Oracle® Banking Microservices Architecture

Data Migration User Guide

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Preface

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Purpose

This guide provides details of data migration utility with step-by-step process to complete data migration activity in Oracle Banking.

Audience

The guide is intended for the Bankers responsible data migration during the implementation process.

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.

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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.

Conventions

The following text conventions are used in this document:

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

Screenshot Disclaimer

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

Acronyms and Abbreviations

The following acronyms and abbreviations are used in this guide:

Table 1 Acronyms and Abbreviations

Acronym/ Abbreviation	Description
API	Application Programming Interface
KYC	Know Your Customer
UI	User Interface

Basic Actions

Most of the screens contain icons to perform all or a few of the basic actions. The actions which are called here are generic, and it varies based on the usage and the applicability. The table below gives a snapshot of them:

Table 2 Common Icons and its Definitions

Action	Description
Submit	On click of **Submit**, the checklists applicable for the stage will be defaulted based on the application category. On verifying all the checklist and on selection of the outcome, the task will be submitted. The following options are available for 'Outcome': • **Proceed** – Move the task to next stage or complete the onboarding process in Approval stage. User can select this option in the Initiation, Enrichment, Review, Recommendation, and Approval stages. • **Approve** – The onboarding process is approved. User can select this option in KYC stage. • **Reject** – The onboarding process is rejected. User can select this option in KYC and Approval stages. • **Additional Info** – The task is moved back to the Manual retry queue for further. User can select this option in Review and Approval stages.
Post	On click of **Post**, the system posts the comments below the **Comments** text box.
Cancel	On click of **Cancel**, the system will ask for confirmation and on confirming the task will be closed without saving the data.
Hold	On click of **Hold**, the captured details will be saved, and the task status will be suspended and will be available in the Hold queue. This option is used, if there are any pending information to be captured. If mandatory fields have not been captured, system will display error until the mandatory fields have been captured.
Next	On click of **Next**, the details of the captured will be saved and then system will move to the next screen. If mandatory fields have not been captured, system will display error until the mandatory fields have been captured. If mandatory fields have not been captured, system will display error until the mandatory fields have been captured.
Back	On click of **Back**, the details of the captured will be saved and then system will move to the previous screen.
Save & Close	On click of **Save & Close**, the captured details will be saved. If mandatory fields have not been captured, system will display error until the mandatory fields are captured.

Symbols and Icons

The following are the symbols you are likely to find in this guide:

Table 3 List of Symbols

Symbol	Function
	Add icon
	Edit icon

Table 3 (Cont.) List of Symbols

Symbol	Function
	Delete icon
	Calendar icon
	Close icon

1

Overview of Data Migration Utility

Oracle Banking Data Migration Utility is a software tool or set of tools designed to facilitate the transfer of data from one system or storage format to another. This process is often necessary when organizations upgrade their software, adopt new technologies, or consolidate data from multiple sources.

The purpose of the data migration utility is described as below:

Table 1-1 Purpose of Data Migration Utility

Purpose	Description
System Upgrades	When transitioning to a new software system or upgrading an existing one, data migration utilities help transfer data seamlessly, ensuring that valuable information is not lost or corrupted in the process.
Platform Changes	Moving data between different platforms, such as from on-premises servers to cloud-based solutions, requires a data migration utility to handle the transfer efficiently.
Database Changes	Organizations may switch databases for various reasons. A data migration utility can aid in moving data between different database management systems.
Data Consolidation	In cases where data is scattered across multiple sources, a migration utility can be used to consolidate information into a centralized location.

- Assumptions
- Limitations
- Prerequisites

1.1 Assumptions

The service will refer to spring batch tables present in *PLATO_BATCH* schema, and other file upload related tables will be created in *PARTY* schema. Assumption is that both these schemas are already present and will be up and running in the production environment.

1.2 Limitations

The following are the limitations:

- The field/column sequence from the file, and their data types is configured as part of the metadata table. Any changes to the field sequence or data type will result in metadata table update, which will need a service redeployment (for flyway script execution).
- Once user clicks on the Initiate Migration, the stage 1 will automatically trigger the stage 2, and stage 3. No additional triggers are required by user for each stage.

1.3 Prerequisites

- The functional activity codes are created through flyway execution. Functional activity codes should be mapped to the respective data migration user role and user should be assigned to the respective user role. For more information on the function activity codes, refer to the *Oracle Banking Party Configurations User Guide*.
- For data migration, two user actions are needed. One user is to upload the file, which will then read the file and store in on the object storage. Next is to initiate migration activity on the file uploaded.
- The upload service will consume file-store and file-stream services. These services must be up and running in the production environment, without which file uploads will not go through, and object will not be persisted to the object store.
- Performance parameters are set as a part of the pipeline variables. These needs to be configured strictly as part of the resource availability in each environment, without which pods might crash due to out of memory error. The default values are proposed for the environment with below configuration are as below:

Table 1-2 Hardware Configuration

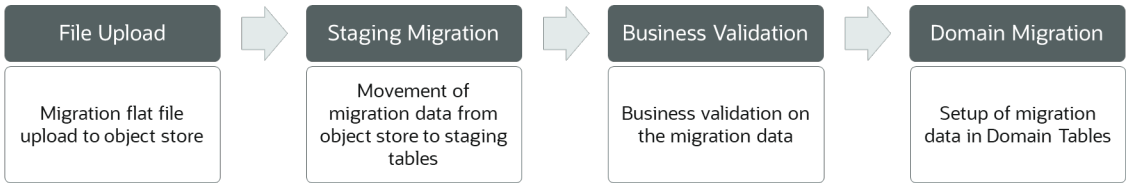
Environment Hardware Availability	Recommended Configuration
Capacity Requirements: 16 Cores and 128 GB RAM	CORE_POOL_SIZE: Number of threads allowed to run in parallel. Set to Available Memory / 3.
DB Space Requirement: 2TB	QUEUE_CAPACITY = 1
	MAX_POOL_SIZE = 256
	GRID_SIZE: Same value as CORE_POOL_SIZE

2

Data Migration Process

Oracle Banking Cloud Services data migration is a 4-step process with the following stages:

Figure 2-1 Data Migration - Process



Party Data Migration is the process of migrating customer information from an external systems to the Oracle Banking Party Management. The details on the mandatory/optional data segments are as below:

Table 2-1 Data Segment Category

Data Segment	Mandatory/Optional
Party Information	Mandatory
Party Account Information	Optional
Party Relationship Information	Optional

Party Information

Party information encompasses a comprehensive set of data and details pertaining to individuals as well as small and medium-sized businesses. Financial institutions actively collect and store this information as part of their efforts to effectively manage relationships with customers, deliver enhanced services, and make well-informed business decisions. This compilation of data plays a pivotal role in understanding and interacting with clients in a more personalized and efficient manner.

The following data segments are supported for migration through the party information:

Table 2-2 Party Information - Supported Migration

Data Segment	Retail Party (Applicable - Mandatory/Optional/ Conditional)	SMB Party (Applicable - Mandatory/Optional/ Conditional)
Basic Info and Citizenship	Yes - Mandatory	No
Business Details	No	Yes – Mandatory
Current Address	Yes – Conditional	Yes – Conditional
Previous Address	Yes – Conditional	Yes – Conditional
ID Details	Yes – Mandatory	No
Contact Details	Yes – Optional	No

Table 2-2 (Cont.) Party Information - Supported Migration

Data Segment	Retail Party (Applicable - Mandatory/Optional/ Conditional)	SMB Party (Applicable - Mandatory/Optional/ Conditional)
Tax Declaration	Yes – Mandatory	No
Visa Details	Yes – Optional	No
Dates	Yes – Optional	No
Educational Qualification	Yes – Optional	No
Salaried	Yes – Optional	No
Self Employed	Yes – Optional	No
Consent & Preferences • E-Sign • Marketing • Privacy • Minor	Yes – Optional	No
Additional Info • Insider • Special Needs • Politically Exposed • Armed Forces • FIDM	Yes – Optional	No
Membership and Association	Yes – Optional	No
Assets & Liabilities • Assets • Liabilities	Yes – Optional	Yes – Optional
Income & Expense • Income • Expense	Yes – Optional	Yes – Optional
Other Relationship	Yes – Optional	Yes – Optional
Beneficially Owned Company	Yes – Optional	Yes – Optional
Profit and Financial Ratios	No	Yes – Optional
Party Memo	Yes – Optional	Yes – Optional

> **Note:**
>
> **Total Income** & **Net-worth** data segment is not available on UI in **Insta Processes** (Onboarding, Amend, and View).

Party Relationship Information

Party Relationship Information refers to the details and connections that exist between two distinct individuals or entities, often denoting specific types of relationships such as household relationships or guardian relationships. This type of information is crucial for understanding and managing the associations and dependencies between different parties. Examples of party relationships include connections within a household, where individuals may share familial ties, or guardian relationships, where one party assumes responsibility for the well-being of another.

This information provides a comprehensive view of how various parties are interlinked, facilitating a more nuanced understanding of social or organizational structures. For instance, household relationship.

Effectively managing party relationship information enables financial institutions to enhance decision-making processes, tailor services to specific needs, and foster more personalized and efficient interactions within the context of these relationships. The following data segments are supported for migration through the party relationship information.

Table 2-3 Party Relationship Information - Supported Migration

Data Segment	Retail Party (Applicable - Mandatory/Optional/ Conditional)	SMB Party (Applicable - Mandatory/Optional/ Conditional)
Household Relationship	Yes - Optional	No
Power or Attorney Relationship	Yes – Optional	No
Service Member Relationship	Yes – Optional	No
Related to Insider Relationship	Yes – Optional	No
Guardian	Yes – Conditional	No
Custodian	Yes – Conditional	No
Solicitor	Yes – Optional	No
Authorized Signatory	No	Yes - Optional
Owner	No	Yes - Optional
Supplier	No	Yes - Optional
Guarantor	No	Yes - Optional

Note:

- **Guardian** can be added for a major party.
- Either **Guardian** or **Custodian** is mandatory for a minor party

Party Account Information

Party Account Relationship Information refers to the details and connections between a party and its associated accounts. A party may hold various relationships with an account, including primary ownership, secondary ownership, guarantor status, and more. This information is vital for comprehending and effectively managing the interconnections and dependencies between different parties and their respective accounts.

- File Upload
  The file upload process facilitates users in submitting flat files containing pre-filled data to initiate the migration process. Flat files are specific to domain and migration event, such as Party (OBPY) and Party Information, or Party Relationship Information. This streamlined approach ensures a seamless and accurate transfer of information during the data migration.
- Initiate Migration
  Initiate Migration allows the data migration process by moving data from object store to staging tables.
- Monitor Migration
  Upon successful data migration initiation, the migration process can be monitored and managed using Monitor Migration user interface. The monitor migration feature serves as a centralized place, offering a single point of access to track and manage all in-progress and completed data migrations.

- Migration Cleanup
  Migration Cleanup provides an ability to cleanup history of migrated data from the database tables. The data migration cleanup feature can permanently delete the previously migrated data from staging, domain, and history tables.

2.1 File Upload

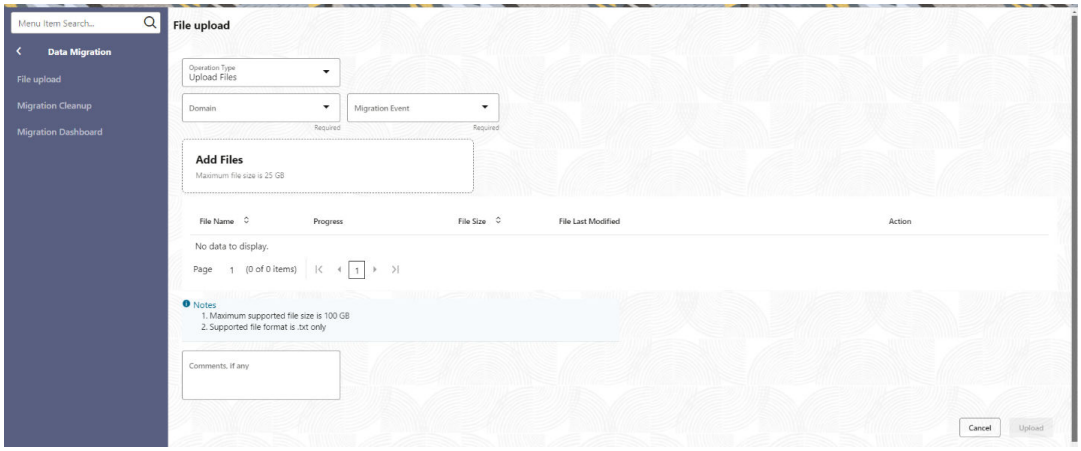
The file upload process facilitates users in submitting flat files containing pre-filled data to initiate the migration process. Flat files are specific to domain and migration event, such as Party (OBPY) and Party Information, or Party Relationship Information. This streamlined approach ensures a seamless and accurate transfer of information during the data migration.

To initiate file upload:

1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **File Upload**.

   The **File Upload** screen is displayed.

Figure 2-2 File Upload



The **File Upload** screen allows users to:

- **Upload File** - To upload a new file.
- **View File** - To view previously uploaded files.

Upload File

3. Select the operation type as **Upload File** from the drop-down values.
4. Select domain as **Party** to upload party files.
5. Select migration event from the drop-down values. The available options are:
   - Party Information - Retail
   - Party Information - SMB
   - Party Account Information
   - Party to Party - Retail
   - Party to Party - SMB

6. Click **Add Files** to select text files to be uploaded as per the migration flat file formats and provide comments if any.

> **Note:**
>
> Refer to the Flat File Formats for migration flat file details. Migration files are supported as .txt format with ~| (Tilde pipe) separated value.

7. Click **Upload** to initiate the upload process.

> **Note:**
>
> - Once the file upload is successful, go to **Migration Dashboard** to **Initiate Migration** and **Monitor Migration** process and the following details are available:
>
> **Table 2-4 Details of Uploaded Files**
>
> | Field | Description |
> |---|---|
> | **File Name** | Displays the name of the uploaded file for migration. |
> | **Progress** | Displays the progress of the file upload through a progress bar and percentage completion. |
> | **File Size** | Displays the size of the uploaded file. |
> | **Files Last Modified** | Displays the data and time of last modification of the uploaded file. |
> | **Action** | Click **Delete** icon to delete a file. |
>
> - If a file upload fails, the user has the option to re-initiate the upload of the same file. However, in the event of a successful file upload, the system will not allow for the re-upload of the same files.
> - In case of a multiple file upload, if the upload process fails for any of the files, the user has an option to re-upload specific files. However, files that have been successfully uploaded cannot be re-uploaded.

- View File
  The **View File** is to view previously uploaded migration flat files.

2.1.1 View File

The **View File** is to view previously uploaded migration flat files.

To view previously uploaded migration flat files:

1. Select operation type as **View Files** from the drop-down values.
2. Select time period to see previously uploaded files within specific period from the drop-down values.
3. Select domain as **OBPY** for party files upload.
4. Select migration event from the drop-down values. The available options are:

- Party Information
- Party Account Information
- Party Relationship Information

5. Select status from the drop-down values.

> **Note:**
>
> - The files as per selected parameters will be available in the list with the status and other details.

> **Note:**
>
> - Once the upload is successful, the following details are available:
>
> **Table 2-5 Details of Uploaded Files**
>
> | Field | Description |
> |---|---|
> | **Domain** | Displays the domain of migration. |
> | **Migration Event** | Displays the event of migration (Party Information, party Relationship Information). |
> | **File Name** | Displays the name of file uploaded for the migration. |
> | **Status** | Displays the status of file upload (In-progress, Completed, Failed). |
> | **File Size** | Displays the size of the uploaded file. |
> | **Files Last Modified** | Displays the date and time of last modification of the uploaded file. |
>
> - View files will display only the files uploaded but not initiated for migration. For more information on the initiation of migration, refer to the Initiate Migration.

2.2 Initiate Migration

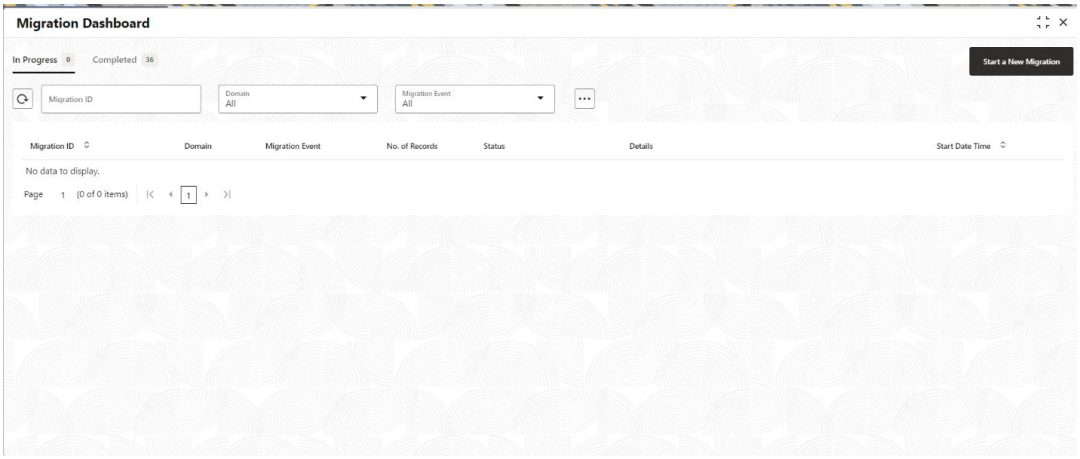
Initiate Migration allows the data migration process by moving data from object store to staging tables.

To initiate migration:

1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Migration Dashboard**.

   The **Migration Dashboard** screen is displayed.

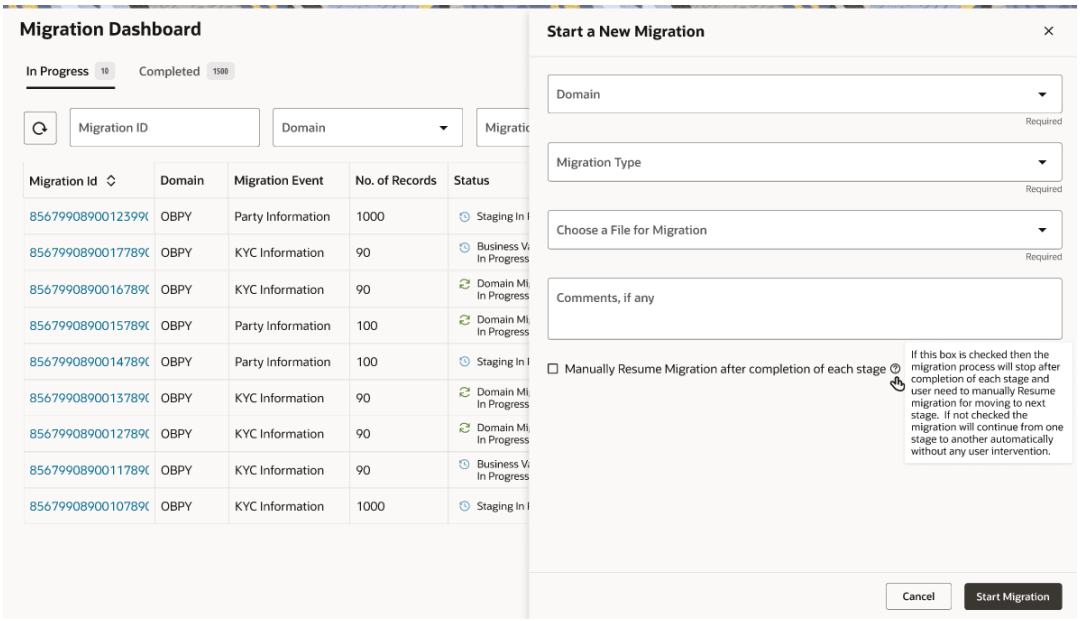
Figure 2-3 Migration Dashboard



3. Under **Migration Dashboard**, click **Start a New Migration**.

   The **Start a New Migration** overlay screen is displayed.

Figure 2-4 Start a New Migration



4. On the **Start a New Migration** overlay screen, select the domain as **OBPY**.
5. Select migration event as per the uploaded files from the drop-down values. The available options are:
   - Party Information
   - Party Account Information
   - Relationship Information

> **Note:**
>
> Party KYC Information is not supported in the available product version.

6. Select files for migration from drop-down in **Choose a File for Migration**.

> **Note:**
>
> Files will be available for selection as per the files uploaded for domain and migration event during file upload process.

7. Provide comments if any and click **Start Migration**.
8. Select Checkbox for “Manually Resume Migration after completion of each stage”.

> **Note:**
>
> When a user checks the Checkbox, the migration process stops after completing each stage and requires the user to manually resume it to move to the next stage. If not checked, the system will automatically migrate from one stage to another stage without manual intervention.

A unique migration reference ID will be generated and new record will be available in migration dashboard for the initiated migration for monitoring.

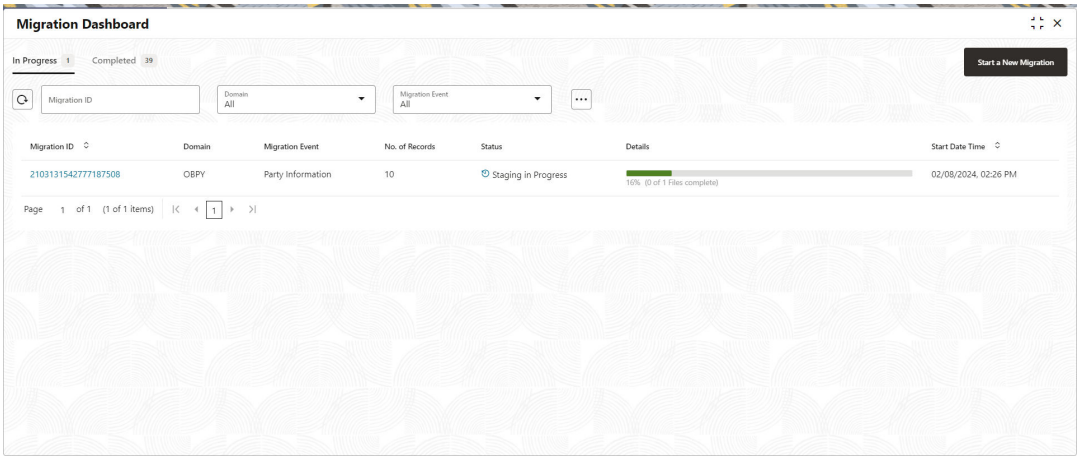
2.3 Monitor Migration

Upon successful data migration initiation, the migration process can be monitored and managed using Monitor Migration user interface. The monitor migration feature serves as a centralized place, offering a single point of access to track and manage all in-progress and completed data migrations.

To monitor migration:

1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Migration Dashboard**.

   The **Migration Dashboard** screen is displayed.



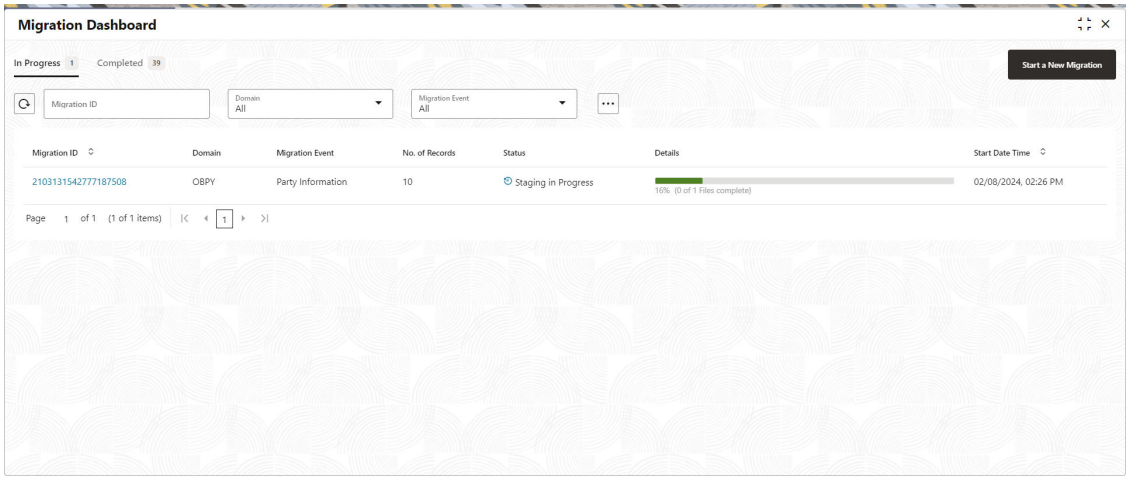
- In Progress Migration
- Completed Migration

- Aborted Migration

2.3.1 In Progress Migration

In-progress migration refer to those that have been initiated but are yet to complete. A migration is deemed successful only when all three stages, as outlined below, have been successfully executed.

To view in-progress migration, click **In Progress** tab on the **Migration Dashboard** screen.



The migration dashboard provides following details for the in-progress migration.

Table 2-6 In-progress Migration - Field Description

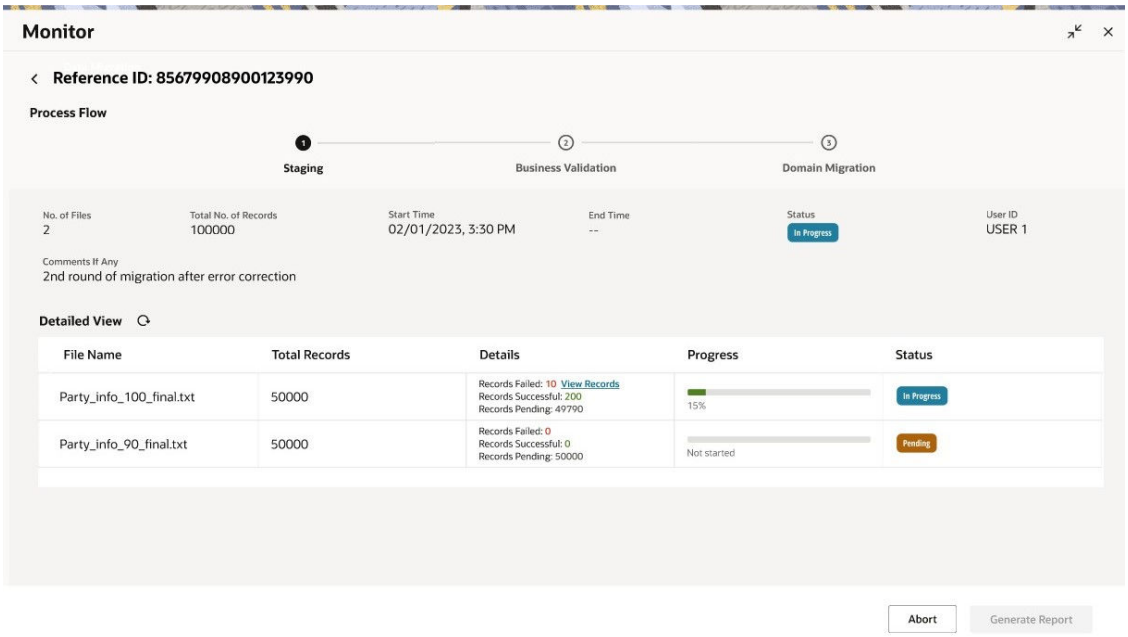
Field	Description
Migration ID	Displays the unique migration ID generated for a data migration event.
Domain	Displays the domain of the data migration (OBPY).
Migration Event	Displays migration event (Party Information, Relationship Information).
No. of Records	Displays the total number of records initiated for the migration.
Status	Displays the current stage and status of migration (Staging, Business Validation). **Note:** During migration initiation, if **Manual Resume Migration** is selected, the migration will display the completed stage and a message requiring manual resume action.
Details	Displays the details of the progress of migration in respective stage.

Table 2-6 (Cont.) In-progress Migration - Field Description

Field	Description
Start Time	Displays the start time of the migration.

To monitor an in-progress migration, click **Migration ID** hyperlink on the **Monitor Migration** screen.

Figure 2-5 Monitor



The following are the stages of a migration process:

- Staging
- Business Validation
- Domain Migration

2.3.1.1 Staging

Staging is the crucial stage where data transitions from the object store to the staging database tables. Upon uploading files to the object store and initiating the data migration process, the migration data transitions from the object store to the corresponding database tables.

> **Note:**
>
> For more information about initiation of migration, refer to the Initiate Migration.

On the main panel of the **Staging** stage screen, the following details of the **Staging** phase of the data migration process is available.

Table 2-7 Staging (Main Panel) - Field Description

Field	Description
Reference ID	Displays the unique migration ID generated for a data migration event.
No. of Files	Displays the number of files used to initiate the migration process.
Total No. of Records	Displays the total Number of records initiated for the migration.
Start Time	Displays the start time of the migration.
End Time	Displays the end time of the migration.
Status	Displays the current status of migration (In Progress, Completed, Aborted).
User ID	Displays the User ID of the user initiated the migration process.
Comments	Displays the remarks as provided by user during migration initiation.

On the detailed view panel of the **Staging** stage screen, the following details of the **Staging** phase of the data migration process is available in the grid.

Table 2-8 Staging (Detailed View Panel) - Field Description

Field	Description
File Name	Displays the name of the file used to initiate the migration process.
Total Records	Displays the total number of records per file available in the file used to initiated the migration.
Details	The following are record level details of the migration process: • **Records Failed** – Displays the number of records failed during migration process. • **Records Successful** - Displays the number of records successful during migration process. • **Records Pending** - Displays the number of records pending for migration during migration process.
Progress	Displays the percentage base progress of the migration process.
Status	Displays the current status of the migration process.

On successful completion of **Staging** stage of data migration **Business Validation** stage will be automatically executed.

> **Note:**
>
> During the migration process, if manual intervention is necessary to advance to the subsequent stage as chosen at the **Migration Initiation**, a notification is presented to the user, signaling the need to recommence the migration towards the next stage.

A data migration process can be aborted during **Staging** stage of data migration. For more information, refer to the Aborted Migration.

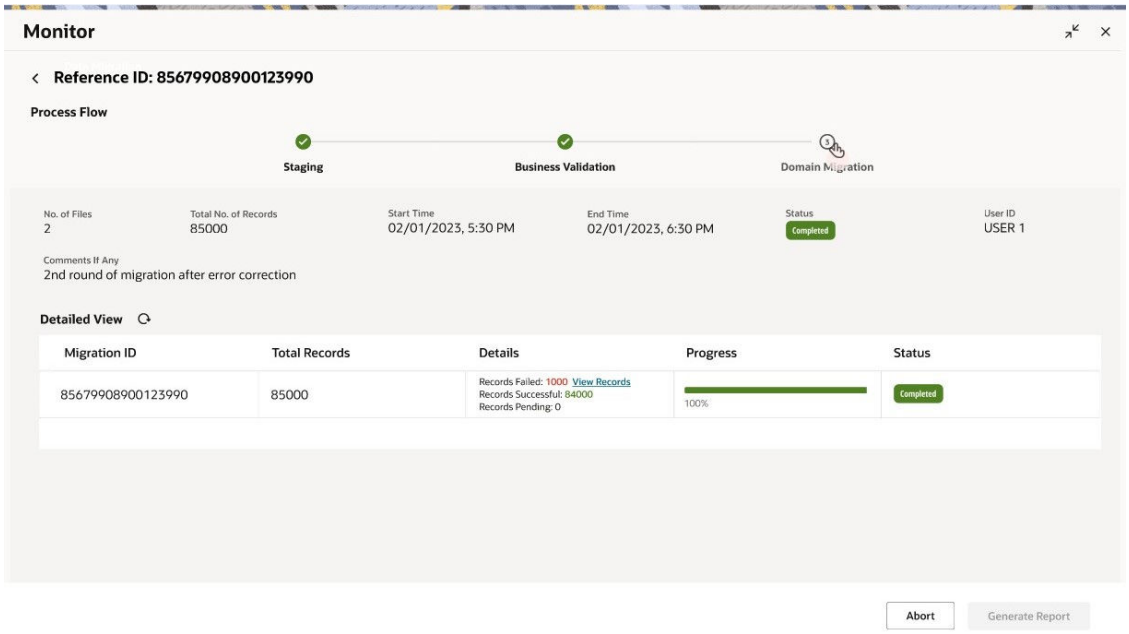
2.3.1.2 Business Validation

The **Business Validation** stage is designed to execute essential business-related validations on the migration data before its transfer into the domain tables, thereby signifying the completion of the data migration process. These business-related validations are critical to

ensure that the data aligns with the system requirements, including the availability of all mandatory fields and a comprehensive analysis of dependencies. The Below are some examples of business validations:

- Enabling the "Minor Customer Flag" for a customer if their age falls within the criteria specified for minors in the configuration.
- Verifying that the Expiry Date of Identity Details is greater than the current date and the ID issuance date, among other criteria.

Figure 2-6 Business Validation



On the main panel of the **Business Validation** stage screen, the following details of the **Business Validation** phase of the data migration process is available .

Table 2-9 Business Validation (Main Panel) - Field Description

Field	Description
Reference ID	Displays the unique migration ID generated for a data migration event.
No. of Files	Displays the number of files used to initiate the migration process.
Total No. of Records	Displays the total Number of records initiated for the migration.
Start Time	Displays the start time of the migration.
End Time	Displays the end time of the migration.
Status	Displays the current status of migration (In Progress, Completed, Aborted).
User ID	Displays the User ID of the user initiated the migration process.
Comments	Displays the remarks as provided by user during migration initiation.

On the detailed view panel of the **Business Validation** stage screen, the following details of the **Business Validation** phase of the data migration process is available in the grid.

Table 2-10 Business Validation (Detailed View Panel) - Field Description

Field	Description
Migration ID	Displays the unique migration ID generated for a data migration event.
Total Records	Displays the total number of records per file available in the file used to initiated the migration.
Details	The following are record level details of the migration process: • **Records Failed** – Displays the number of records failed during migration process. • **Records Successful** - Displays the number of records successful during migration process. • **Records Pending** - Displays the number of records pending for migration during migration process.
Progress	Displays the percentage base progress of the migration process.
Status	Displays the current status of the migration process.

On successful completion of **Business Validation** stage of data migration **Domain Migration** stage will be automatically executed.

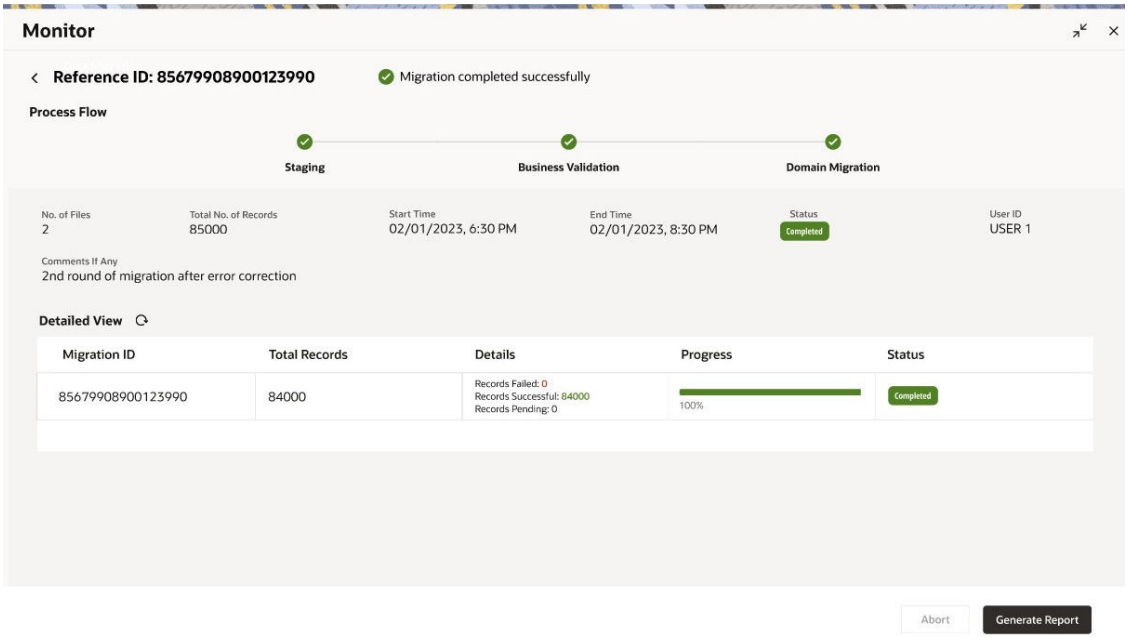
> **Note:**
>
> During the migration process, if manual intervention is necessary to advance to the subsequent stage as chosen at the **Migration Initiation**, a notification is presented to the user, signaling the need to recommence the migration towards the next stage.

A data migration process can be aborted during **Staging** stage of data migration. For more information, refer to the Aborted Migration.

2.3.1.3 Domain Migration

The **Domain Migration** stage represents the conclusive phase of the data migration process, where data is established within the final domain tables. Upon the successful completion of the **Domain Migration** stage, the entire data migration process is marked as completed. This stage guarantees that data is appropriately situated in the designated tables, enabling access through user interfaces, application programming interfaces, or any other data access mechanisms.

Figure 2-7 Domain Migration



On the main panel of the **Domain Migration** stage screen, the following details of the **Domain Migration** phase of the data migration process is available .

Table 2-11 Domain Migration (Main Panel) - Field Description

Field	Description
Reference ID	Displays the unique migration ID generated for a data migration event.
No. of Files	Displays the number of files used to initiate the migration process.
Total No. of Records	Displays the total Number of records initiated for the migration.
Start Time	Displays the start time of the migration.
End Time	Displays the end time of the migration.
Status	Displays the current status of migration (In Progress, Completed, Aborted).
User ID	Displays the User ID of the user initiated the migration process.
Comments	Displays the remarks as provided by user during migration initiation.

On the detailed view panel of the **Domain Migration** stage screen, the following details of the **Domain Migration** phase of the data migration process is available in the grid.

Table 2-12 Domain Migration (Detailed View Panel) - Field Description

Field	Description
Migration ID	Displays the unique migration ID generated for a data migration event.
Total Records	Displays the total number of records per file available in the file used to initiated the migration.

Table 2-12 (Cont.) Domain Migration (Detailed View Panel) - Field Description

Field	Description
Details	The following are record level details of the migration process: • **Records Failed** – Displays the number of records failed during migration process. • **Records Successful** - Displays the number of records successful during migration process. • **Records Pending** - Displays the number of records pending for migration during migration process.
Progress	Displays the percentage base progress of the migration process.
Status	Displays the current status of the migration process.

On successful completion of **Domain Migration** stage, the migration report will be automatically generated and stored in document management system. For more information, refer to the Data Migration Reports.

A data migration process can be aborted during **Staging** stage of **Data Migration**. For more information, refer to the Aborted Migration.

2.3.2 Completed Migration

Completed migration refers to:

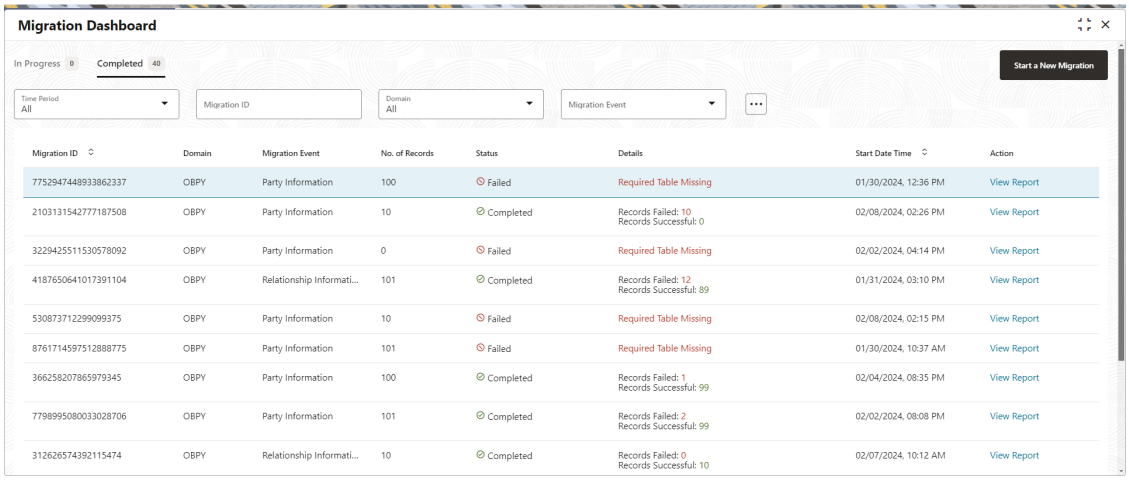
- Completed 3 stages of date migration.
- Aborted during any of the 3 stages of data migration process.
- Failed migration due to an issue or error.

A migration may be marked as aborted or failed, indicating instances where completion was either intentionally halted or encountered unexpected issues. Completed migrations can be filtered using the following parameters:

- Time Period
- Migration ID
- Domain
- Migration Event
- Status
- Start Date

To view completed migrations, click **Completed** tab on the **Migration Dashboard**.

Figure 2-8 Migration Dashboard - Completed Migration



The migration dashboard provides following details for the completed migration.

Table 2-13 In-progress Migration - Field Description

Field	Description
Migration ID	Displays the unique migration ID generated for a data migration event.
Domain	Displays the domain of the data migration (OBPY).
Migration Event	Displays migration event (Party Information, Relationship Information).
No. of Records	Displays the total number of records initiated for the migration.
Status	Displays the current stage and status of migration (Staging, Business Validation).
Details	Displays the details of the progress of migration in respective stage.
Start Time	Displays the start time of the migration.
Action	Click report under the action column for reports. The reports can be following: • **Generate Report** – Generate report for a completed migration. • **Regenerate Failed Report** – Generate a failed migration report. • **View Report** – View previously generated migration report.

2.3.3 Aborted Migration

An aborted migration stops the process of migration instantly and no further actions are executed in the data migration process. A report can be generated for an aborted migration from **Completed** migration screen.
While a data migration is in-progress, the migration can be aborted during **Staging**, **Business Validation**, and **Domain Migration** stages. An aborted migration will be available in the **Completed** migration tab on the **Migration Dashboard**. Migration can also be aborted because of error threshold.

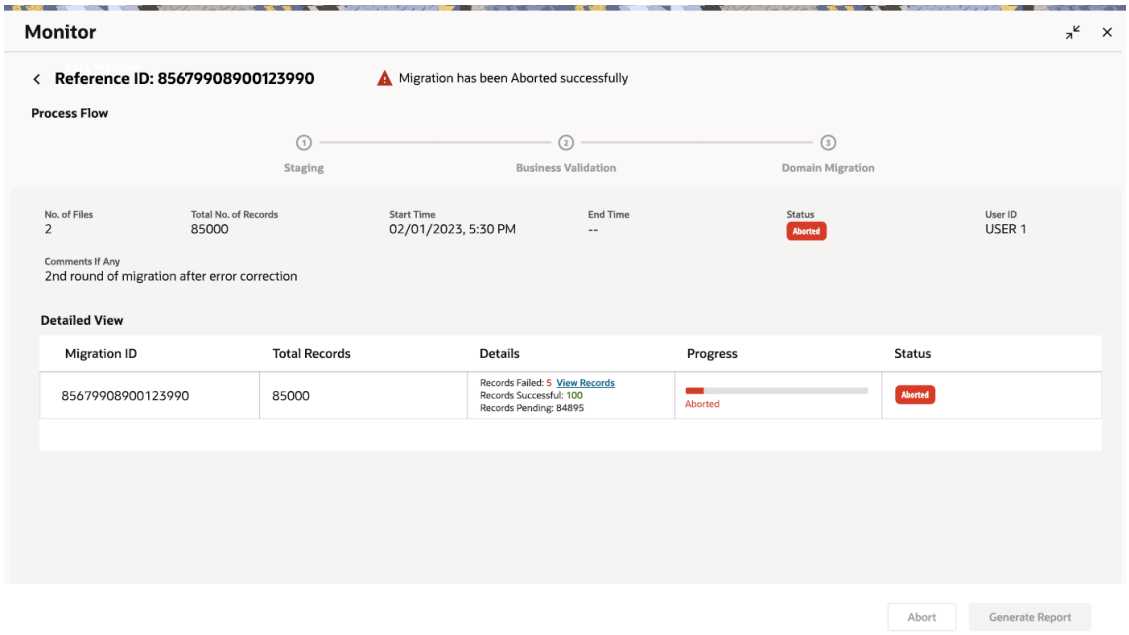
1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Migration Dashboard**.
3. On the **Migration Dashboard** screen, click **In Progress** tab to view in-progress migration.
4. Click **Migration ID** hyperlink.
5. On the **Monitor** screen, click **Abort** button.

   The **Alert** pop-up screen is displayed.
6. On the **Alert** pop-up screen, click **Yes** to abort the migration process.

> **Note:**
>
> A migrated process once aborted cannot be resumed post Abort.

After confirmation, the user will be prompted with a confirmation message and the status of the migration process will be updated as aborted in the **Monitor** screen.

Figure 2-9 Monitor - Aborted Migration



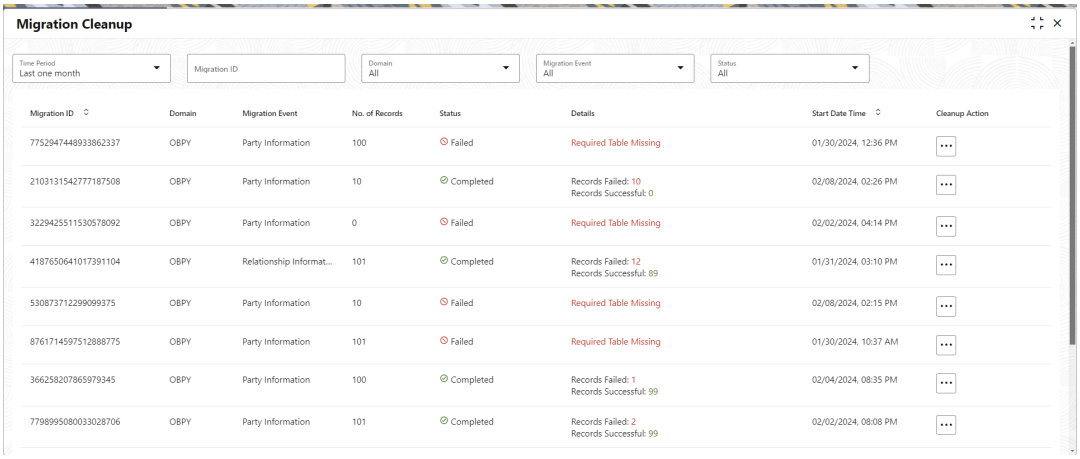
2.4 Migration Cleanup

Migration Cleanup provides an ability to cleanup history of migrated data from the database tables. The data migration cleanup feature can permanently delete the previously migrated data from staging, domain, and history tables.

1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Migration Cleanup**.

   The **Migration Cleanup** screen is displayed.

Figure 2-10 Migration Cleanup



The list of completed migrations can be filtered using the following parameters:

- Time Period
- Migration ID
- Domain
- Migration Event
- Status

To initiate migration cleanup

3. Under **Cleanup Action** column, click for the cleanup menu.
4. Select any one of the option to perform cleanup activity.

   The **Alert** pop-up screen is displayed.
5. On the **Alert** pop-up screen, click **Yes** to confirm cleanup.

On confirmation, previously migrated data will be deleted from the respective staging, domain, and history tables.

> **Note:**
>
> Staging, domain, and history tables can be cleaned up in any order. However, if staging table is cleaned up before domain and history tables, specific cleanup based on migration id will not be possible.

3
Data Migration Maintenance

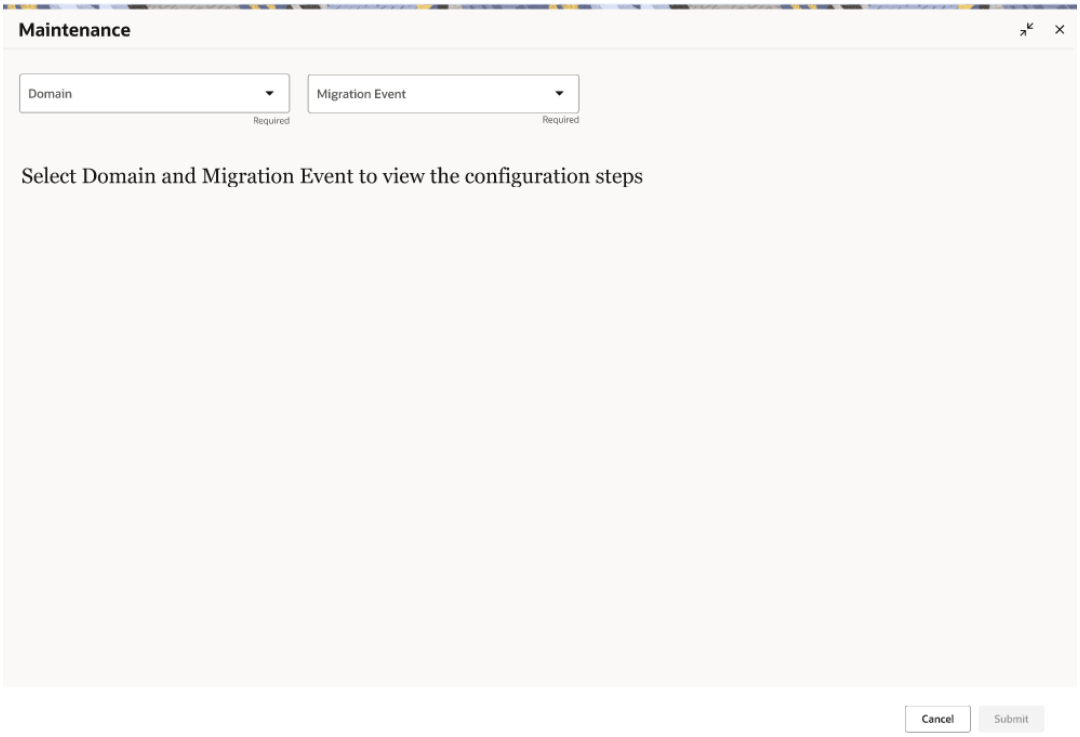
Data Migration Maintenance feature to control different parameters used during data migration process to enable a successful migration completion.

To initiate file upload:

1. On the homepage, click **Party Services**. Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Maintenance**.

   The **Maintenance** screen is displayed.

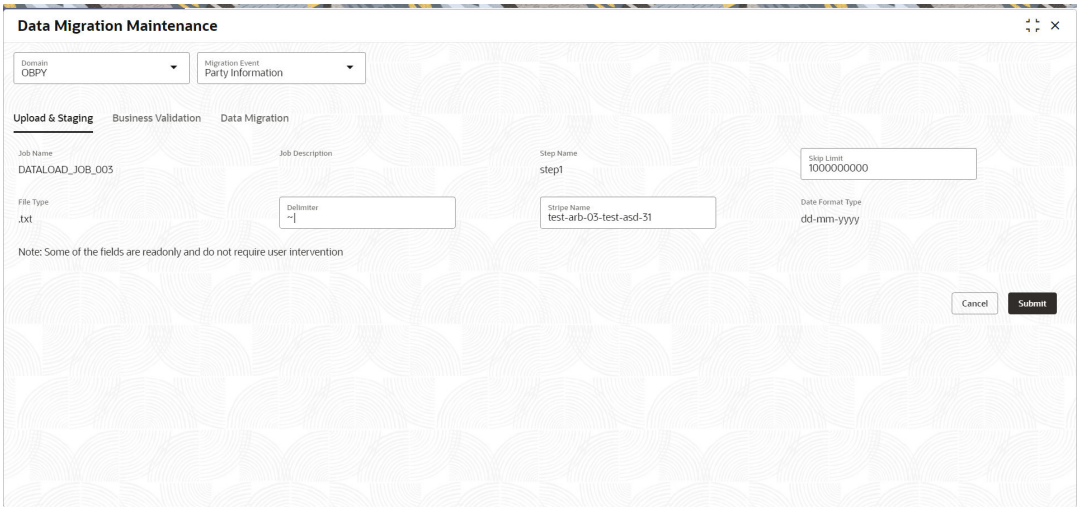
Figure 3-1 Maintenance



3. On the **Maintenance** screen, select domain as **OBPY**.
4. Select the migration event from the available drop-down values. The available options are:
   - Party Information
   - Party Relationship Information
   - Party Account Information

   Tabs for different migration stages as **Upload & Staging**, **Business Validation** and **Domain Migration** is displayed.

Figure 3-2 Data Migration Maintenance - Upload & Staging

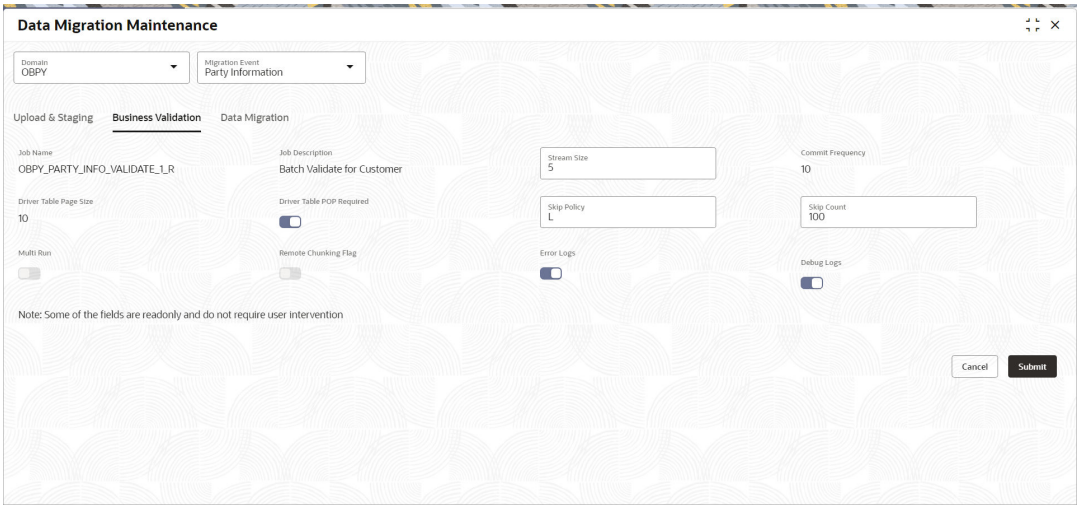


Refer to the table for parameters available to be maintained for different stages as below:

Table 3-1 Upload & Staging - Parameter

Field	If Mandatory	Description
Job Name	No	The name of the job being configured.
Job Description	No	A brief description of the job's purpose or functionality.
Step Name	No	The name of the step within the job configuration.
Skip Limit	Yes	The maximum number of records that can be skipped during processing.
File Type	No	The type or format of the file being processed (TXT, CSV, etc.).
Delimiter	Yes	The delimiter used in the file for separating values (comma, '~|' , etc.).
Stripe Name	Yes	Name of the stripe within the job or step.
Date Format Type	No	The type of date format used in the data being processed.
Symmetric Key	No	Key to be used for file decryption.
Validation Error Threshold	No	Error Threshold in percentage over which file migration will abort automatically.

Figure 3-3 Data Migration Maintenance - Business Validation



Refer to the table for parameters available to be maintained for different stages as below:

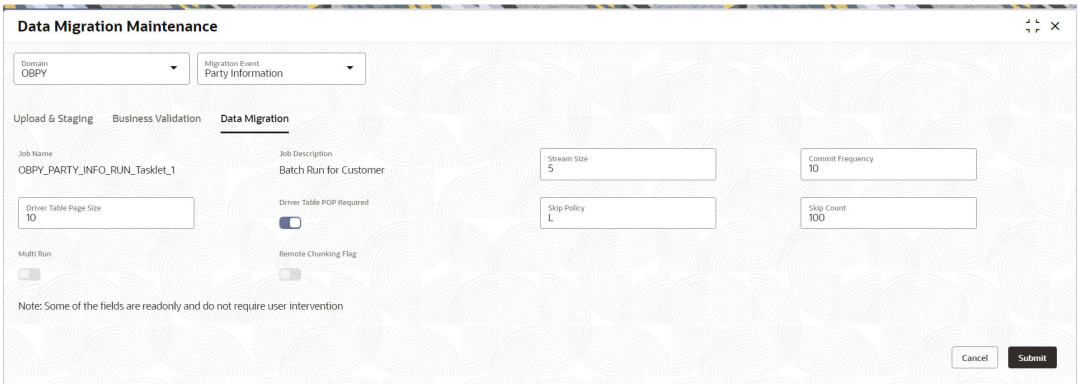
Table 3-2 Business Validation - Parameter

Field	If Mandatory	Description
Job Name	No	The name of the job being configured.
Job Description	No	A brief description of the job's purpose or functionality.
Stream Size	Yes	Total number of threads to spawn.
Commit Frequency	No	Batch Commit Size.
Driver Table Page Size	No	Batch Reader page size to read from driver table.
Driver Table POP Required	No	Flag to populate driver table, the expected values for this field – • **N** - Skips the invocation of domain service for driver table population if table is already populated. • **Y** - Invoke domain service even if driver table is already populated.
Skip Policy	Yes	Exception handling flag, the expected values for this flag are - • **N** - **Never Skip** – It abort stream on first occurrence of record processing exception. • **A** - **Always Skip** – Always skips, no matter the exception or the total number of skipped items. • **L** - **Limit Skip** – Skips failed record till limit maintained in column SKIP_COUNT.
Skip Count	Yes	Limit to decide maximum number of business exceptions to be skipped. It is mandatory for SKIP_POLICY = 'L'. The default value is 10.
Multi Run	No	Multiple execution of the same batch job on the same day (Intra Day), The expected values for this field – N and Y. To enable multi run, SKIP_POLICY has to be set Always skip.

Table 3-2 (Cont.) Business Validation - Parameter

Field	If Mandatory	Description
Remote Chunking Flag	No	Flag to decide batch execution using the event based configuration that is across JVM or Partition based that is within JVM. The default value is set as **N**. **N** - Partition based execution **Y** - Event Based Configuration
Error Logs	No	Error logging enabled.
Debug Logs	No	Debug logging enabled.

Figure 3-4 Data Migration Maintenance - Data Migration



Refer to the table for parameters available to be maintained for different stages as below:

Table 3-3 Data Migration - Parameter

Field	If Mandatory	Description
Job Name	No	The name of the job being configured.
Job Description	No	A brief description of the job's purpose or functionality.
Stream Size	Yes	Total number of threads to spawn.
Commit Frequency	Yes	Batch Commit Size.
Driver Table Page Size	Yes	Batch reader page size to read from driver table.
Driver Table POP Required	No	Flag to populate driver table, the expected values for this field – • **N** - Skips the invocation of domain service for driver table population if table is already populated. • **Y** - Invoke domain service even if driver table is already populated.

Table 3-3 (Cont.) Data Migration - Parameter

Field	If Mandatory	Description
Skip Policy	Yes	Exception handling flag, the expected values for this flag are - • **N** - Never Skip – It abort stream on first occurrence of record processing exception. • **A** - Always Skip – Always skips, no matter the exception or the total number of skipped items. • **L** - Limit Skip – Skips failed record till limit maintained in column SKIP_COUNT.
Skip Count	Yes	Limit to decide maximum number of business exceptions to be skipped. It is mandatory for SKIP_POLICY = 'L'. The default value is 10.
Multi Run	No	Multiple execution of the same batch job on the same day (Intra Day), the expected values for this field – **N** and **Y**. To enable multi run, SKIP_POLICY has to be set always skip.
Remote Chunking Flag	No	Flag to decide batch execution using event based configuration that is across JVM or Partition based that is within JVM. The default value is N. **N** - Partition based execution. **Y** - Event Based Configuration.

5. Click **Submit** on the **Data Migration Maintenance** screen.

4

Data Transformation Maintenance

The **Data Transformation Maintenance** feature provides a crucial mechanism for managing the defaulting of fields in a migration process, especially when mandatory fields are absent from the migration file. By incorporating this feature, enhances the flexibility of the migration process, enabling it to proceed smoothly even in scenarios where essential data might be missing from the upload file. This not only streamlines the migration process but also ensures that potential disruptions caused by missing mandatory fields are mitigated effectively.

To initiate Data Transformation Maintenance:

1. On the homepage, click **Party Services**. [Under **Party Services**, click **Data Migration**.
2. Under **Data Migration**, click **Transformation Maintenance for Data Migration**.

   The **Transformation Maintenance** screen is displayed.

Figure 4-1 Transformation Maintenance

3. Select **Domain** as **OBPY** from the drop-down list.
4. Select the required **Migration Event** from the available list. Click the

   icon to **Filter Criteria**.

   The Transformation Maintenance grid with supported fields for transformation will be displayed. For more information on fields, refer to the field description table.

Table 4-1 Transformation Maintenance

Field	Description
Field Name	Displays the name of field available for transformation.
Field Description	Dsiplays the description of the field available for transformation.
Field Sequence	Displays the sequence of field available for transformation.
Field Type	Displays the field type available for transformation.
Field Length	Displays the length of field available for transformation.

Table 4-1 (Cont.) Transformation Maintenance

Field	Description
Default Value	The value to be defaulted if missing in the data migration upload file.
Mandatory	Displays the identifier for mandatory field.

5. 5. Click on **Edit** icon in the **Action** column to set the **Default Value** and click **Save**.

5

Encryption and Decryption of Migration File

This topic describes about excyption and decryption of migration file.

Encryption of Migration File

Data Migration flat file can be encrypted using the encryption utility available at the following location.

ZIP file upload location.

Refer to **ReadMe** document available in the encryption utility to generate key and encrypt data migration file.

Decryption of Migration File

For Decryption of encrypted Data Migration file, encryption key should be saved in **Symmetric Key** field in Migration Maintenance. Refer section **Migration Maintenance** for the field details.

> **Note:**
>
> In case of wrong or no key saved in Migration Maintenance, Data Migration process will be failed.

A

Data Migration Reports

The data migration reports are useful in providing insights, summaries, and detailed information about the status and outcomes of the data migration process. These reports serve various purposes, including monitoring progress, identifying issues, and facilitating informed decision-making. The following are the major benefits of a data migration report:

- **Migration Status Overview**:
  - Provides a summary of the overall migration progress.
  - Indicates the number of files processed, migrated records, and completion status.
- **Summary of Successful Migrations**:
  - Lists files or data sets that were successfully migrated.
  - Provides a comprehensive overview of successfully completed migrations.

For more details about report format, refer to the below links:

KYC Success Report and KYC Failed Reports.

B
Audit Tables

Data migration audit tables are used to record and track critical information regarding the data migration process. These tables serve as a comprehensive log, capturing key details, events, and changes that occur during the migration. This tables provide visibility, accountability, and a detailed history of the data migration process, serving both operational and compliance needs.

The usage of data migration audit tables includes:

- **Logging Changes**: Audit tables document alterations, updates, and modifications made to the data during the migration process. This is will maintain a historical record of changes.
- **Error Tracking**: Any errors or issues encountered during the data migration are logged in these tables. This facilitates the identification and resolution of issues, contributing to a more robust and error-tolerant migration process.
- **Compliance and Governance**: For regulatory compliance and governance purposes, the data migration audit tables help in ensuring that the migration adheres to specified standards and guidelines.
- **User Activity Tracking**: The tables track user activities related to the data migration, offering transparency into who initiated the migration, when it occurred, and the actions taken.
- **Data Integrity**: By maintaining a log of every step and change made during the migration, Audit tables contribute to ensuring the integrity of the migrated data.
- **Reconciliation**: During and after the migration, the tables can be used for reconciliation purposes, comparing the source and target data to verify that the migration was accurate and complete.

For audit table structure, refer to the below tables:

Table B-1 Entity Audit Master Table

Column Name	Column Description	Data Type	Index
Audit_Id	Unique ID for all the stages Table will have one row per stage	Number (38,0)	PK
Job_Name	Job Name for Stage	Varchar2(200)	
Job_Status	Job Status for Stage Possible values PROCESS_NOT_STARTED = 0 SUCESSFULLY_PROCESSED = 1 PROCESS_FAILED_DUE_TO_BUSINESS_EXCEPTION = 2 PROCESS_FAILED_DUE_TO_FRAMEWORK_EXCEPTION = 3 PROCESS_FAILED_DUE_TO_SQLEXCEPTION = 4	Varchar2(20)	
Stage_Id	Column for identification of the stage	Number (38)	
Entity_Name	Payload Data to capture	Varchar2(128)	

Table B-1 (Cont.) Entity Audit Master Table

Column Name	Column Description	Data Type	Index
Service_Name	Payload Data to capture	Varchar2(20)	
Remarks	Comments	Varchar2(2000)	
File_Path	Payload Data to capture	Varchar2(2000)	
File_Name	Payload Data to capture	Varchar2(2000)	
User_Id	User ID	Varchar2(128)	
Job_Start_Time	Start time of the Stage	Date	
Job_End_Time	End time of the Stage	Date	
Total_No_Of_Records	Total Number or records	Number (38)	
Total_No_Of_Records_Success	Total number of records successfully processed	Number (38)	
Total_No_Of_Records_Skipped	Total number of records skipped	Number (38)	
Total_No_Of_Records_Val_Failed	Total number of records failed	Number (38)	
Error_Code	If any failure in Stage, this column will be updated with the error code	Varchar2(2000)	

Table B-2 Entity Audit Child Table

Column Name	Column Description	Data Type	Index
ID	Unique ID for the domain		PK
PARTY_NAME	Sub domain	VARCHAR2(1000)	
PRINCIPAL	Domain Cols	VARCHAR2(1000)	
AMOUNT	Domain Cols	VARCHAR2(1000)	
TOTAL_AMOUNT	Domain Cols	VARCHAR2(1000)	
PARTY_DESC	Domain Cols	VARCHAR2(1000)	
STG1_AUDIT_ID	Audit Id of Stage1	NUMBER (38)	
STG1_PROCESS_RESULT	Status of the Stage1	NUMBER (1)	
STG1_ERROR_CODE	If any failure in Stage1 this column will be updated with the error code Possible values PROCESS_NOT_STARTED = 0 SUCESSFULLY_PROCESSED = 1 PROCESS_FAILED_DUE_TO_BUSINESS_EXCEPTION = 2 PROCESS_FAILED_DUE_TO_FRAMEWORK_EXCEPTION = 3 PROCESS_FAILED_DUE_TO_SQLEXCEPTION = 4	VARCHAR2(4000)	
STG2_AUDIT_ID	Audit Id of Stage2	NUMBER (38)	

Table B-2 (Cont.) Entity Audit Child Table

Column Name	Column Description	Data Type	Index
STG2_PROCESS_RESULT	Status of the Stage2	NUMBER (1)	
STG2_ERROR_CODE	If any failure in Stage2 this column will be updated with the error code	VARCHAR2(4000)	
STG3_AUDIT_ID	Audit Id of Stage3	NUMBER (38)	
STG3_PROCESS_RESULT	Status of the Stage3	NUMBER (1)	
STG3_ERROR_CODE	If any failure in Stage3 this column will be updated with the error code	VARCHAR2(4000)	
STG4_AUDIT_ID	Audit Id of Stage4	NUMBER (38)	
STG4_PROCESS_RESULT	Status of the Stage4	NUMBER (1)	
STG4_ERROR_CODE	If any failure in Stage4 this column will be updated with the error code	VARCHAR2(4000)	
STG5_AUDIT_ID	Audit Id of Stage5	NUMBER (38)	
STG5_PROCESS_RESULT	Status of the Stage5	NUMBER (1)	
STG5_ERROR_CODE	If any failure in Stage5 this column will be updated with the error code	VARCHAR2(4000)	
STG6_AUDIT_ID	Audit Id of Stage6	NUMBER (38)	
STG6_PROCESS_RESULT	Status of the Stage6	NUMBER (1)	
STG6_ERROR_CODE	If any failure in Stage6 this column will be updated with the error code	VARCHAR2(4000)	

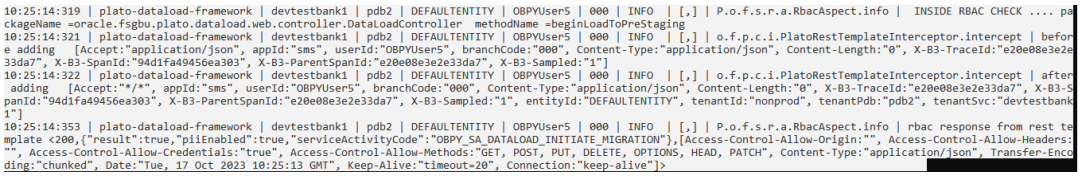
C

Troubleshooting Errors and FAQ’s

If any error encountered while triggering API from the UI, the following checks can be performed:

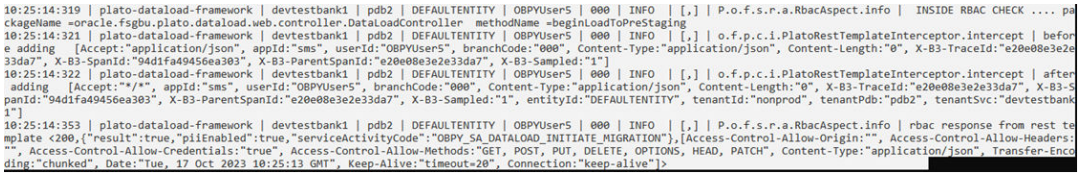
- The functional activity codes needs to be mapped to the respective user role. This can be validated by **FA - Role Mapping** UI screen.
- The Plato-dataload-migration framework is registered on Eureka discovery service, and api-gateway is redirecting the requests to the plato-dataload-migration framework module.

Figure C-1 Plato Dataload Migration Framework



- Check to validate if SMS module returns the RBAC response as successful for the API for the logged in user.

Figure C-2 SMS Module - RBAC Response



Any errors in file upload might be due to errors in file-store or file-stream uploads. The following logs can be monitored for the same.

Figure C-3 File Upload - Error Log 1

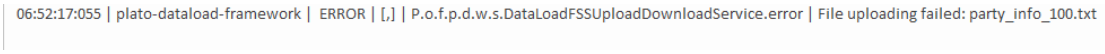
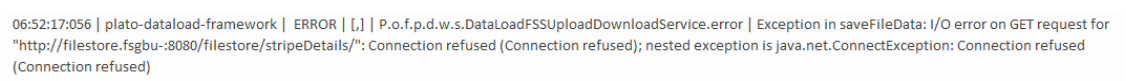


Figure C-4 File Upload - Error Log 2



The number of failed records details can be viewed from **Monitor** screen, based on migration ID.

D
Flat File Formats

The below table describes the flat file formats for the data segments:

Table D-1 Data Segment - File Formats

Data Segment	File Format
Party Information - Retail	For more information on file format of party information - retail, refer to the below link: Party Information - Retail.
Party Information - SMB	For more information on file format of party information - SMB, refer to the below link: Party Information - SMB.
Party Relationship Information - Retail	For more information on file format of party relationship information - retail, refer to the below link: Party Relation information - Retail.
Party Relationship Information - SMB	For more information on file format of party relationship information - SMB, refer to the below link: Party Relationship Information - SMB.
Party to Account Relationship	For more information on file format of party to account relationship, refer to the below link: Party to Account Relationship.

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