution of the utility is a memory intense process as the entire steps involved for performing a full model upload is carried out as part of the utility for each of the Infodom. The OFSAA installation server needs to have twice the allocated memory, which is assigned using parameter `X_ARGS_APPS`.
3. Utility creates three temporary tables- `REV_TAB_CONSTRAINTS_U`, `REV_TAB_REF_CONSTRAINTS_U`, and `REV_TAB_CONSTRAINT_COLUMNS_U`. If the Atomic Schema has any of these tables already created for a different purpose, take a backup and drop/rename.
4. For the applications that follow logical model upload like OFS_AML in BD pack, the utility does not play any role, since persistence of the model is outside the purview of the utility.
5. For more information about the utility execution and log files information, see [Update Constraints Utility](#) section.

1.2 How to Apply This Maintenance Level Release?

Refer to the following instructions to install this patch set.

1. Login to <https://support.oracle.com/> and search for **26721783** under the *Patches & Updates* tab.
2. Download the OFSAA 8.0.2.0.0 AAI ML RELEASE #2 archive file and copy it to your OFSAA server in **Binary** mode.

NOTE: There are different archive files for different operating systems such as AIX, Solaris, and RHEL/OEL.

3. Stop all the OFSAAI services. For more information, see the *Start/Stop Infrastructure Services* section in the [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.2.0.0](#).
4. Login to the OFSAA server as a non-root user and navigate to the `$FIC_HOME` folder.
5. Assign `WRITE` permission to the files/ folders such as `commonsceipts`, `EXEWebService`, `ficapp`, `ficweb`, and `ficdb` by executing the command:

```
chmod -R 775 *
```
6. If you have Unzip utility, skip to the next step or download the Unzip utility (OS specific) and copy it in **Binary** mode to the directory that is included in your `PATH` variable, typically `$HOME` path or directory in which you have copied the 8.0.2.2.0 ML.

- Uncompress the unzip installer file using the command:

```
uncompress unzip_<os>.Z
```

NOTE: If you notice an error message “**uncompress: not found [No such file or directory]**” when the package is not installed, contact your UNIX administrator.

- Give EXECUTE permission to the utility using the command:

```
chmod 751 unzip_<os>
```

For example, `chmod 751 unzip_aix`

7. Extract the contents of the 8.0.2.2.0 ML archive file using either of the following commands:

```
unzip_<os> -a <name of the file to be unzipped>
```

OR

```
unzip -a <name of the file to be unzipped>
```

NOTE: The above “-a” option is mandatory to unzip the archive file.

For example: For AIX operating system

```
unzip_aix -a p26721783_80220_AIX64-5L.zip
```

8. Give EXECUTE permission to the ML patch installer script. Navigate to the folder *OFS_AAI* and execute the command:

```
chmod 755 OFSAAIUpdate.sh
```

9. Execute the following command:

```
./OFSAAIUpdate.sh
```

Verify if the ML is applied successfully by checking the log file generated in *OFS_AAI/logs* folder. You can ignore ORA-00001 and ORA-02292 in the log file. In case of any other errors, contact Oracle Support.

10. Install the mandatory one-off patch 27490489. See the Readme available with the patch for further instructions on installing the patch.

11. Post successful installation of the ML, perform the following steps:

- Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.

- **Tomcat:**

```
<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
```

- **Weblogic:**
<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>
- **Websphere:**
<Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>

12. Verify the `Update.log` file located at `$FIC_HOME/utility/UpdateConstraints/logs` folder which is created by Update Constraint utility.

Execution status information of the utility is available against each Information domain. For success, “*Update successful*” message is displayed. If it is successful, verify the following references for new constraint names:

- `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
- Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
- Constraint scripts under `ftpshare/<INFODOM>/scripts`
- Object registration tables for constraints, `REV_TAB_CONSTRAINTS`, `REV_TAB_REF_CONSTRAINTS`, `REV_TAB_CONSTRAINT_COLUMNS`.
- Oracle Data Dictionary in the respective Atomic Schema’s for each Infodom.

If you encounter errors in the `Update.log` file, identify and troubleshoot the failed Infodoms. Once you have completed the troubleshooting, execute the standalone utility for the failed Infodoms. For more information on executing the update constraints utility, see the [Update Constraints Utility](#) section.

13. Delete the existing EAR/WAR file available in the folder `$FIC_HOME/ficweb`.
14. Restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section in the [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.2.0.0](#).
15. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying the EAR/ WAR file, refer to the *Post Installation Configuration* section in the [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.2.0.0](#).

1.3 Configurations for Enterprise Modeling

Sandbox Resave Utility is included in the 8.0.2.2.0 ML patch. If the log file in the path `$FIC_HOME/utility/sandboxutil/logs` has any error messages, execute the Sandbox Resave utility. For details, see [Sandbox Resave Utility](#) section.

1.4 Update Constraints Utility

This utility applies a new naming convention to constraints (PK and FK) to resolve the following issues:

- For tables with similar names which are relatively long (>27 characters) where initial few characters differ (for example, `STG_COMMON_ACCOUNT_SUMMARY`, `FCT_COMMON_ACCOUNT_SUMMARY`), the constraint names get generated as same causing an Oracle error of duplicate constraints.
- When number of foreign keys for a table is more than 100, the length of the constraint name exceeds the permissible limits allowed by Oracle Database.

The new naming convention has the following logic. A Unique ID gets generated for each data model entities. The new constraint name will be generated by appending the unique ID with 'FK' or 'PK' (along with a sequence for FK). For example PK on `DIM_ACCOUNT` will be formed as `PK_101`, where 101 is the unique id of `DIM_ACCOUNT`. Similarly, FKs on `FCT_ACCOUNT_SUMMARY` will be `FK_206_01`, `FK_206_02`, `FK_206_03`, `FK_206_04`, where 206 is the unique id of `FCT_ACCOUNT_SUMMARY` and the table has 4 FKs.

This utility is executed during the OFSAAI 8.0.2.2.0 patch installation. After successful installation of the OFSAAI 8.0.2.2.0 installer patch, verify the messages in the `Update.log` file in the directory `$FIC_HOME/utility/UpdateConstraints/logs` for any errors or failures. This directory is created by the Update Constraints Utility. You can also verify the installation status from the value in `AAI_MU_UTIL_UPDATE_CONS.V_FLAG_VALUE` from the **Config Schema** table. If the value is **N** for an Infodoms, it is a failure.

In case of errors, identify and troubleshoot the failed Infodoms. Once you have completed the troubleshooting, execute the standalone utility for the failed Infodoms.

1.4.1 How to Execute the Utility

Utility performs the backup of the following files under `ftpshare/<INFODOM>_encon_bkp` but restoration is not done.

- `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
- Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
- Constraint scripts under `ftpshare/<INFODOM>/scripts`

To execute the utility, perform the following steps:

1. Navigate to `$FIC_HOME/utility/UpdateConstraints/bin/` directory and grant RWX (755) permissions for all executables (.sh files).
2. Execute the utility manually for each of the failed information domains.

```
$FIC_HOME/utility/UpdateConstraints/bin/execute.sh $INFODOM
```
3. If the process is successful, verify the following references for new constraint names:
 - `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
 - Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
 - Constraint scripts under `ftpshare/<INFODOM>/scripts`
 - Object registration tables for constraints, `REV_TAB_CONSTRAINTS`, `REV_TAB_REF_CONSTRAINTS`, `REV_TAB_CONSTRAINT_COLUMNS`.
 - Oracle Data Dictionary in respective Atomic Schema for each Infodoms.
4. In case of failure, refer the utility's log and identify the cause of the failure. Resolve the issues before proceeding with the re-run of the utility. For more queries, contact Oracle Support Services.

1.4.2 Troubleshooting

Utility goes through six different steps, which can be traced with the below messages.

NOTE: At every stage identify the cause of the failure and resolve the issues before proceeding with the re-run of the utility.

Steps	Description	Action to be taken
1	Generate Scripts and updating DATABASE.XML	<p>Step 1: Restore the file backed up at ftpshare/<INFODOM>_encon_bkp/erwin/fipxml/<INFODOM>_DATABASE.xml to the destination ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml.</p> <p>Step 2: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/erwin/scripts/table to the destination directory ftpshare/<INFODOM>/erwin/scripts/table.</p> <p>Step 3: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/scripts to the destination directory ftpshare/<INFODOM>/scripts.</p> <p>Step 4: Re-run the utility.</p>
2	Triggering Object Registration	<p>Step 1: Restore the file backed up at ftpshare/<INFODOM>_encon_bkp/erwin/fipxml/<INFODOM>_DATABASE.xml to the destination ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml.</p> <p>Step 2: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/erwin/scripts/table to the destination directory ftpshare/<INFODOM>/erwin/scripts/table.</p> <p>Step 3: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/scripts to the destination directory ftpshare/<INFODOM>/scripts.</p> <p>Step 4: Re-run the utility.</p>

Steps	Description	Action to be taken
3	Gathering information about previous constraint names	<p>Step 1: Restore the file backed up at <code>ftpshare/<INFODOM>_encon_bkp/erwin/fipxml/<INFODOM>_DATABASE.xml</code> to the destination <code>ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml</code>.</p> <p>Step 2: Restore the directories backed up at <code>ftpshare/<INFODOM>_encon_bkp/erwin/scripts/table</code> to the destination directory <code>ftpshare/<INFODOM>/erwin/scripts/table</code>.</p> <p>Step 3: Restore the directories backed up at <code>ftpshare/<INFODOM>_encon_bkp/scripts</code> to the destination directory <code>ftpshare/<INFODOM>/scripts</code>.</p> <p>Step 4: Re-run the utility.</p>

Steps	Description	Action to be taken
4	Alter constraints	<p>Step 1: Execute the following statements to drop the back up tables in Atomic Schema:</p> <pre>Drop table REV_TAB_CONSTRAINTS_U; Drop Table REV_TAB_REF_CONSTRAINTS_U ; Drop table REV_TAB_CONSTRAINT_COLUMNS_U;</pre> <p>Step 2: Restore the file backed up at ftpshare/<INFODOM>_encon_bkp/erwin/fipxml/<INFODOM>_DATABASE.xml to the destination ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml.</p> <p>Step 3: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/erwin/scripts/table to the destination directory ftpshare/<INFODOM>/erwin/scripts/table.</p> <p>Step 4: Restore the directories backed up at ftpshare/<INFODOM>_encon_bkp/scripts to the destination directory ftpshare/<INFODOM>/scripts.</p> <p>Step 5: Modify r_rename_cons.sql that is available in the \$FIC_HOME/utility/UpdateConstraints/Scripts/<INFODOM> directory by adding semicolon at the end of each line.</p> <p>Step 6: Execute the file r_rename_cons.sql in the Infodom Atomic Schema.</p> <p>Note: Ignore any ORA errors related to 'constraint does not exist'.</p> <p>Step 7: Re-run the utility.</p>

Steps	Description	Action to be taken
5	Clear data of previous constraints	<p>This can be considered as a successful case. However, user needs to execute the following SQL commands.</p> <p>Step 1: Execute the following statements to drop the back up tables in Atomic Schema:</p> <pre>Drop table REV_TAB_CONSTRAINTS_U; Drop Table REV_TAB_REF_CONSTRAINTS_U ; Drop table REV_TAB_CONSTRAINT_COLUMNS_U;</pre> <p>Step 2 : Execute the statement in Configuration Schema, after replacing <INFODOM> with the respective information domain:</p> <pre>UPDATE aai_mu_util_update_cons SET V_FLAG_VALUE= 'Y' ,V_UPDATE_DATE=SYSDATE where DSNID= ' <INFODOM> '</pre>
6	Update Successful	-

1.5 Sandbox Resave Utility

A utility is provided to regenerate the CONSTRAINTS.XML as per the changes done as part of Update Constraints utility. The constraint xml is required for sandbox data population which will store the foreign key names of all the tables.

The xml files which will be re-generated are:

```
ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox/CONSTRAINTS.xml
```

```
ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox/<TABLE_NAME>.xml
```

1.5.1 Prerequisites

Update Constraints utility should have been run successfully on all the sandbox and production Infodoms.

1.5.2 How to Run the Utility

1. Navigate to `$FIC_HOME/utility/sandboxutil/bin` directory and grant RWX (755) permissions for all executables (.sh files).

2. Execute the utility using the following command:

```
./updatesandbox.sh
```

3. Verify logs from `$FIC_HOME/utility/sandboxutil/logs/Update.log` directory.
4. If the process is successful, verify the following references for new constraint names:

```
ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox/CONSTRAINTS.xml
```

```
ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox/<TABLE_NAME>.xml
```

5. In case of failure, refer the utility's log and restore the backups for file system. Execute the utility for the failed infodoms one by one using the following command:

```
$FIC_HOME/utility/sandboxutil/bin/updatesandbox.sh $INFODOM.
```

NOTE: Utility does the backup of

`ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox` directory as `ftpshare/<SANDBOXINFODOM>/erwin/scripts/sandbox_bkp`, but restore is not done. Restore should be done manually in case of any failure. The backup directory will be created in the app ftpshare area. In case of any failure the backup has to be replaced in the db ftpshare area also.

For more queries, contact Oracle Support Services.



OFSAAI

8.0.2.2.0 Installation & Configuration Guide

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