

Oracle® Banking Virtual Account Management Installation Guide



Release 14.7.0.0.0
F72715-01
November 2022

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

ORACLE®

Copyright © 2018, 2022, Oracle and/or its affiliates.

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.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. 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 fail-safe, 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.

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

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

1 Database Setup

2 Product Installation Using Installer

3 Domain Configuration

4 Data Source Creation

5 Deployments

6 Initial Setup

7 Restart and Refresh

8 Workflow Setup

9 Logging Area

Index

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 **Release Notes**.

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
Database Setup	This topic provides the information about setup database setup related configuration for Oracle Banking Virtual Account Management installation.
Product Installation Using Installer	This topic provides the information to install all the product and Oracle Banking Microservices Architecture services using Installer.
Domain Configuration	This topic provides the configuration of Oracle Banking Virtual Account Management domains.
Data Source Creation	This topic provides the information about the creation of data sources.
Deployments	This topic provides the information about the deployments.
Initial Setup	This topic provides the information about the initial setup of CMC, SMS, and LDAP.
Restart and Refresh	This topic provides the information about the restart and refresh.
Workflow Setup	This topic provides the information about the setup of workflow.
Logging Area	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*
- *Configuration and Deployment Guide*

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

Product Installation Using Installer

This topic describes the information for Oracle Banking Virtual Account Management 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

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/
OBVAM Installer	obvam.zip	INSTALLER/



Note:

To install the application using Installer, refer to **Oracle Banking Microservices Architecture Installer Guide**.

3

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 *Configuration and Deployment Guide*.

4

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 4-1 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 4-1 (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 4-1 (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 *Configuration and Deployment Guide*.

5

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 5-1 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 5-1 (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 *Configuration and Deployment Guide*.

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.

6

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 6-1 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 6-2 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 *Configuration and Deployment Guide*.

7

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 ***Configuration and Deployment Guide***

8

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.

9

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.

Index