

# Oracle® Banking Microservices Architecture

## Party Services Installation Guide



14.7.1.0.0

F84076-01

May 2023

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

ORACLE®

Copyright © 2021, 2023, 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

1	<u>Set up Database</u>
2	<u>Configure Party Services and Domains</u>
3	<u>Create Data Sources</u>
4	<u>Deploy Services</u>
5	<u>Restart and Refresh</u>
6	<u>Logging Area</u>
7	<u>Deploy Conductor Processes</u>
	<u>Index</u>

# Preface

This guide helps you to install the Party Services, User Interface, and Conductor Process flow on designated environments.

This topic contains the following sub topics:

- [Audience](#)
- [Diversity and Inclusion](#)
- [Related Resources](#)
- [Conventions](#)
- [Prerequisites](#)
- [Screenshot Disclaimer](#)
- [Organization](#)

This guide would allow you to install the below mentioned Party services, UI, process flow in the specified order. It is recommended to use dedicated managed server for each of the Party Services.

## Audience

This document is intended for WebLogic admin or ops-web team who are responsible for installing the banking products of Oracle Financial Services Software Limited.

## 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 Oracle resources:

- *License Guide*
- *Oracle Banking Microservices Platform Foundation Installation Guide*
- *Common Core Services Installation Guide*
- *Security Management System Services Installation Guide*

## Conventions

The following text conventions are used in this document:

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

## Prerequisites

Make sure that the following setup is completed:

- Oracle WebLogic Installation
- Oracle WebLogic Managed Server Creation
- Oracle Database Installation



### Note:

For the exact versions to be installed, refer to the *Environment Details* section in the *License Guide*.

## Screenshot Disclaimer

Information used in the interface or documents are dummy, it does not exist in real world, and its only for reference purpose.

## Organization

This guide would allow you to install the below mentioned Party services, UI, process flow in the specified order. It is recommended to use dedicated managed server for each of the Party Services.

### Party Services

1. `obpy-party-maintenance-service`
2. `obpy-stage-services`
3. `obpy-party-services`
4. `obpy-party-kyc-services`
5. `obpy-businessprocess-services`
6. `obpy-party-handoff-services`

7. obpy-party-publisher-services
8. obpy-party-adapter-services
9. obpy-party-corporate-view-services
10. obpy-party-batch-services

**Note:**

It is recommended to use a dedicated managed server for each of the Party Services.

**User Interface**

The following war files need to be deployed to migrate from the existing app-shell build to the foundation app-shell. The UI war is divided into individual component server war files using the foundation app-shell. The user need to delete any single UI app-shell war version that is installed previously and follow the below steps. All the component server war files should be deployed in the same managed server.

Deploy the following war files of the common core:

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

Deploy the `obpy-component-server` war file for the party domain. Similarly, the other domain component war files can be deployed.

**Process Workflow**

The downloaded zip file for process flow will contain the DSL JSON files of the conductor process flow, which need to be imported. For information on how to deploy, refer to the Deploy Conductor Processes.

**Table Conductor Process Flows**

Serial Number	Process Flow Name	Description
1	obpy-corporate-onboarding-processflow_CPOB.json	Corporate Onboarding
2	obpy-fi-amendment-processflow_FPAM.json	Financial Institute Amendment
3	obpy-fi-onboarding-processflow_FPOB.json	Financial Institute Onboarding
4	obpy-party-onboarding-processflow_REOB.json	Retail Party Onboarding
5	obpy-retail-amendment-processflow_PAMD.json	Retail Party Amendment

**Table (Cont.) Conductor Process Flows**

<b>Serial Number</b>	<b>Process Flow Name</b>	<b>Description</b>
6	obpy_corp_amendment_processflow_CAMD.json	Corporate Party Amendment
7	obpy_smb_amendment_processflow_SMBA.json	Small and Medium Business Party Amendment
8	obpy_smb_onboarding_processflow_RSMB.json	Small and Medium Business Party Onboarding
9	obpy_sme_amendment_processflow_SMEA.json	Small and Medium Enterprise Party Amendment
10	obpy_sme_onboarding_processflow_CSME.json	Small and Medium Enterprise Party Onboarding
11	Review_SubWorkflow.json	Review sub workflow
12	Recommendation_SubWorkflow.json	Recommendation sub workflow
13	Approval_SubWorkflow.json	Approval sub workflow

# 1

## Set up Database

You need to set up the database-related configuration for the installation of the Party Services. It is recommended to create a different schema for each application. The setup is designed to work with a separate schema for each application.

The prerequisites for setting up the database are as follows:

1. Make sure that the pre-installation setup is completed. The pre-installation setup includes the configuration of the database and setting up the `setUserOverrides.sh` file.
2. Create the required schema for each of the microservices.

 **Note:**

The schema objects and the static data required for the microservice will be automatically created during the deployment of the microservice in the respective schema.

To set up the database, perform the following steps:

Create the schemas in the database instance for Party Services. For information on schemas to be created, refer to the table below:

**Table 1-1 Database Setup**

Service Name	Schema Required
obpy-stage-services	Yes (obpy-party-service schema)
obpy-party-services	Yes (obpy-party-service schema)
obpy-party-kyc-services	Yes (obpy-party-service schema)
obpy-businessprocess-services	Yes (obpy-businessprocess-services)
obpy-party-handoff-services	Yes (obpy-party-service schema)
obpy-party-publisher-services	Yes (obpy-party-service schema)
obpy-party-maintenance-service	Yes (obpy-party-service schema)
obpy-party-adapter-services	Yes (obpy-party-service schema)
obpy-party-corporate-view-services	Yes (obpy-party-service schema)
obpy-party-batch-services	Yes (obpy-party-service schema)



# 2

## Configure Party Services and Domains

You need to configure the services and domains as a part of the installation of the Party Services.

The prerequisites are as follows:

1. The machine should have Java JDK installed.
2. The machine should have **Fusion Middleware Configuration Wizard** installed.

 **Note:**

For the exact version to be installed, refer to the *Environment Details* section in the *License Guide*.

It is recommended to have a separate domain for the Party Services. The steps for creating all the domains of Party Services are the same, and the properties like port numbers, names will be changing based on the domain.

**Configure the following services for the Party domain.**

**Table 2-1 Party Services Configuration**

Service Name	Domain Name
obpy-stage-services	Party Domain
obpy-party-services	Party Domain
obpy-party-kyc-services	Party Domain
obpy-businessprocess-services	Party Domain
obpy-party-handoff-services	Party Domain
obpy-party-publisher-services	Party Domain
obpy-party-maintenance-service	Party Domain
obpy-party-adapter-services	Party Domain
obpy-party-corporate-view-services	Party Domain
obpy-party-batch-services	Party Domain

**Create and Configure the Domain and Cluster:**

For creating and configuring the domain, refer to the *How to Create Domain and Cluster Configuration* section in *Configuration and Deployment Guide*.

# 3

## Create Data Sources

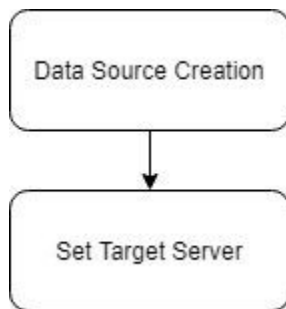
You need to create the data sources in the necessary data sources for the deployment of the Party Services.

The prerequisites are as follows:

1. Make sure that the database setup for Oracle Banking Branch is completed before deployment setup.
2. The data sources for respective microservices must be created before deployment of the application onto managed servers. Each of the data sources targets the corresponding servers on which the application will be deployed.

The following diagram explains the process of creating data sources.

**Figure 3-1 Process Data Source Creation**



Perform the following steps to create the data sources:

1. Create the data sources on each domain prior to the deployment of applications onto managed server.

 **Note:**

For more information on data source creation, refer to the *How to create Data sources* section in *Configuration and Deployment Guide*.

**Table 3-1 Data Sources**

Service Name	Data Source Name	Data source JNDI	Targets
obpy-stage-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-services	PARTY	jdbc/PARTY	Party Managed Server

**Table 3-1 (Cont.) Data Sources**

Service Name	Data Source Name	Data source JNDI	Targets
obpy-party-kyc-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-businessprocess-services	PARTY	jdbc/OBPYBPROC	Party Managed Server
obpy-party-handoff-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-publisher-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-maintenance-service	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-adapter-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-corporate-view-services	PARTY	jdbc/PARTY	Party Managed Server
obpy-party-batch-services	PARTY	jdbc/PARTY	Party Managed Server

- Map the following data sources to all the newly created managed servers in order to deploy the services successfully.

 **Note:**

This mapping is required for the JNDI requirement for flyway migration.

**Table 3-2 Additional Data Sources**

Data Source Name	Data Source JNDI	Targets
PLATO	jdbc/PLATO	Party Managed Server
PLATO_UI_CONFIG	jdbc/ PLATO_UI_CONFIG	Party Managed Server
SMS	jdbc/SMS	Party Managed Server
COMMON CORE	jdbc/CMNCORE	Party Managed Server
PLATO_BATCH	jdbc/PLATOBATCH	Party Managed Server
OBRC	jdbc/OBRC	Party Managed Server

# 4

## Deploy Services

You need to deploy the services in the specified order for the Party Services to run.

The prerequisites are as follows:

1. Make sure that the database setup and data sources creation are completed before application deployment.
2. Make sure that all placeholder values are set correctly in the `setUserOverrides.sh` file.
3. Make sure that `flyway.domain.locations` in `setUserOverrides.sh` file includes `db/migration/domain/obpy` so that Party related flyway gets deployed.

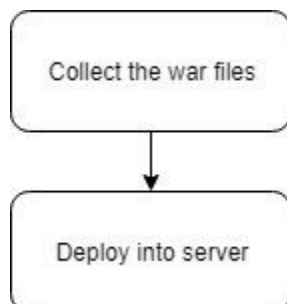
For more information, refer to the *Oracle Banking Microservices Platform Foundation Installation Guide*.

### Note:

- If any placeholder is missed, the deployment will fail, and incorrect values will result from errors in the application.
- Before proceeding, deploy `plato_batch_server`, `plato_rule_service`, and `plato_regional_configurator_services`. For more information, refer to the **Oracle Banking Microservices Platform Foundation Installation Guide**.
- The `obpy-customer-services` needs to be deployed in the FLEXCUBE Universal Banking. For more information, refer to the *Customer Service Installation Guide* in the FLEXCUBE Universal Banking Documentation Library.

Each of the services corresponds to a specific war file that needs to be deployed into the server. The following diagram explains the process of deploying the war files.

**Figure 4-1** Deployment Process



To deploy the services:

- Deploy the war files one after the other in the specified order. For more information on deployments, refer to the *How to Deploy* section in *Configuration and Deployment Guide*.

 **Note:**

The provided archive names are for reference purposes. Refer to the exact versions of archive names available as a part of the release.

**Table 4-1 Deployments List**

Application	Archive name	OSDC path	Targets
OBPY Party Maintenance Services	obpy-party-maintenance-service-{version}.war	{ <b>unzip the file</b> } \obpy-party-maintenance-service	Party Managed Server
OBPY Stage Services	obpy-stage-services-{version}.war	{ <b>unzip the file</b> } \stage-services	Party Managed Server
OBPY Party Services	obpy-party-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-services	Party Managed Server
Party KYC Services	obpy-party-kyc-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-kyc-services	Party Managed Server
OBPY Businessprocesses Services	obpy-businessprocesses-services-{version}.war	{ <b>unzip the file</b> } \obpy-businessprocess-services	Party Managed Server
OBPY Party Handoff Services	obpy-party-handoff-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-handoff-services	Party Managed Server
OBPY Party Publisher Services	obpy-party-publisher-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-publisher-services	Party Managed Server
OBPY Party Adapter Services	obpy-party-adapter-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-adapter-services	Party Managed Server
OBPY Corporate View Service	obpy-party-corporate-view-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-corporate-view-services	Party Managed Server

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

<b>Application</b>	<b>Archive name</b>	<b>OSDC path</b>	<b>Targets</b>
OBPY Party Batch Service	obpy-party-batch-services-{version}.war	{ <b>unzip the file</b> } \obpy-party-batch-services	Party Managed Server
OBPY Component Server	obpy-component-server-{version}.war	{ <b>unzip the file</b> } \obpy-component-server	Appshell Managed Server

# 5

## Restart and Refresh

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

For more information on restarting the server, refer to the *How to Restart* section in *Configuration and Deployment Guide*.

# 6

## Logging Area

The logs area is available after deployment of the Party Services in the WebLogic server.

The Party Services writes logs in the below area of the server:

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

For the sample values of the logging area, refer to the table below:

**Table 6-1 Logging Area**

Term	Sample Value
Domain	party_domain
managed_server name	PARTYAPP
Area of the Server	~/middleware/user_projects/domains/ party_domain"
Logging Area	~/middleware/user_projects/domains/ party_domain/servers/PARTYAPP/logs/PARTYAPP.out

 **Note:**

The logging path can now be configured by setting the placeholder value for `plato.service.logging.path`. For more information, refer to the *Oracle Banking Microservices Platform Foundation Installation Guide* in the Oracle Banking Product Documentation Library.



# 7

## Deploy Conductor Processes

You need to deploy the conductor-based processes as a part of the installation.

The server names, domain names need not be the same as this document provides. The steps to deploy a process remains the same for all the workflow files. The list of conductor based processes that have to be deployed for the Party Services are:

**Table 7-1 Conductor Based Processes**

Serial Number	Process Name	Dependent process
1	obpy-corporate-onboarding-processflow_CPOB.json	None
2	obpy-fi-amendment-processflow_FPAM.json	None
3	obpy-fi-onboarding-processflow_FPOB.json	None
4	obpy-party-onboarding-processflow_REOB.json	None
5	obpy-retail-amendment-processflow_PAMD.json	None
6	obpy_corp_amendment_processflow_CAMD.json	None
7	obpy_smb_amendment_processflow_SMBA.json	None
8	obpy_smb_onboarding_processflow_RSMB.json	None
9	obpy_sme_amendment_processflow_SMEA.json	None
10	obpy_sme_onboarding_processflow_CSME.json	None
11	Review_SubWorkflow.json	None
12	Recommendation_SubWorkflow.json	None
13	Approval_SubWorkflow.json	None

Before deploying the processes the following section is to be updated with the server IP/port for the endpoints used in the process. For each process, open the process to find for `http_request` and modify the following in the URI.

**Table 7-2 Updating the Process**

Term	Value
uri	http://{{PROCESS_SERVER_HOST}}:{{PROCESS_SERVER_PORT}}/
{{PROCESS_SERVER_HOST}}	IP of the conductor server

**Table 7-2 (Cont.) Updating the Process**

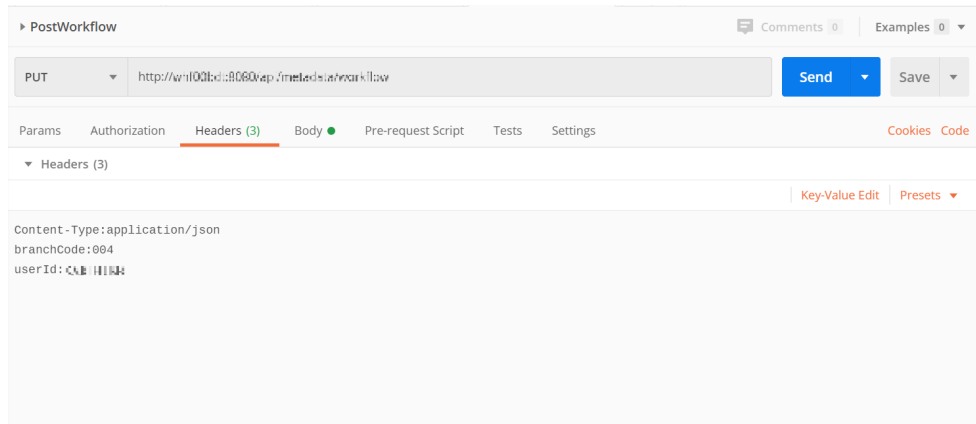
Term	Value
{{PROCESS_SERVER_PORT}}	Port of the conductor server

Perform the following steps to deploy the conductor processes:

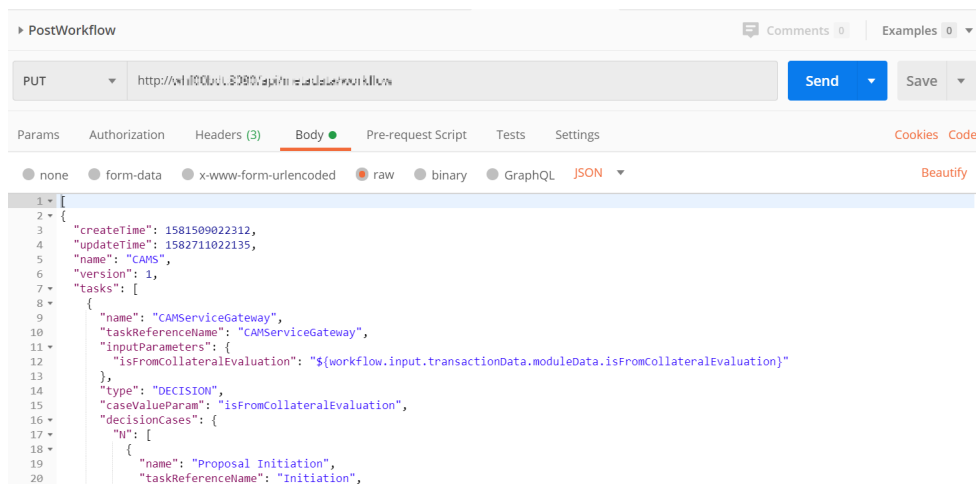
1. Launch Postman.
2. Create a new request (if not done already) and select the `POST` method.

If the process flow is already deployed and needs to be updated, then the method should be `PUT`.

3. Select the **Headers** tab, and input the header params as shown below:

**Figure 7-1 Post Work Flow - Headers**

4. Select the **Body** tab, and paste the body of the message with the content from the process file.

**Figure 7-2 Post Work Flow - Body**

5. Click **Send**.

The response status **204** returned from the server.

**Figure 7-3 Response Status**

The screenshot shows a REST client interface with the following details:

- Method:** PUT
- URL:** http://w1f00bdt6060Vasdl/metadata/workflow
- Buttons:** Send, Save
- Request Body (JSON):**

```

1022  {
1023    "inputParameters": [
1024      "partyId",
1025      "applicationNumber",
1026      "customerName"
1027    ],
1028    "outputParameters": {
1029      "rejectionRemarks": "${humantask_apprv_corp_loan.output.rejectionRemarks}",
1030      "loanGrantStatus": "${humantask_apprv_corp_loan.output.loanGrantStatus}",
1031      "emailStatus": "${CNFRM_CORP_LOAN.output.emailStatus}"
1032    },
1033    "schemaVersion": 2,
1034    "restartable": true,
1035    "workflowStatusListenerEnabled": false
1036  }

```
- Response Status:** 204 No Content
- Time:** 309ms
- Size:** 281 B
- Buttons:** Save Response
- Response Body:** Empty (Pretty view selected)

 **Note:**

You can also deploy the process flow using UI from Tasks → Business Process Maintenance → Upload DSL.

# Index

## C

---

Configure Party Services and Domains, [2-1](#)  
Create Data Sources, [3-1](#)

## D

---

Deploy Conductor Processes, [7-1](#)  
Deploy Services, [4-1](#)

## L

---

Logging Area, [6-1](#)

## R

---

Restart and Refresh, [5-1](#)

## S

---

Set up Database, [1-1](#)