Oracle FLEXCUBE Onboarding Installation Guide

Oracle FLEXCUBE Onboarding

Release 14.4.0.3.0

Part Number F39511-01

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1. Preface

1.1 Introduction

This guide helps you to install the Oracle FLEXCUBE Onboarding services, User Interface, and Conductor Process flow on designated environments. It is assumed that all the prior setup is already done related with WebLogic installation, WebLogic managed server creation and Oracle DB installation.
It is recommended to use dedicated managed server for each of the Plato infrastructure services, Oracle FLEXCUBE Onboarding Services and Oracle Onboarding FLEXCUBE User Interface.

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/us/corporate/accessibility/index.html.

1.4 Organization

This installation user guide would allow you to install the below mentioned Oracle FLEXCUBE Onboarding services, UI, process flow in same order:

Oracle FLEXCUBE Onboarding Services

1. obremo-rpm-maintenance-services
2. obremo-rpm-process-driver-services
3. obremo-rpm-businessprocess-services
4. obremo-rpm-businessproductdetails-services
5. obremo-rpm-cmn-applicantservices
6. obremo-rpm-cmn-hostservices
7. obremo-rpm-cmn-scorecardservices
8. obremo-rpm-lo-loanapplications
9. obremo-rpm-sav-account-service
10. obremo-rpm-term-deposit-service
11. obremo-rpm-projection-services
12. obremo-rpm-batch-services
13. obremo-rpm-cmn-ipaservices

User Interface

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 Common Core war files, deploy the war files mentioned below:

1. app-shell
2. cmc-component-server
3. moc-component-server
4. sms-component-server

For Domain Specific war files, deploy the individual component server war files mentioned below:

1. oboflo-component-server

Oracle FLEXCUBE Onboarding Process Workflow

1. CURRENTACCOUNT
2. EDUCATIONLOAN
3. HOMELOAN
4. INITIATION
5. IPA
6. PERSONALLOAN
7. SAVINGSACCOUNT
8. CASAHOSTORCH
9. VEHICLELOAN
10. HOSTORCHESTRATOR
11. TDACCOUNT
12. TDHOSTORCH

1.5 Related documents

For more information, refer to the following documents:

- Getting Started
- Oracle FLEXCUBE Onboarding Pre installation Guide
- ANNEXURE-1

2. Database Setup

2.1 Introduction

In this section you are going to setup database related configuration for Oracle FLEXCUBE Onboarding Installation. It is recommended to create different schema for each application. Below setup is designed to work with separate schema for each application.

2.2 Prerequisite

In this section, you are going to setup database related configuration for Oracle FLEXCUBE Onboarding Installation. Before you proceed, ensure pre-installation setup is done. The pre-installation setup includes the configuration of database, setting up the setUserOverrides.sh. After creating the schema for each of the required micro services, DDLs and INCs of each micro-service to be compiled in the respective schemas. The DDLs and INCs ensure the creation of tables and availability of static data required for the execution of services. These are compiled automatically using flyway.

2.3 Database Setup

To setup DB for Oracle FLEXCUBE Onboarding schema's to be created:

Service Name	**Schema Required**
obremo-rpm-maintenance-services	Yes (obremo-rpm-maintenance-services schema)
obremo-rpm-process-driver-services	Yes (obremo-rpm-process-driver-services schema
obremo-rpm-businessprocess-services	Yes (obremo-rpm-businessprocess-services schema)
obremo-rpm-businessproductdetails-services	Yes (obremo-rpm-businessproductdetails-services schema)
obremo-rpm-cmn-applicantservices	Yes (obremo-rpm-cmn-applicantservices schema)
obremo-rpm-cmn-hostservices	Yes (obremo-rpm-cmn-hostservices schema)
obremo-rpm-cmn-scorecardservices	Yes (obremo-rpm-cmn-scorecardservices schema)
obremo-rpm-lo-loanapplications	Yes (obremo-rpm-lo-loanapplications schema)
obremo-rpm-sav-account-service	Yes (obremo-rpm-sav-account-service schema)
obremo-rpm-term-deposit-service	Yes Yes (obremo-rpm-term-deposit-service schema)
obremo-rpm-projection-services	Yes (obremo-rpm-projection-services schema)
obremo-rpm-batch-services	No (uses the plato batch server schema)
obremo-rpm-cmn-ipaservices	Yes (obremo-rpm-cmn-ipaservices schema)

3. Oracle FLEXCUBE Onboarding Services Domains Configuration

3.1 Prerequisites

1. Machine should have Java JDK to be installed.
2. Oracle Fusion Middleware has to be installed on the machine.

   NOTE: Before proceeding with below steps complete Plato installation guided.

3. Steps for creating all OFLO domains, properties like port numbers, names will be changing based on the domain. Screenshots provided for such deviations. Domain creation process remains the same.

   NOTE: For the exact version to be installed, refer to **Software Prerequisites** section in **License Guide**.

3.2 Oracle FLEXCUBE Onboarding Service Domain Creation

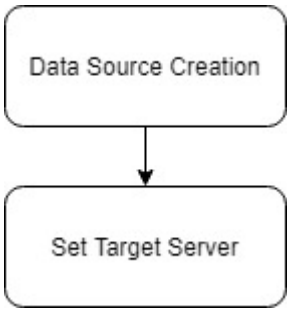
It is recommended to have separate domain for Oracle FLEXCUBE Onboarding application. For Creating Domain and Configuration, refer to **How to create and Cluster Configuration** section in ANNEXURE-1.

Service Name	Domain Name
obremo-rpm-maintenance-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-process-driver-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-businessprocess-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-businessproductdetails-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-cmn-applicantservices	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-cmn-hostservices	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-cmn-scorecardservices	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-lo-loanapplications	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-term-deposit-service	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-batch-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-projection-services	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-sav-account-service	Oracle FLEXCUBE Onboarding Domain
obremo-rpm-cmn-ipaservices	Oracle FLEXCUBE Onboarding Domain

4. Data Sources Creation

4.1 Prerequisite

Database setup for Oracle FLEXCUBE Onboarding has to be performed prior to deployment setup. The data sources for the respective micro-services must be created first before the application deployment. Each of the data source target to their corresponding servers on which the application will be deployed. The following sections explain the list of data sources required to be created for Oracle FLEXCUBE Onboarding services and the steps to configure them in the server.



4.2 Data sources List

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

Service Name	Data source Name	Data source JNDI	Targets
obremo-rpm-maintenance-services	RPMMAINTENANCE	jdbc/OBREMOMAINTCE	OFLO Manage Server
obremo-rpm-process-driver-services	RPMProcessDriver	jdbc/RPMPROCESSDRIVER	OFLO Manage Server
obremo-rpm-businessprocess-services	RPMBusinessProcess	jdbc/OBREMOBUSSPRC	OFLO Manage Server
obremo-rpm-businessproductdetails-services	RPMBusinessProduct	jdbc/OBREMOBPDETAILS	OFLO Manage Server
obremo-rpm-cmn-applicantservices	RPMCmnApplicant	jdbc/CMNAPPLICANT	OFLO Manage Server
obremo-rpm-cmn-hostservices	RPMHostService	jdbc/RPMHOST	OFLO Manage Server
obremo-rpm-cmn-scorecardservices	RPMScorecard	jdbc/CMNSCORECARD	OFLO Manage Server
obremo-rpm-lo-loanapplications	RPMLoan	jdbc/LOANAPP	OFLO Manage Server
obremo-rpm-term-deposit-service	RPMTD	Jdbc/TDACC	OFLO Manage Server
obremo-rpm-projection-services	RPMPROJECTION	jdbc/RPMPROJECTION	OFLO Manage Server
obremo-rpm-sav-account-service	RPMSaving	jdbc/SAVACC	OFLO Manage Server
obremo-rpm-cmn-ipaservices	RPMIPA	jdbc/IPA	OFLO Manage Server

4.3 Steps to Create Datasource

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

4.4 Additional Datasource Mapping

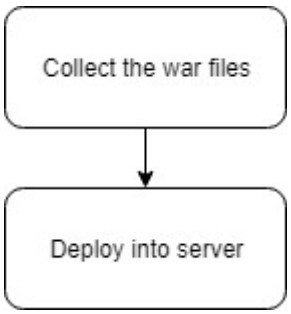
As part of Oracle FLEXCUBE Onboarding, flyway jndi changes are incorporated. In order to deploy the services successfully, map the following data source to all the newly created managed servers for Oracle FLEXCUBE Onboarding.

Data source Name	Data Source JNDI	Targets
PLATO	jdbc/PLATO	Oracle FLEXCUBE Onboarding Managed Server
PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	Oracle FLEXCUBE Onboarding Managed Server
SMS	jdbc/sms	Oracle FLEXCUBE Onboarding Managed Server
PLATOBATCH	jdbc/PLATOBATCH	Oracle FLEXCUBE Onboarding Managed Server
COMMON CORE	jdbc/CMNCORE	Oracle FLEXCUBE Onboarding Managed Server

5. Deployments

5.1 Prerequisite

The database setup and data sources creation have to be performed prior to the application deployment stage. Each of the services corresponds to a specific war file that needs to be deployed into the server. The following sections explain the list of war files of the Oracle FLEXCUBE Onboarding application and the steps to deploy them into the server.



5.2 Deployments List

Below table give details of the deployments required on each domain for the Oracle FLEXCUBE Onboarding application to run. Deploy one after other in the same given order. The provided archive names are for reference purpose. Refer to the exact archive names available as a part of release.

Application	Archive name	OSDC path	Targets
Maintenance Services	obremo-rpm-maintenance-services-5.5.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-maintenance-services	Oracle FLEXCUBE Managed Server
Process Driver	obremo-rpm-process-driver-services-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-process-driver-services	Oracle FLEXCUBE Managed Server
Business Process	obremo-rpm-businessprocess-services-5.7.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-businessprocess-services	Oracle FLEXCUBE Managed Server
Business Product details	obremo-rpm-businessproductdetails-services-5.6.0.war	{**unzip the file**} OFLO_SERVICES\ obremo-rpm-businessproductdetails-services	Oracle FLEXCUBE Managed Server
Common Applicant	obremo-rpm-cmn-applicantservices-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-cmn-applicantservices	Oracle FLEXCUBE Managed Server
Host Services	obremo-rpm-cmn-hostservices-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-cmn-hostservices	Oracle FLEXCUBE Managed Server

Application	Archive name	OSDC path	Targets
ScoreCard	obremo-rpm-cmn-scorecardservices-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-cmn-scorecardservices	Oracle FLEXCUBE Managed Server
Loan Applicant Services	obremo-rpm-lo-loanapplications-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-lo-loanapplications	Oracle FLEXCUBE Managed Server
Savings (CASA) Services	obremo-rpm-sav-account-service-5.6.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-sav-account-service	Oracle FLEXCUBE Managed Server
TD Services	obremo-rpm-term-deposit-service-5.3.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-term-deposit-service	Oracle FLEXCUBE Managed Server
Batch Service	obremo-rpm-batch-services-5.1.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-batch-services	Oracle FLEXCUBE Managed Server
PROJECTION Service	obremo-rpm-projection-services-5.1.0.war	{**unzip the file**} OFLO_SERVICES\obremo-rpm-projection-services	Oracle FLEXCUBE Managed Server
IPA Service	obremo-rpm-cmn-ipaservices-5.0.0.war	{**unzip the file**} OFLO_SERVICES\ obremo-rpm-cmn-ipaservices	Oracle FLEXCUBE Managed Server

5.3 Steps to Deploy as Application

To deploy application, refer to **How to deploy** section in ANNEXURE-1.

6. Restarts and Refresh

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

6.1 Restarting Servers

To restart the server, refer to **How to restart** section in ANNEXURE-1.

7. Logging Area

7.1 Introduction

This part of the document will talk about the logs area where after deployment of Oracle FLEXCUBE Onboarding Applications in WebLogic server.

7.1.1 Logging Area

Oracle FLEXCUBE Onboarding Application writes logs in the below area of the server-

<WEBLOGIC_DOMAIN_CONFIG_AREA/servers/APP/logs/ APP.out

Let's assume a domain has been created **oflo_domain** with **managed_server** name called **OFLOAPP** in the following area of the server

~/middleware/user_projects/domains/**oflo_domain**". Logging area for Oracle FLEXCUBE Onboarding applications would be
~/middleware/user_projects/domains/oflo_domain/servers/OFLOAPP/logs/ OFLOAPP.out.

8. Oracle FLEXCUBE Onboarding UI Domain and Cluster Configuration

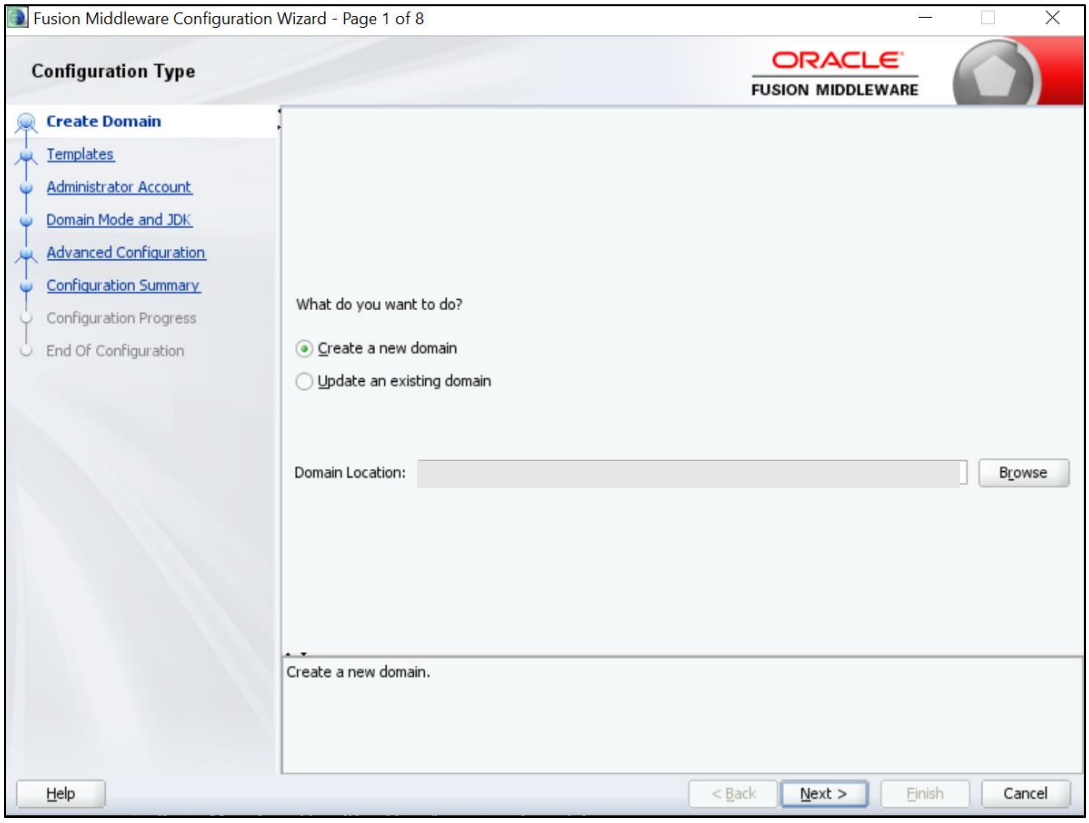
8.1 Prerequisites

1. Machine should have Java JDK to be installed.
2. Oracle Fusion Middleware has to be installed on the machine.

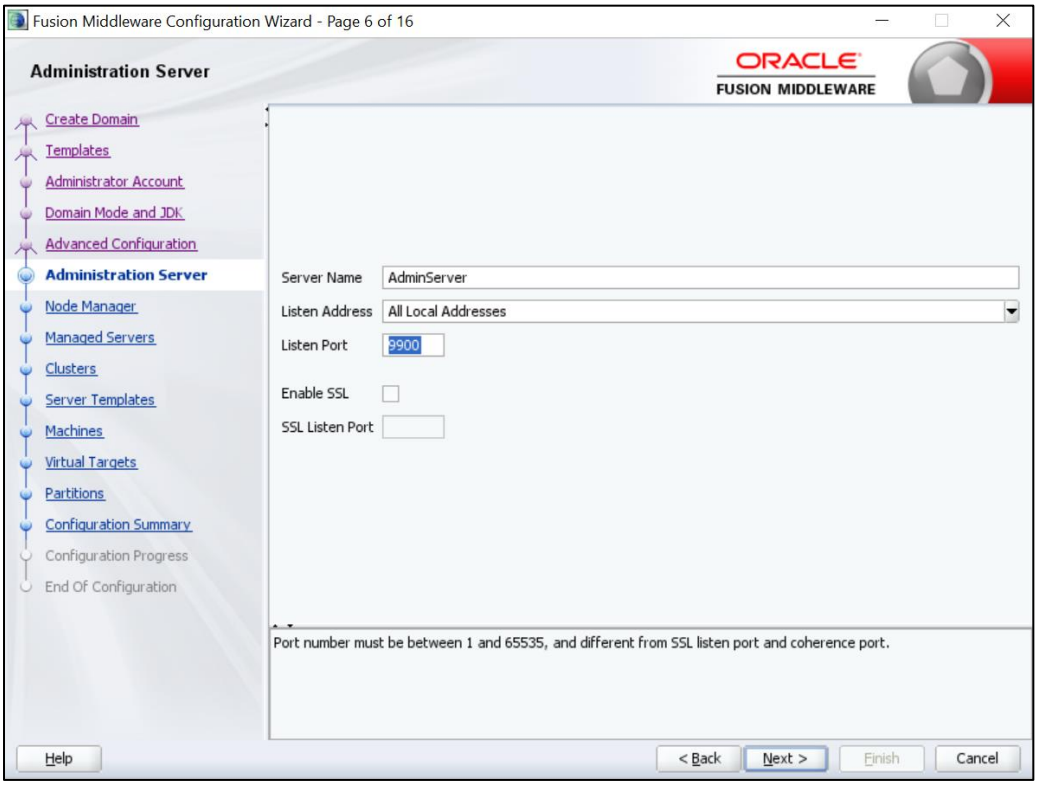
Note: For the exact version to be installed, refer to **Software Prerequisites** section in **License Guide**.

8.2 Oracle FLEXCUBE Onboarding UI Domain (OFLOUI)

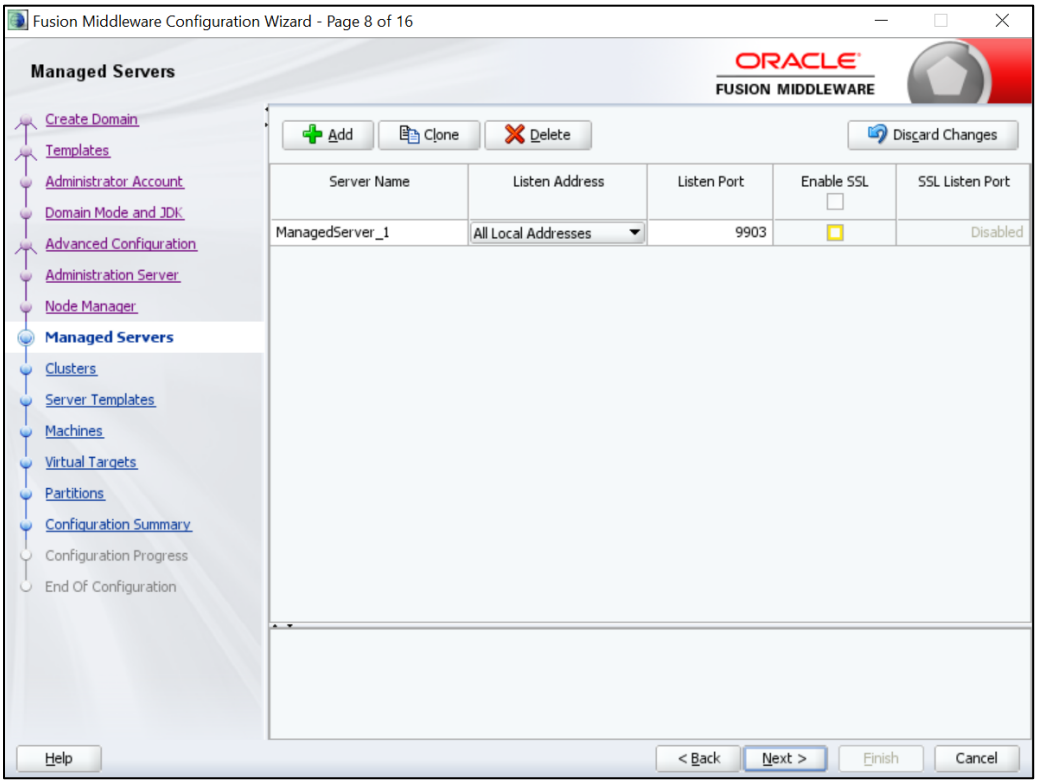
1. Click **Create Domain** tab and select **Create a new domain** option. Specify the domain location.



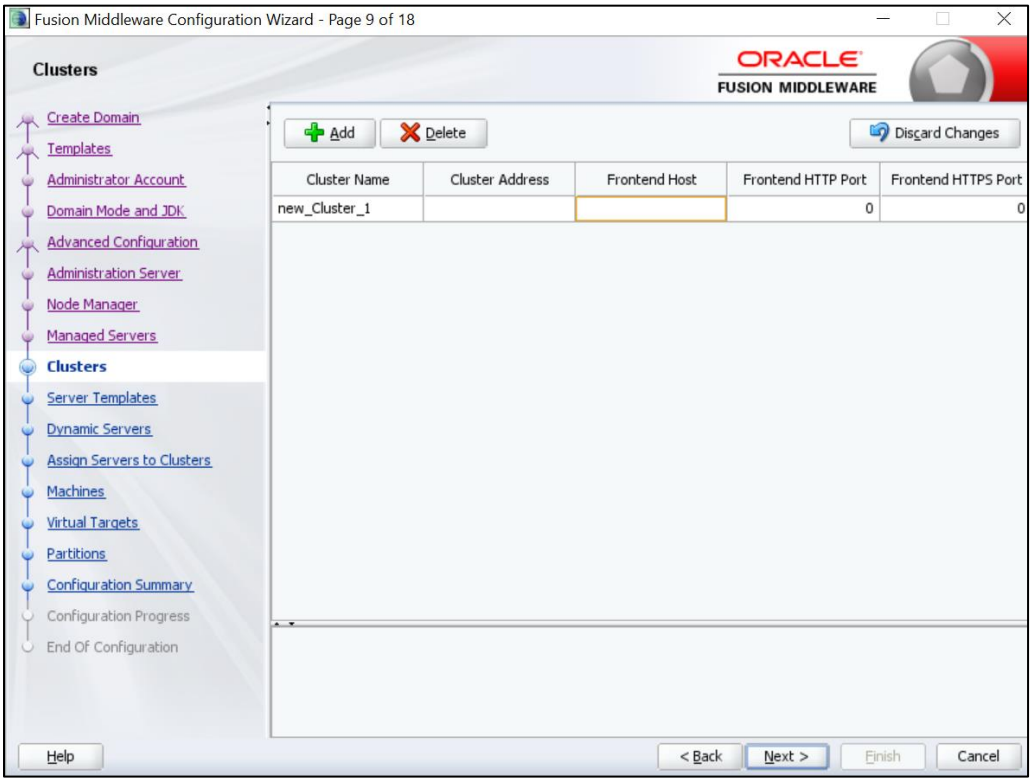
2. On **Administration Server** screen, specify the server details, and click **Next**.



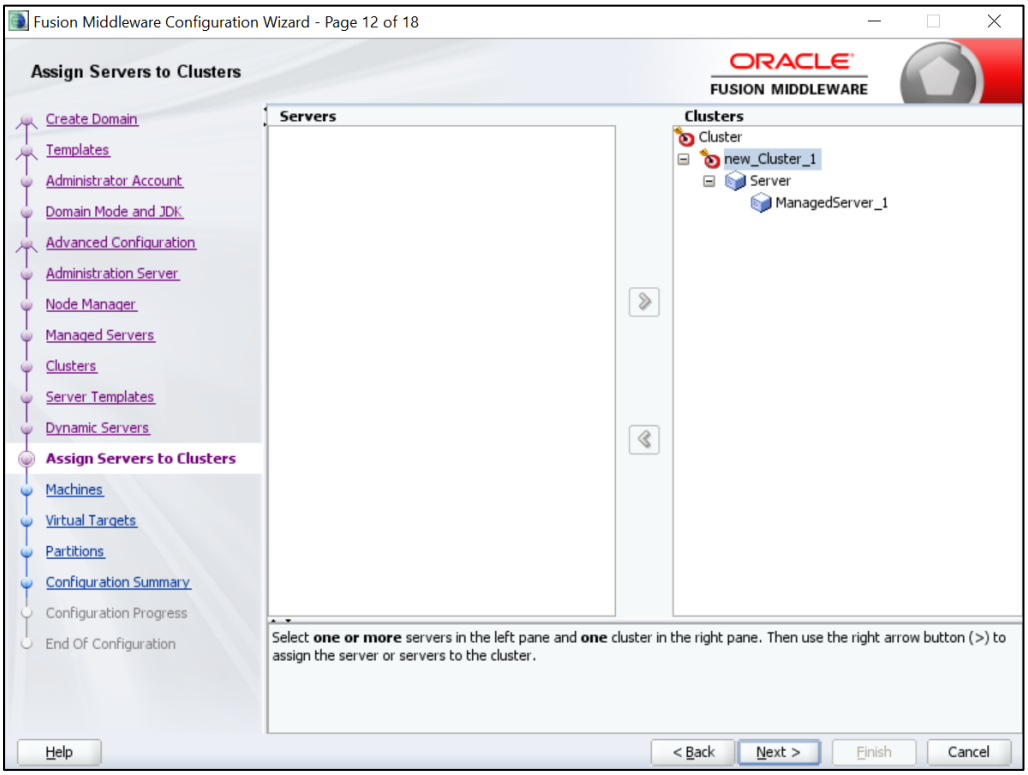
3. On **Managed Servers** screen, add entry for managed server, and click **Next**.



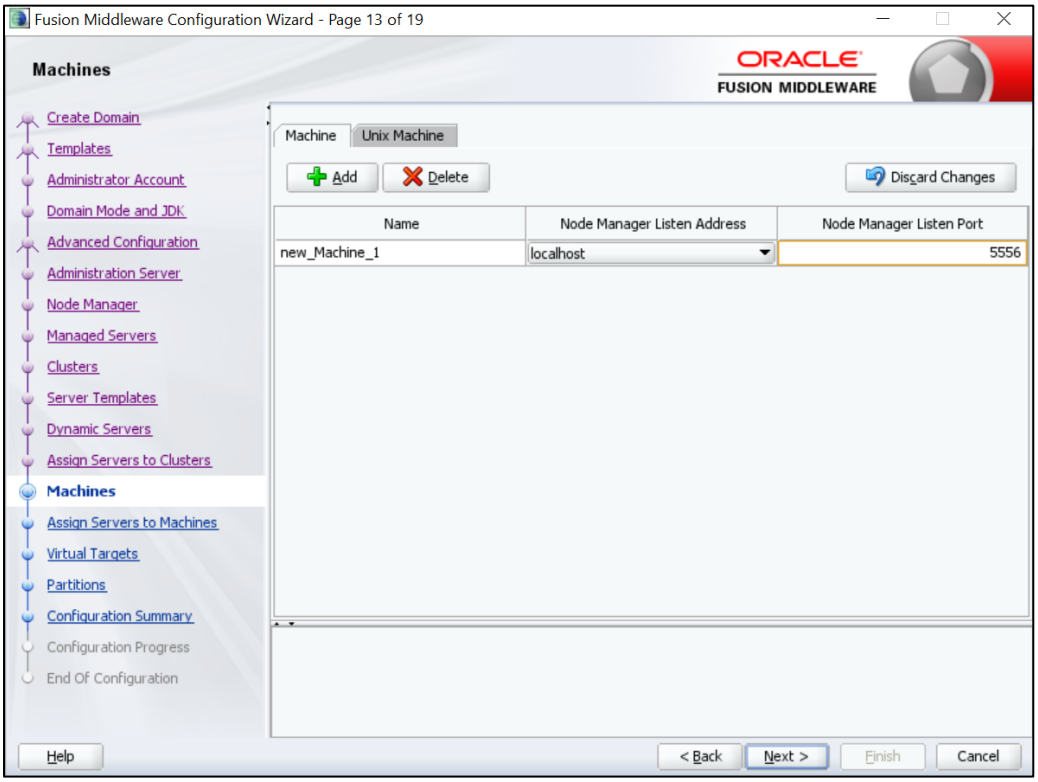
4. On **Clusters** screen, add entry for cluster, and click **Next**.



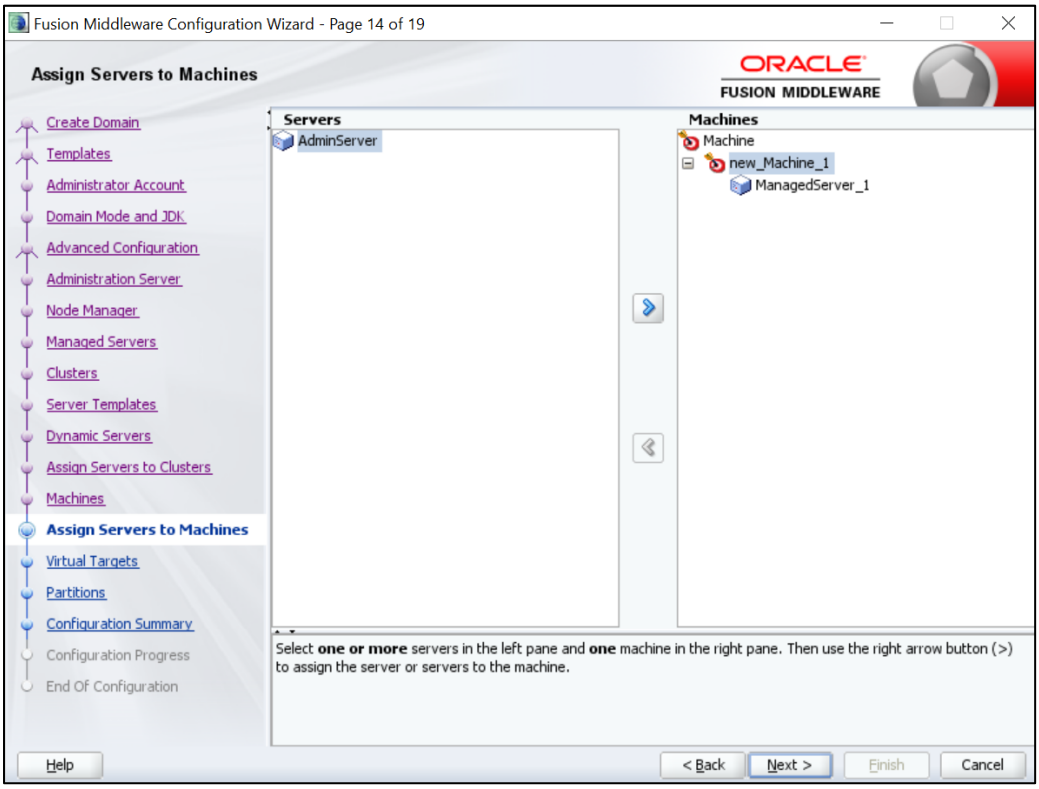
5. On **Assign Server to Cluster** screen, assign the required servers, and click **Next**.



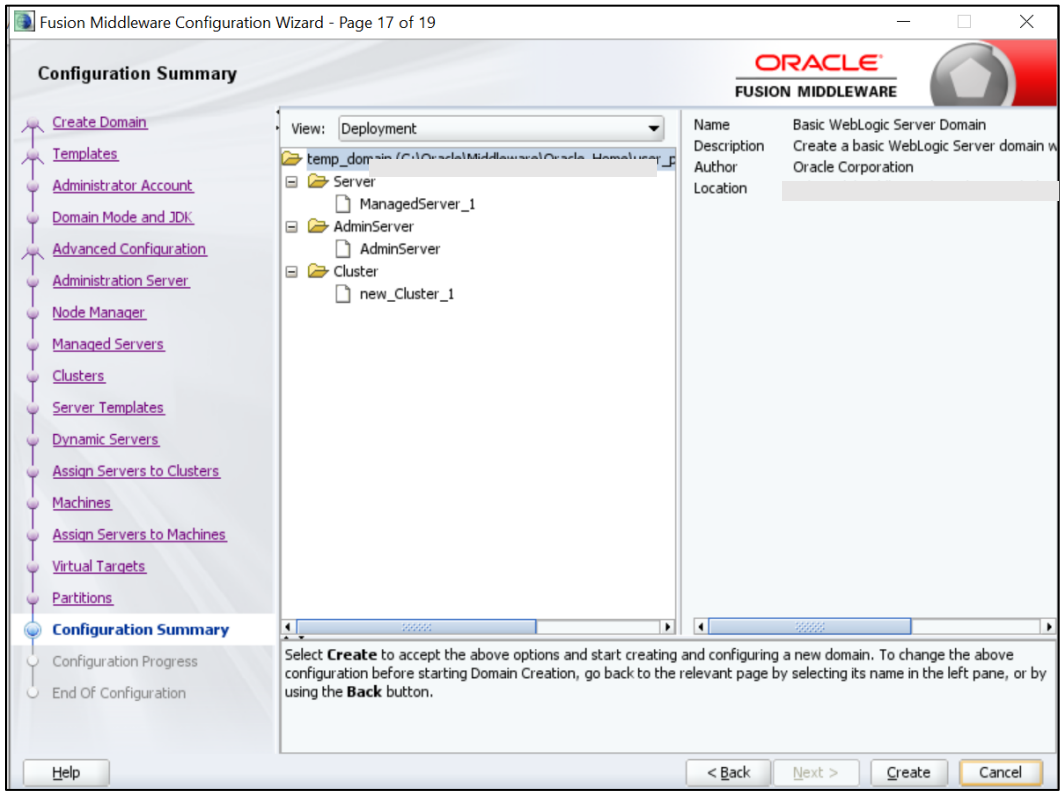
6. On **Machines** screen, add entry for the machine, and click **Next**.



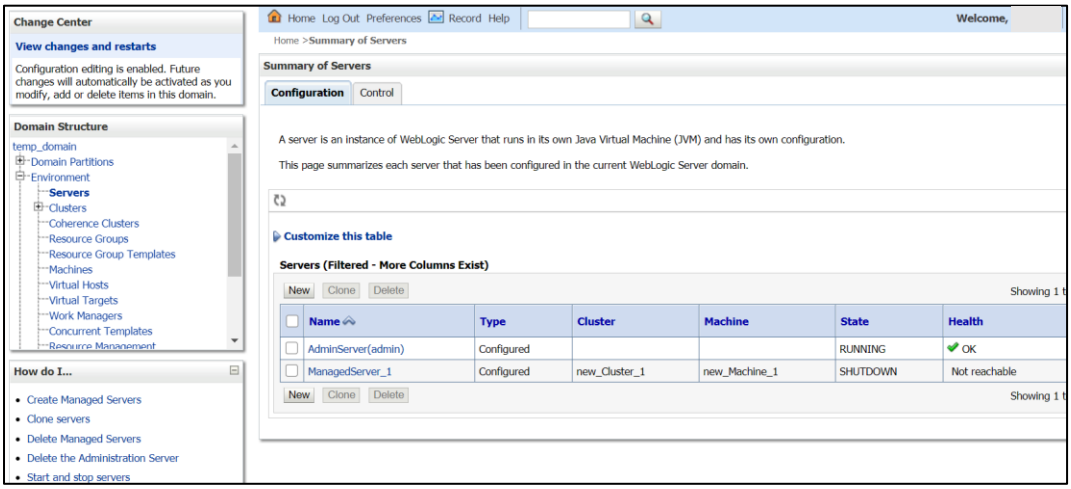
7. On **Assign Server to Machines** screen, assign the required machine, and click **Next**.



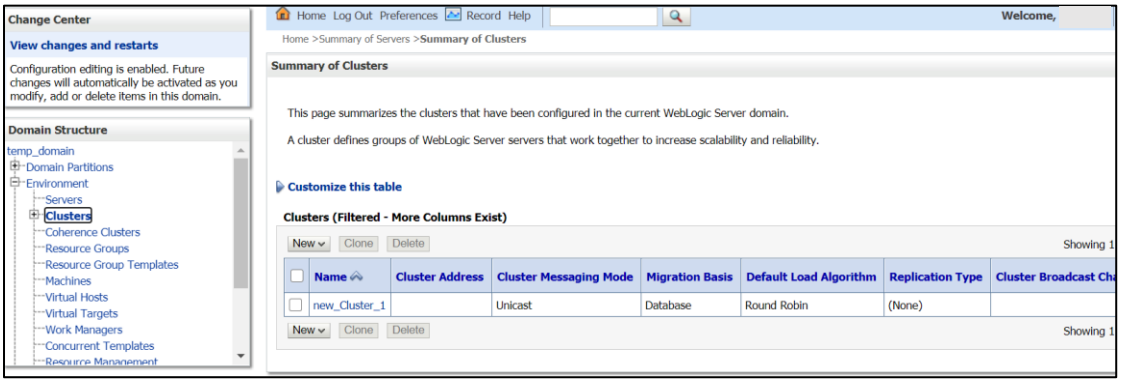
8. On **Configuration Summary** screen and click **Create** to configure a new domain.



9. Click **Servers** tab, select **Configuration**, and verify the configuration details of server.



10. Click **Clusters** tab, and verify the configuration details of cluster.



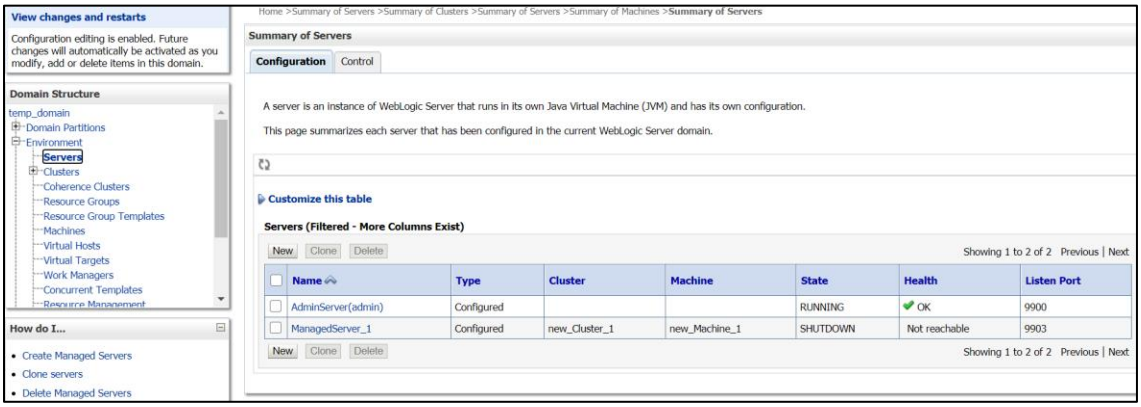
11. Click **Machines** tab, and verify the configuration details of machine.

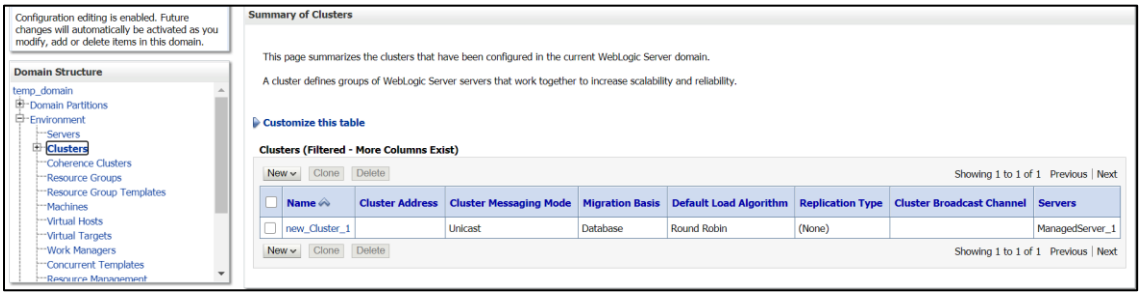
8.3 Post Domain creation configurations

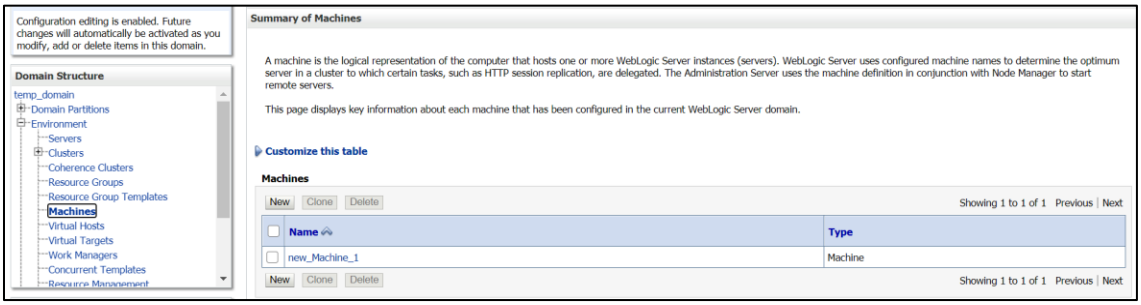
Once finished, refer oracle fusion middleware documents for more details on how to start admin server, node manager and managed servers.

1. **Create boot**.properties file under **/user_projects/domains/XXXXdomainNameXXX/servers/AdminServer/security**.
2. Edit **boot.properties** and give username and password details.
3. Goto **/user_projects/domain/sms_domain/bin**.
4. Run **startWeblogic.cmd** (or **.sh** if operating system is linux).
5. Goto **/user_projects/domains/ sms _domain/bin**.
6. Run **setNMJavaHome.cmd** (.**sh**).
7. Goto **/user_projects/domains/ sms _domain/nodemanager**.
8. And edit **nodemanager.properties** as required(securelistner = false if ssl and keystore is not given) And in admin console also navigate to **Machines**- > **sms_Machine** -> **Node Manager** -> **Type** -> **Plain** -> **Save**.
9. Navigate to **/user_projects/domains/ sms _domain/bin**.
10. Run **startNodeManager.cmd** (or **.sh** if operating system is linux).
11. Start all managed servers.

Login to console and verify servers and clusters.







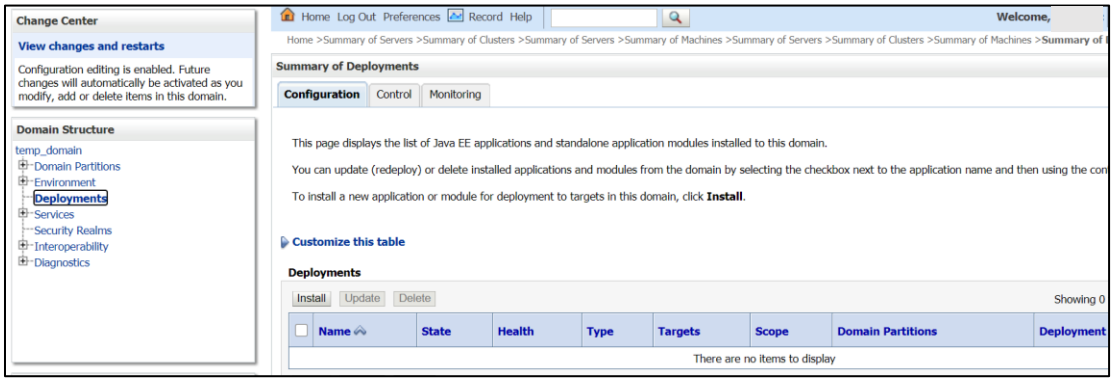
9. Oracle FLEXCUBE Onboarding User Interface Deployments

9.1 Steps to deploy as application

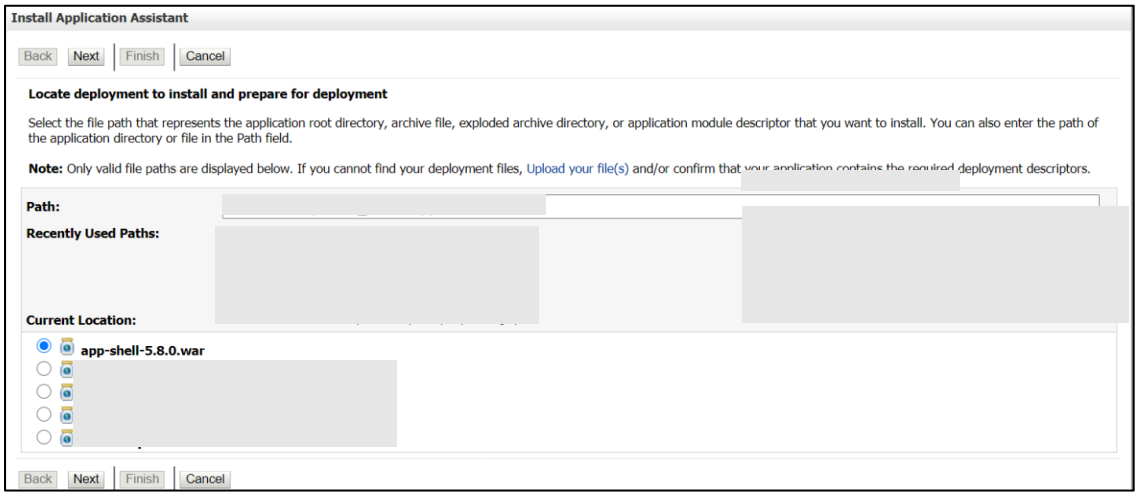
NOTE: Server names, Domain names need not to be same as this doc provides.

Steps to Deploy archives as application on weblogic is same for all the above except for managed server and domain where we deploy will differ. Find the below screenshots to see how deployment of archive as application is done on weblogic:

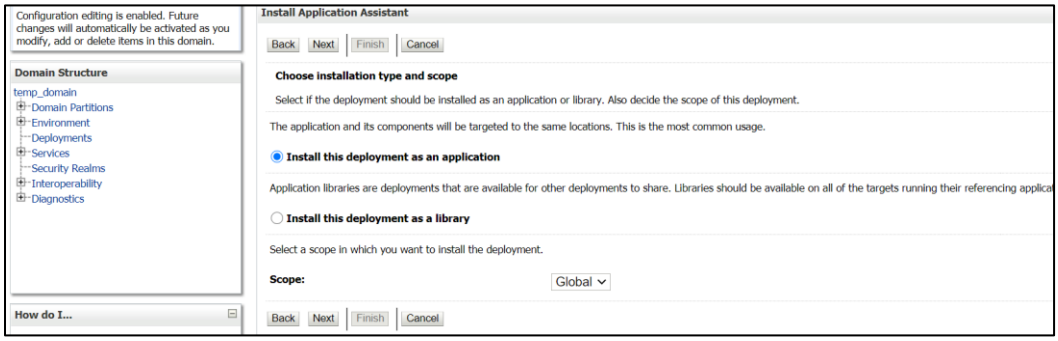
1. Extract the zip file under **UI** folder.
2. Open **app-shell\common\js\util\config\config.json** file change **apiGatewayURL** to point plato-api-gateway URL.
3. Copy app-shell folder and paste it to your server. For example: scratch/deployment.
4. Open Weblogic console and navigate to the **Deployments**.



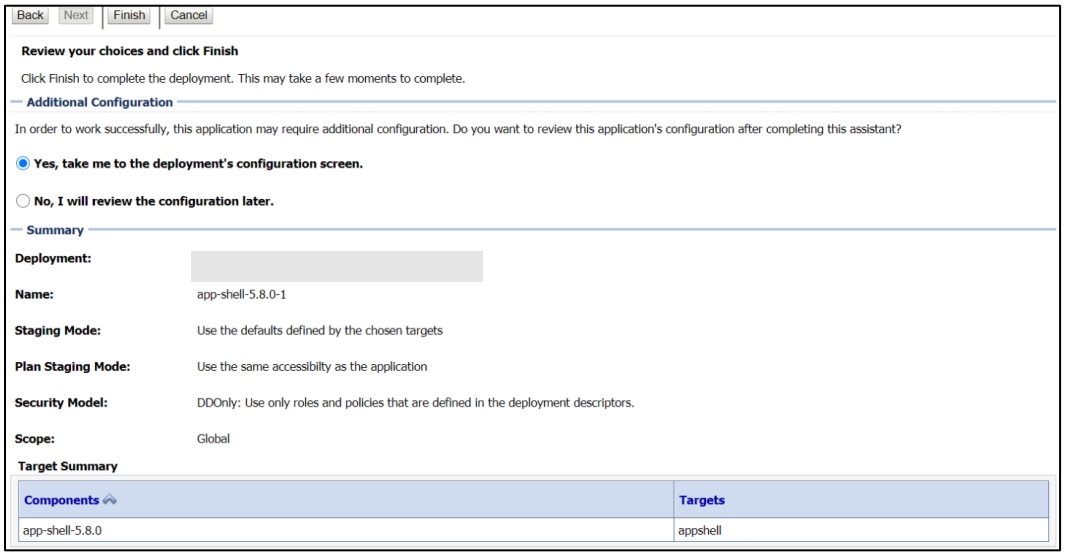
5. Click **Install**, paste folder location on path and press **Enter** key, select the app_shell directory.



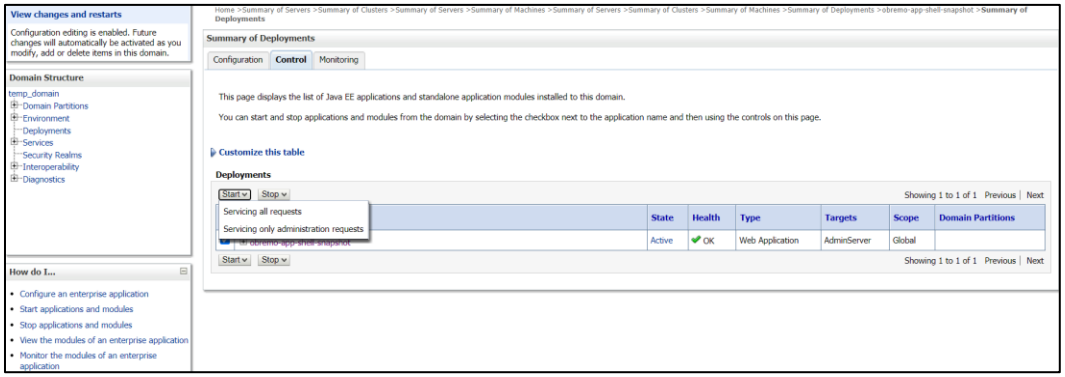
6. Check the option install this deployment as an application option and click **Next**.



7. Name the deployment as app_shell and click **Next**.
8. Check the option **Yes, take me to the deployment's configuration screen** and click **Finish**.



9. Navigate to the **Control** tab and click **start.** Select the option **Servicing all requests** and Click **Yes**.



NOTE: All UI war files should be deployed. Refer to User Interface in section 1.4.

10. Verify state is Active. If yes, open the URL in this format:

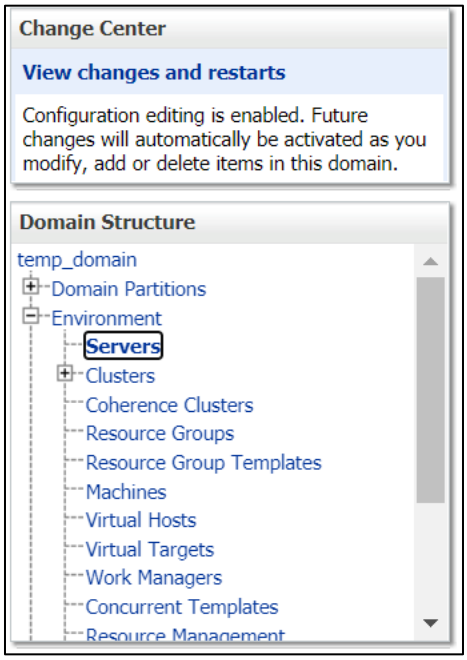
    http://HostName:PortNo/app-shell/

10.Restarts and Refresh

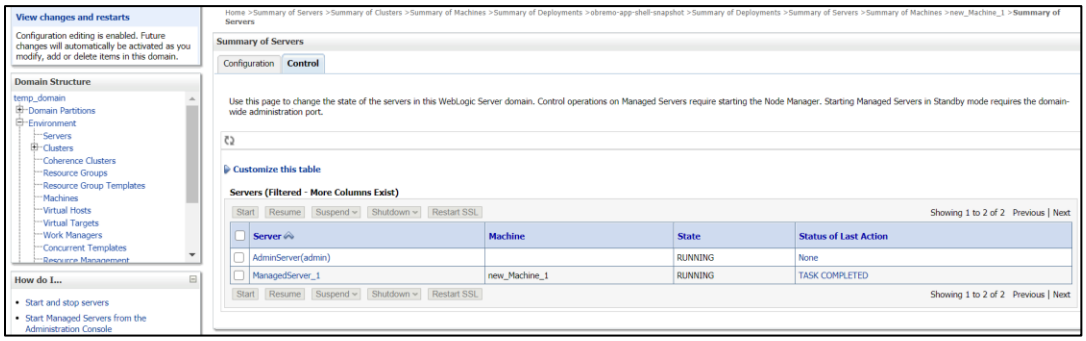
Once everything is deployed, restart all the managed servers. And for each application call path **/refresh** for refreshing the configuration properties.

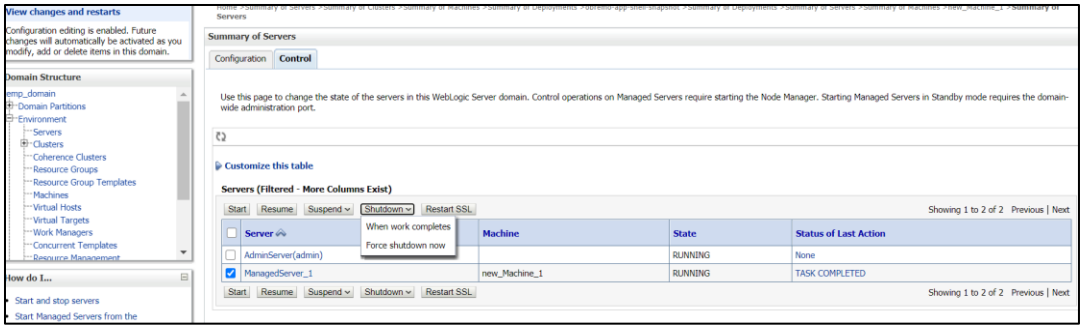
10.1 Restarting Servers

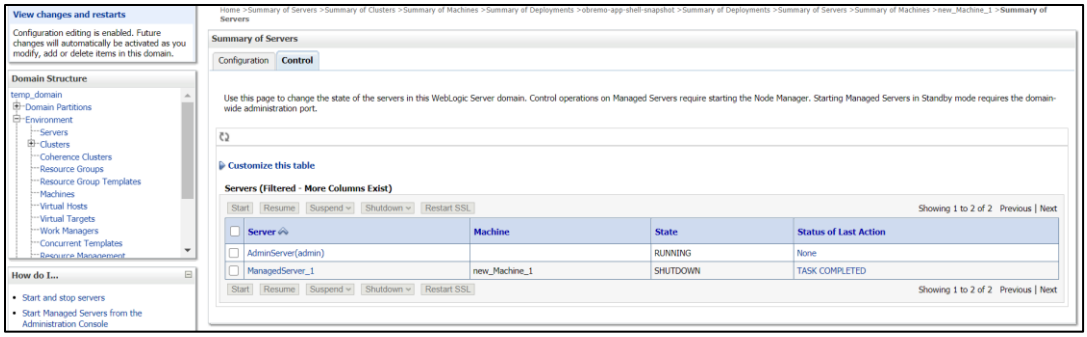
1. Navigate to **Environment** and then click **Servers**.



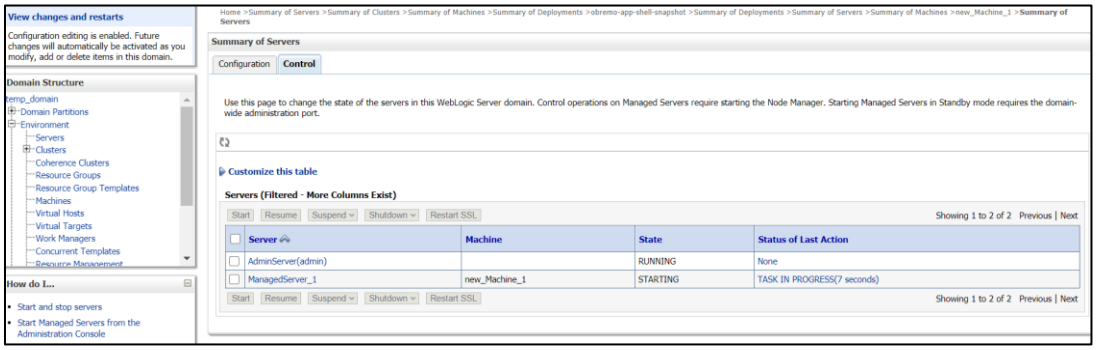
2. Click **Control** tab and select servers to shut down, and click **Yes** to confirm shutdown.

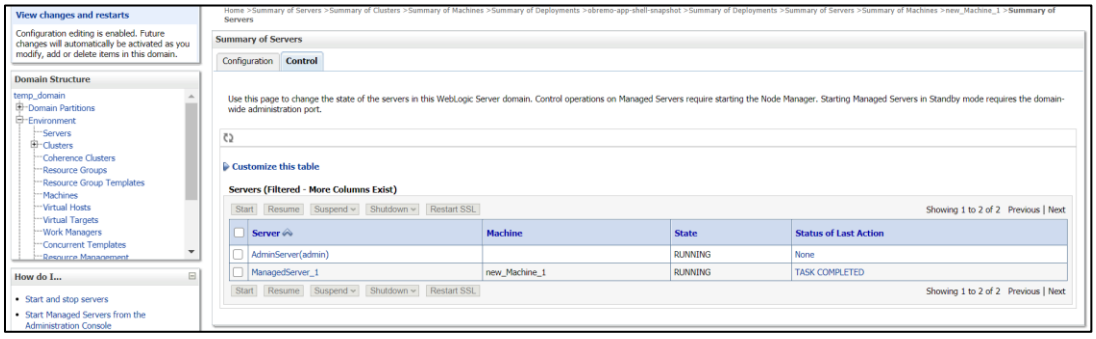




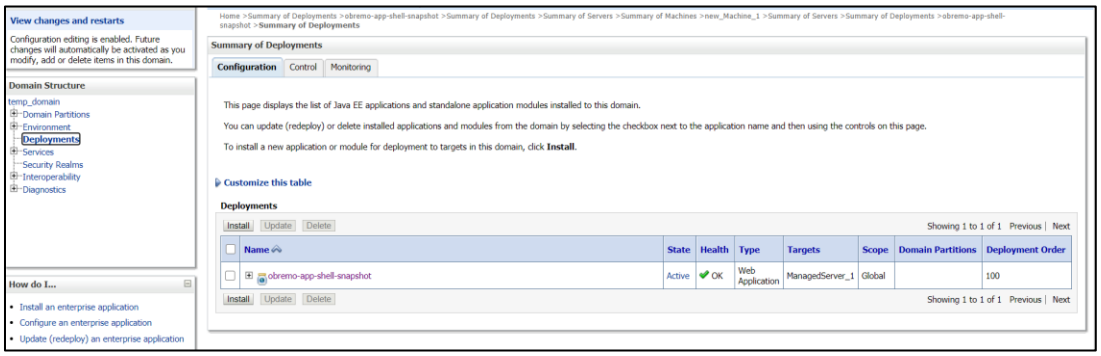


3. Once shutdown is completed, navigate to **Control** and select the servers to start and confirm action.





4. When all requested servers are running, navigate to **Deployments** and check if deployments are in active state.



11.Deployments

11.1 Oracle FLEXCUBE Onboarding Processes

Below are the list of Conductor based processes which have to be deployed for the Oracle FLEXCUBE Onboarding.

Serial Number	Process Name	Dependent Process
1	CURRENTACCOUNT	None
2	EDUCATIONLOAN	None
3	HOMELOAN	None
4	INITIATION	None
5	IPA	None
6	PERSONALLOAN	None
7	SAVINGSACCOUNT	None
8	VEHICLELOAN	None
9	HOSTORCHESTRATOR	None
10	CASAHOSTORCH	None
11	TDACCOUNT	None
12	TDHOSTORCH	None

11.2 Updating the process

Before deploying the process the following section to be updated with the server ip/port for the end points used in the process.

For each process, open the process to find for “http_request” and modify the following in the uri.

```
"uri": "http://{{PROCESS_SERVER_HOST}}:{{PROCESS_SERVER_PORT}}/
```

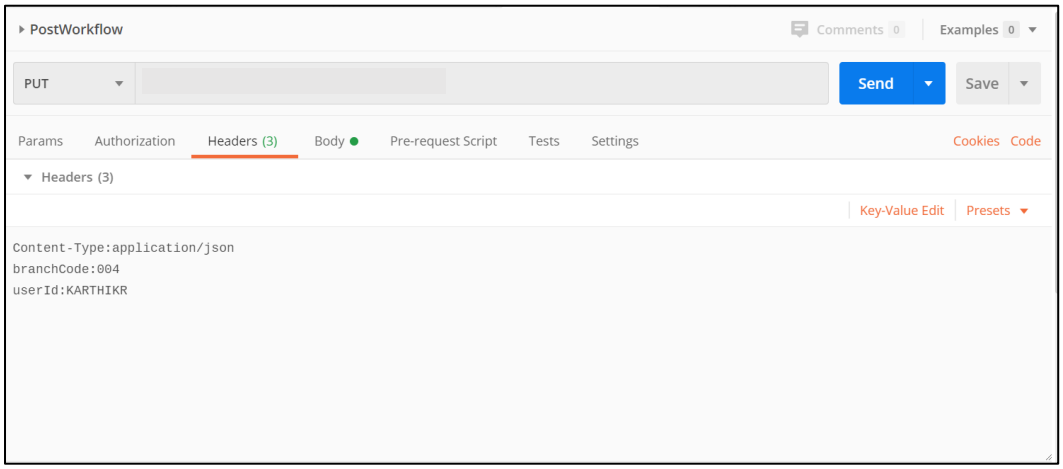
{{PROCESS_SERVER_HOST}} - IP of the Conductor server.

{{PROCESS_SERVER_PORT}} - Port of the Conductor server

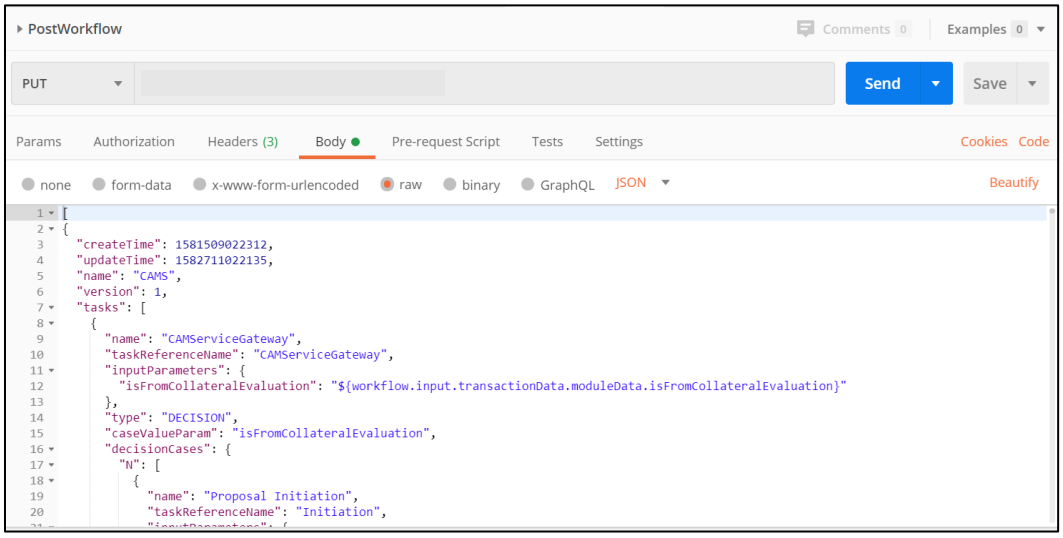
11.3 Steps to Deploy Conductor Process

NOTE: Server names, Domain names need not to be same as this doc provides.
Steps to Deploy a process remains the same for all the process files:

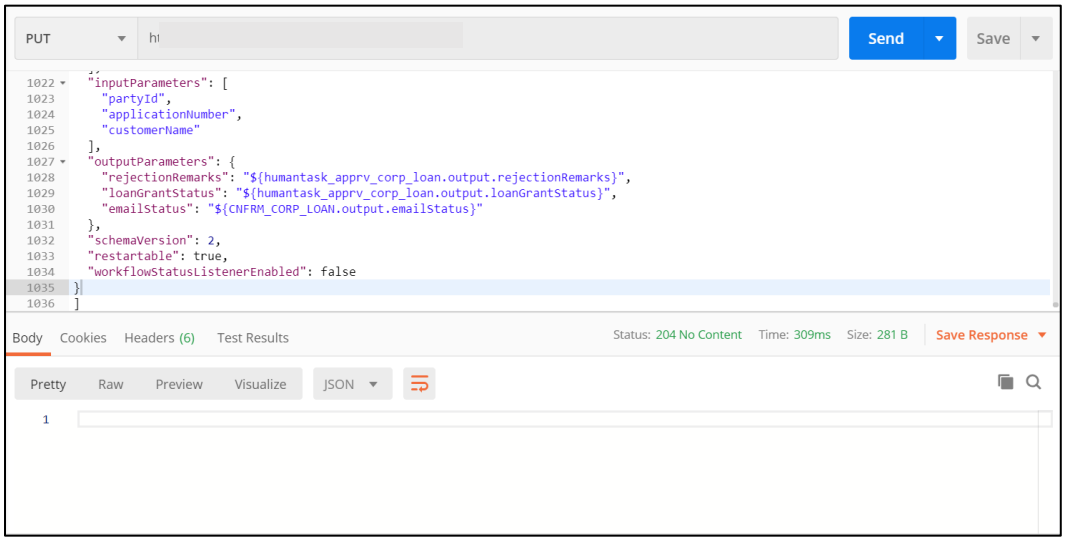
1. Launch Postman.
2. Create a new Request (if not done already) and select **POST** method. If the process flow is already deployed and if you want to update it, then the method should be “PUT”.
3. Input the header params as shown below:



4. Paste the body of the message with the content from the process file.



5. Click **Send**. Response status **204** returned from server.



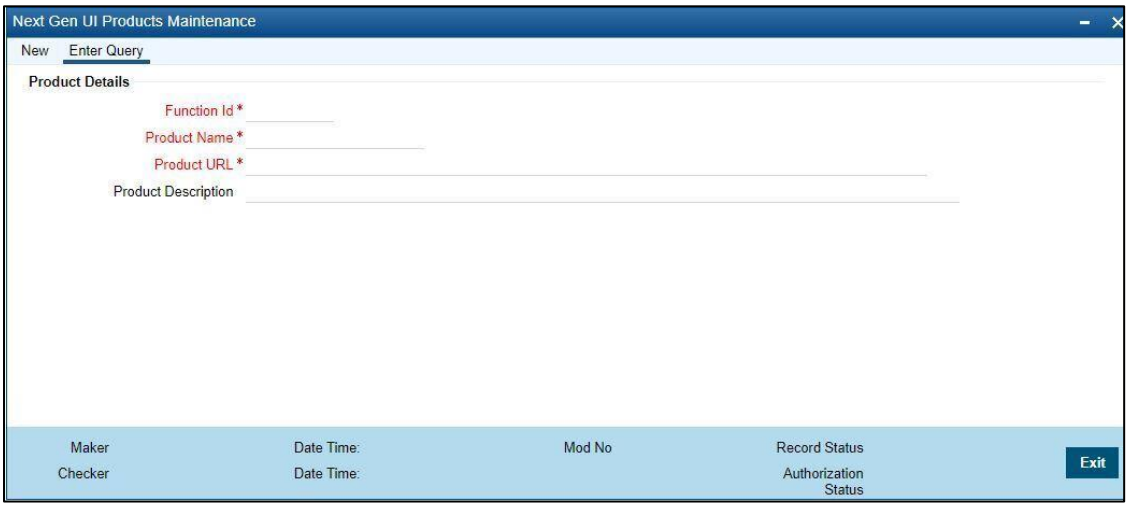
12. Launching Oracle FLEXCUBE Onboarding from UBS

12.1 Introduction

In this section you are going to setup database related configuration for OFLO Installation.
It is recommended to create different schema for each application. Below setup is designed to work with separate schema for each application.

12.2 FCUBS Configurations

After Login to FCUBS environment click on **Next Generation UI** Menu and launch the maintenance screen **CSDNGUIM**. Ensure that user has roles for the screen. Update the Plato Product URL.



A new Function id **NGTELLER** is released as Static Data and Ensure user roles has been maintained for the same. Once the roles are maintained Click **Next Gen UI** on tool bar. **Next Gen UI Dashboard** will be displayed with the list of products. Click **OFLO** product, which will Launch **Plato Teller Dash Board**. Ensure the same user id is maintained in for the OFLO product and it has necessary roles.

12.3 PLATO Configurations

SECURITY_CONFIG table in PLATO_SECURITY schema should have the following entries.

Key	Value
INTEGRATION_ENABLED	True
INTEGRATION_CALLBACK_URL	https://FCUBShostname:FCUBSport/FCJNeoWeb/ValidationService/FCNonceValidation/validate

Please update the FCUBS hostname and port number in the above URL.

Oracle FLEXCUBE Onboarding Installation Guide

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