Oracle Banking Virtual Account Management Services
Installation Guide
Release 14.3.0.0.1

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1. Preface

This guide would help you to install the OBVAM services on designated environment. It is assumed that all the prior setup is already done related with WebLogic 12c installation, WebLogic managed server creation and Oracle DB installation.
It is recommended to use dedicated managed server for each of the Plato infrastructure services.

1.1 Audience

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

1.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

1.3 Organization

This installation guide allows you to install 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-TRANSACTION-JOURNAL-SERVICES
- EXTERNAL-LIQUIDITY-MANAGEMENT-SERVICE
- EXTERNAL-INTEREST-ENGINE-SERVICE

2. Database Setup

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

2.1 Prerequisite

Before you proceed with below setup, make sure required schema is provided to you.

2.2 Database Setup

To setup DB for OBVAM below step need to be followed-
DDL's:-
Collect DDL's mentioned in the **From-Path** section of the below table and compile into respective schema.

Service Name	From-Path	Compile To
obvam-accountservices	OBVAM_SERVICES\obvam-account-services\INCREMENTAL_DB1\DOMAIN\DDL OBVAM_SERVICES\obvam-account-services\INCREMENTAL_DB2\DOMAIN\DDL	Virtual-account schema
obvam-external-ddaservices	OBVAM_SERVICES\obvam-external-dda-services\INCREMENTAL_DB1\DOMAIN\DDL	Virtual-external-dda schema
obvam-statement-services	OBVAM_SERVICES\obvam-statement-services\INCREMENTAL_DB2\DOMAIN\DDL	Virtual-statement Schema

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

Service Name	From-Path	Compile To
obvam-accountservices	OBVAM_SERVICES\obvam-account-services\INCREMENTAL_DB1\SMS\INC OBVAM_SERVICES\obvam-account-services\INCREMENTAL_DB2\SMS\INC	SMS Schema
obvam-entity-services	OBVAM_SERVICES\obvam-entity-services\INCREMENTAL_DB1\SMS\INC	SMS Schema
obvam-external-ddaservices	OBVAM_SERVICES\obvam-external-dda-services\INCREMENTAL_DB1\SMS\INC OBVAM_SERVICES\obvam-external-dda-services\INCREMENTAL_DB2\SMS\INC	SMS Schema
	OBVAM_SERVICES\obvam-external-dda-services\INCREMENTAL_DB1\DOMAIN\INC	Virtual-external-dda Schema

Service Name	From-Path	Compile To
obvam-statementservices	OBVAM_SERVICES\obvam-statement-services\INCREMENTAL_DB1\SMS\INC OBVAM_SERVICES\obvam-statement-services\INCREMENTAL_DB2\SMS\INC	SMS Schema
obvam-transactionjournal-services	OBVAM_SERVICES\obvam-transaction-journal-services\INCREMENTAL_DB1\SMS\INC	SMS Schema

3. OBVAM Domains Configuration

3.1 Prerequisites

1. Machine should have Java JDK1.8.0_181 has installed.
2. Oracle Fusion Middleware 12cR2 12.2.1.3 has to be installed on the machine. [Note: Before proceeding with below steps complete Plato installation guided.]
3. Steps for creating all OBVAM domains, properties like port numbers, names will be changing based on the domain. Screenshots provided for such deviations. Domain creation process remains the same.

3.1.1 Virtual Account Core (VACORE) Domain Creation

It is recommended to have different domain for VACORE application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.2 Virtual Account Entities (VAENT) Domain Creation

It is recommended to have different domain for VAENT application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.3 Virtual Account Management Accounts (VAACCN) Domain Creation

It is recommended to have different domain for VAACCN application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.4 Virtual Account Identifiers (VAIDN) Domain Creation

It is recommended to have different domain for VAIDN application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.5 Virtual Account Transaction Journal (VATXNJR) Domain Creation

It is recommended to have different domain for VATXNJR application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.6 Virtual Account Transaction Internal Booking (VATXNIB) Domain Creation

It is recommended to have different domain for VATXNIB application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

- Click **Finish** to complete the procedure.

3.1.7 Virtual Account External DDA (VAEDA) Domain Creation

It is recommended to have different domain for VAEDA application. For Creating Domain and Configuration refer to ANNEXURE-1 "**How to create and Cluster Configuration".**

3.1.8 Virtual Account ECA (VAECA) Domain Creation

It is recommended to have different domain for VAECA application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.9 Virtual Account Statements (VASTMNT) Domain Creation

It is recommended to have different domain for VASTMNT application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.10 External Liquidity Management (ELM) Domain Creation

It is recommended to have different domain for ELM application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

3.1.11 External Interest Engine (EIE) Domain Creation

It is recommended to have different domain for EIE application. For Creating Domain and Configuration refer to Oracle Banking Virtual Account Management Annexure "**How to create and Cluster Configuration".**

4. Data Sources Creation

4.1 Prerequisite

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

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
obvam-account-services	PLATO	jdbc/PLATO	Account Server
	VAM	jdbc/VAM	
obvam-core-services	PLATO	jdbc/PLATO	Core Server
	VAC	jdbc/VAC	
	PLATO	jdbc/PLATO	ECA Server
obvam-eca-services	VAB	jdbc/VAB	
obvam-entity-	PLATO	jdbc/PLATO	Entity Server
services	VAE	jdbc/VAE	
obvam-external-			
dda-services	PLATO	jdbc/PLATO	External-DDA Server
	EDA	jdbc/EDA	
obvam-identifier-	PLATO	jdbc/PLATO	Identifier Server
services	VAI	jdbc/VAI	
obvam-internal-	PLATO	jdbc/PLATO	Internal Transfer
transfer-services	VAN	jdbc/VAN	Server
obvam-statement-	PLATO	jdbc/PLATO	Statement Server
services	VAS	jdbc/VAS	
transaction-journal-services	PLATO	jdbc/PLATO	Transaction Journal Server
	VAT	jdbc/VAT	
External-liquidity-management-service	PLATO	jdbc/PLATO	Liquidity Management Server
services	ELM	jdbc/ELM	
External-Interest-Engine-Service	PLATO	jdbc/PLATO	Interest Engine Server
services	EIE	jdbc/EIE	

4.3 Creating Datasource

For creating data source in refer Oracle Banking Virtual Account Management Annexure “**How to create Data sources”.**

5. Deployments

5.1 Prerequisite

Before you proceed with below setup, Kafka server is configured and properties related Kafka configuration compiled into PLATO schema.

5.2 Deployments List

Below table give details of the deployments required on each domain for the OBVAM application to run. For the application mentioned below, delete the existing archine name and deploy the ones from the path mentioned below one after other in the same given order.

Application	Archive name	OSDC path	Targets
OBVAM Account Services	obvam-account-services-1.2.1.war	OBVAM_SERVICES\obvam-account-services\APP	VAM Account Server
OBVAM Transaction Journal Services	obvam-transaction-journal-services-1.2.1.war	OBVAM_SERVICES\obvam-transaction-journal-services\APP	VAM Transaction Journal Server
OBVAM Statement Services	obvam-statement-services-1.1.3.war	OBVAM_SERVICES\obvam-statement-services\APP	VAM Statement Server
OBVAM Internal Transfer Services	obvam-internal-transfer-services-1.1.3.war	OBVAM_SERVICES\obvam-internal-transfer-services\APP	VAM internal Transfer Server
OBVAM External DDA Services	obvam-external-dda-service-1.2.1.war	OBVAM_SERVICES\obvam-external-dda-services\APP	VAM External DDA Server
OBVAM External Credit Assessment and Block (ECA) Services	obvam-eca-services-1.2.1.war	OBVAM_SERVICES\obvam-eca-services\APP	VAM Eca Server
OBVAM Core Services	obvam-core-services-1.0.4.war	OBVAM_SERVICES\obvam-core-services\APP	VAM Account Server
OBVAM Identifier Services	obvam-identifier-services-1.0.4.war	OBVAM_SERVICES\obvam-identifier-services\APP	VAM Identifier Server
OBVAM Entity Services	obvam-entity-services-1.2.1.war	OBVAM_SERVICES\obvam-entity-services\APP	VAM Entity Server
External Interest Engine Services	external-interest-engine-service-1.0.1.war	OBVAM_SERVICES\external-interest-engine-service\APP	EIE Server
External Liquidity Management Services	external-liquidity-management-service-1.0.1.war	OBVAM_SERVICES\external-liquidity-management-service\APP	ELM Server

5.3 Steps to Deploy as Application

To deploy application refer Oracle Banking Virtual Account Management Annexure "**How to deploy section**".

6. Batch Process

6.1 Running Batch

1) Every environment will have the respective artifact where in all the deployed OBVAM services in Server will be available.
2) Download the respective batch task jar file from artifact to some folder. Eample: D:\batch
3) Navigate to the folder and to respective task, Ex obvam-account-valuedate-task
4) In the below section, details are provided to run the Command

Ensure you provide the database Connections and Eureka URL specific to the Environment.

```
--spring.datasource.url
--spring.datasource.username
--spring.datasource.password
--plato.services.eureka.uri
```

Below are a list of all batches:

6.2 obvam-amount-block-expiry-task

System to release the amount block for the Virtual accounts during EOD Date based on the configured expiry date.
Provide the job Parameters such as Branch Code, User Id and EOD Date to which EOD Date amount blocks must be released.

6.2.1 Running obvam-amount-block-expiry-task

Batch Command:

```
java -jar obvam-amount-block-expiry-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 userId=PRINCE eodDate=2018-09-05
```

6.3 obvam-account-inactive-task

System automatically marks the virtual accounts as inactive if there are no transactions getting posted on it for more number of days than that is configured at the account code level.

Provide the job Parameters such as Branch Code, User Id and EOD Date.

6.3.1 Running obvam-account-inactive-task

Batch Command:

```
java -jar obvam-account-inactive-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 eodDate=2018-09-05 userId=PRINCE
```

6.4 obvam-forget-account-task

PII data access can be controlled based on the user role. We can configure details of a account who wants to be forgotten, if the customer does not withdraws/avail for virtual account facility. Provide the job Parameters such as Branch Code, User Id, EOD Date and retention Period.

If Account is in closed state for x no. of days (x time period) then after that those records should be removed (purged) or data should be anonymized. That time period is called retention period And this will be property of a bank not branch/customer/account.

6.4.1 Running obvam-forget-account-task

Batch Command:

```
java -jar obvam-forget-account-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka retentionPeriod=X branchCode=000 eodDate=YYYY-MM-DD
userId=PRINCE
```

6.5 obvam-forget-entity-task

PII data access can be controlled based on the user role and we can configure details of an entity, who wants to be forgotten if the Entity does not withdraws/avail for the virtual account facility.
Provide the job Parameters such as Branch Code, User Id, EOD Date and retention Period.

If Entity is in closed state for x no. of days(x time period) then after that those records should be removed (purged) or data should be anonymized. That time period is called retention period And this will be property of a bank not branch/customer/account.

6.5.1 Running obvam-forget-entity-task

Batch Command:

```
java -jar obvam-forget-entity-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka retentionPeriod=60 branchCode=004 eodDate=2018-08-30
userId=PRINCE
```

6.6 cmc-forget-account-task

PII data access can be controlled based on the user role. We can configure details of a core accounts who wants to be forgotten.

As a bank OPS user, I want to forget the core accounts present in common core during End Of Day which are configured in the forget core account screen.

If Account is in closed state for x no. of days(x time period) then after that those records should be removed (purged) or data should be anonymized. That time period is called retention period

And this will be property of a bank not branch/customer/account.

6.6.1 Running cmc-forget-account-task

Batch Command:

```
java -jar cmc-forget-account-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka retentionPeriod=X branchCode=XXX eodDate=YYYY-MM-DD
userId=XXXX
```

6.7 cmc-forget-customer-task

PII data access can be controlled based on the user role. We can configure details of core customers who want to be forgotten.

As a bank OPS user, I want to forget the core customers present in common core during End Of Day which are configured in the forget core customers screen.

If Customer is in closed state for x no. of days(x time period) then after that those records should be removed (purged) or data should be anonymized. That time period is called retention period And this will be property of a bank not branch/customer/account.

6.7.1 Running cmc-forget-customer-task

Batch Command:

```
java -jar cmc-forget-customer-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka retentionPeriod=X branchCode=XXX eodDate=YYYY-MM-DD
userId=XXXX
```

6.8 obvam-untanking-task

System automatically untanks all the transactions that are tanked during the EOD, after date change has been completed successfully.

6.8.1 Running obvam-untanking-task

Batch Command:

```
java -jar obvam-untanking-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 userId=SAVITHA tankedTxnCount=1
```

6.9 obvam-account-statement-task

System to generate the account statement (PDF file format is generated) during EOD for the virtual entities based on the statement preference configured.

6.9.1 Running obvam-account-statement-task

Batch Command:

```
java -jar obvam-account-statement-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 userId=SAVITHA eodDate=2018-04-18
```

6.10 obvam-account-valuedate-task

System to update the transaction amount according to the value date for each transactions.

6.10.1 Running obvam-account-valuedate-task

Batch Command:

```
java -jar obvam-account-valuedate-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 userId=SAVITHA vdBatchCount=1
```

6.11 obvam-account-turnover-balance-task

During EOD, calculate the total debit turnover balance and credit turnover balance for the virtual accounts and update specific to Virtual accounts.

6.11.1 Running obvam-account-turnover-balance-task

Batch Command:

```
java -jar obvam-account-valuedate-task-0.0.1-SNAPSHOT.jar --
spring.datasource.driver-class-name=oracle.jdbc.OracleDriver --
spring.datasource.url=jdbc:oracle:thin:@//HostName:PortNo/ServiceName--
spring.datasource.username=XXX--spring.datasource.password=XXX--
plato.services.eureka.uri=http://HostName:PortNo/plato-discovery-
service/eureka branchCode=000 userId=SAVITHA turnOverBatchCount=1
```

7. Restarts and Refresh

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

7.1 Restarting Servers

To restart the server refer to Oracle Banking Virtual Account Management Annexure "**How to restart**" section.

8. BIP Configuration

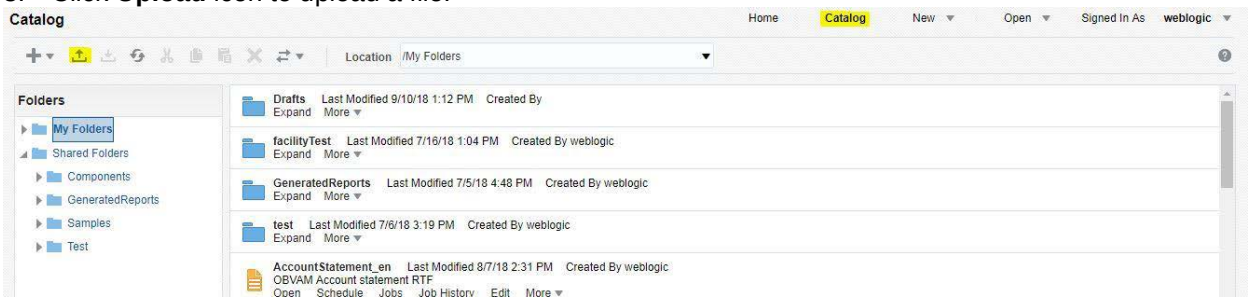
This documentation is focused on the configuration of BIP for the generation of reports. The procedure includes two steps:

- Configuring the Data Model
- Configuring the Report Absolute Path

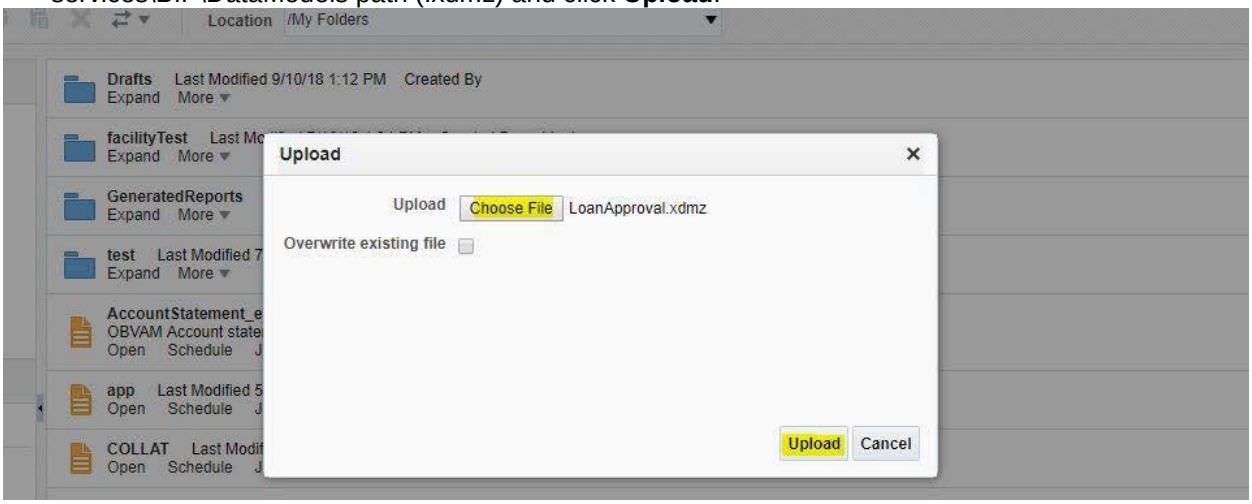
8.1 Configuring Data Model

The data model designed for the report is to be uploaded to the BIP server.

1. Open the BIP console. **Sign in** with BIP credentials.
2. Click **Catalog** and select the folder on which the data model file needs to be uploaded.
3. Click **Upload** icon to upload a file.



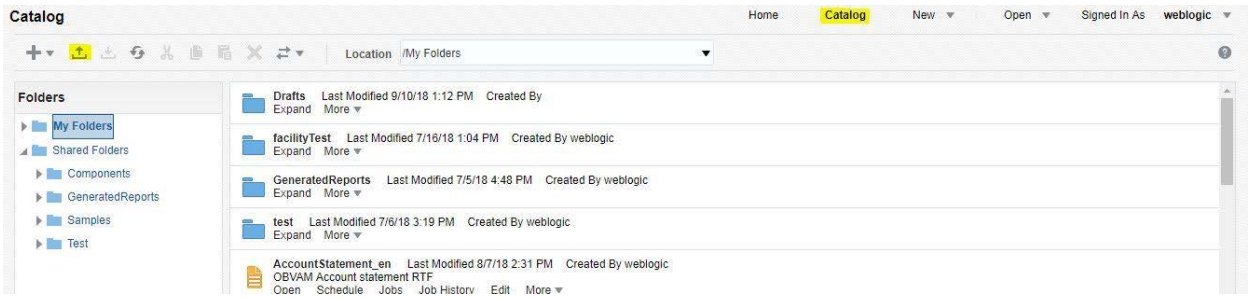
4. Choose the data model file from OBVAM_SERVICES\obvam-statement-services\BIP\DataModels path (.xdmz) and click **Upload**.



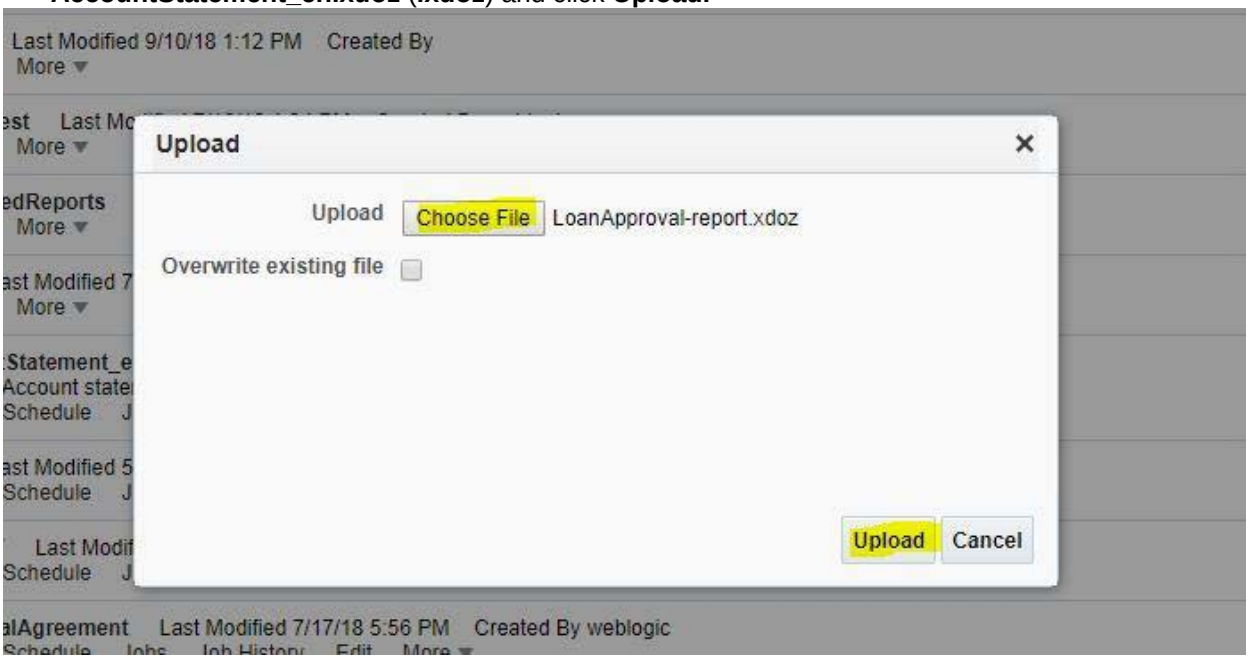
8.2 Configuring the Report Absolute Path

The report absolute path file created for the report is to be uploaded to the BIP server.

1. Click **Catalog** and select the folder on which the file must be uploaded.
2. Click **Upload** icon to upload a file.



3. Choose the report absolute path file from **OBVAM_SERVICES\obvam-statement-services\BIP\Reports\AccountStatement\ AccountStatement_en.xdoz** (**.xdoz**) and click **Upload.**



9. Logging Area

This part of the document will talk about the logging area of OBVAM applications in server.

9.1 Logging Area

Logging area is configurable, you can configure any path within the server, where you want OBVAM application to write logs. OBVAM applications will wright logs in the configured path with below name:

<Application name>.logs

Example: if application name is **obvam-account-services**, then logs file name would be obvam-account-servies.logs

To configure logging path, refer Annexure-1 Post Domain Creation Section.