

Process flow Installation Guide

Release 14.3.0.0.0

Part No. F20920-01

May 2019



Process flow Services Installation Guide

Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India
Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
www.oracle.com/financialservices/

Copyright © 2018, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited. The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Table of Contents

1. PREFACE	1-1
1.1 INTRODUCTION	1-1
1.2 AUDIENCE	1-1
1.3 DOCUMENTATION ACCESSIBILITY	1-1
1.4 ORGANIZATION	1-1
1.5 RELATED DOCUMENTS	1-1
2. DATABASE SETUP	2-2
2.1 INTRODUCTION	2-2
2.2 PRE-REQUISITE	2-2
2.3 DATABASE SETUP	2-2
3. SOA POST INSTALLATION CONFIGURATION	3-3
3.1 INTRODUCTION	3-3
3.2 PRE-REQUISITE	3-3
3.3 AUTHENTICATION CONFIGURATION	3-3
3.4 SOA - VIEW COMPILATION	3-4
3.5 REALM CONFIGURATIONS	3-5
3.6 JAR CONFIGURATION	3-8
4. DOMAIN AND CLUSTER CONFIGURATION	4-1
4.1 COMMON CORE DOMAIN CONFIGURATION	4-1
4.1.1 <i>Prerequisites</i>	4-1
4.1.2 <i>Steps to Create Domain</i>	4-1
5. DATA SOURCES CREATION	5-1
5.1 PREREQUISITE	5-1
5.2 DATA SOURCES LIST	5-1
5.3 CREATING DATA SOURCE	5-1
6. DEPLOYMENTS	6-1
6.1 PRE-REQUISITE	6-1
6.2 DEPLOYMENTS LIST	6-1
6.3 STEPS TO DEPLOY AS APPLICATION	6-1
7. RESTARTS AND REFRESH	7-1
7.1 RESTARTING SERVERS	7-1
8. LOGGING AREA	8-1
8.1 INTRODUCTION	8-1
8.1.1 <i>Logging Area</i>	8-1

1. Preface

1.1 Introduction

This guide would help you to configure the post installation steps of SOA component, installation of Process flow services on designated environment. It is assumed that all the prior setup is already done related with WebLogic 12c installation; WebLogic managed server creation, RCU creation for BPM Suite, BPM Suite installation and Oracle DB installation. It is recommended to use dedicated managed server for each of the Plato infrastructure services.

1.2 Audience

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

1.3 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>.

1.4 Organization

This installation user guide would allow you to install following services in same order:

- CMC-PROCESSCODE-SERVICE Service
- CMC-QUEUE-SERVICE Service
- CMC-WORKFLOW-TASK-SCHEDULER-SERVICE Service
- CMC-WORKFLOW-TASK-SERVICES Service
- CMC-WORKFLOW-TASK-SMS-SERVICES Service
- CMC-SMS-AUTHENTICATOR-SERVICE Service
- CMC-SMS-JPSPROVIDER-SERVICE Service
- cmc-sequencegenerator-service Service

1.5 Related Documents

- Common Core Services Installation Guide
- Day 0 Setup Guide
- LDAP Setup Guide
- Oracle Banking SCF Finance Process Management Annexure
- Oracle Banking SCF Finance Process Pre-Installation Guide
- Oracle Banking SCF Finance Process Management Services Installation Guide
- Oracle Banking SCF Finance Process Management User Interface Installation Guide
- Process Flow Services Installation Guide
- Plato Infrastructure Services Installation Guide
- Security Management System Services Installation Guide
- SSL Setup Guide

2. Database Setup

2.1 Introduction

In this section you are going to setup database related configuration for Common Core Installation.

2.2 Pre-requisite

Below setup is dependent on Common Core Schema, Mid office core schema and SMS schema. So, before you proceed with below setup ensure Common Core Schema and SMS Schema is provided to you.

2.3 Database Setup

To setup DB for Common Core below step need to be followed:

DDL's:

Collect DDL's mentioned in the **From-Path** section of the below table and compile into respective schema.

Service Name	From-Path	Compile To
CMC-WORKFLOW-TASK-SERVICES	MID_OFFICE_CORE\DB\DOMAIN\DDL\TABLE	Mid-office Common Core Schema

INC's:

Collect INC's mentioned in the **From-Path** section of the below table and compile into respective schema.

Service Name	From-Path	Compile To
CMC-WORKFLOW-TASK-SERVICES	MID_OFFICE_CORE\DB\DOMAIN\INC	Mid-office Common Core Schema
	MID_OFFICE_CORE\DB\DOMAIN\DDL\SEQUENCE	Mid-office Common Core Schema
	MID_OFFICE_CORE\DB\SMS\INC	SMS Schema

SEQs:

Collect SEQ's mentioned in the **From-Path** section of the below table and compile into respective schema.

cmc-workflow-task-services	MID_OFFICE_CORE\DB\DOMAIN\DDL\SEQUENCE	Mid office Common core
----------------------------	--	------------------------

3. SOA Post Installation Configuration

3.1 Introduction

In this section, you are going to setup SOA related configuration for Workflow services Installation.

3.2 Pre-requisite

- Oracle Fusion Middleware 12cR2 12.2.1.3 has to be installed on the machine.
- Oracle BPMN Suite 12.2.1.3 has to be installed on the machine

3.3 Authentication Configuration

Download the Authenticator jar ([cmc-sms-authenticator-service-1.0.jar](#) , cmc-sms-jpsprovider-service-1.0.jar) from the OSDC Pack.

Application	Archive name	OSDC Path	Targets
cmc-sms-authenticator-service	cmc-sms-authenticator-service-1.0.3.jar	MID_OFFICE_CORE\APP\cmc-sms-authenticator-service\APP	SOA Server
cmc-sms-jpsprovider-service	cmc-sms-jpsprovider-service-1.0.3.jar	MID_OFFICE_CORE\APP\cmc-sms-jpsprovider-service\APP	SOA Server

Apply the Authenticator in the below path

1. In cmc-sms-authenticator-service-1.0.0.jar, replace the corresponding SMS, Branch service url's in CISProperties.properties file

```
JNDI.Name=jdbc/fcjddevDS
GETROLES=http://10.184.153.185:7001/sms-core-service
GETUSERS=http://10.184.153.185:7001/sms-core-service appld=sms
userId=<<WFUSER>>
source=EXTSYS branch=<<BRANCH_CODE>>
GETBRANCHES=http://ofss220245:7001/cmc-branch-services/
appldBranch=<<CMNCORE>>

BPELCREDENTIAL=SHA-
512!113114808CAAE1DE602B038E6A4A8DDADC65145526088525540338880D12A09480A97D
EB0C7B4FAB06BBC3148D9090187260EF4F3F88EDF0E17E1FA596C3B1837D
BPELSALT=0A1FB843E1626F8C6B14286DC4C17030
```

2. Copy the cmc-sms-authenticator-service.jar file to <ORACLE_HOME>\wlserver\server\lib\mbeantypes
3. Restart the Admin Server.

Note : Identify a user account and replace the valid user with <<WFUSER>> and make sure that user account has the sms - role configuration as mentioned below

CMC_FA_CURRENCY_DEFN_VIEW

CMC_FA_CURRENCY_HOLIDAY_VIEW
CMC_FA_CUSTOMER_CATEGORY_VIEW
CMC_FA_EXT_CUSTOMER_VIEW
CMC_FA_EXT_BRANCH_PARAMETERS_VIEW
CMC_FA_EXT_BANK_PARAMETERS_VIEW
CMC_FA_LOCAL_HOLIDAY_VIEW
CMC_FA_SYSTEM_DATES_VIEW
CMC_FA_WF_VIEW
TFPM_FA_CMC_QUEUE_MA_VIEW
TFPM_FA_CMC_PRCODE_MA_VIEW

<<BRANCH_CODE>> - Home branch of the user <<WFUSER>>
Update the IP address of the service for the GETROLES,GETUSERS and
GETBRANCHES. <<CMNCORE>> App id of the common core services

3.4 **SOA - View Compilation**

1. Before compiling the CPVW_BPMN_USERS and CPVW_BPMN_USERROLES views,
Create the DBlink in the CORE schema using the below script (Use the same dblink
name).

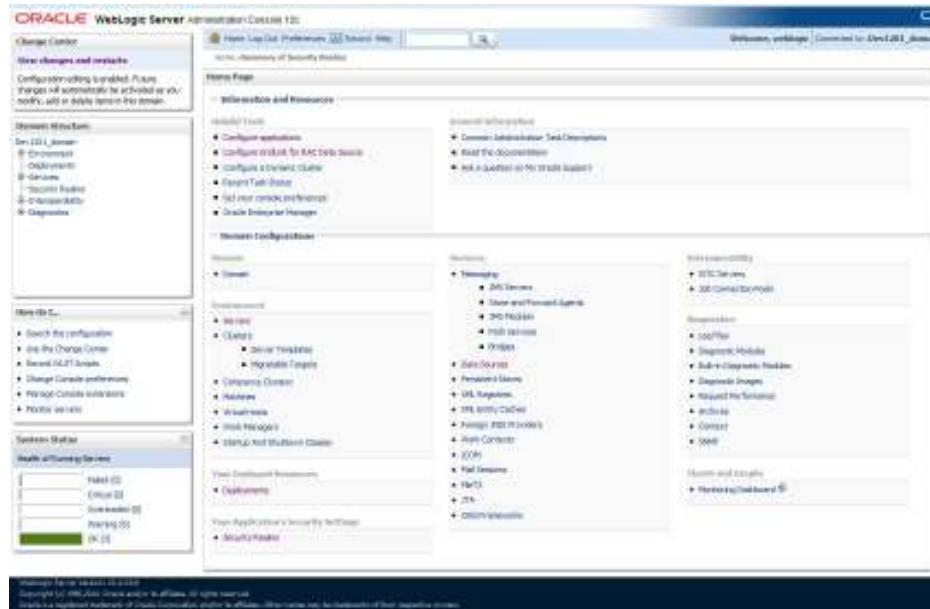
**CREATE DATABASE LINK SMSDEMOLINK CONNECT TO <<SMS schema
Username>> IDENTIFIED BY <<SMS schema Password>> USING '<<SID>>';**

2. CPVW_BPMN_USERS and CPVW_BPMN_USERROLES views are available in the
cmc-workflow-task-sms-services-1.0.0.war.
3. Open the cmc-workflow-task-sms-services-1.0.0.war, navigate to the
\WEB-INF\classes\db\migration\application\ path and compile all the views.

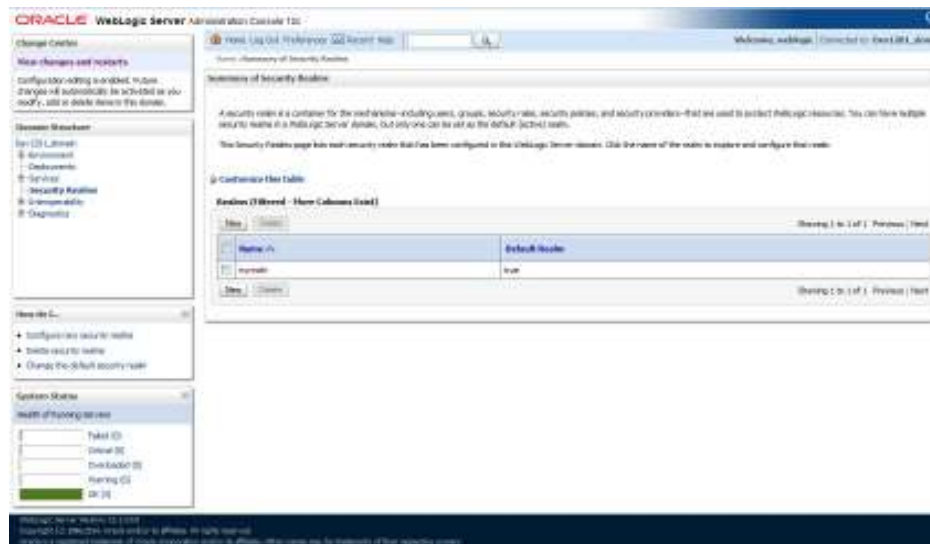
3.5 Realm configurations

Follow the below steps for the Realm configurations.

1. Login to the Console of SOA server
2. Click on Security Realms.

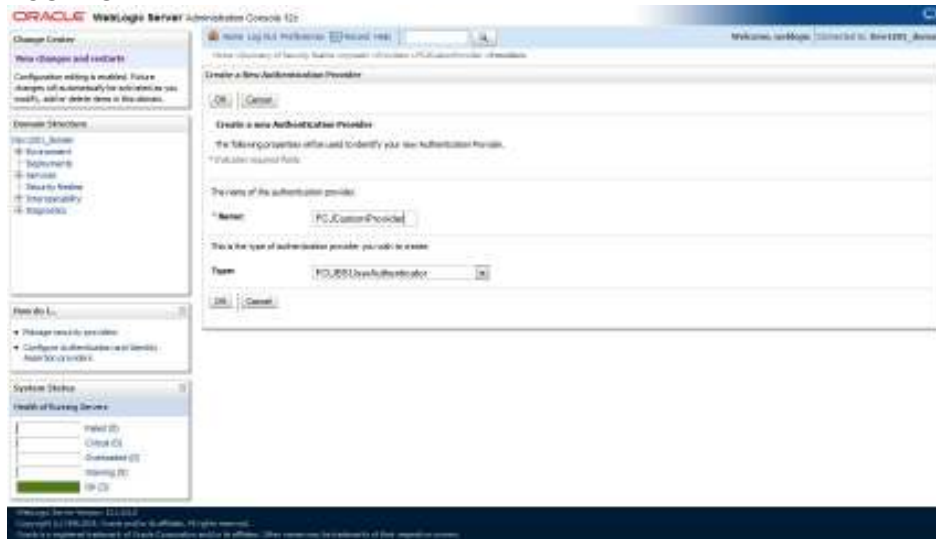


3. Click on myrealm.

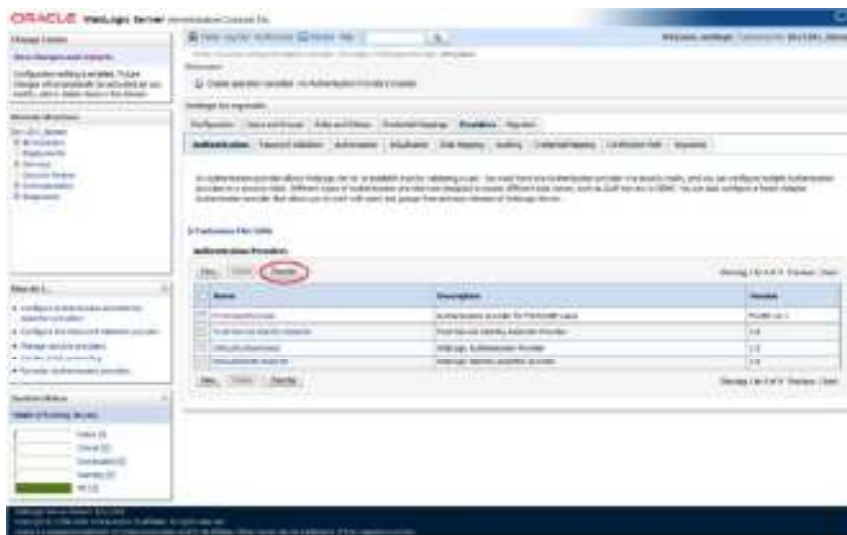


4. Click on Providers tab and click on "New" button to create new authentication provider (FCJCustomProvider). Provider name as CMCAAuthenticator and type as

FCUBSUserAuthenticator.

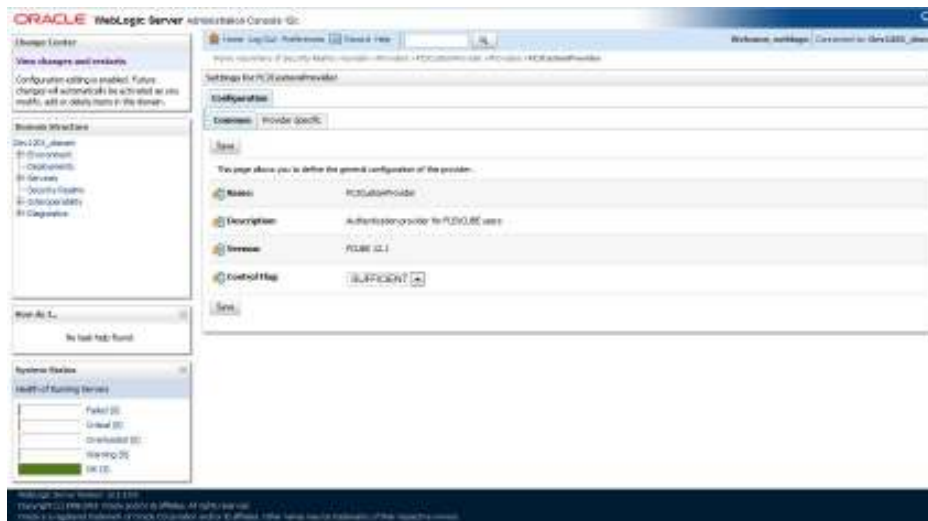


5. Click Reorder to bring provider to first of all providers and click OK.



6. Click on CMCAuthenticator.

7. In Common tab change the control flag to "SUFFICIENT".



8. Restart the Server.

3.6 Jar Configuration

Follow the below steps to configure the libovd details for SOA components

1. From the setup artifact copy the "cmc-sms-jpsprovider-service-1.0.0.jar" file into the OSDC Pack..
2. Create a folder by name 'classes' at the location '`<MIDDLEWARE_HOME>soa\soa\modules\oracle.soa.ext_11.1.x`'.
3. Extract the file 'cmc-sms-jpsprovider-service-1.0.0.jar' and copy the folder and sub folders of "oracle" from classes and move to: '`<MIDDLEWARE_HOME>soa\soa\modules\oracle.soa.ext_11.1.x\classes`'.
4. Navigate to the location '`<MIDDLEWARE_HOME>soa\soa\modules\oracle.soa.ext_11.1.x\classes`'. Edit the properties file 'CISProperties.properties' and update '[JNDI.name](#)' with the JNDI name defined. Replace the corresponding SMS, Workflow TaskSMS and Workflow Scheduler url's in CISProperties.properties file in Oracle/Middleware/Oracle_Home/soa/soa/modules/oracle.soa.ext_11.1.1/classes/oracle/fsgbu/sms/provider/cac folder.
5. Replace the corresponding SMS, Workflow TaskSMS and Workflow Scheduler url's in CISProperties.properties file in cmc-sms-jpsprovider-service-1.0.0.jar
6. Copy "cmc-sms-jpsprovider-service-1.0.0.jar" to '`<MIDDLEWARE_HOME>/user_projects/domains/<domain_name>/config/fmwconfig/ovd/plugins/lib`'.
7. in case the above folder is not available Create the directory structure as mentioned.
8. Copy the "cmc_sms_adapter.xml" to '`<MIDDLEWARE_HOME>/oracle_common/modules/oracle.ovd/templates/`



cmc_sms_adapter.xml

- Search for **<CMCDATASOURCE>** in cmc_sms_adapter.xml and update it with [jdbc/fcjdevdS](#) Datasource name.
- Execute "libovdadapterconfig" script which is present in '`<MIDDLEWARE_HOME>/oracle_common/bin`' with below parameters. Update the admin server host name or ip ,admin server port ,weblogic user id, domain home and fcubs datasource

libovdadapterconfig.sh -adapterName cmcAdapter -adapterTemplate fcubs_adapter.xml -host <ADMIN_SERVER_HOST> -port <ADMIN_PORT> -userName <WEBLOGIC_USERID> -domainPath <DOMAIN_HOME> -dataStore DB -root ou=cmc,dc=oracle,dc=com -contextName default -dataSourceJNDIName <CMCDATASOURCE>

1. Check whether appid mapped and SOA dependent ("[jdbc/fcjdevdS](#)") JNDI's are created.
2. Make sure that the above JNDI's are not enabled with Supports Global Transactions.
3. Restart the server post configuration changes
4. Do the below changes and Deploy the cmc-workflow-task-service-1.0.0.war in the server.
 1. Open the cmc-workflow-task-service-1.0.0.war, navigate to the \WEB-INF\classes\ and do the required changes in the application.properties.

```
providerUrl=t3://<<host name>>:<<SOA server-PORT>>/soa-infra
wlInitialContextFactory=weblogic.jndi.WLInitialContextFactory
security_principal=<<USERNAME>>
```

```
security_credentials=<<PASSWORD>>  
dedicationConnection=true  
appld_maint=CMNCORE  
header_branch=004  
header_source=EXTSYS  
appld_sms=sms
```

Note:

Check the users & groups are populated properly in realm. Make sure that SYSTEM user is created and populated in the realm.
(if user and roles are not properly populated , check the views (CPVW_BPEL_USERS) are properly configured in Core DB).
SYSTEM , WORKFLOWSYSTEM users are mandatory , should be maintained be available the CMC_TM_BPMN_USERS table (available Core DB).

4. Domain and Cluster Configuration

4.1 Mid Office and SOA Domain Configuration

4.1.1 Prerequisites

- Machine should have Java JDK 1.8 Update 202 has installed.
- Oracle Fusion Middleware Infrastructure 12.2.1.3.0 has to be installed on the machine.

4.1.2 Steps to Create Domain

It is recommended to have different managed server in one domain for each application. For Creating Domain and Configuration please refer to ANNEXURE-1 “**How to create and Cluster Configuration**”.

Domain name: MidCore

cmc-processcode-service
managed_server1

cmc-queue-services
managed_server2

cmc-workflow-task-scheduler-service
managed_server3

cmc-workflow-task-sms-service
managed_server4

cmc-sequencegenerator-services
managed_server5

Domain name: SOA

cmc-workflow-task-services
managed_server1

5. Data Sources Creation

5.1 Prerequisite

Database and application setup for PLATO has to be performed prior to deployment setup.

5.2 Data Sources List

The table below lists the data sources to be created on each domain prior to deployment of applications onto managed servers.

Data Source Name	Data source JNDI	Targets
CMNCORE	jdbc/CMNCORE	Mid office Common Core Server

Steps to create data source in WebLogic is same for all the above except for the connection details and names. Check the below screenshots to understand data source creation.

5.3 Creating Data Source

For creating data source in please refer ANNEXURE-1 “**How to create Data sources section**”.

6. Deployments

6.1 Pre-requisite

Before you proceed with below, please make sure previous steps are completed.

6.2 Deployments List

Below table give details of the deployments required on each domain for the Common Core application to run. Deploy one after other in the same given order.

Application	Archive name	OSDC Path	Targets
cmc-sequencegenerator-services	cmc-sequencegenerator-services-1.0.3.war	MID_OFFICE_CORE\APP\cmc-sequencegenerator-services\APP	Mid office Common core server
cmc-workflow-task-sms-services	cmc-workflow-task-sms-services-1.0.3.war	MID_OFFICE_CORE\APP\cmc-workflow-task-sms-services\APP	Mid office Common core server
cmc-processcode-service	cmc-processcode-service-1.0.3.war	MID_OFFICE_CORE\APP\cmc-processcode-services\APP	Mid office server
cmc-queue-service	cmc-queue-service-1.0.3.war	MID_OFFICE_CORE\APP\cmc-queue-services\APP	Mid office Common core server
cmc-workflow-task-scheduler-service	cmc-workflow-task-scheduler-service-1.0.3.war	MID_OFFICE_CORE\APP\cmc-workflow-task-scheduler-services\APP	Mid office Common core server
cmc-workflow-task-service	cmc-workflow-task-service-1.0.3.war	MID_OFFICE_CORE\APP\cmc-workflow-task-services\APP	SOA Server

6.3 Steps to Deploy as Application

To deploy application please refer ANNEXURE-1. "How to deploy section".

7. Restarts and Refresh

Once everything is deployed, restart all the managed servers. And for each application call path “/refresh” for refreshing the configuration properties.

7.1 Restarting Servers

To restart the server please refer to ANNEXURE-1.”**How to restart**” section.

8. Logging Area

8.1 Introduction

This part of the document will talk about the logs area where after deployment of Common Core Applications in WebLogic server.

8.1.1 Logging Area

Mid office Common Core Application writes logs in the below area of the server-
<WEBLOGIC_DOMAIN_CONFIG_AREA>/servers/MIDCOREAPP/logs/MIDCOREAPP.out
Let's assume a domain has been created **MidCore_domain** with **managed_server** name called **MIDCOREAPP** in the following area of the server

/scratch/oracle/middleware/user_projects/domains/**MidCore_domain**. Logging area for Common core would be **/scratch/oracle/middleware/user_projects/domains/MidCore_domain/servers/MIDCOREAPP/logs/MIDCOREAPP.out**.

SOA Application writes logs in the below area of the server-
<WEBLOGIC_DOMAIN_CONFIG_AREA>/servers/SOAAPP/logs/SOAAPP.out Let's assume a domain has been created **SOA_domain** with **managed_server** name called **SOAAPP** in the following area of the server

/scratch/oracle/middleware/user_projects/domains/**SOA_domain**. Logging area for Common core would be **/scratch/oracle/middleware/user_projects/domains/SOA_domain/servers/SOAAPP/logs/SOAAPP.out**.