Oracle® Banking Collections
Installation Guide

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Preface

This guide helps to install the Oracle Banking Collections services on designated environment.

This guide facilitates you to install the following services in the specified sequence:

1. OBCR-ACTION-SERVICES

2. OBCR-ACTIVITY-SERVICES

3. OBCR-COMMON-SERVICES

4. OBCR-CORRESPONDENCE-SERVICES

5. OBCR-ENTITY-SERVICES

6. OBCR-NOTES-SERVICES

7. OBCR-PTP-SERVICES

8. OBCR-SEGMENTATION-SERVICES

9. OBCR-SEGMENT-MAINT-SERVICES

10. OBCR-STRATEGY-MAINT-SERVICES

11. OBCR-STRATEGY-SERVICES

12. OBCR-TASK-MAINT-SERVICES

13. OBCR-TASK-SERVICES

14. OBCR-USER-MANAGEMENT-SERVICES

15. OBCR-DASHBOARD-SERVICES

16. OBCR-FEES-CHARGES-SERVICES

> ✏ **Note:**
>
> For the exact version to be installed, see section **System Requirements and Technology Stack** of *Oracle Banking Collections Release Notes.*

User Interface

Follow the below steps to migrate from existing app-shell build to Foundation app-shell. The UI war is split into individual component server war files. All the component server war files should be deployed in the same managed server.

For app-shell and components server, deploy the war files mentioned below:

- app-shell

- cmc-component-server

- moc-component-server

- sms-component-server

For Domain Specific component server, deploy the following war file:

- obcr-component-server

- Audience
- Documentation Accessibility
- Diversity and Inclusion
- Related Resources
- Conventions

Audience

This guide is intended for WebLogic admin or ops-web team who are responsible for installing the OFSS banking products.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

For more information, see these related Oracle resources:

- *Oracle Banking Collections Initial Setup Guide*
- *Oracle Banking Collections Pre-Installation Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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1
Database Setup

This topic describes the database setup for Oracle Banking Collections installation.

It is recommended to create a different schema for each application. The below setup is designed to work with the separate schema for each application.

Prerequisites

Before proceeding with the below setup, make sure that the required schemas are provided.

2

Product Installation Using Installer

This topic describes the information for Oracle Banking Collections installation using Installer.

Prerequisites

Before proceeding with the installation setup, make sure that the database installation is completed and the required schemas are created.

Installer Path

You can download the installer from Oracle Software Delivery Cloud (OSDC). The following table provides the download path of the installer.

Table 2-1   Installer Path

Application	Archive Name	OSDC Path
OBMA Installer	obma.zip	INSTALLER/
OBCR Installer	obcr.zip	INSTALLER/

> **✎ Note:**
>
> To install OBMA foundation using Installer, refer to *Oracle Banking Microservices Architecture Installer Guide.* To install Oracle Banking Collections product using Installer, refer to the below steps.

- Product Setup

2.1 Product Setup

Please perform the steps mentioned in chapter **Download and Setup Installer** of *Oracle Banking Microservices Architecture Installer Guide.* Post completion of Download and Setup Installer tasks for VM identified for Product Setup, perform the below mentioned configurations.

This topic consists of following sections:

- Update Properties File
- Update Roles File
- Execute Installer Script

2.1.1 Update Properties File

To update properties file:

1. Navigate to the path `/scratch/obma_installer/chef-repo/`.

2. Open the respective product properties file. Here, we will update `obcr_properties.rb` with details as explained in further steps.

3. Update the local user and its group.

Figure 2-1   Update Local User and Group

```
#Standard Values
INSTALL_USER =   "obedmqa"
INSTALL_GROUP =   "dba"
USER_ROOT = "root"
GROUP_ROOT = "root"
INSTALL_BASE_DIR =   "/scratch"
EXTRACT_LOC = "/scratch/extract"
```

4. Verify the version of java, update if required, and ensure the same version is available in the software's directory.

Figure 2-2   Verify Java Version

```
#Java Installation Details
JAVA_INSTALLER_SOURCE =   "filesystem"
JAVA_INSTALLER_PATH =   "/java/"
JAVA_INSTALLATION_DIR =   INSTALL_BASE_DIR + "/obma"
JAVA_VERSION =  "11.0"
JDK_INSTALLER_VERSION =   "jdk-11.0.16"
JDK_INSTALLER_FILE = "jdk-11.0.16_linux-x64_bin.tar.gz"
CERTS_DIRNAME = INSTALL_BASE_DIR + "/ssl/cacerts"
```

5. Verify the version of weblogic server, update if required, and ensure the same version is available in the software's directory.

Figure 2-3   Verify Weblogic Server Version

```
#Weblogic Infra Installation Details
ORACLE_INVENTORY =   "/scratch/app/oraInventory"
WLS_VERSION =   "14.1.1"
WLS_INSTALLER_SOURCE =   "filesystem"
WLS_INSTALLER_PATH =    "/wls/"
WLS_PACKAGE_BASENAME = "fmw_14.1.1.0.0_wls.jar"
WLS_INSTALLER_FILE = "fmw_14.1.1.0.0_wls_Disk1_1of1.zip"
WLS_INSTALL_DIR = INSTALL_BASE_DIR + "/obma/fmw"
WLS_INSTALLER_TYPE   = 'Complete with Examples'
```

6. Update the OBMA Foundation hostname and verify various ports, and update if required.

Figure 2-4   Update OBMA Foundation Host Name and Verify Ports

```
#Product specific parameters
PROTOCOL = "https"
PLATO_HOST = "ofss-mum-2057.snbomprshared1.gbucdsint02bom.oraclevcn.com"
PLATO_CONFIG_PORT = "8002"
DISCOVERY_PORT = "8004"
API_GATEWAY_PORT = "8006"
SMS_PORT = "8026"
```

7. For Oracle Banking Collections, the default servers and their ports are already defined. Any new addition of server or datasource details needs to be appended here under "OBCR Flyway Placeholder Details".

> **Note:**
>
> Snapshot of Oracle Banking Collections Configuration Details is given for reference.

Figure 2-5   Flyway Placeholder

```
#-----------------------------------
# OBCR FLYWAY PLACEHOLDER DETAILS
#-----------------------------------

# OBCR Server Ports Details
OBCR1_MAN_SERVER_LISTEN_PORT = "8501"
OBCR1_MAN_SERVER_SSL_PORT = "8502"
OBCR2_MAN_SERVER_LISTEN_PORT = "8503"
OBCR2_MAN_SERVER_SSL_PORT = "8504"

#OBCR CR_ACTIVITY Datasource Details
CR_ACTIVITY_SCHEMA = "CR_ACTIVITY"
CR_ACTIVITY_JNDI = "jdbc/CR_ACTIVITY"
CR_ACTIVITY_DS_TARGET = "obcr_cluster1,obcr_cluster2"

#OBCR CR_ACTION Datasource Details
CR_ACTION_SCHEMA = "CR_ACTION"
CR_ACTION_JNDI = "jdbc/CR_ACTION"
CR_ACTION_DS_TARGET = "obcr_cluster1"

#OBCR CR_CMN Datasource Details
CR_CMN_SCHEMA = "CR_CMN"
CR_CMN_JNDI = "jdbc/CR_CMN"
CR_CMN_DS_TARGET = "obcr_cluster1"

#OBCR CR_ENTITY Datasource Details
CR_ENTITY_SCHEMA = "CR_ENTITY"
CR_ENTITY_JNDI = "jdbc/CR_ENTITY"
CR_ENTITY_DS_TARGET = "obcr_cluster1"
```

> **✎ Note:**
>
> The password for all the default schema's is "wlcome1". In case, there is change in the password for the schemas, user needs to update the same in databag. For more information, see section Password Update in Databag of *Oracle Banking Microservices Architecture Installer Guide.*

8. Update the database details under "#Database details for weblogic datasource configuration".

Figure 2-6   Update Database Details

```
#DB TNS details for weblogic datasource configuration
ORACLE_PDB_SID = "PDB1335A"
ORACLE_PDB_HOSTNAME = "ofss-mum-2995.snbomprshared1.gbucdsint02bom.oraclevcn.com"
ORACLE_PDB_PORT = "1521"
ORACLE_DRIVER = "oracle.jdbc.driver.OracleDriver"
```

2.1.2 Update Roles File

To update roles file:

1. Navigate to the path `/scratch/obma_installer/chef-repo/roles/` and open the OBCR role file. Here, we will consider `obcr_mw.rb` for reference.

2. In case of addition or changes to the existing cluster configuration, modify the same under "cluster_config".

Figure 2-7   Modify Cluster Configuration

```
        plato_service_logging_path: APPLICATION_LOGGING_PATH,
        plato_service_env: APPLICATION_ENVIRONMENT,
    cluster_configure: CONFIGURE_WLS_CLUSTER,
    is_node_primary: "true",
        cluster_config: {
            obcr_cluster1: {
            managed_servers: {
            obcr_server1: {
                listen_port: OBCR1_MAN_SERVER_LISTEN_PORT,
                        ssl_port: OBCR1_MAN_SERVER_SSL_PORT,
                        java_memory_min: "6144",
                        java_memory_max: "8192",
                    }
            }
            },
            obcr_cluster2: {
            managed_servers: {
                obcr_server2: {
                listen_port: OBCR2_MAN_SERVER_LISTEN_PORT,
                        ssl_port: OBCR2_MAN_SERVER_SSL_PORT,
                        java_memory_min: "6144",
                        java_memory_max: "8192",
                    }
            }
                }
            },
```

3. In case of addition or changes to the existing data source configuration, modify the same under "datasource_config".

Figure 2-8   Modify Datasource Configuration

```
datasource_configure: "true",
datasource_config: {
    PLATO: {
        database_name: ORACLE_PDB_SID,
        driver_class: "oracle.jdbc.OracleDriver",
        jndi_name: PLATO_JNDI,
        host_name: ORACLE_PDB_HOSTNAME,
        port: ORACLE_PDB_PORT,
        global_transaction_protocol: "OnePhaseCommit",
        database_user_name: PLATO_SCHEMA,
        target: OBCR_PLATO_DS_TARGET
    },
    PLATOBATCH: {
        database_name: ORACLE_PDB_SID,
        driver_class: "oracle.jdbc.OracleDriver",
        jndi_name: PLATO_BATCH_JNDI,
        host_name: ORACLE_PDB_HOSTNAME,
        port: ORACLE_PDB_PORT,
        global_transaction_protocol: "OnePhaseCommit",
        database_user_name: PLATO_BATCH_SCHEMA,
        target: OBCR_PLATO_BATCH_DS_TARGET
    },
    PLATORULE: {
        database_name: ORACLE_PDB_SID,
        driver_class: "oracle.jdbc.OracleDriver",
        jndi_name: PLATO_RULE_JNDI,
        host_name: ORACLE_PDB_HOSTNAME,
        port: ORACLE_PDB_PORT,
        global_transaction_protocol: "OnePhaseCommit",
        database_user_name: PLATO_RULE_SCHEMA,
        target: OBCR_PLATO_RULE_DS_TARGET
    },
```

4. In case of addition or changes to the existing services or war files, modify the same under "app_deployment".

Figure 2-9   Modify Wars in App Deployment

```
app_deployment: {
    app1: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-activity-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app2: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-action-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app3: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-common-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app4: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-entity-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app5: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-ptp-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app6: {
            app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-segmentation-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
```

5. Navigate to the bottom of the file and verify the recipes to be executed. All the listed recipes will be executed in sequential order as shown below.

   • CASE 1: If both foundation and product are on same VM, use the below runlist.

   ```
   run_list
   ['recipe[obma_weblogic::domain]','recipe[obma_weblogic::startadmin]','re
   cipe[obma_weblogic::startnm]','recipe[obma_weblogic::ssl_admin]','recip
   e[obma_weblogic::stopadmin]','recipe[obma_weblogic::ssl_nodemanager]','r
   ecipe[obma_weblogic::restartadmin]','recipe[obma_weblogic::cluster]','re
   cipe[obma_weblogic::addjdbcconnections_obcr]','recipe[obma_weblogic::set
   useroverridesupdate]','recipe[obma_weblogic::startman]','recipe[obma_web
   logic::deployapp]']
   ```

   • CASE 2: If foundation and product are on separate VMs, perform the below steps.

      a. Execute the below runlist.

      ```
      run_list
      ['recipe[obma_java::_install_java]','recipe[obma_java::create_certs]
      ','recipe[obma_weblogic::install_wls]','recipe[obma_weblogic::instal
      l_wls_patch]','recipe[obma_weblogic::domain]','recipe[obma_weblogic:
      :startadmin]','recipe[obma_weblogic::startnm]','recipe[obma_weblogic
      ::ssl_admin]','recipe[obma_weblogic::stopadmin]','recipe[obma_weblog
      ic::ssl_nodemanager]','recipe[obma_weblogic::restartadmin]','recipe[
      ```

```
obma_weblogic::cluster]','recipe[obma_weblogic::addjdbcconnections_o
bcr]','recipe[obma_weblogic::setuseroverridesupdate]','recipe[obma_w
eblogic::startman]']
```

b. Perform steps mentioned in section Certificate Sync Up between Foundation and Product VMs of *Oracle Banking Microservices Architecture Installer Guide.*

c. Execute below runlist.

```
run_list ['recipe[obma_weblogic::deployapp]']
```

2.1.3 Execute Installer Script

Perform the following steps for silent installation of Oracle Banking Collections:

1. Launch putty and login to product VM with NIS user and then switch to root user.

2. Navigate to the chef-repo path by executing the below command:

```
cd /scratch/obma_installer/chef-repo
```

3. Execute the installer script by executing the below command:

```
./obcr_installer.sh
```

3
Data Source Verification

This topic describes the data source verification for Oracle Banking Collections installation.

Prerequisites

Before proceeding with deployment setup, make sure that the database and application setup for Oracle Banking Microservices Architecture is done.

Data Sources List

The table below lists the data sources created as a part of product installation.

Table 3-1   Data Sources List

Serial Number	Data Source Name	Data Source JNDI	Targets
1	PLATO	jdbc/PLATO	obcr_server1
	PLATOBATCH	jdbc/PLATOBATCH	obcr_server1
	PLATOFEED	jdbc/PLATOFEED	obcr_server1
	PLATO_UI	jdbc/PLATO_UI_CONFIG	obcr_server1
	SMS	jdbc/sms	obcr_server1
	PLATORULE	jdbc/PLATORULE	obcr_server1
	PLATOSEC	jdbc/PLATOSECURITY	obcr_server1
	CMNCORE	jdbc/CMNCORE	obcr_server1
	CR_ACTION	jdbc/CR_ACTION	obcr_server1
	CR_ACTIVITY	jdbc/CR_ACTIVITY	obcr_server1
	CR_CMN	jdbc/CR_CMN	obcr_server1
	CR_CORR	jdbc/CR_CORR	obcr_server1
	CR_ENTITY	jdbc/CR_ENTITY	obcr_server1
	CR_NOTES	jdbc/CR_NOTES	obcr_server1
	CR_PTP	jdbc/CR_PTP	obcr_server1
	CR_SEG	dbc/CR_SEG	obcr_server1
	CR_FEECHRG	jdbc/CR_FEECHRG	obcr_server1
2	PLATO	jdbc/PLATO	obcr_server2
	PLATOBATCH	jdbc/PLATOBATCH	obcr_server2
	PLATOFEED	jdbc/PLATOFEED	obcr_server2
	PLATO_UI	jdbc/PLATO_UI_CONFIG	obcr_server2
	SMS	jdbc/sms	obcr_server2
	PLATORULE	jdbc/PLATORULE	obcr_server2
	PLATOSEC	jdbc/PLATOSECURITY	obcr_server2
	CMNCORE	jdbc/CMNCORE	obcr_server2
	CR_SEGMAINT	jdbc/CR_SEGMAINT	obcr_server2
	CR_STRTGY	jdbc/CR_STRTGY	obcr_server2

Table 3-1   (Cont.) Data Sources List

Serial Number	Data Source Name	Data Source JNDI	Targets
	CR_STRTGYMAINT	jdbc/ CR_STRTGYMAINT	obcr_server2
	CR_TASK	jdbc/CR_TASK	obcr_server2
	CR_TASKMAINT	jdbc/CR_TASKMAINT	obcr_server2
	CR_USERMGMT	jdbc/CR_USERMGMT	obcr_server2
	CR_DASHBOARD	jdbc/ CR_DASHBOARD	obcr_server2

> **Note:**
>
> For creating data source, see section Create Datasource of *Configuration and Deployment Guide.*

4

Deployments Verification and Kafka Setup

This topic describes the deployments for Oracle Banking Collections installation.

Prerequisites

- Before proceeding with the below setup, make sure that Kafka is configured and the related properties are present in PLATO schema. For more information, see section Kafka SSL Setup and Verification.

- To avail feature of record level approval functionality in Plato-Feed, the below property would need to be maintained as part of weblogic VM argument by each product domain including plato. If not maintained, the default behavior will be of file level approval only. **Property name** - feed.recordLevelApprovalReqd

    Property value - true or false

    Default value - false

Deployments List

The below table gives details of the deployments required on each domain to run the Oracle Banking Collections application. It also provides path where application war files are located at Oracle Software Delivery Cloud (OSDC).

> **Note:**
>
> For the exact version of the archive name, refer to the OSDC file available as part of the release.

Table 4-1   Deployments List

Application	Archive Name	OSDC Path	Targets
OBCR Activity Services	obcr-activity-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Action Services	obcr-action-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Common Services	obcr-common-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Entity Services	obcr-entity-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR PTP Services	obcr-ptp-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Segmentation Services	obcr-segmentation-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Correspondence Services	obcr-correspondence-services-{version}.war	`OBCR_SERVICES/`	OBCR Server1
OBCR Segment Maintenance Services	obcr-segment-maint-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2

Table 4-1   (Cont.) Deployments List

Application	Archive Name	OSDC Path	Targets
OBCR Strategy Services	obcr-strategy-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR Strategy Maintenance Services	obcr-strategy-maint-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR Task Services	obcr-task-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR Task Maintenance Services	obcr-task-maint-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR User Management Services	obcr-user-management-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR Notes Services	obcr-notes-services-{version}.war	`OBCR_SERVICES/`	OBCR Server2
OBCR Dashboard Services	obcr-dashboard-services-{version}.war	OBCR_SERVICES/	OBCR Server2
OBCR Fees Charges Services	obcr-fees-charges-services-{varsion}.war	OBCR_SERVICES/	OBCR Server1
OBCR UI	- app-shell-{version}.war - cmc-component-server-{version}.war - sms-component-server-{version}.war - obcr-component-server-{version}.war	`UI/`	API Gateway Server

5

Initial Setup

This topic describes the initial setup for Oracle Banking Collections installation.

Once everything is deployed, run the CMC and SMS initial setup scripts from the below mentioned paths at Oracle Software Delivery Cloud to create the required maintenances.

- `OBCR_INITIAL_SETUP/cmc_initial_setup.sql`
  To be compiled in Common Core schema.

- `OBCR_INITIAL_SETUP/obcr_role_creation.sql`
  To be compiled in SMS schema for OBCR specific admin role creation.

- `OBCR_INITIAL_SETUP/sms_initial_setup.sql`
  To be compiled in SMS schema.

- `OBCR_INITIAL_SETUP/obma_role_seed.sql`
  To be compiled in SMS schema.

- `OBCR_INITIAL_SETUP/obcr_role.sql`
  To be compiled in SMS schema.

- `OBCR_INITIAL_SETUP/ plato_properties_script.sql`
  To be compiled in PLATO schema.

- `OBCR_INITIAL_SETUP/ dms_properties_script.sql`
  To be compiled in PLATO schema.

- `OBCR_INITIAL_SETUP/ platofeed_script.sql`
  To be compiled in PLATOFEED schema.

CMC Initial Setup

This script would prompt a user to enter the below values.

Table 5-1   CMC Initial Setup - Field Description

Serial Number	Field	Description
1	Bank Code	A four-letter Bank Code
2	Bank Description	Description of the Bank Code
3	Branch Code	A three letter Branch Code
4	Branch Name	Name of the Branch
5	Branch Address Line 1	Address line 1 of the branch
6	Branch Address Line 2	Address line 2 of the branch
7	Branch Address Line 3	Address line 3 of the branch
8	Branch Currency	A three letter ISO Currency Code
9	Branch Currency Description	The description of the branch currency
10	Country Code	A two letter ISO Country Code
11	Walk-In Customer	Walk-in customer number
12	Host Code	Host code of the Branch

Table 5-1   (Cont.) CMC Initial Setup - Field Description

Serial Number	Field	Description
13	Host Description	Host code description
14	Host Process Time Zone	Host code time zone (GMT+5.30)
15	Source System	External source system
16	Source System Description	Source system description
17	Source System Branch	Branch code as in the source system
18	Previous Working Day	Previous working day of the Branch
19	Current Working Day	Current working day of the Branch
20	Next Working Day	Next working day of the Branch

OBCR Role Creation

The script would create an OBCR specific admin role COLL_MNGR_ROLE.

SMS Initial Setup

This script would prompt the user to create two admin users.

Table 5-2   SMS Initial Setup - Field Description

Serial Number	Field	Description
1	User Login ID 1	Login ID of the first User
2	User Name 1	Name of the first User
3	User Login ID 2	Login ID of the second User
4	User Name 2	Name of the second User
5	Users Home Branch Code	A three letter Home-Branch Code of the users
6	Users Locale	Users locale (2 letter ISO country code)
7	Start Date	Start date
8	End Date	End date

These users are assigned the default COLL_MNGR_ROLE, and the PLATO, SMS, CMC and the other functional activities are mapped.

PLATO Additional Setup

This script would prompt the user for the following details regarding correspondence.

Table 5-3   PLATO Additional Setup - Field Description

Serial Number	Field	Description
1	Sender email Id	Email Id of the sender for communication
2	Branch Code	A three letter Branch Code
3	User ID	Admin User ID

DMS server Setup

This script would prompt the user for the following details regarding correspondence. These scripts are to be run only if you are using DMS server of document upload. This script is to be executed only if the values for these fields are not already present/updated in the database.

Table 5-4   DMS server Setup - Field Description

Serial Number	Field	Description
1	Dms Service URL	URL of the document management server
2	Dms Service Username	Login Id of the document management server
3	Dms Service Password	Password of the document management server

PLATOFEED Additional Setup

This script would prompt the user for the following details regarding plato feed.

Table 5-5   SMS Initial Setup - Field Description

Serial Number	Field	Description
1	Branch code	A three letter Branch Code

LDAP Setup

The users created using the SMS script must also be created in the LDAP server.

> **Note:**
>
> For LDAP setup, see *Configuration and Deployment Guide.*

Fact Creation

For creating facts, download the `obcr_facts.csv` file from this path: `OBCR_INITIAL_SETUP/obcr_facts.csv` at Oracle Software Delivery Cloud. The `obcr_facts.csv` file contains the list of facts that are used to configure rules in the system.

To create facts:

1. From the main menu in the **Oracle Banking Collections application,** navigate to **Rule** and then click **Fact.**

2. From the **Fact** menu , click **Create Fact.**

3. Click **Bulk Upload.**

4. Click **Drag and Drop** to browse to the required folder and select the `obcr_facts.csv` for upload.

5. Click **Upload.**

The `obcr_facts.csv` file contains the list of facts as mentioned below.

Table 5-6   List of Facts for Oracle Banking Collections

Code	Description	Product Processor	Type
AccountOpeningORIntitialDisbursementDate	Account Opening Date	OBCR	DATE
AccountWriteOffAmount	Account Write Off Amount	OBCR	NUMBER
AccountWriteOffDate	Account Write Off Date	OBCR	DATE
AccuralStatus	Accural Status	OBCR	TEXT
AddressCountry	Country Code	OBCR	TEXT
AddressState	State Code	OBCR	TEXT
ApplicationScore	Application Score	OBCR	TEXT
AssetClassificationCode	Asset Classification Code	OBCR	TEXT
AvailableForDisbursement	Available For Disbursement	OBCR	TEXT
BICOEFlag	BICOE Flag	OBCR	TEXT
BehaviourScore	Behavior Score	OBCR	NUMBER
BusinessDate	Business Date	OBCR	DATE
CaseID	Case Id	OBCR	Case Id
ChargeOffAmount	ChargeOff Amount	OBCR	NUMBER
CollateralType	Collateral Type	OBCR	TEXT
CollectionStatus	Collection Status	OBCR	TEXT
CustomerRiskScore	Customer Risk Score	OBCR	NUMBER
DaysChargeOff	Days Charge Off	OBCR	NUMBER
DaysPastDue	Days Past Due	OBCR	NUMBER
DaysSinceAccountLinkagetoCase	Days Since Account Linkage to Case	OBCR	NUMBER
DaysSinceCaseCreation	Days Since Case Creation	OBCR	NUMBER
DelinquencyStartDate	Delinquency Start Date	OBCR	DATE
DisbursedAmount	Disbursed Amount	OBCR	NUMBER
ExistPromiseCount	Existing Promise Amount	OBCR	NUMBER
ForcedAccountSwitch	Forced Account Flag	OBCR	TEXT
HomeBranchCode	Home Branch Code	OBCR	TEXT
InsuredSwitch	Insured Switch	OBCR	TEXT
InterestRate	Interest Rate	OBCR	NUMBER
LastPaymentAmount	Last Payment Amount	OBCR	NUMBER
LastPaymentDate	Last Payment Date	OBCR	DATE
LoanMaturityORLimitExpiryDate	Loan Maturity OR Limit Expiry Date	OBCR	DATE
MaxPTPInstallCount	Max PTP Instalment Count	OBCR	NUMBER
NewPromiseCount	New Promise Count	OBCR	NUMBER
OutstandingAmount	Outstanding Amount	OBCR	NUMBER
OverdueAmount	Overdue Amount	OBCR	NUMBER
PartyType	Party Type	OBCR	TEXT

Table 5-6   (Cont.) List of Facts for Oracle Banking Collections

Code	Description	Product Processor	Type
ProductProcessorCd	Product Processor Code	OBCR	TEXT
ProductSubType	Product Sub Type	OBCR	TEXT
ProductType	Product Type	OBCR	TEXT
PromiseAmount	Promise Amount	OBCR	NUMBER
PromiseDate	Promise Date	OBCR	DATE
SecuredSwitch	Secured Switch	OBCR	TEXT
Segmen	Segment Code	OBCR	TEXT
SystemAccountStatus	System Account Status	OBCR	TEXT
TotalCollateralAssessedValue	Total Collateral Assessed Value	OBCR	NUMBER
UnClearedPaymentAmount	UnCleared Payment Amount	OBCR	NUMBER
UserDefinedAccountStatus	User Defined Account Status	OBCR	TEXT
VIPFlag	VIP Flag	OBCR	TEXT
Legal	Legal Collection Status	OBCR	BOOLEAN
Bankruptcy	Bankruptcy Collection	OBCR	BOOLEAN
Deceased	Deceased Collection Status	OBCR	BOOLEAN
Hardship	Hardship Collection Status	OBCR	BOOLEAN
Re-Marketing	Re-Marketing Collection Status	OBCR	BOOLEAN
Forbearance	Forbearance Collection Status	OBCR	BOOLEAN
Repossession	Repossession Collection Status	OBCR	BOOLEAN

Config update for report service

Next, for the plato-report-service, please make sure the below configurations done on the OBMA server.

> **✎ Note:**
>
> This step is to be performed if not already done.

Create a directory by the name `report-fop-config` under `/scratch/env` directory.

Then, copy the file `fop.xconf` from the location `/THIRD_PARTY_SOFTWARE/report-fop-config` inside the package to the above created location.

Once done please run the below command

```
chmod 0755 /scratch/env/report-fop-config/fop.xconf
```

6
Restart and Refresh

This topic describes the procedure to restart and refresh the servers.

Once everything is deployed, restart all the managed servers. For each application, call path `/refresh` to refresh the configuration properties.

Restart Server

To restart the server, see chapter Restart Server of *Configuration and Deployment Guide.*

7

Logging Area

This chapter describes the logging area of Oracle Banking Collections applications in server.

The logging area is configurable. The user can configure any path within the server, where you want to write the Oracle Banking Collections application logs. Oracle Banking Collections applications write the logs in the configured path with the name: **<Application name>.logs.** For example, if application name is **obcr-action-services,** then the logs file name would be obcr-action-servies.log.

8

Patchset Setup

This topic describes about the Patchset setup using Oracle Banking Microservices Architecture Installer.

This section consists of following topics:

- Prerequisites
- Foundation Setup Upgrade
- Oracle Banking Collections Patch Installation

8.1 Prerequisites

Following are the Prerequisites:

1. Check for existing setup or the environment is available.
2. Updated Patch Set Installation script with respective to the current release upgrade is available in the respective VM's. If not copy the required scripts from SVN.

8.2 Foundation Setup Upgrade

Installer Path

You can download the installer from Oracle Software Delivery Cloud (OSDC). The following table provides the download path of the installer.

Table 8-1   Installer Path

Application	Archive Name	OSDC Path
OBMA patch Installer	obma_patch.zip	INSTALLER/
OBCR patch Installer	obcr_patch.zip	INSTALLER/

- Download Installer
- Update Properties File
- Update Roles File

8.2.1 Download Installer

The patch installer is available in OSDC zip of each product.

To download the installer:

1. Launch putty and login to the VM (where the installation is planned) with OS user.

2. Create a directory obma_patch_installer in `/scratch.`

```
mkdir -p /scratch/obma_patch_installer
```

```
chmod 755 /scratch/obma_patch_installer
```

3. Navigate to the new directory obma_patch_installer.
   `cd /scratch/obma_patch_installer`

4. Download the patch installer zip file from the OSDC zip to obma_patch_installer directory.

5. Unzip installer zip file by executing the below command.

```
unzip <product zip file>
```

Before you proceed, please refer section Kafka Databags Update for Kafka SSL and Kafka scram passwords update.

8.2.2 Update Properties File

To update properties file:

1. Navigate to the path `/scratch/obma_patch_installer/chef-repo/.`
   Open the respective OBMA properties file and update the `obma_patch_properties.rb` with below details.

2. Update the local user and its group.

Figure 8-1   Update Local User and Group


```
#Standard Values
INSTALL_USER =  "obcrdev"
INSTALL_GROUP =  "dba"
USER_ROOT = "root"
GROUP_ROOT = "root"
INSTALL_BASE_DIR =  "/scratch"
EXTRACT_LOC = "/scratch/extract"
```

3. Verify the version of java, update if required, and ensure the same version is available in the software's directory.

Figure 8-2   Verify Java Version

```
#Java Installation Details
JAVA_INSTALLER_SOURCE =  "filesystem"
JAVA_INSTALLER_PATH =  "/java/"
JAVA_INSTALLATION_DIR =  INSTALL_BASE_DIR + "/obma"
JAVA_VERSION =  "11.0"
JDK_INSTALLER_VERSION =  "jdk-11.0.16"
JDK_INSTALLER_FILE = "jdk-11.0.16_linux-x64_bin.tar.gz"
CERTS_DIRNAME = INSTALL_BASE_DIR + "/ssl/cacerts"
```

4. Verify the configuration service details, update if required.

Figure 8-3   Verify Configuration Details

```
#Path where Oracle Banking product bundle is extracted
PRODUCT_BUNDLE_HOME =  "/scratch"
PLATO_CONFIG_SERVICES_URI =  "https://ofss-mum-2672.snbomprshared1.gbucdsint02bom.oraclevcn.com"
PLATO_CONFIG_SERVICES_PORT =  "8002"
APPLICATION_LOGGING_PATH =  "/scratch/work_area/logs"
```

5. Verify the Java home and certificate names.

Figure 8-4   Verify Java Home and Certificate Names

```
#Java Path
JAVA_HOME = "/scratch/obma/jdk-11.0.16"
CERTS_DIRNAME = "/scratch/ssl/cacerts"
CUSTOM_IDENTITY_JKS = "ofss-mum-2672.snbomprshared1.gbucdsint02bom.oraclevcn.com_identity.jks"
CUSTOM_TRUST_JKS = "ofss-mum-2672.snbomprshared1.gbucdsint02bom.oraclevcn.com_trust.jks"
CUSTOM_TRUST_CRT = "ofss-mum-2672.crt" # This can be crt or cer
KEYSTORETYPE = "JKS"
```

6. Verify the Kafka details as below.

Figure 8-5   Verify Kafka Details

```
#ZOOKEEPER/KAFKA Installation Details (Upgrade Version)
KAFKA_ZOOKEEPER_INSTALLER_FILE = "kafka_2.13-3.4.0.tgz"
KAFKA_VERSION = "3.4.0"
KAFKA_SCALA_VERSION = "2.13"
KAFKA_INSTALL_USER_HOME = INSTALL_BASE_DIR
KAFKA_INSTALL_DIR = INSTALL_BASE_DIR + "/obma/kafka_zookeeper"
KAFKA_INSTALLER_PATH = SOFTWARE_INSTALLER_HOME + "/kafka_zookeeper"
KAFKA_CERTS_DIRNAME = INSTALL_BASE_DIR + "/ssl/kafka_cert"
```

7. Verify the plato router details, update if required.

Figure 8-6   Verify Plato Router

```
#APIGATEWAY_ROUTER DETAILS
PLATO_APIGATEWAY_ROUTER_PORT = "8080"
APIGATEWAY_ROUTER_JAR_NAME = "plato-apigateway-router-9.1.0.jar"
APIGATEWAY_ROUTER_JAR_LOCATION = "/scratch/obma_patch_installer/deployables/apps/platoinfra"
# Encrypted Values for Certificate and SALT are present in apigateway_router databag
```

8. Update database details under "#Database details for weblogic datasource configuration".

Figure 8-7   Update Database Details

```
#Database details for weblogic datasource configuration
ORACLE_PDB_SID = "PDB1323B"
ORACLE_PDB_HOSTNAME = "ofss-mum-2629.snbomprshared1.gbucdsint02bom.oraclevcn.com"
ORACLE_PDB_PORT = "1521"
ORACLE_DRIVER = "oracle.jdbc.driver.OracleDriver"
```

8.2.3 Update Roles File

To update roles file:

1. Navigate to the path `/scratch/obma_patch_installer/chef-repo/roles`. Update the `obma_patch_install.rb` with below details.

2. If you are upgrading from one version to another, then the version to be undeployed needs to be added in the below section **app_undeployment.**

Figure 8-8   App Undeployment

```
app_undeployment: {
    app1: {
        app_file_path: "/obma_installer/deployables/apps/platoinfra",
        app_file_name: "plato-config-service-8.2.0.war",
        app_target_name: "plato_config_cluster"
    },
    app2: {
        app_file_path: "/obma_installer/deployables/apps/platoinfra",
        app_file_name: "plato-discovery-service-8.2.0.war",
        app_target_name: "plato_discovery_cluster"
    },
    app3: {
        app_file_path: "/obma_installer/deployables/apps/platoinfra",
        app_file_name: "plato-api-gateway-8.2.0.war",
        app_target_name: "plato_api_gateway_cluster"
    },
```

3. In the **app_deployment** section, update the new version to be deployed.

Figure 8-9   App Deployment

```
app_deployment: {
    app1: {
        app_file_path: "/obma_patch_installer/deployables/apps/platoinfra",
        app_file_name: "plato-config-service-9.1.0.war",
        app_target_name: "plato_config_cluster"
    },
    app2: {
        app_file_path: "/obma_patch_installer/deployables/apps/platoinfra",
        app_file_name: "plato-discovery-service-9.1.0.war",
        app_target_name: "plato_discovery_cluster"
    },
    app3: {
        app_file_path: "/obma_patch_installer/deployables/apps/platoinfra",
        app_file_name: "plato-api-gateway-9.1.0.war",
        app_target_name: "plato_api_gateway_cluster"
    },
    app4: {
        app_file_path: "/obma_patch_installer/deployables/apps/platoinfra",
        app_file_name: "plato-ui-config-services-9.1.0.war",
        app_target_name: "plato_ui_config_cluster"
    },
```

4. Navigate to the bottom of the file and verify the recipes to be executed. All the listed recipes will be executed in sequential order as shown below.
For execution, please switch to root user from OS user and then run the below commands.

```
cd /scratch/obma_patch_installer/chef-repo
```

```
sh obma_patch_installer.sh
```

a. `run_list ['recipe[obma_patchset::undeployapp]','recipe[obma_patchset::stopman]','recipe[obma_patchset::updatesetuseroverrides_patch]','recipe[obma_patchset::startman]','recipe[obma_patchset::deployapp]']`

Once successfully run, please make sure all services are up. Upon verification, please make update the runlist to as below and re-run the `obma_patch_installer.sh` command.

b. `run_list ['recipe[obma_patchset::deployapigateway_router]']`

This step would bring up the plato-apigateway-router at the port specified. To confirm the same please visit the router logs at the location `/scratch/work_area/logs.`

8.3 Oracle Banking Collections Patch Installation

To upgrade the OBCR product using patch installer, first perform steps mentioned in section Download Installer.

• Update Properties File
• Update Roles File

8.3.1 Update Properties File

To update properties file:

1. Navigate to the path `/scratch/obma_patch_installer/chef-repo/`.
   Open the respective product properties file and update the
   `obcr_patch_properties.rb` with below details.

2. Update the local user and its group.

Figure 8-10   Update Local User and Group

```
#Standard Values
INSTALL_USER =  "obcrdev"
INSTALL_GROUP =  "dba"
USER_ROOT = "root"
GROUP_ROOT = "root"
INSTALL_BASE_DIR =  "/scratch"
EXTRACT_LOC = "/scratch/extract"
```

3. Verify Java home and certificate names.

Figure 8-11   Verify Java Home

```
#Java Path
JAVA_HOME = "/scratch/obma/jdk-11.0.16"
CERTS_DIRNAME = "/scratch/ssl/cacerts"
CUSTOM_IDENTITY_JKS = "ofss-mum-2550.snbomprshared1.gbucdsint02bom.oraclevcn.com_identity.jks"
CUSTOM_TRUST_JKS = "ofss-mum-2550.snbomprshared1.gbucdsint02bom.oraclevcn.com_trust.jks"
KEYSTORETYPE = "JKS"
```

8.3.2 Update Roles File

To update roles file:

1. Navigate to the path `/scratch/obma_patch_installer/chef-repo/roles` and
   update `obcr_patch_install.rb` file with below details.

2. If you are upgrading from one version to another, then the version to be undeployed needs
   to be added in the below section **app_undeployment.**

Figure 8-12   App Undeployment

```
app_undeployment: {
    app1: {
        app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-activity-services-8.2.0.war",
            app_target_name: "obcr_cluster1"
    },
    app2: {
        app_file_path: "/obma_installer/deployables/apps/obcr",
            app_file_name: "obcr-action-services-8.2.0.war",
            app_target_name: "obcr_cluster1"
    },
    app3: {
        app_file_path: "/obma_installer/deployables/apps/obcr",
        app_file_name: "obcr-common-services-8.2.0.war",
        app_target_name: "obcr_cluster1"
    },
```

3. In the **app_deployment** section, update the new version to be deployed.

Figure 8-13   App Deployment

```
app_deployment: {
    app1: {
        app_file_path: "/obma_patch_installer/deployables/apps/obcr",
            app_file_name: "obcr-activity-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app2: {
        app_file_path: "/obma_patch_installer/deployables/apps/obcr",
            app_file_name: "obcr-action-services-9.1.0.war",
            app_target_name: "obcr_cluster1"
    },
    app3: {
        app_file_path: "/obma_patch_installer/deployables/apps/obcr",
        app_file_name: "obcr-common-services-9.1.0.war",
        app_target_name: "obcr_cluster1"
    },
```

4. Navigate to the bottom of the file and verify the recipes to be executed. All the listed recipes will be executed in sequential order as shown below.

```
run_list
['recipe[obma_patchset::undeployapp]','recipe[obma_patchset::stopman]','rec
ipe[obma_patchset::updatesetuseroverrides_patch]','recipe[obma_patchset::st
artman]','recipe[obma_patchset::deployapp]']
```

For execution, please switch to root user from OS user and then run the below commands.

```
cd /scratch/obma_patch_installer/chef-repo
sh obcr_patch_installer.sh
```

```
run_list
['recipe[obma_patchset::undeployapp]','recipe[obma_patchset::stopman]','recip
e[obma_patchset::addjdbcconnections_plato]','recipe[obma_patchset::updatesetus
```

```
eroverrides_patch]','recipe[obma_patchset::startman]','recipe[obma_patchset::d
eployapp]']
```

Once everything is deployed, run the initial setup scripts from the below mentioned paths at Oracle Software Delivery Cloud to create the required maintenances. The descriptions for each of these have been provided in the Initial setup section of this document.

If a new role/user needs to be created, then run the below two scripts in Section-A followed by scripts from Section-B.

If no new role/user needs to be created, then only run scripts from Section-B.

Post Section-A & B please run Section-C & D if and only if you need to fill a certain maintenance for correspondence. Please read the descriptions for these scripts from Initial setup section of this document before executing.

Especially, for section-D the script only needs to be executed if the values for these properties are not already present in the database.

Section-A

- OBCR_INITIAL_SETUP/obcr_role_creation.sql
  To be compiled in SMS schema for OBCR specific admin role creation.

- OBCR_INITIAL_SETUP/sms_initial_setup.sql
  To be compiled in SMS schema.

Section-B

- OBCR_INITIAL_SETUP/obma_role_seed.sql
  To be compiled in SMS schema.

- OBCR_INITIAL_SETUP/obcr_role.sql
  To be compiled in SMS schema.

Section-C

- OBCR_INITIAL_SETUP/ plato_properties_script.sql
  To be compiled in PLATO schema.

- OBCR_INITIAL_SETUP/ platofeed_script.sql
  To be compiled in PLATOFEED schema.

Section-D

- OBCR_INITIAL_SETUP/ dms_properties_script.sql
  To be compiled in PLATO schema.

9

Troubleshooting

This section consists of the following topics:

- Troubleshooting for OBMA Patch Installation
- Troubleshooting for plato-apigateway-router

9.1 Troubleshooting for OBMA Patch Installation

If the OBMA services are not up after patch installation, please check the plato-config-server logs at the below location for further analysis.

```
/scratch/obma/domain/PlatoInfra/servers/Config_Server1/logs
```

If you see an error like "args list too long", please navigate to the below file `setUserOverrides.sh` at location `/scratch/obma/domain/PlatoInfra/bin` and remove the unwanted properties. Then, please restart Config_Server1 on weblogic followed by the other managed servers. Once done, make OBMA services are up and running.

9.2 Troubleshooting for plato-apigateway-router

If you observe any SSL related issues in the plato-apigateway-router logs, then follow the below steps.

1. Stop the router by killing the router process.

2. Import the crt files into the java trust store on the VM on which the router is installed (the foundation machine ideally).

3. One crt file will be of the same foundation machine, while the other crt file(s) will be of the machine(s), the foundation machine has performed a sync with. Replace the password placeholder with the actual one.

```
cd /scratch/ssl/cacerts

keytool -importcert -file ofss-mum-2672.crt -keystore /scratch/obma/
jdk-11.0.16/lib/security/cacerts -storepass <password> -noprompt

keytool -importcert -alias domainCertForRouter -file ofss-mum-2550.crt -
keystore /scratch/obma/jdk-11.0.16/lib/security/cacerts -storepass
<password> -noprompt
```

4. Restart the router using through the OBMA installer using the below runlist.

```
run_list ['recipe[obma_weblogic::deployapigateway_router]']
```

A

Kafka Related Details

This section consists of the following topics:

- Kafka SSL Setup and Verification
- Kafka Databags Update

A.1 Kafka SSL Setup and Verification

To configure Kafka SSL, follow below steps:

1. Verify that `/scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/config/server.properties,` password, ssl truststore and keystorelocation is correct.

Figure A-1   Verify Server Properties

```
######################### SSL-SCRAM Settings #########################
ssl.endpoint.identification.algorithm=
ssl.truststore.location=/scratch/ssl/kafka_cert/KafkaServerTrustStore.jks
ssl.truststore.password=orcl@123
ssl.keystore.location=/scratch/ssl/kafka_cert/KafkaServerKeystore.jks
ssl.keystore.password=orcl@123
ssl.key.password=orcl@123
sasl.enabled.mechanisms= SCRAM-SHA-256
sasl.mechanism.inter.broker.protocol= SCRAM-SHA-256
security.inter.broker.protocol=SASL_SSL
listeners=SASL_SSL://ofss-mum-2672.snbomprshared1.gbucdsint02bom.oraclevcn.com:9092
advertised.listeners=SASL_SSL://ofss-mum-2672.snbomprshared1.gbucdsint02bom.oraclevcn.com:9092
listener.name.sasl_ssl.scram-sha-256.sasl.jaas.config=org.apache.kafka.common.security.scram.ScramLoginModule required username="admin" password="admin-secret
```

2. Verify `/scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/config/ssl.properties,` ssl.truststore.password, username, password is correct.

Figure A-2   Verify SSL Properties

```
ssl.truststore.location=/scratch/ssl/kafka_cert/KafkaClientTrustStore.jks
ssl.truststore.password=orcl@123
security.protocol=SASL_SSL
ssl.endpoint.identification.algorithm=
sasl.mechanism=SCRAM-SHA-256
sasl.jaas.config=org.apache.kafka.common.security.scram.ScramLoginModule required \
  username="obcr" \
  password="obedx-secret";
```

3. Update kafka properties for product services. Execute below queries on PLATO schema (replace machine name and port as per env).

```
update properties set value='ofss-mum-
xxxx.snbomprshared1.gbucdsint02bom.oraclevcn.com:9092' where key like
'%spring.cloud.stream.kafka.binder.brokers%' and application like 'obcr-%';
```

```
update properties set value='ofss-mum-
xxxx.snbomprshared1.gbucdsint02bom.oraclevcn.com:2181' where key like
'%spring.cloud.stream.kafka.binder.zknodes%' and application like 'obcr-%';
```

4. In case, you are running Foundation and Product on two separate VMs, please copy the Kafka certificates present at the location `/scratch/ssl/kafka_cert` on the Foundation machine to `/scratch/ssl/kafka_cert` location on the Product machine. (Create the folder location if not already present and provide ownership of the `kafka_cert` folder to the VM user using below command).

```
cd /scratch/ssl
chown -R <VM user> kafka_cert
```

5. Login to the OBCR product weblogic and restart both the managed servers obcr_server1 and obcr_server2.

Troubleshooting

1. Verify the start log at location `/scratch/obma/kafka_zookeeper/ kafka_2.13-3.4.0/bin/start_server.log` (if SSL handshake error exists, then follow step 2)

2. Login to OBMA foundation weblogic, restart server Plato_Others_Server1 and CMC_Server4 which contains below services.

   • plato-alerts-management-services

   • plato-batch-servers

   • cmc-advice-services

   Verify the log at `/scratch/work_area/logs` to confirm that kafka error no more exists.

Restart Kafka

If for any reason Kafka restart is required, you need to stop zookeeper and kafka and then restart Kafka.

To restart Kafka:

1. In Putty, go to location `/scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin` and run the commands as given below.

   a. To stop Kafka run the below command twice:

   ```
   ./kafka-server-stop.sh
   ```

   The message **Verify: No Kafka server to stop** appears.

    b. To stop Zookeeper run the below command twice:

```
./zookeeper-server-stop.sh
```

    The message **Verify: No zookeeperserver to stop** appears.

    c. If still Kafka or Zookeeper does not stop, run the below command to stop Kafka:

- ```
  ps -ef|grep kafka_2.13-3.4.0
  ```

  For specific process ID use the below command:

  ```
  jps | grep Kafka | awk '{print $1}'
  ```

  Once you run the command, kill the process ID with below command:

  ```
  kill -9 <process ID>
  ```

- ```
  ps -ef|grep zookeeper
  ```

  For specific process ID use the below command:

  ```
  ps aux | grep "org.apache.zookeeper.server.quorum.QuorumPeerMain" |
  grep -v grep | awk '{print $2}'
  ```

  Once you run the command, kill the process ID with below command:

  ```
  kill -9 <process ID>
  ```

2. In Putty, go to this location `/scratch/obma/kafka_zookeeper/ kafka_2.13-3.4.0/bin` and start zookeeper using command.

```
nohup ./zookeeper-server-start.sh ../config/zookeeper.properties &
```

3. In Putty, go to location `/scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin` and and start kafka using command:

```
nohup /scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin/kafka-server-
start.sh /scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/config/
server.properties > /scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin/
start_server.log&
```

If the above steps don't work and kafka is still not running, then perform the below steps:

1. Stop the zookeeper.

2. Delete kafka logs from this location (/scratch/obma/kafka_zookeeper/logs and /scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/logs) and zookeeper logs (/tmp/zookeeper).

3. Start the zookeeper using the command mentioned in the above section.

4. In Putty, go to the location /scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin and execute the below commands (replace machine name and the password in this command command)

```
./kafka-configs.sh --zookeeper ofss-mum-
xxxx.snbomprshared1.gbucdsint02bom.oraclevcn.com:2181 --alter --add-
config "SCRAM-SHA-256=[password=admin-secret],SCRAM-
SHA-512=[password=admin-secret]" --entity-type users --entity-name admin
```

```
./kafka-configs.sh --zookeeper ofss-mum-
xxxx.snbomprshared1.gbucdsint02bom.oraclevcn.com:2181 --alter --add-
config "SCRAM-SHA-256=[password=obedx-secret],SCRAM-
SHA-512=[password=obedx-secret]" --entity-type users --entity-name obcr
```

5. Start the kafka using the command mentioned in the above section.

Verify Kafka is Up

1. Execute below command:

```
ps -ef|grep kafka_2.13-3.4.0
```

It should show pid running.

2. Check logs at `scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/bin/start_server.log`. No SSL error should exist in this file.

3. Check logs at `/scratch/obma/kafka_zookeeper/kafka_2.13-3.4.0/logs`. It should display topic names.

Alternatively, you can check using below commands:

```
netstat -tlnp | grep :9092
```

Verify Kafka Health

Run the below command and verify:

```
$ netstat -tlnp | grep 9092
```

> **Note:**
>
> 9092 is default port of kafka

Verify Zookeeper Health

Kafka instance will not start if Zookeeper is not yet started.

1. Run the below command and verify.

```
$ netstat tlnp | grep :2181 (2181 is default port of zookeeper) top6 0
0 :::2181 :::* LISTEN 19936/java
```

2. To debug, check if the permissions of Kafka log folder are correct.
The log folder path can be found by looking at the value of the property `log-dirs` in the `server.properties` file of Kafka installation.

A.2 Kafka Databags Update

To update kafka databags:

1. Navigate to existing kafka configs location `/scratch/obma/kafka/kafka_2.13-2.8.1/config.`

2. Open the ssl.properties file and note the below highlighted values. Kafka SSL credentials and the Kafka SSL SCRAM credentials as shown in screenshot below.

Figure A-3   Kafka Databags Update

```
ssl.truststore.location=/scratch/ssl/kafka_cert/KafkaClientTrustStore.jks
ssl.truststore.password=Oracle@123
security.protocol=SASL_SSL
ssl.endpoint.identification.algorithm=
sasl.mechanism=SCRAM-SHA-256
sasl.jaas.config=org.apache.kafka.common.security.scram.ScramLoginModule required \
    username="obcr" \
    password="obcr-secret";
```

3. Navigate to `/scratch/obma_patch_installer/chef-repo/data_bags` folder in putty and run the below commands to extract the SSL and the scram passwords, respectively. If they don't match the ones in the previous step, please update the databags to match the existing passwords.

```
export EDITOR=vim
```

```
knife data bag edit -z --local-mode obma_jk_kafka_upgrade kafka_ssl --
secret-file /scratch/obma_patch_installer/chef-repo/secrets/secret_key
```

```
knife data bag edit -z --local-mode obma_jk_kafka_upgrade
kafka_sasl_scram_creds --secret-file /scratch/obma_patch_installer/chef-
repo/secrets/secret_key
```