An Oracle Technical White Paper
December 2013

# Oracle Financial Services Economic Capital Advanced 1.1.1.1.0 Installation Guide

# Introduction

Oracle Financial Services (OFS) Economic Capital Advanced Release 1.1.1.1.0 helps to calculate the capital level required by the bank to cover the losses within a given probability. Economic Capital methodologies can be applied across products, lines of business and other segments as required. This ML consists of fixes, enhancements, and updates, which is to be applied on OFS Economic Capital Advanced Release 1.1.

# Description

Bug 17587167 - ECONOMIC CAPITAL ADVANCED (CREC) V1.1.1.1.0 ML

# Technical and Functional Issues Fixed

The following bugs are addressed part of CREC V1.1.1.1.0 ML

17587093 - METADATA SYNCHRONIZATION FOR BASEL 6.0 AND CREC CO-EXISTENCE

16705836 - PARTY MODEL CHANGES

16705785 - CAPITAL STRUCTURE SHOULD BE ALIGNED TO BASEL II CAPITAL STRUCTURE

16705708 - OTC NETTING SET CREATION SHOULD ON SAME SET OF ATTRIBUTES OF BASEL

16705660 - LEGAL ENTITY CONFORMANCE

16705559 - TIME DIMENSION CONFORMANCE

16705542 - MITIGANT TYPE UNIFICATION

16249816 - COLUMN N_VAR_DIVERSIFIED_EC_UL MISSING IN TABLE FCT_RAPM

16101419 - STORED PROCEDURE PROCESS FAILS AS PRIVILEGES ARE GRANTED THROUGH ROLE

# Prerequisites

Before applying Economic Capital Advanced Release 1.1.1.1.0, ensure that the following requirements are met:

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) v7.3.2.2.0 is already installed and configured.
- OFS Economic Capital Advanced Release 1.1 is already installed and configured. For more Information on Oracle Financial Services Economic Capital Advanced v1.1 application installation, refer to the installation manual packaged along with Economic Capital Advanced Release v1.1.1.1.0 kit.
- 16678446_<OS>.zip one-off should be applied on version 7.3.2.2.0.
  Patch version - 7.3.2.2.9

# Important Note

| Environment Scenario | Action | Important Note |
|---|---|---|
| Platform : OFSAAI v7.3.2.x.x Application Installed: only CREC v1.1.0.0.0 | CREC 1.1.1.1 needs to be applied | 1. As a pre requisite, AI should be configured to work with RRF |
| Platform : OFSAAI v7.3.2.x.x onwards Application Installed : Both Basel v6.0 and CREC v1.1.0.0.0 | CREC 1.1.1.1 needs to be applied | 2. Metadata has been modified in CREC v1.1.1.1.0 to support co-existence of both Basel 6.0 and CREC |
| Platform : OFSAAI v7.3.2.X.X onwards Application Installed: Only Basel v6.0 | CREC Fresh Install | 1. Don't use CREC v1.1 data model, instead use CREC v1.1.1.1.0 data model to merge with Basel 6.0 data model and upload the merged data model.<br><br>2. Install CREC v1.1 and ignore installation errors. (Ignore mentioned errors:-<br> a. ORA-00904-- invalid identifier and<br> b. ORA: 00001 -- unique key constraint violated)<br> c. Compilations Errors.<br><br>3. Apply ML CREC v1.1.1.1.0 without data model upload as data model is already uploaded as part of point 1.<br><br>4. After ML installation, recompile all the functions and procedures. |
| Platform : OFSAAI v7.3.2.X.X onwards Application Installed: No application installed | CREC Fresh Install | 1. Install CREC v1.1 and ignore installation errors. Use the data model available with CREC 1.1.1.1.0 for upload.<br><br>2. Apply ML CREC v1.1.1.1.0 |

# Procedure to Apply Patch

To apply Economic Capital Advanced Release 1.1.1.1.0, refer to the following steps:

ORACLE®

1. Copy the file '17587167_generic.zip' in binary mode to a temporary folder on the server where OFSAAI is installed. Extract the contents of the zip file by executing the command **unzip -a** 17587167_**generic.zip.**

   **Note:**

   For multi-tier installation of OFSAAI, the patch must be executed on the Application, Database, and Web tiers.

2. Update the 'params.conf' file with appropriate values for PLATFORM_VERSION, PREREQ_PATCHES, INFODOM, SEGMENT_CODE, FTPSHARE_PATH, OFSAAI_USER_ID, CONF_USER, CONF_PWD, CONF_SID, APPL_USER, APPL_PWD, and APPL_SID.

3. Provide RWX permissions to the shell script 'install.sh'.

4. Execute 'Pre_Model_Scripts/Atomic_Premodel.sql' on the atomic schema of the information domain in which OFS Economic Capital Advanced is installed.

   **Note:**
   These pre_model_scripts are valid only for a standalone standard OFS Economic Capital Advanced v1.1 installation. For customized and an integrated environment, you need to modify the pre_model_scripts to address dependent tables.

5. Execute 'Pre_Model_Scripts/Config_premodel' on the config schema of the information domain in which OFS Economic Capital Advanced is installed.

   **Note:**
   - These pre_model_scripts are valid only for a standalone Economic Capital Advanced v1.1 installation. For a customized and integrated environment, you need to modify the pre_model_scripts to address dependent tables.

   - If any runs are already executed in the environment, you need to delete PR2_RULE_QUERY table to avoid integrity constraint  violated - child record found

   - ##INFODOM## is the place holder for the production Infodom Name.

   - ##NONSAND## is the place holder for the sandbox1 Infodom Name.

   - ##SECSAND## is the place holder for the sandbox2 Infodom Name.

   - ##CFSAND## is the place holder for the sandbox3 Infodom Name.

6. Perform an incremental model upload (Refer the below CREC v11110 DataModelDifference.xls for data model difference).

**Note:**

New tables are added part of the data model. You need to take backup and delete data (new tables and depended child tables), if these new tables are already existing in the atomic schema. New tables list are available part reference file.

Reference file is based on CREC v1.1.0.0.0 data model and CREC v1.1.1.1.0 data model

CREC v11110 Data
Model Difference.xls

The following cases explain in brief, the two different scenarios to upload the data model.

Case 1: Oracle Financial Services Economic Capital Advanced is the only application installed

    i. If the OFS Economic Capital Advanced v1.1 data model has not been customized, upload OFS Economic Capital Advanced v1.1.1.1.0 Slice Data Model (Erwin 7.x).xml present under the data model folder into OFSAAI.

    ii. Upload the incremental data model upload in one production infodom.

    iii. In the three sandbox infodom, do the following:

- Truncate data from all application related tables

- Do incremental model upload

Case 2: Oracle Financial Services Economic capital Advanced is installed along with other applications.

In the above case, refer to the following steps:

    i. Merge the Economic Capital Advanced data model [OFS CREC v1.1.1.1.0 Slice Data Model (Erwin 7.x).xml with the integrated model already available in OFSAAI platform.

    ii. Perform an incremental model upload of the new merged model.

    iii. Upload incremental data model upload in all the four infodom (that is, one production infodom and three sandbox infodom).

**Note**: Both Production and sandbox infodom should have same data model.

7. Stop all the OFSAAI Services and execute **install.sh**.

8. Check the log file "CREC_<INFODOM>_<DATE_TIME>.log" present under $FIC_HOME, to see if the patch is applied successfully. The following ORA errors in the log file can be ignored:

- ORA-02275: such a referential constraint already exists.
- ORA-02260: table can have only one primary key.
- ORA-00955: name is already used by an existing object.
- ORA-00001: unique constraint <<NAME>> violated.

ORACLE®

- ORA-00001: unique constraint <<NAME>> violated. (When CREC installed on Top of Basel 6.0.Those Metadata's and objects are common for both CREC and Basel 6.0).
- ORA-02260: table can have only one primary key. (When CREC installed on Top of Basel 6.0.Those objects are common for both CREC and Basel 6.0).
- ORA-00955: name is already used by an existing object. (When CREC installed on Top of Basel 6.0.Those objects are common for both CREC and Basel 6.0).

9. In the command prompt, navigate to the $FIC_WEB_HOME directory of WEB tier and execute the **./ant.sh** command. This will trigger the creation of EAR/WAR file-<contextname>.ear/<contextname>.war.

10. The EAR/WAR file - **<contextname>.ear/<contextname>.war** - is created in $FIC_WEB_HOME directory of WEB tier. On completion of EAR/WAR file creation, the message "BUILD SUCCESSFUL" is displayed.

11. Deploy this EAR/WAR file in the Webserver.

12. Remove the following T2T definition xmls from ftpshare/stage/ECOCAP folder and the corresponding mapping xmls from ftpshare/<INFODOM>/Erwin/Sources folder

- NET_POOL_EXP_MITIGANT_MAPPING
- DIM_DEDUCTION_ASSET_EXP_POPULATION
- GL_ACCT_CAPITAL_HEAD_POPULATION
- STD_ACCT_HEAD_DED_POP
- EC_STD_ACCT_HEAD_RWA_POPULATION
- CALC_ACCT_HEAD_RWA_POP
- CALC_ACCT_HEAD_POP
- DEDUCTION_ASSET_EXP_POPULATION

13. Recompile all functions, procedures and views in atomic schema.

14. Start all OFSAAI Services and generate the Source Model.

15. Map the role "CREC", to the user to access the Economic Capital Link.

16. Validate following Data Check on availability of dim_org_structure data.

    a. Entity surrogate key(DIM_ORG_STRUCTURE) and Party surrogate key(DIM_PARTY) has to be same for the same entity code and party code. If both surrogate keys are not same, Value of Party surrogate key needs to be updated to Entity surrogate key.

    b. Dim_Org_Structure is setup table. You need to modify the Entity surrogate key as same as Party surrogate key.

    c. Refer "Post_Model_Scripts\Dim_Org_Structure_Skey_Validation.sql" for back up and restoration of data for this activity.

17. Following XMLs needs to be copied if CREC ML v1.1.1.1.0 is installed on the environment which already has BASEL v6.0.0.0.0.

a. Copy below files from 17587167_generic\Post_Model_Scripts to ftpshare/STAGE/<BASEL Source folder> and not in <COMMON SOURCE> folder or <ATTRIBUTION SOURCE> folder.( please refer the Basel v6.0.0.0.0 solution Installation Manual for the Basel sources information)

STD_CAPITAL_ACCT_HEAD_POP.xml

STD_CAPITAL_ACCT_HEAD_POP.properties.xml

GL_CAPITAL_ACCT_HEAD_POPULATION.xml

GL_CAPITAL_ACCT_HEAD_POPULATION.properties.xml

b. Copy below files from 17587167_generic\Post_Model_Scripts to ftpshare/<INFODOM>/Erwin/Sources/<BASEL Source> folder and not in <COMMON SOURCE> folder or <ATTRIBUTION SOURCE> folder. ( please refer the Basel v6.0.0.0.0 solution Installation Manual for the Basel sources information)

STD_CAPITAL_ACCT_HEAD_POP.mapping.xml

GL_CAPITAL_ACCT_HEAD_POPULATION.mapping.xml

18. Re-save all the metadata.

19. For data restoration, please refer to OFS Economic Capital Advanced 1.1.1.1.0 Data Migration Guide.pdf.

20. If any data is backed up part of point no 6 (new tables and depended child tables). Restore the same.

21. Resave all the CREC sandbox definitions.

22. a) Set the parameters for the environment variables in the script ".sandbox_env" present in the path "$FIC_DB_HOME/bin".

b) Execute the script "sandbox_script.sh" which is present in the same path as ".sandbox_env".

c) Refer to Bug id "18008586" for more information.

d) Repeat the above steps for all the sandboxes.

23. Request and authorize Sandbox maintenance. Populate sandbox population using ICC batch for each sandbox.

For RPD and Catalog deployment, refer to the following sections.

# OFS Economic Capital Advanced v1.1.1.1.0 Analytics Configuration

## Introduction

**Assumptions**

- The database schema will have proper privileges namely, `CONNECT, RESOURCE AND CREATE MATERIALIZED VIEW.`
- OBIEE 11.1.1.6.6 server or higher for the respective operating system is installed
- Administrator knows how to start/shutdown the OBIEE servers namely;
    - o Weblogic Server
    - o Oracle BI Server
    - o Oracle BI Presentation Server
    - o Oracle BI Java Host
- Administrator knows the OBIEE installation path

**Pre-requisites**

a. Backup the following OBIEE folders (*This is recommended only for existing installation. It is not required for new installation.*) :
    - *<Installation Path>\middleware\instances\instance1\bifoundation\ OracleBIServerComponent\coreapplication_obis1\repository*
    - *<Installation Path>middleware\instances\instance1\bifoundation\ OracleBIPresentationServicesComponent\coreapplication_obips1\catalog\<new folder created as part of Installation steps>*
b. Server details that is, the URL of OBIEE must be kept ready.
c. Copy the following files from the release kit to the local system:
    - *$FIC_HOME\crecbi\bidata\web\catalog\OFS Economic Capital Advanced 1.1.1 – Answers;* this has the archive for Answer (report) related files. Do not unzip this file, as this file is not a zip file.
    - *$FIC_HOME\crecbi\bidata\web\catalog\OFS Economic Capital Advanced 1.1.1– Dashboards;* this has the archive for Dashboard related files. Do not unzip this file, as this file is not a zip file.
    - *$FIC_HOME\crecbi\bi\server\Repository\OFS Economic Capital Advanced 1.1.1 - Repository.zip;* this has the crec.rpd file. Unzip this file in the local machine.

ORACLE®

# Configuration Steps

**Server Configuration steps (for each release confirm that the following has been setup):**

Ensure that, the following has been setup for each release:

a. Stop the BI servers

*b.* Place the repository(.rpd) file in the following folder:

*"<Installation Path>\middleware\instances\instance1\bifoundation\ OracleBIServerComponent\coreapplication_obis1\repository"*

c. Change the following parameters of NQSConfig.INI by logging into Oracle Enterprise Manager. (**Only in case of first time installation**).

    i. Go to Business Intelligence menu located on the left hand side of the screen and then select **core application**.

    ii. Click **Deployment** tab.

    iii. Click **Lock and Edit Configuration**.

    iv. Go to the section Upload BI Repository and browse to select the repository.

    v. Enter the repository password and confirm the same.

    vi. Click **Apply**.

    vii. Go to BI Presentation Catalog section and then provide the path of the new catalog.

    viii. Click **Activate Changes**.

    ix. Click **Overview** tab.

    x. Click **Restart** and confirm to restart all services.
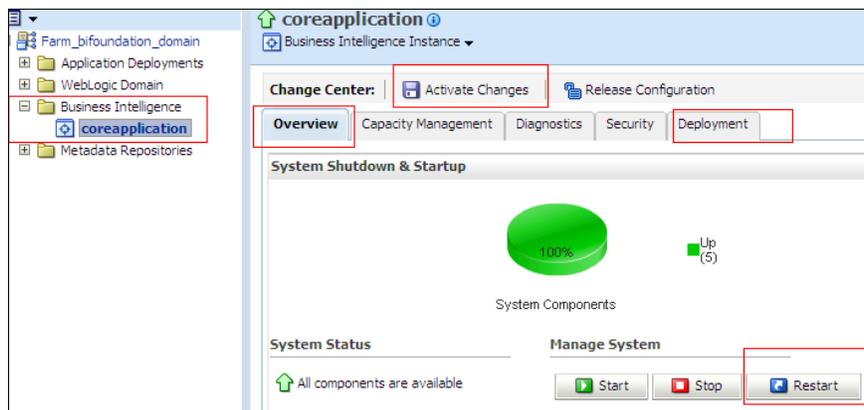


    xi. Edit the **NQSConfig.INI** file, present in *<Installation Path>\instances\instance1\config\OracleBIServerComponent\coreapplication_obi s1 to* reset the FMW_UPDATE_ROLE_AND_USER_REF_GUIDS = NO to YES.

    xii. Add the following tag:

<UpdateAccountGUIDs>UpdateAndExit</UpdateAccountGUIDs> in the **instanceconfig.xml** under the tag **<Catalog>**, present in *<Installation Path>\instances\instance1\config\OracleBIPresentationServicesComponent* and restart all opmn services.

xiii.   Check if all the servers are up and running (except Presentation Service).

xiv.   Edit the **NQSConfig.INI** file, present in *<Installation Path>\instances\instance1\config\OracleBIServerComponent\coreapplication_obi s1* to reset the FMW_UPDATE_ROLE_AND_USER_REF_GUIDS = YES to NO and update.
Set EVALUATE_SUPPORT_LEVEL=2 from EVALUATE_SUPPORT_LEVEL=0 and save.

xv.   Remove the following tag:
<UpdateAccountGUIDs>UpdateAndExit</UpdateAccountGUIDs> in the **instanceconfig.xml** under the tag **<Catalog>**, present in *<Installation Path>\instances\instance1\config\OracleBIPresentationServicesComponent* and restart all opmn services.

xvi.   Restart all opmn services.

xvii.   Disable the cache (cache can be enabled once the setup is moved to the production mode and on the basis of bank's requirements).

xviii.   To disable the cache, click **"Capacity Management"** tab in Oracle Enterprise Manager.

xix.   Select "**Performance**" tab within it.

xx.   Click **Lock and Edit Configuration** button.

xxi.   Clear the option "**Cache enabled**" and then click **Activate Changes**.

xxii.   Restart the servers to activate changes. Refer to the following image:
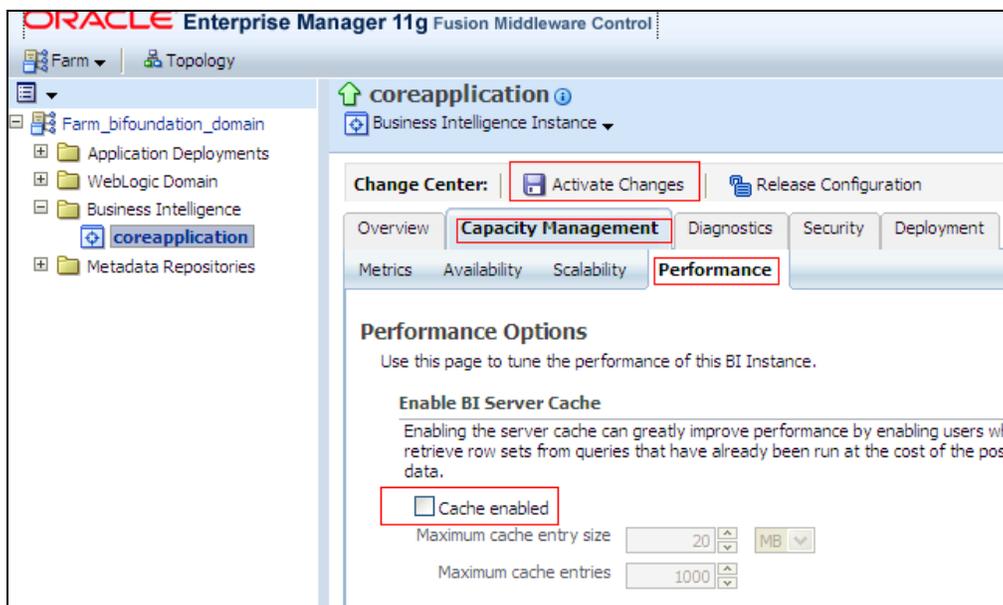
d.  To open the RPD choose **Start** > **All Programs** > **Oracle Business Intelligence** > **BI Administration**.
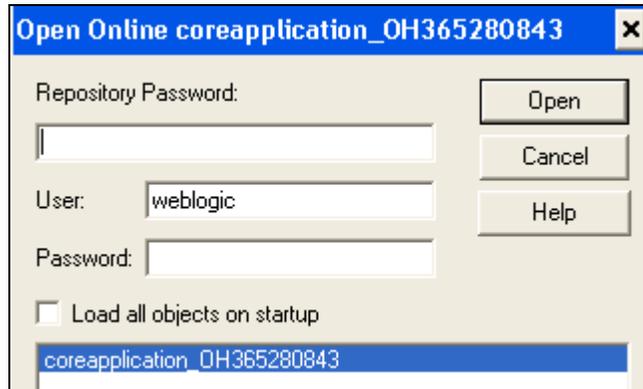


e.  Enter the Repository Password as "Administrator1".

f.  Enter User as "weblogic" and the password provided at the time of installing OBI 11g.

g.  Double click "ConnectionPool1" in the physical layer of the RPD as shown in the following image.
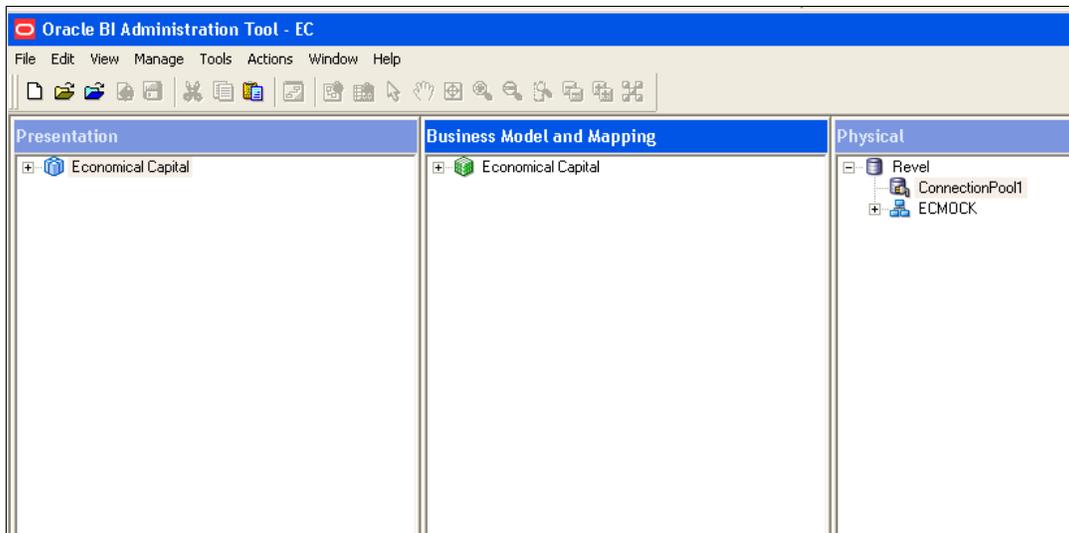


h.  Modify the Data source name, User name and password to the Oracle TNS Name, database schema name and password respectively, as shown in the following image.
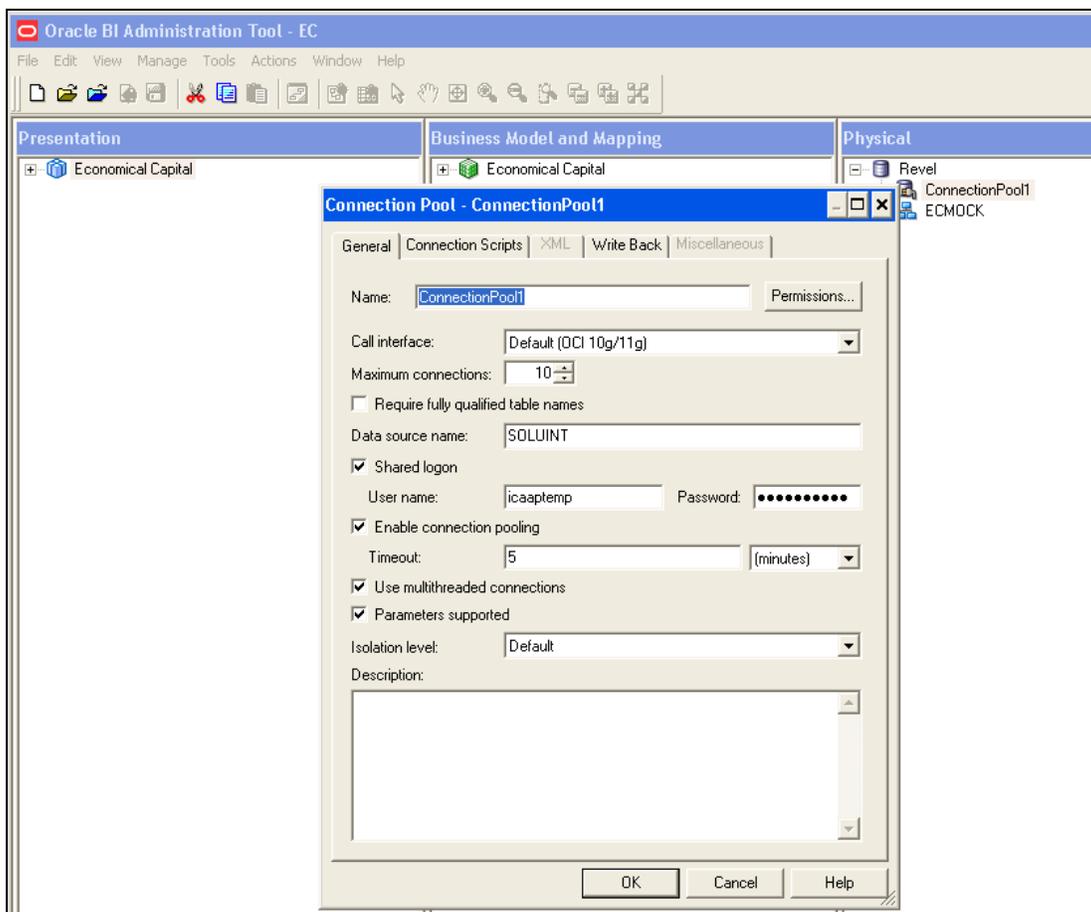
i.  Close the RPD after saving it.

j.  Create a folder named **"Credit Risk"** (if not created) in the following location *"<OBIEE Installation Path>middleware\instances\instance1\bifoundation\ OracleBIPresentationServicesComponent\coreapplication_obips1\catalog\"* (**Only in case of first time installation**)

k.  Start the following BI services (if not started).

## Dashboard/Answer Reports

From any client system that is, windows system:

      a. Start the BI services (if not started).

      b. Start **OBIEE Catalog Manager**.

      c. Choose **Start → Programs → Oracle Business Intelligence → Catalog Manager**.

      d. Select "**Open Catalog**" from File menu.

      e. Select the option "**Online**" for Type.

      f. Type the link for presentation services that is, Oracle Interactive Dashboard link. For example (http://URL:9704/analytics/saw.dll.

      g. Enter the Administrator User ID and Password, and then click **OK**.

      h. Click "**shared folder**" on the left hand pane.

      i. Select "**Un-archive option**" from File Menu.

      j. Select the archive file "OFS Economic Capital Advanced 1.1.1 – Dashboards" from the path where it is copied onto the local machine as part of introduction pre-requisite step, and click **OK.**

      k. Create a folder name as "Answers" (if not created) within "shared" folder.

      l. Navigate to "Answers" folder.

      m. Select the "**Un-archive**" option from File menu.

      n. Select the archive files "OFS Economic Capital Advanced 1.1.1 - Answers"   from the path where it is copied onto the local machine as part of introduction pre-requisite step, and click **OK.**

      o. Re-Start (stop and start) the BI services.

## Installation of Images (Only for New Installation)

      a. Uncompress the file "OFS Economic Capital Advanced 1.1.1 - Images.zip" and copy all the  images to  the folder
        **<OBIEE Installation Path>\ Oracle_BI1\bifoundation\web\app\res\s_blafp\images**

      b. Uncompress the file "OFS Economic Capital Advanced 1.1.1 - Images.zip" and copy all the images to  the folder
        **<OBIEE Installation Path>\user_projects\domains\bifoundation_domain\servers\bi_server1\ tmp\_WL_user\analytics_11.1.1\7dezjl\war\res\s_blafp\images**
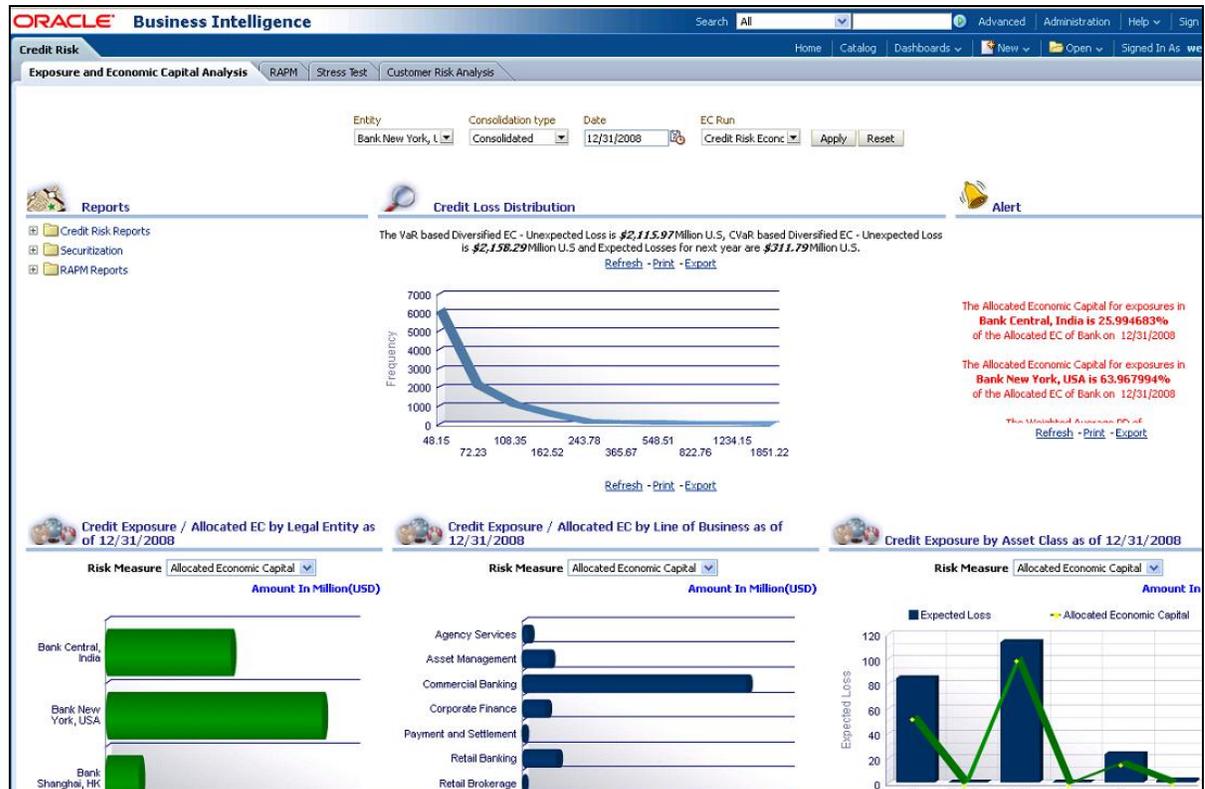
<div align="center">Or</div>

**<OBIEE Installation Path>\user_projects\domains\bifoundation_domain\servers\AdminServer\ tmp\_WL_user\analytics_11.1.1\silp1v\war\res\s_blafp\images**

      c. Re-Start (stop and start) the BI services.

## Post Configuration verification steps

   a. Log on to Analytics and verify if the screen looks like the following image:



   b. Click each of the dashboard links, and verify if all the links are visible.
   c. Open the RPD, and verify if the RPD can be accessed online with the
      Administrator user.

**ORACLE**

ORACLE®

ORACLE®