

# Oracle® Banking Virtual Account Management Installation Guide



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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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# Preface

## Purpose

This guide helps to install the Oracle Banking Virtual Account Management services on designated environment. It is assumed that all the prior setup is already done related with WebLogic installation, WebLogic managed server creation and Oracle DB installation.



### Note:

For the exact version to be installed, refer to **Software Prerequisites** section in .

## Audience

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

## Acronyms and Abbreviations

The list of the acronyms and abbreviations that are used in this guide are as follows.

**Table 1 Acronyms and Abbreviations**

Abbreviation	Description
CMC	Common Core
EOD	End of Day
LDAP	Lightweight Directory Access Protocol
SMS	Security Management System

## Organization

This guide allows to install the following services in same order:

- OBVAM-ACCOUNT-SERVICES
- OBVAM-CORE-SERVICES
- OBVAM-ECA-SERVICES
- OBVAM-ENTITY-SERVICES
- OBVAM-EXTERNAL-DDA-SERVICES
- OBVAM-IDENTIFIER-SERVICES
- OBVAM-INTERNAL-TRANSFER-SERVICES

- OBVAM-STATEMENT-SERVICES
- OBVAM-STMT-ENT-ADAPTER
- OBVAM-TRANSACTION-JOURNAL-SERVICES
- EXTERNAL-LIQUIDITY-MANAGEMENT-SERVICE
- EXTERNAL-INTEREST-ENGINE-SERVICE
- OBVAM-PROJECTION-SERVICES
- VAMLM-CHARGE-SERVICES

### 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 Common Core 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 war file mentioned below:

- obvam-component-server
- obvamlm-component-server

### List of Topics

This guide is organized as follows:

**Table 2 List of Topics**

Topics	Description
<a href="#">Database Setup</a>	This topic provides the information about setup database setup related configuration for Oracle Banking Virtual Account Management installation.
<a href="#">Domain Configuration</a>	This topic provides the configuration of Oracle Banking Virtual Account Management domains.
<a href="#">Data Source Creation</a>	This topic provides the information about the creation of data sources.
<a href="#">Deployments</a>	This topic provides the information about the deployments.
<a href="#">Initial Setup</a>	This topic provides the information about the initial setup of CMC, SMS, and LDAP.
<a href="#">Restart and Refresh</a>	This topic provides the information about the restart and refresh.
<a href="#">Workflow Setup</a>	This topic provides the information about the setup of workflow.
<a href="#">Logging Area</a>	This topic provide the information about the logging area.

### Related Documents

The related documents are as follows:

- *Oracle Banking Microservices Platform Foundation Installation Guide*

- *Oracle Banking Virtual Account Management Pre-Installation Guide*
- *ANNEXURE-1*

# 1

## Database Setup

This topic describes the database setup for Oracle Banking Virtual Account Management 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

## Domain Configuration

This topic describes the domain configuration for Oracle Banking Virtual Account Management.

### Prerequisites

- The machine should have Java JDK is installed.
- Oracle Fusion Middleware has to be installed on the machine.

#### Note:

For the exact version to be installed, refer to the **Software Prerequisites** section in **Release Notes**.

- Copy the below files from the OSDC path to <domain>/bin folder
  - pre\_deployment\_setup \ domain-config-deploy.env
  - pre\_deployment\_setup \ weblogic \ setUserOverrides.sh

#### Note:

For property values, refer to the **Annexure: domain-config-deploy.env** section in **Oracle Banking Virtual Account Management Pre-Installation Guide**.

### List of Domains

It is recommended to create separate domains for Oracle Banking Virtual Account Management applications.

- OBVAM Core Domain
- OBVAM Entities Domain
- OBVAM Accounts Domain
- OBVAM Identifiers Domain
- OBVAM Transaction Journal Domain
- OBVAM Transaction Internal Booking Domain
- OBVAM DDA Domain
- OBVAM External Credit Assessment Domain
- OBVAM Statements Domain
- OBVAM Statements Entity Aggregator Domain
- OBVAM External Liquidity Management Domain



- OBVAM External Interest Engine Domain
- OBVAM Projection Server Domain
- OBVAM Appshell Domain
- VAMLM Charges Domain

 **Note:**

For creating and configuring the domain, refer to the **Domain and Cluster Configuration** section in **ANNEXURE-1**.

# 3

## Data Source Creation

This topic describes the data source creation for Oracle Banking Virtual Account Management 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 below lists of the data sources has to be created on each domain before deployment of the applications onto the managed servers.

**Table 3-1 Data Sources List**

Serial Number	Service Name	Data Source Name	Data Source JNDI	Targets
1	obvam-account-services	PLATO	jdbc/PLATO	Account Server
		CMC	jdbc/CMNCORE	
		PLATOBATCH	jdbc/PLATOBATCH	
		PLATOFEED	jdbc/PLATOFEED	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
2	obvam-core-services	PLATO	jdbc/PLATO	Core Server
		CMC	jdbc/CMNCORE	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAC	jdbc/VAC	
3	obvam-eca-services	PLATO	jdbc/PLATO	ECA Server
		PLATOBATCH	jdbc/PLATOBATCH	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAB	jdbc/VAB	
4	obvam-entity-services	PLATO	dbc/PLATO	Entity Server
		CMC	jdbc/CMNCORE	
		PLATOBATCH	jdbc/PLATOBATCH	
		PLATOFEED	jdbc/PLATOFEED	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAE	jdbc/VAE	

Table 3-1 (Cont.) Data Sources List

Serial Number	Service Name	Data Source Name	Data Source JNDI	Targets
5	obvam-external-dda-services	PLATO	jdbc/PLATO	External-DDA Server
		PLATOBATCH	jdbc/PLATOBATCH	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		EDA	jdbc/EDA	
6	obvam-identifier-services	PLATO	jdbc/PLATO	Identifier Server
		PLATOFEEED	jdbc/PLATOFEEED	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAI	jdbc/VAI	
7	obvam-internal-transfer-services	PLATO	jdbc/PLATO	Internal Transfer Server
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAN	jdbc/VAN	
8	obvam-statement-services	PLATO	jdbc/PLATO	Statement Server
		CMC	jdbc/CMNCORE	
		PLATOBATCH	jdbc/PLATOBATCH	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAS	jdbc/VAS	
		PLATOREPORT	jdbc/REPORTSERVICE	
9	transaction-journal-services	PLATO	jdbc/PLATO	Transaction Journal Server
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAT	jdbc/VAT	
10	external-liquidity-management-service services	PLATO	jdbc/PLATO	Liquidity Management Server
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		ELM	jdbc/ELM	
11	external-interest-engine-service services	PLATO	jdbc/PLATO	Interest Engine Server
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		EIE	jdbc/EIE	
12	obvam-projection-services	PLATO	jdbc/PLATO	Projection Server
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAP	jdbc/VAP	
13	vamlm-charge-services	PLATO	jdbc/PLATO	Charges Server
		CMC	jdbc/CMNCORE	
		PLATOBATCH	jdbc/PLATOBATCH	

Table 3-1 (Cont.) Data Sources List

Serial Number	Service Name	Data Source Name	Data Source JNDI	Targets
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAMLMCHG	jdbc/VAMLMCHG	
14	obvam-stmt-ent-adapter	PLATO	jdbc/PLATO	Statement Entity Adapter
		CMC	jdbc/CMNCORE	
		PLATO_UI_CONFIG	jdbc/PLATO_UI_CONFIG	
		SMS	jdbc/sms	
		VAS_DS	jdbc/VAS_DS	
15	Appshell UI	None	None	Appshell Server

**Note:**

For creating data source, refer to the **Create Datasource** section in **ANNEXURE-1**.

# 4

## Deployments

This topic describes the deployments for Oracle Banking Virtual Account Management Installation.

### Prerequisites

Before proceeding with the below setup, make sure that Kafka is configured and the related properties are present in the Oracle Banking Microservices Architecture schema.

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 the details of the deployments required on each domain to run the Oracle Banking Virtual Account Management application. Deploy one after the other in the given order.



#### Note:

For the exact version of the archive name, refer to the OSDC file available as a part of the release.

**Table 4-1 Deployments List**

Application	Archive name	OSDC Path	Targets
OBVAM Account Services	obvam-account-services-{version}.war	obvam_services/	OBVAM Account Server
OBVAM Transaction Journal Services	obvam-transaction-journal-services-{version}.war	obvam_services/	OBVAM Transaction Journal Server
OBVAM Statement Services	obvam-statement-services-{version}.war	obvam_services/	OBVAM Statement Server
OBVAM Statement Entity Adapter	obvam-stmt-ent-adapter-{version}.war	obvam_services/	OBVAM Statement Server
OBVAM Internal Transfer Services	obvam-internal-transfer-services-{version}.war	obvam_services/	OBVAM internal Transfer Server
OBVAM External DDA Services	obvam-external-dda-services-{version}.war	obvam_services/	OBVAM External DDA Server

**Table 4-1 (Cont.) Deployments List**

Application	Archive name	OSDC Path	Targets
OBVAM External Credit Assessment and Block(ECA) Services	obvam-eca-services-{version}.war	obvam_services/	OBVAM ECA Server
OBVAM Core Services	obvam-core-services-{version}.war	obvam_services/	OBVAM Core Server
OBVAM Identifier Services	obvam-identifier-services-{version}.war	obvam_services/	OBVAM Identifier Server
OBVAM Entity Services	obvam-entity-services-{version}.war	obvam_services/	OBVAM Entity Server
External Interest Engine Services	external-interest-engine-service-{version}.war	obvam_services/	OBVAM EIE Server
External Liquidity Management Services	external-liquidity-management-service-{version}.war	obvam_services/	OBVAM ELM Server
OBVAM Projection Services	obvam-projection-services-{version}.war	obvam_services/	OBVAM Projection Server
VAM LM Charge Services	vamlm-charge-services-{version}.war	obvam_services/	OBVAM Charge Server
OBVAM UI	app-shell-{version}.war cmc-component-server-{version}.war moc-component-server-{version}.war sms-component-server-{version}.war obvam-component-server-{version}.war obvamlm-component-server-{version}.war	ui/	OBVAM Appshell Server

**Note:**

To deploy the application, refer to the **Deploy Application** section in **ANNEXURE-1**.

**Deployment Instruction for vamlm-charge-services:**

vamlm-charge-services is the common service for Oracle Banking Virtual Account Management and Oracle Banking Liquidity Management. In a co-deployed situation, it must be deployed from only one of the packages.

Both the product packages contain the exact same version of this service. If you deploy it from the one of the product packages, then do not deploy it from the other one.

The value of deployment type in the property table is dependent on the type of deployment.

- If the deployment is standalone for Oracle Banking Virtual Account Management, the value should be **vamchg**.
- If the deployment is standalone for Oracle Banking Liquidity Management, the value should be **lmchg**.
- If the deployment is common for both the products, the value should be **codeployed**.

**Deployment Instruction for obvamlm-component-server:**

obvamlm-component-server is the common component server for Charges in Oracle Banking Virtual Account Management and Oracle Banking Liquidity Management. In a co-deployed situation, it should be deployed from only one of the packages.

Both the product packages contain the exact same version of this component server. If you deploy it from the one of the product packages, then do not deploy it from the other one.

# 5

## Initial Setup

This topic describes the initial setup for Oracle Banking Virtual Account Management Installation.

Once everything is deployed, run the CMC and SMS initial setup scripts from the below OSDC path to create the required maintenances.

- `obvam_initial_setup / cmc_initial_setup.sql`  
To be compiled in Common Core schema
- `obvam_initial_setup / sms_initial_setup.sql`  
To be compiled in SMS 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	Country Code	A two letter ISO Country Code
10	Walk-In Customer	Walk-in customer number
11	Host Code	Host code of the Branch
12	Host Description	Host code description
13	Host Process Time Zone	Host code time zone (GMT+5.30)
14	Source System	External source system
15	Source System Description	Source system description
16	Source System Branch	Branch code as in the source system
17	Previous Working Day	Previous working day of the Branch
18	Current Working Day	Current working day of the Branch
19	Next Working Day	Next working day of the Branch

### 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 ADMIN\_ROLE, and the below functional activities are mapped.

1. SMS\_FA\_USER\_NEW
2. SMS\_FA\_USER\_AMEND
3. SMS\_FA\_USER\_CLOSE
4. SMS\_FA\_USER\_REOPEN
5. SMS\_FA\_USER\_DELETE
6. SMS\_FA\_LOAN\_DASHBOARD\_PREFERENCE
7. SMS\_FA\_USER\_VIEW
8. SMS\_FA\_USER\_AUTHORIZE
9. SMS\_FA\_ROLE\_NEW
10. SMS\_FA\_ROLE\_AMEND
11. SMS\_FA\_ROLE\_CLOSE
12. SMS\_FA\_ROLE\_REOPEN
13. SMS\_FA\_ROLE\_DELETE
14. SMS\_FA\_LOAN\_DASHBOARD\_PREFERENCE\_PUT
15. SMS\_FA\_ROLE\_VIEW
16. SMS\_FA\_ROLE\_AUTHORIZE
17. SMS\_FA\_LOAN\_DASHBOARD\_VIEW
18. SMS\_FA\_APPLICATION\_VIEW
19. SMS\_FA\_MENU\_DASHBOARD\_VIEW
20. CMC\_FA\_EXT\_BRANCH\_PARAMETERS\_LOV
21. CMC\_FA\_EXT\_BRANCH\_PARAMETERS\_VIEW
22. CMC\_FA\_EXT\_BANK\_PARAMETERS\_VIEW
23. CMC\_FA\_EXT\_BANK\_PARAMETERS\_LOV
24. CMC\_FA\_SYSTEM\_DATES\_VIEW

25. CMC\_FA\_CURRENCY\_DEFN\_VIEW
26. CMC\_FA\_LOCAL\_HOLIDAY\_VIEW
27. CMC\_FA\_LANGUAGE\_CODE\_VIEW

### LDAP Setup

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



#### Note:

For LDAP setup, refer to **ANNEXURE-1**.

# 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, refer to **Restart Server** section in ***ANNEXURE-1***

# 7

## Workflow Setup

This topic describes the workflow setup for Oracle Banking Virtual Account Management Installation.

### Conductor and Plato-Orchestrator Setup

For conductor and plato-orchestrator setup, refer to the **Setup Conductor & Plato-Orchestrator** section in *Oracle Banking Microservices Platform Foundation Installation Guide*.

### Account Closure Workflow

The workflow needs to be created manually and it is a one-time activity. Account Closure has two workflows that are factory shipped. These must be created using plato-orch-service API through postman.

#### VirtualAccountClosure

This is the main workflow that is started upon the Batch Execution. This workflow instance is assigned a new workflow ID and can be tracked using this ID.

#### VirtualAccountClosureSWF

This is the sub workflow that is started by the main workflow. This workflow is assigned a new workflow ID and can be tracked using this ID.

### Batch Job Setup

Virtual Account closure uses plato-batch-server for Job execution.

The account closure process uses **virtualAccountCloseJob**, and the below setup needs to be done for the same.

1. In PLATO\_BATCH\_TASK\_TRIGGER\_DEFINITIONS table, an entry for **virtualAccountCloseJob** should be added and its definition should be as below

```
appId::VAM;microServiceName::obvam-account-services;contextRoot::obvam-account-services;jobName::virtualAccountCloseJob;type::schedule;cronExpression:::0 0/1 * * * ?
```

In the above definition, cronExpression is the string containing details of schedule.

2. In PROPERTIES table, the following entries should have valid user and branch code, for which the applicable roles are present to run the job.  
APPLICATION = "plato-batch-server", KEY = "batchServer.userId", VALUE = "<user-id>"  
APPLICATION = "plato-batch-server", KEY = "batchServer.branchCode", VALUE = "<branch-code>"
3. After the above setup, restart the plato-batch-server.

 **Note:**

Postings on virtual accounts for which closure request is in progress is controlled through a non-mandatory header parameter “allowPosting” in Balance Transfer stage. The values to this can either be

- Y – This indicates transaction postings are allowed.
- N - This indicates transaction postings are not allowed.

Once the latest subworkflow is registered, on triggering the "virtualAccountCloseJob", the workflow ID gets generated and the table VAM\_TB\_VA\_CLOSURE\_STATUS will be updated for the picked up virtual accounts (VA's with closure status as 'P') with the value (Y/N) that is defined in the subworkflow.

**External Validation**

External validation is done using Oracle Banking Payments. This has to be configured using Oracle Banking Routing Hub configuration files that are factory shipped.

**EOD Workflow**

EOD has two workflows that are factory shipped.

Refer to the ***EOD Configuration Guide*** and perform the setup.

# 8

## Logging Area

This topic describes the logging area of Oracle Banking Virtual Account Management applications in the server.

The logging area is configurable. The user can configure any path within the server, where you want to write the Oracle Banking Virtual Account Management application logs. Oracle Banking Virtual Account Management applications write the logs in the configured path with the name: **<Application name>.logs**. For example, If the application name is **obvam-account-services**, then the logs file name would be **obvam-account-services.log**.

 **Note:**

Refer to **Annexure: domain-config-deploy.env** section in **Oracle Banking Virtual Account Management Pre-Installation Guide** to configure logging path.

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