

**Oracle® Financial Services Crime and Compliance
Management Studio**

Administration and Configuration Guide

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Document Control

This section provides the revision details of the document.

Version Number	Revision Date	Changes Done
8.0.5.0.0	Created: December 2017 Updated: March 2018	Created first version of CCMS Administration Guide for 8.0.5.0.0 Release.

This document provides functional information about the Crime and Compliance Management Studio (CCMS) Application and enables you to navigate through the various sections of the application. The latest copy of this guide can be accessed from the [OHC Documentation Library](#).

About this Guide

This guide explains the concepts for the Oracle Financial Services Crime and Compliance Management Studio (CCMS) Application and provides comprehensive instructions for system administration, as well as for daily operations and maintenance. This section focuses on the following topics:

- [Who Should Use this Guide](#)
- [Scope of this Guide](#)
- [How this Guide is Organized](#)
- [Where to Find More Information](#)
- [Conventions Used in this Guide](#)
- [Abbreviations Used in this Guide](#)

Who Should Use this Guide

This guide is intended for administrators and implementation consultants. Their roles and responsibilities, as they operate within CCMS, include the following:

- **Implementation Consultant:** Installs and configures CCMS application at a specific deployment site. The consultant also installs and upgrades any additional Oracle Financial Services solution sets, and requires access to deployment-specific configuration information. For example, machine names and port numbers.
- **System Administrator:** Configures and maintains the system. The System Administrator maintains user accounts and roles, monitors data management, archives data, loads data feeds, and performs post-processing tasks. In addition, the System Administrator also reloads cache.

Scope of this Guide

This guide describes the physical and logical architecture of CCMS application. It also provides instructions for maintaining and configuring CCMS, its subsystem components, and any third-party software required for operation.

CCMS provides an open and scalable infrastructure that supports rich, end-to-end functionality across all Oracle Financial Services solution sets. CCMS's extensible, modular architecture enables a customer to deploy new solution sets readily as the need arises.

How this Guide is Organized

The Administration Guide includes the following chapters:

- [About Oracle Financial Services Crime and Compliance Management Studio](#) provides a brief overview of the Crime and Compliance Management Studio (CCMS) Application and its components.
- [Managing User Administration](#) provides a brief overview on creating users and mapping users with user groups.
- [Managing CCMS Batches](#) provides information on creating and executing batches required for CCMS.

Where to Find More Information

This section identifies additional documents related to CCMS application. You can access the following documents from [OHC Documentation Library](#):

- *Oracle Financial Services Crime and Compliance Management Studio User Guide*
- *Oracle Financial Services Crime and Compliance Management Studio Installation Guide*

Conventions Used in this Guide

The following table lists the conventions used in this guide and their associated meanings:

Table 0–1 Conventions Used in this Guide

Convention	Meaning
Boldface	Boldface type indicates graphical user interface elements associated with an action (menu names, field names, options, button names), or terms defined in text or glossary.
<i>Italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates the following: <ul style="list-style-type: none">■ Directories and subdirectories■ File names and extensions■ Process names■ Code sample, that includes keywords, variables, and user-defined program elements within text
<variable>	Substitute input value

Abbreviations Used in this Guide

The following table lists the abbreviations used in this guide:

Table 0–2 Abbreviations and their meaning

Abbreviation	Meaning
OFS	Oracle Financial Services
CCMS	Crime and Compliance Management Studio

Table 0–2 Abbreviations and their meaning

Abbreviation	Meaning
T2T	Table to Table
AAI	Analytical Applications Infrastructure
PGX	Parallel Graph AnalytiX
PGQL	Property Graph Query Language
LHS	Left Hand Side

About Oracle Financial Services Crime and Compliance Management Studio

This chapter provides a brief overview of the Oracle Financial Services Crime and Compliance Management Studio (CCMS) Application in terms of its architecture and operations.

The following sections are covered in this chapter:

- [Overview of CCMS](#)
- [PGX Graphs and Data Source Configuration](#)

Overview of CCMS

The CCMS application is used to fight financial crime in financial institutions. CCMS performs pattern discovery, data mashups, graph analytics, and data visualization. It can also be used to write and execute code, and view the result.

In CCMS, the data is partitioned as scenarios and then moved into HIVE using the Sqoop component. The partitioned data in Hive is used for Parallel Graph Analytics (PGX) or data analysis. To ensure better performance, the data is moved on a daily basis.

CCMS uses Parallel Graph Analytics (PGX) to discover new and suspicious patterns in data. Algorithms are employed to gain new insights from historical alert data in order to prioritize alerts generated by detection engines. CCMS users are provisioned in the production instance.

PGX Graphs and Data Source Configuration

You can view the graphs that are created using Data Studio in the CCMS interface. You can refer the data source to load graph in Data Studio. After loading the graph, you can execute PGQL query on the newly created graph.

You can also create customized graphs in Spark shell and configure data source for the newly created customized graphs in Data Studio. To create customized graphs, the data source must be configured manually. Information for the data source is available in the PGX log file located in the path where PGX is installed.

Managing User Administration

This chapter provides information on creating users who can access the CCMS application, and executing batches that are required for CCMS. Creation of users and execution of batches must be performed in the OFSAA environment.

User administration involves creating and managing users, and providing access to CCMS based on assigned roles.

The following sections are covered in this chapter:

- [Managing Identity and Authorization](#)

Managing Identity and Authorization

This section provides information on creating, mapping and authorizing users, and providing access to CCMS.

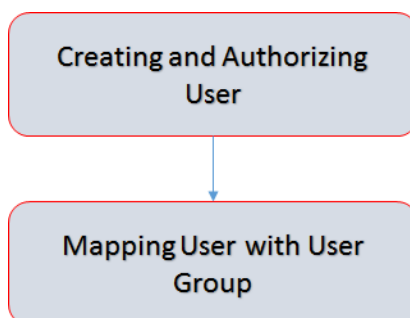
This section covers the following topics:

- [Identity and Authorization Process Flow](#)
- [Creating and Authorizing User](#)
- [Mapping User with User Group](#)

Identity and Authorization Process Flow

[Figure 2-1](#) shows the process flow of identity management and authorization.

Figure 2-1 *Managing Identity and Authorization Process Flow*



[Table 2-1](#) lists the various actions involved in the user administration process flow:

Table 2–1 User Administration Process Flow

Action	Description
Creating and Authorizing User	Create a user by providing the user name, user designation, and the date during which the user is active in CCMS.
Mapping User with User Group	Map user with a user group that provides the user with the privileges of the mapped user group.

Creating and Authorizing User

The users with SYSADMN and SYSAUTH functional roles can respectively create and authorize users in the CCMS. For more information on creating and authorizing users, see [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

Mapping User with User Group

This section provides information on mapping users with user groups. A user is mapped with a user group, and the user group is associated with a role. Each role comprises of certain predefined privileges.

Upon mapping a user to a user group, the user is granted with the privileges that are defined for the role of the user group. The SYSADM user maps a user to a user group in CCMS.

[Table 2–2](#) describes the Roles and the corresponding User Groups in CCMS.

Table 2–2 Roles and User Groups in CCMS

Role	User Groups
DSADMIN	DSADMINGRP
DSINTER	DSINTERGRP
DSUSER	DSUSERGRP

Managing CCMS Batches

This chapter provides information on creating batches that are required for CCMS. Batches move data from ATOMIC schema to Hive schema on a daily basis in CCMS. After completion of data movement, an OFSAA Globalgraph is created and loaded into PGX.

To create batches required for CCMS, perform the following:

- [Preparing for CCMS Batch Creation](#)
- [Creating SSH Connection](#)
- [Creating Batch for CCMS](#)

Preparing for CCMS Batch Creation

This section provides necessary information to review before creating batch required for CCMS.

1. Copy the following files from the CCMS installed path to the OFSAA installed path:
 - Copy all the jars from the <OFSCCMS_Installed_Path>/ficdb/fccm_studio_DM_lib path to the <FIC_HOME of OFSAA_Installed_Path>/ficdb/lib path.
 - Copy the FCCM_DataStudio_LOAD.sh file located in the <OFSCCMS_Installed_Path>/ficdb/bin path to the <OFSAA_Installed_Path>/ficdb/bin path.
2. Update the <INFODOM>_TFM.xml file located in the ftpshare/<INFODOM>/erwin/fipxml/ by adding the following code:

```
<TASK>
<NAME>FCCM_DATASTUDIO_LOAD</NAME>
<SHORTDESCRIPTION>FCCM_DATASTUDIO_LOAD</SHORTDESCRIPTION>
<LONGDESCRIPTION>FCCM_DATASTUDIO_LOAD</LONGDESCRIPTION>
<TASKTYPE>DT</TASKTYPE>
<LASTMODIFIEDBY>AMADMIN</LASTMODIFIEDBY>
<LASTMODIFIEDDATE/>
<CREATORID>AMADMIN</CREATORID>
<CREATORDATE>9/18/2017</CREATORDATE>
<ISFLOWCHARTUPLOADED>N</ISFLOWCHARTUPLOADED>
<FLOWCHARTFILENAME/>
```

```

<STEPS>
<STEP>
<NAME>FCCM_DATASTUDIO_LOAD_1</NAME>
<SHORTDESCRIPTION/>
<LONGDESCRIPTION/>
<STEPTYPE>P</STEPTYPE>
<PRECEDENCESTEP/>
<PRECEDENCETYPE/>
<ACTION/>
<SRCFILE> ./FCCM_DATASTUDIO_LOAD.sh</SRCFILE>
<SQLBLOCK/>
<JOINCONDITION/>
<SOURCEDATASET/>
<SOURCEATTRIBUTES/>
<DESTINATIONTABLE/>
<PARAMETERS/>
</STEP>
</STEPS>
</TASK>

```

3. Log in to the config schema and enter details in the following tables:

- date_task_master table
For sample data, see [Table 3-1](#), [Table 3-2](#), and [Table 3-3](#)
- date_task_step_precedence table
For sample data, see [Table 3-4](#) and [Table 3-5](#)

Table 3-1 date_task_master

V_INFO_DOMAIN	V_TASK_ID	V_STEP_ID	V_STEP_STATUS
<FCCMINFO>	FCCM_ DATASTUDIO_ LOAD	FCCM_ DATASTUDIO_ LOAD_1	F

Table 3-2 (contd.) date_task_master

V_STEP_TYPE	V_EXT_PROC_FILE	V_STEP_PARAMETERS	V_PROCEDURE_NAM
P	./FCCM_ DATASTUDIO_ LOAD.sh	(RUNID,PHID,EXEID ,RUNSK,INFODOM_ NAME,TABLE_ NAME)	FCCM_ DATASTUDIO_ DATAGRAPHLOAD

Table 3-3 (contd.) date_task_master

V_USED_COLUMNS	V_USED_TABLES	V_JOIN_CONDITION	V_TFM_TYPE
			DT

Table 3-4 date_task_step_precedence

V_INFO_DOMAIN	V_TASK_ID	V_STEP_ID
<FCCMINFO>	FCCM_DATASTUDIO_LOAD	FCCM_DATASTUDIO_LOAD_1

Table 3-5 (contd.) date_task_step_precedence

V_PARENT_STEP_ID	V_PARENT_STEP_STATUS	V_PARENT_STEP_PREC_BASIS
	S	S

Creating SSH Connection

To create SSH connection, perform below steps:

1. Log in to the OFSAA Application as `sysadm` user.
2. From the LHS menu, navigate to the **System Configuration & Identity Management > Financial Services Analytical Applications Infrastructure > Administration and Configuration > System Configuration > Database Details** section.

The **Database Master** window is displayed.

3. Select an existing record in the **Database Details for DB Server** section and click the edit icon.

The **Database Master** window is displayed.

4. Click add icon corresponding to the **Alias Name** field in the **Connection Details** section.

The **Alias Details** window is displayed.

5. Enter a value in the **Auth Alias** field same as the value mentioned for the `SSH_ALIAS_CREDIANTIAL` parameter in the `install.properties` file.
6. Enter a value in the **User/Principal Name** field as the linux user where the SGOOP has to run.
7. Enter the linux user password in the **Auth String** field.

The SSH connection is created.

Creating Batch for CCMS

CCMS uses batch to move data from ATOMIC schema to Hive schema on a daily basis.

To create batches required for CCMS, perform below steps:

1. Log in to the OFSAA Application as `ecmadmn` user.
2. Navigate to the **Applications** tab.

3. From the LHS menu, select **Financial Services Anti Money Laundering** in the **Select Applications** drop-down list, and navigate to **Operations > Batch Maintenance**.
The **Batch Maintenance** window is displayed.
4. Click add icon in the **Batch Name** section.
The **Batch Maintenance** window is displayed.
5. Enter the **Batch Name** and **Batch Description**.
6. Click **Save**.
A new batch is created.
7. Select the newly created batch in the **Batch Name** section and click add icon in the **Task Details** section.
The **Task Definition** window is displayed.
8. Enter the **Task ID** and **Description** in the **Task Definition** window.
9. Select **Transform Data** in the **Components** drop-down field in the **Task Definition** window.
Based on the values entered in the **Task Definition** section, the **Dynamic Parameters List** section displays the corresponding properties and values.
10. Select **FCCM_DATASTUDIO_LOAD** in the **Rule Name** drop-down field in the **Dynamic Parameters List** section.
11. Enter required date in the **Parameter List** field.
12. Click **Save**.
The task is defined for the newly created batch.

Configuring Pre-Seeded Graph

This chapter provides information on configuring pre-seeded graph in Data Studio.

Configuring Pre-seeded Graph in CCMS

To configure pre-seeded graph in Data Studio, perform below steps:


1. Move the `SYSTEM_OFSAAGLOBALGRAPH_SAMPLE_PGB.PGB` file located in the `<OFSCCMS_INSTALLED_PATH>/datastudio` path to the `hdfs` path.
2. Modify the `SYSTEM_OFSAAGLOBALGRAPH_SAMPLE_CONFIG.JSON` file located in the `<OFSCCMS_INSTALLED_PATH>/datastudio` path as follows:

Modify the following piece of code:

```
hdfs:/user/ofsaa/SYSTEM_OFSAAGLOBALGRAPH_2015-12-12_PGB.PGB
```

to the following:

```
hdfs:<Path where PGB file is placed in hdfs>/SYSTEM_OFSAAGLOBALGRAPH_SAMPLE_PGB.PGB
```

3. Copy the modified code from Step 2.
4. Login to Data Studio.
5. Navigate to the **GRAPHS** section and click **Create Graph Configuration**.
The **Create new Graph Configuration** dialog box is displayed.
6. Enter the **Name** as **FCCGlobalGraph**, and select the value **PGB** from the **Format** drop-down field.
7. Click the plain icon  appearing on the left and paste the modified code copied from Step 2 to the **Json Configuration** field by replacing the existing content.
8. Click **Create**.

The pre-seeded graph is configured in Data Studio.