Oracle FCCM Cloud Service

Data Loading Guide

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Oracle FCCM Cloud Service Data Loading Guide

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Document Control

Version Number	Revision Date	Change Log
23.11.3	December 2023	This guide has been updated to rename the STG_FCC_CRM_FEEDBACK table as STG_FCC_KYC_EXT_SYS_FEEDBACK.
23.11.1	November 2023	This guide has been updated to include the STG_FCC_CRM_FEEDBACK and STG_PARTY_OP_ECONOMIC_ZONE tables. In Chapter 4, Uploading Data Files, a new section, Multiple Data Origin Support, has been added to Uploading Data into Object Storage.
23.8.1	August 2023	There are no changes in this document for this release.
23.5.1	May 2023	This guide has been updated to include tables used by Oracle FCCM Investigation Hub Cloud Services, and tables used to support Credit Paydown scenarios. The Encryption of CSV Files section has been added.
23.2.1	March 2023	This guide has been updated to identify tables used by KYC Risk Factor scenarios.
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21.11.1	November 2021	There are no updates to this guide for this release.
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21.6.1	June 2021	Updates have been made to the list of Table Names and Sample Templates in Chapter 2, Preparing Data.
21.2.1	February 2021	There are no updates to this guide for this release.
10.0.0.0	December 2020	This guide has been updated to include Oracle FCCM Customer Screening Cloud Service.
10.0.0.0	October 2020	The first publication of OFS FCCM Cloud Service Data Loading Guide.

Table of Contents

1 Preface

This preface introduces information sources that can help you use the application.

1.1 Using Oracle Applications

1.1.1 Help

Use help icons to access help in the application. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. Not all pages have help icons. You can also access the Oracle Help Center to find guides and videos.

1.1.2 Watch video

Watch: This video tutorial shows you how to find and use help.

You can also read about it instead.

1.1.3 Additional Resources

- Community: Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.
- Training: Take courses on Oracle Cloud from Oracle University.

1.1.4 Conventions

The following table explains the text conventions used in this guide.

Convention	Description
Italics	• Names of books, chapters, and sections as references • Emphasis
Bold	• Object of an action (menu names, field names, options, button names) in step-by-step procedures • Commands typed at a prompt • User input
`Monospace`	• Directories and subdirectories • File names and extensions • Process names • Code sample, including keywords and variables within a text and as separate paragraphs, and user-defined program elements within a text
<Variable>	Substitute input value

1.2 Contacting Oracle

1.2.1 Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit My Oracle Support or visit Accessible Oracle Support if you are hearing impaired.

1.2.2 Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send an e-mail to: My Oracle Support (MOS).

2 Introduction

This guide assists you to prepare, upload, and load data into the application staging tables. An application specific data is prepared in the .csv (comma-separated value) format in the specified templates. A Pre-authenticated URL provided in the Object Storage helps you to access and upload data (.csv) files onto Object Storage using standard HTTP utility like cURL. Data from the Object Storage is processed into the staging tables by executing the application specific data loading batch using Scheduler Service.

2.1 Users

OFS FCCM Cloud Service Data Loading Service Administrator or Administrators prepare, load, and process data into the staging tables.

2.1.1 Prerequisites for Users

- Must have knowledge of Extract, Transform, and Load (ETL) process to prepare data in the .csv format.
- Must have knowledge of an HTTP utility such as cURL.
- Must be mapped to the Application Administrator group (SCHEDULERADMINGRP) if intended to execute the data processing jobs from the application.

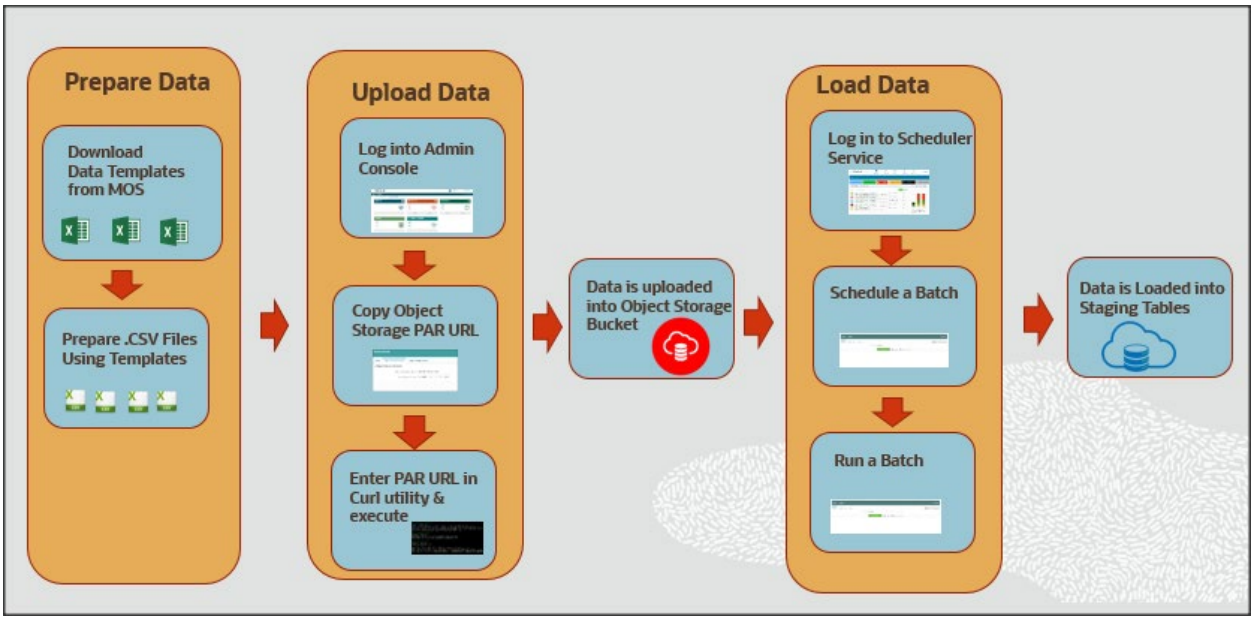
Before you start a using data loading service, you must understand the following concepts and terminologies:

- Data File: This service expects data in a specific template in the .csv format. If the size of the file exceeds 100MiB, then it is recommended to split the files. This assists you to upload data swiftly into Object Storage. Furthermore, the data loading service expects the files to follow a particular naming convention. For more information on the naming convention of files, file split, tables, and templates, see Preparing Data.
- Object Storage: The OFS FCCM Cloud Service uses Oracle Object Storage to store the .csv files. A PAR URL helps you to access Object Storage. Every Object Storage has buckets and they are containers for storing objects in a compartment within an Object Storage. For example, Standard Storage Bucket and Archive Storage Bucket. The maximum size for an uploaded object is 10 TiB. Object parts must be no larger than 50 GiB.
- Standard Storage Bucket: The standard storage bucket is used to move and access data daily. This bucket is configured to store data for seven days. After seven days, the data files are archived into an Archive Storage Bucket.
- Archive Storage Bucket: The Archive storage bucket is used to access data rarely. Data files in this bucket are retained for one year. After one year, the archived data files are auto deleted from this bucket.
- Objects: All data, regardless of the content type are stored as objects in the Object Storage. For example, log files, .csv files, and so on.

- Bucket: A bucket is a logical container that stores objects. Buckets can serve as a grouping mechanism to store related objects together.
- Pre-authenticated requests: A pre-authenticated (PAR) URL request allows you to access Object Storage. Using this PAR URL you can upload data into the Object Storage using the standard HTTP utility like cURL. The PAR URL is refreshed after every seven days. For more information, see Loading Data Files.
- cURL: A standard HTTP utility used to transfer data using URLs.
- Staging Tables: These tables contain business data such as transaction, account, customer details. Staging is the process of preparing business data taken from the business applications before moving into the processing layer.
- Scheduler Service: A service that assists to define jobs for tasks to execute on a scheduled time and date by running the batches/jobs. This service also helps to monitor the jobs. For more information, see Processing Data.
- Batch processing: A mechanism to associate related jobs/ tasks in a group or batch in the Scheduler Service.

2.2 Data Loading Workflow

The following illustration provides the workflow of the OFS FCCM Cloud Service Data Loading Service.



Description for the Data Loading workflow

The primary job of a Data Administrator is to prepare, upload, and load data into the application staging tables. As a Data Administrator, you must download specified data templates from the My Oracle Support page. Then export the bank's data into specified templates in the .csv format using the ETL process every day. If the .csv file is bigger than 100MiB, it is recommended to split them into two or more files for swift upload. For

example, < filename>_1 .csv, < filename>_2.csv, < filename>_3.csv, and so on. This helps to load data swiftly into the application staging tables.

Log in to Admin Console and go to the Object Storage Standard pane. Copy the Object Storage Standard bucket Pre-authenticated (PAR) URL. Open an HTTP utility such as cURL and enter the data file path, PAR URL, and name of the .csv file and then execute it. Data is uploaded into the Object Storage Standard bucket. After the successful upload of data, a message is displayed as < HTTP/1.1 200 OK> in the cURL utility. The Object Storage Standard bucket stores data for seven days. After seven days, data is auto archived in the Object Storage Archive Bucket. You must note that the PAR URL is refreshed after seven days.

To process data files from the Object Storage Standard Bucket to the staging tables, log in to Scheduler Service, go to Schedule Batch, and then select the AMLDataloading batch. Run the batch based on the requirement, for example, daily, weekly, and so on. Business data is loaded into the application staging tables successfully.

The following table serves as a quick reference to the Data Loading Workflow.

Workflow	Description
Preparing Data	Prepare the business data in the required format using the specified templates to load into the application staging area. This section also explains the type of data files you are required to create, the size of data files, and the template in which you must provide the data.
Uploading Data Files	After you prepare data in the required templates in the .csv format, you must use the PAR URL that is mentioned in the Object Storage to access the bucket. Enter the details of the .csv file path, PAR URL, and the .csv file name in the HTTP utility such as cURL to upload data files into the Object Storage. The PAR URL, which you use to access the Object Storage is refreshed every seven days. Multiple users can load data into the Object storage concurrently from different locations. You can modify the .csv data files and upload them using the same PAR URL. The modified data files overwrite the previously loaded data files in the Object Storage
Loading Data Files	Data that is uploaded into the Object Storage is loaded into the application staging tables. The Scheduler Service allows you to process data from the Object Storage to staging tables by scheduling and running batches.

3 Preparing Data

Use this section to prepare the business data in the required format using the specified templates to load into the application staging area. This section also explains the type of data files you are required to create, the size of data files, and the template in which you must provide the data.

You must create the data files in the required template (see table 1 for templates) in the .csv format. For more efficient and resilient uploads, it is recommended to split the .csv files that are more than 100Mib into multiple files with the following naming convention for the files:

- Single File : <YYYYMMDD>_<TABLENAME>.csv (For example, 20201124_STG_PARTY_MASTER.csv).
- Split Multiple Files : <YYYYMMDD>_<TABLENAME>_<Sequence number>.csv (For example, 20201124_STG_PARTY_MASTER_1.csv, 20201124_STG_PARTY_MASTER_2.csv, 20201124_STG_PARTY_MASTER_3.csv, and so on).

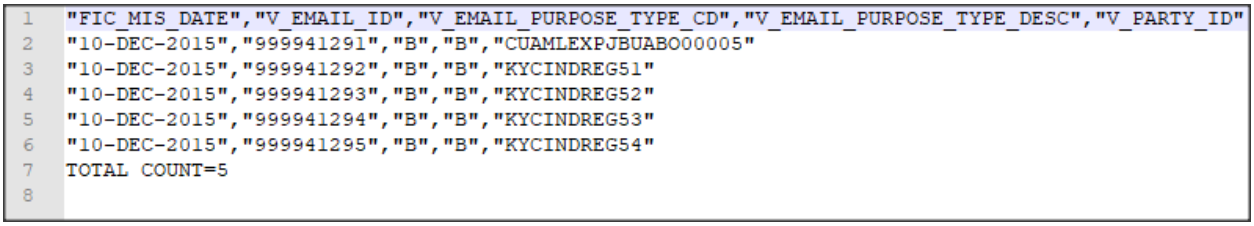
Multiple files upload in parallel reduce the amount of time and this helps to upload data files swiftly to the Object Storage.

NOTE

- At the end of every .csv file, the total count (TOTAL COUNT=) can be provided in the file. This row is optional.
- The total count of records must not include the header.
- In the case of a split file for any specific table, all the files must contain the respective file total count.
- All the fields, data type, and length must be in line with the data model, for more information, see Data Model.
- Date values must be in 'DD-MON-YYYY' format.
- The maximum size of the data file (object) can be up to 10 TiB. Object parts must not be larger than 50 GiB.

The following image provides an example of the file count and the .csv file.

Figure 2: The sample .CSV file



```
"FIC_MIS_DATE","V_EMAIL_ID","V_EMAIL_PURPOSE_TYPE_CD","V_EMAIL_PURPOSE_TYPE_DESC","V_PARTY_ID"
"10-DEC-2015","999941291","B","B","CUAMLEXPJBUABO00005"
"10-DEC-2015","999941292","B","B","KYCINDREG51"
"10-DEC-2015","999941293","B","B","KYCINDREG52"
"10-DEC-2015","999941294","B","B","KYCINDREG53"
"10-DEC-2015","999941295","B","B","KYCINDREG54"
TOTAL COUNT=5
```

Description of sample .csv format

The total count helps to assess the records that are loaded into the application staging tables.

3.1 Tables and Sample Templates

Use this section to refer to the complete list of tables and templates, For more information, see Table 1. You must refer to these tables and corresponding templates to update your data accordingly in the .csv format. For more information, see Loading Data Files.

> **ATTENTION** If your firm has implemented multiple products, you are not required to load data separately for each product. You must load data once for all products.

The following table provides a list of table names and templates.

Table 1 - List of Table Names and Templates.

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_ACCOUNT_ADDRESS_MAP	Account	The address associated with accounts held at the firm. **Note:** Refer to Supplemental Information for Account Address for more information about this table.	Y	Y			
STG_ACCOUNT_ALT_CCY_VALUES	Account	The values are expected in reporting or local currency for a particular account.	Y	Y			
STG_ACCOUNT_EMAIL_MAP	Account	An e-mail address for an account. An account can have multiple e-mail addresses, such as home and business.	Y	Y			
STG_ACCOUNT_GROUP_MEMBER	Account	Account groupings that relate an account to other accounts through membership in the group.	Y	Y			
STG_ACCT_ANTICIPATORY_PROFILE	Account	Projections of expected trading and transactional activity collected from a customer during the account opening.	Y	Y			
STG_ACCT_GROUP_MASTER	Account	Account groupings that relate an account to other accounts through membership in the group. Households are an example of Account Groups.	Y	Y			

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_ANNUITY_CONTRACTS	Account	The annuity contracts which are defined as a written agreement between a financial institution and a customer outlining each party's obligations in an annuity coverage agreement.	N	Y		Y	
STG_CARDS	Account	Credit cards are issued by financial institutions giving the holder an option to borrow funds. Credit cards charge interest and are primarily used for short-term financing.	N	Y		Y	
STG_CASA	Account	Current Account and Savings Account data of the financial institution. Demand Deposit comprises of Current and Savings Account, held at a bank or other financial institutions with no maturity.	Y	Y		Y	
STG_CORRESPONDENT_ACCOUNT	Account	A correspondent account is used to record accounts held at other banks including central banks. Central bank accounts including reserve accounts are stored.	N	Y		Y	
STG_LEASES_CONTRACTS	Account	Leases contracts are a formal document that identifies the lessor, lessee, and the leased asset or property; states lease term and fee (rent), and detailed terms and conditions of the lease agreement.	N	Y		Y	
STG_LOAN_CONTRACTS	Account	A loan contract is a contract between a borrower and a lender which regulates the mutual promises made by each party.	N	Y		Y	
STG_MERCHANT_CARDS	Account	All contracts are related to merchant cards.	N	Y		Y	
STG_MM_CONTRACTS	Account	Money market contracts data.	N	Y		Y	
STG_OD_ACCOUNTS	Account	Overdraft is an extension of credit from a lending institution when an account reaches zero.	N	Y		Y	

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_REPO_CONTRACTS	Account	A repurchase agreement (REPO) is a form of short-term borrowing for dealers in government securities. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back.	N	Y		Y	
STG_RETIREMENT_ACCOUNTS	Account	A retirement account is an investment tool used by individuals to earn and earmark funds for retirement savings.	N	Y		Y	
STG_SWAPS_CONTRACTS	Account	Swaps contract where one party exchanges or "swaps" the cash flows or value of one asset for another	N	Y		Y	
STG_TD_CONTRACTS	Account	A term deposit is defined as a deposit held at a financial institution that has a fixed term. These are generally short-term with maturities ranging anywhere from a month to a few years.	N	Y		Y	
STG_TRUSTS	Account	A trust account is managed by one party for the benefit of another. It is sometimes called an account held in trust, and the trust relationship can be either explicit or implied.	N	Y		Y	
STG_TRUSTED_PAIRS	Account	Trusted pairs are entities that are considered to enjoy a trusted relationship, meaning transactions between these two entities represents little or no risk to the institution.	N	Y			
STG_ACCOUNT_PHONE_MAP	Customer	Phone numbers associated with an account. An account can have multiple phone numbers, such as home, business, and cellular.	Y	Y			
STG_ADDRESS_MASTER	Customer	The customer addresses. Each customer can have multiple addresses.	Y	Y	Y	Y	
STG_COUNTRY_MASTER	Customer	The countries associated with the customer. This stores the master List of countries.	Y	Y		Y	

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_CUST_ANTICIPATORY_PROFILE	Customer	The projections of expected trading and transaction activity were collected for a customer.	Y	Y		Y	
STG_CUSTOMER_ALT_CCY_VALUES	Customer	The values expected in reporting/local currency for a particular customer.	Y	Y		Y	
STG_EMAIL_MASTER	Customer	The customer's e-mail addresses. A customer can have multiple e-mail addresses.	Y	Y	Y	Y	
STG_PARTY_ACCOUNT_ROLE_MAP	Customer	The mapping of an account to multiple roles played by a party.	Y	Y			
STG_PARTY_ADDRESS_MAP	Customer	Mapping of party and address. **Note:** Refer to Supplemental Information for Customer Address for more information about this table.	Y	Y	Y	Y	
STG_PARTY_DETAILS	Customer	The complete details of a party.	Y	Y	Y	Y	
STG_PARTY_EMAIL_MAP	Customer	Mapping of party and email.	Y	Y	Y	Y	
STG_PARTY_MASTER	Customer	Party refers to customer, issuer, guarantor, and so on.	Y	Y	Y	Y	
STG_PARTY_PARTY_RELATIONSHIP	Customer	Parties related to each other.	Y	Y		Y	
STG_PARTY_PHONE_MAP	Customer	This entity contains customer phone numbers.	Y	Y		Y	
STG_PHONE_MASTER	Customer	Phone numbers of customers of the firm.	Y	Y		Y	
STG_CORRESPONDENT_MKT_SERVED	Customer	This table identifies the association between the customer and the markets it serves. In this case, the customer is expected to be a legal entity (versus an individual customer) that may serve many different markets.	N			Y	

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_CORRESPONDENT_PROD_SERVED	Customer	This table identifies the association between the customer and the products it offers. In this case, the customer is expected to be a legal entity (versus an individual customer) that may offer many different products.	N			Y	
STG_CUSTOMER_IDENTIFCTN_DOC	Customer	The Customer Identification Document table contains information regarding identification documents provided by customers for the purpose of Know Your Customer (KYC) identity verification when opening an account.	N			Y	
STG_PARTY_APPLICATION_ROLE_MAP	Customer	This table maps an account to multiple roles played by a party.	N			Y	
STG_TRADING_ACCOUNT	Account	An investment account containing securities, cash or other holdings.	N	Y	Y	Y	
STG_ANNUITY_TXNS	Transaction	Entity contains the annuity transactions.	N	Y			
STG_CARDS_PAYMENT_TXNS	Transaction	The cards payment details with transaction granularity	N	Y			
STG_CASA_TXNS	Transaction	The CASA Account Ledger populated at the end of the day.	Y	Y		Y	
STG_CORRESPONDENT_ACCT_TXNS	Transaction	Entity contains the correspondent account transactions.	N	Y			
STG_FRONT_OFFICE_TXN_PARTY	Transaction	A list of the parties, internal or external, involved in a front-office transaction that can vary with the type of transaction.	Y	Y		Y	
STG_LEASES_TXNS	Transaction	The transactions occurred on lease contracts.	N	Y			
STG_LOAN_CONTRACT_TXNS	Transaction	The transactions occurred on loan contracts.	N	Y			
STG_MERCHANT_CARDS_TXNS	Transaction	The transactions occurred on merchant card contracts.	N	Y			
STG_MM_TXNS	Transaction	The transactions occurred on money market contracts data.	N	Y			

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
STG_OD_ACCOUNTS_TXNS	Transaction	The transactions occurred on OD Accounts.	N	Y			
STG_REPO_TRANSACTIONS	Transaction	Entity contains the REPO transactions.	N	Y			
STG_RETIREMENT_ACCOUNTS_TXNS	Transaction	The transactions occurred on Retirement accounts.	N	Y			
STG_SWAP_ACCOUNT_TXNS	Transaction	The swap account transactions.	N	Y			
STG_TERMDEPOSITS_TXNS	Transaction	Term or Time deposit ledger details.	N	Y			
STG_TRADING_ACCOUNT_TXNS	Transaction	The transactions performed on a trading account.	N	Y			
STG_TRUSTS_TXNS	Transaction	The transactions occurred on trust accounts.	N	Y			
STG_TRUSTED_PAIRS	Account	The customers involved are considered to be trusted by the financial institution.	N	N			
STG_TXN_ALT_CCY_VALUES	Transaction	The values expected in reporting or local currency for a particular transaction.	Y	Y		Y	
STG_WATCHLIST_MASTER	Watchlist	The risk and trust lists that are used to monitor transactional or trading activities for money laundering or fraud. Watch Lists are externally published lists from the Office of Foreign Assets Control (OFAC) and the Financial Action Task Force (FATF) for monitoring internal accounts or customers.	Y	Y			
STG_WATCHLIST_MEMBER_ENTRY	Watchlist	The entities (countries, organizations, accounts, or persons) associated with a watch list for monitoring transactional or trading activities for money-laundering or fraud.	Y	Y			
FCC_AM_HOLIDAY_MASTER		Holidays and other non-working days.	Y	Y			
FCC_AM_DATAORIGIN_COUNTRY_MAP		The mapping of country to holidays and other non-working days.	Y	Y			

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
FCC_CS_ALERTS	Customer	All alerts that are generated after screening batches are stored in this table, and no matching information for alerts are available in this table.	N				Y
FCC_CS_ALRT_MATCHES	Customer	This table contains the alert information along with exact matches for each alert, and also matching information for alerts is available in this table.	N				Y
FCC_KYC_ALGORITHMIC_SCORING_DETAILS	Customer	This table contains details of the assessed Algorithmic Score for customers and prospects, as provided by your firm's Know Your Customer application during onboarding.	N				Y
FCC_KYC_BUSINESS_CHECK_DETAILS	Customer	This table contains details of the assessed risk score for a business check rule associated with prospects or customers, as provided by your firm's Know Your Customer application during onboarding.	N				Y
FCC_KYC_CUST_REVIEW_DTLS	Customer	This table contains details of why the Risk Assessment was performed for customers. For example, Periodic Review, New Account Review, Accelerated Re-review, and Deployment Initiation.	N				Y
FCC_KYC_RA	Customer	This table contains the Risk Assessment Score, or maximum score of the algorithmic and business check scores, for prospects, as provided by your firm's Know Your Customer application.	N				Y
FCC_KYC_RA_CUST	Customer	This table contains the Risk Assessment Score, or maximum score of the algorithmic and business check scores, for customers, as provided by your firm's Know Your Customer application.	N				Y

Table Name	Entity Type	Description	Mandatory	Transaction Monitoring	Customer Screening	Know Your Customer	Investigation Hub
FCC_KYC_SCORING_SUMMARY	Customer	Summary of how the KYC Risk Score was determined, including assessment details such as the assessment score, assessment ID, batch type, jurisdiction, customer type, customer ID, entity name, SSN/TIN, business domain, created date, and risk category.	N				Y
STG_PRODUCT_MASTER	Account	This table contains information about the loan product types available in your implementation.	N				
STG_CARDS_MASTER	Account	This table contains information about the credit product types available in your implementation.	N				
STG_PARTY_OP_ECONOMIC_ZONE	Customer	This table stores list of various economic zones that a legal entity is licensed to operate in a particular jurisdiction (e.g. Special Economic Zone, Free Trade Zone etc.)	N			Y	
STG_FCC_KYC_EXT_SYS_FEEDBACK	Customer/Prospect	This table stores feed back from external case management system integrated with KYC CS. Any Risk Assessments generated as part of KYC system can be fed into this table along with its corresponding investigation feedback conducted in the external system.	N			Y	

NOTE

- After the data is prepared in the table csv files. the FCC_AM_HOLIDAY_MASTER and FCC_AM_DATAORIGIN_COUNTRY_MAP must be populated using the AMLHolidayMasterDataLoad batch. For more information, see Managing Batches.
- In order for the data to correctly load in the AMLHolidayMasterDataLoad batch, headers must be removed in the FCC_AM_HOLIDAY_MASTER csv file.

- For more information on scenarios and table mapping details, see Data Map files.
- For more information on data structure, data type, column name, entity name, and so on, see Data Model files.
- For more information on sample .csv format, see Sample Templates files.

- For more information on Technical Scenario Description (TSDs), see TSD files.

3.1.1 Supplemental Information for Customer Address

The STG_PARTY_ADDRESS_MAP cannot contain multiple entries with the same address type for a given MIS date for the same customer.

Example 1

Customer	Date	Address Type (Sample Value)	
C1	10-DEC-2020	O (Office)	Supported
C1	10-DEC-2020	H (Home)	Supported
C1	10-DEC-2020	H (Home)	Not supported since Address Type with value of 'H' is already given for this date

3.1.2 Supplemental Information for Account Address

The STG_ACCOUNT_ADDRESS_MAP cannot contain multiple entries with the same address type for a given MIS date for the same account.

For example:

Example 2

Account	Date	Address Type (Sample Value)	
A1	10-DEC-2020	O (Office)	Supported
A1	10-DEC-2020	H (Home)	Supported
A1	10-DEC-2020	H (Home)	Not supported since Address Type with value of 'H' is already given for this date.

4 Uploading Data Files

After you prepare data in the required templates in the .csv format, you must use the PAR URL that is mentioned in the Object Storage to access the bucket. Enter the details of the .csv file path, PAR URL, and the .csv file name in the HTTP utility such as cURL to upload data files into the Object Storage. The PAR URL, which you use to access the Object Storage is refreshed every seven days. Multiple users can load data into the Object storage concurrently from different locations. If there are any corrections required in the data files, you can modify the .csv data files and upload them using the same PAR URL. The modified data files overwrite the previously loaded data files in the Object Storage.

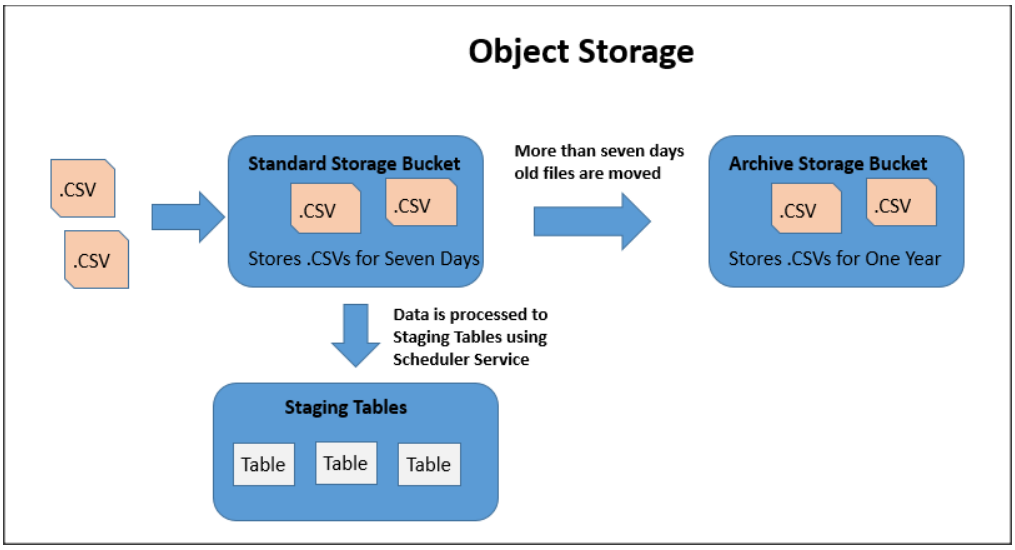
NOTE

- You can not download or delete data files after you upload them to the Object Storage.
- The maximum size for an uploaded object (data file) is 10 TiB.
- Object parts must be no larger than 50 GiB.

If there are any issues with the file upload, you must contact My Oracle Support.

For every instance of OFS FCCM provisioned, two buckets are created - a Standard Storage Bucket and an Archive Storage Bucket.

- Standard Storage Bucket: This storage bucket is accessed daily to load data. This bucket stores data for seven days. After seven days, data files are archived into the Archive Storage Bucket. This bucket is also used to process data from the Object Storage to the staging tables.
- Archive Storage Bucket: This storage bucket is used to access data rarely. For example, weekly or monthly. You cannot load the data files into this bucket directly. The Data file is archived in this bucket from the Standard Storage Bucket after seven days. The archived data file is preserved for one year. After one year, the archived data files are deleted from this bucket.



4.1 Accessing the Object Storage Pre-authenticated URL

Use this section to access the Standard Storage Bucket using Pre-authenticated URL.

To access the Object Storage Pre-authenticated URL, follow these steps:

1. Enter the application URL in the browser provided by your Administrator. The Oracle Cloud Account Sign In page is displayed.
2. Enter the User Name or Email and Password provided by the Administrator.
3. Click Sign In. The Home page displays.
4. From the Home page, click the Admin Console icon . The Admin Console page is displayed.
5. Click the Component Details tile. The Component Details window is displayed.
6. Click the Object Storage Standard tab.

The Object Storage Standard pane is displayed with two fields:

- Object Store Bucket Name: Provides the details of the bucket name where you are loading the data files. For example, fsgbu_aml_cndevcorp_qufspr.
- Object Store PAR URL: This URL helps you to access the Object Store Bucket to load data files into to the Object Storage.

7. Copy the Object Store PAR URL. For example, https://objectstorage.us-phoenix-1.oraclecloud.com/p/cYMpe4ovWjPN0vF_VS1b4STTTRkCsVtcNMIAxnC7pJM/n/oraclegbudevcorp/b/fsgbu_aml_cndevcorp_uklfff/o/

4.2 Uploading Data into Object Storage

To upload the data into the Object Storage, follow these steps:

1. Open the Command prompt, enter the following cURL command to upload the data.

```
curl -v -X PUT --data-binary '@<full file path>' <your PAR URL><file name>
```

Table 3 describes the place holders of the cURL command.

Place Holders	Description
<full file path>	Enter the path of the file. For example, `/filepath/20201218_STG_CASA_TXNS_1.csv`
<PAR URL>	Paste the copied PAR URL. For example, `https://objectstorage.us-phoenix-1.oraclecloud.com/p/IWWPtdM1MNr_VG-I2p5YJldIxnNgAwbMHdrTfnqr3rM/n/oraclegbudevcorp/b/fsgbu_aml_cndevcorp_qufspr/o/`
<file name>	Enter the file name. • For non-split: Format: `YYYYMMDD_Tablename.CSV` For example, `20201218_STG_CASA_TXNS.csv` • For split: Format: `YYYYMMDD_Tablename_#.CSV, YYYYMMDD_Tablename_#.CSV.` For example, `20201218_STG_CASA_TXNS_1.csv, 20201218_STG_CASA_TXNS_2.csv` **Note:** For information about configuring Multiple Data Origin, see Multiple Data Origin Support.

For example:

```
curl -v -X PUT --data-binary @/filepath/20201218_STG_CASA_TXNS_1.csv https://objectstorage.us-phoenix-1.oraclecloud.com/p/IWWPtdM1MNr_VG-I2p5YJldIxnNgAwbMHdrTfnqr3rM/n/oraclegbudevcorp/b/fsgbu_aml_cndevcorp_qufspr/o/20201218_STG_CASA_TXNS_1.csv
```

2. Press Enter. Data is successfully pushed into the Object Storage Standard Bucket.

NOTE

- The status response code must be: < HTTP/1.1 200 OK>
- If there is any error message, you must provide the correct details and try again. If this issue persists, contact My Oracle Support.
- To ensure that all data files that are required to be processed in the Object Storage, you must also upload the File Watcher file with yyyymmdd_filewatcher.txt format in the Object Storage. Until this file is not available in the Object

Storage, the data loading process will not be initiated.

- If the data loading batch is initiated but the File Watcher file is not present in the Object Storage, the batch will wait until the file is uploaded. The waiting period for the batch to look out for the File Watcher file is five hours.

To load data files from the Object Storage Standard Bucket to the application staging table, see Load Data Files.

4.2.1 Multiple Data Origin Support

The data-loading service supports multiple data origin files to load data into the stage tables with different batches having different Data Origins.

File Format for Multiple Data Origin files.

- For Non-Split Format: `YYYYMMDD_Tablename_DataOrigin.CSV`

  For example:

  `20201218_STG_CASA_TXNS_MAN.csv`

  `20201218_STG_CASA_TXNS_UK.csv`

- For Split Format: `YYYYMMDD_Tablename_DataOrigin_#.CSV`

  For example:

  `20201218_STG_CASA_TXNS_MAN_1.csv`

  `20201218_STG_CASA_TXNS_MAN_2.csv`

  `20230727_STG_CASA_TXNS_UK_1.csv`

  `20230727_STG_CASA_TXNS_UK_2.csv`

To execute batches using multiple data origin, update Schedule Batch parameters as follows:

- $DATAORIGIN$: This should be the Data Origin Name which is provided in the file name. Example: MAN / UK
- $F_DATAORIGIN$: This must be set as **True**
  - If the value of $F_DATAORIGIN$ is **False** then the multiple data origins will not be considered. It will pick the CSV files without having the Data Origin name in the file format.
  - If the value of $F_DATAORIGIN$ is **True** then the multiple data origins will be considered. It will pick the CSV files which are having the Data Origin name in the file format

> **NOTE** There are no changes for existing or single data origin customers.

4.3 AES-256-CBC Encryption of CSV Files

AES 256 CBC encryption is a symmetric encryption algorithm that uses a 256-bit key to encrypt and decrypt data.

To encrypt a CSV file using AES-256-CBC encryption, follow these general steps:

1. Generate the 256-bit Hex key using the following command:

   openssl rand -hex 32 >> keyfile.key

2. Save the Master Encryption Key in the ADMIN-CONSOLE UI by navigating to the **Configurations** tile and selecting the **Master Encryption Key** tab.

3. Encrypt the data using the AES-256-CBC encryption algorithm to encrypt data using the encryption key generated above.

   ```
   AES-256-CBC using OpenSSL-

   openssl enc -aes-256-cbc -K
   b9ffef696fed55193f9aed357ed2481c4d5f1b84a6ac88c8386932dddb3ae1
   20

   -iv 00000000000000000000000000000000 -nosalt -p -in
   /<RelativePath>/20230425_STG_ACCOUNT_ADDRESS.csv

   -out /<RelativePath>/20230425_STG_ACCOUNT_ADDRESS.csv

   -aes-256-cbc — the cipher name( symmetric cipher : AES ;block
   to stream conversion

   : CBC(cipher block chaining)

   -nosalt —not to add default salt

   -p — Print out the salt, key, and IV used.

   -in file— input file /input file absolute path

   -out file— output file /output file absolute path
   ```

4. Upload the encrypted files to the Object Store as described in Uploading Data into Object Storage.

> **NOTE** If files are uploaded without encryption, then remove the key (If key exists) from the ADMIN-CONSOLE by leaving the Master Encryption Key field as blank.

5 Loading Data Files

Data that is uploaded into the Object Storage is loaded into the application staging tables. The Scheduler Service allows you to process data from the Object Storage to staging tables by scheduling and running batches.

The following tasks are performed in the Scheduler Service to process data:

1. Process data once, daily (once in a day), weekly, or a customized schedule
2. Schedule a date and time for each batch to run
3. Re-run, re-start, and monitor the batch

To process data files into the staging tables, you must run the batch using the Schedule Batch feature in the Scheduler Service. For more information, see Scheduler Service.

NOTE

- In the Scheduler Batch, you must select the ready-to-use batch name (AMLDataload) to run the batch.
- If you are loading external batches (CS and KYC) from the Investigation Hub, then run the following batches in the same order:
- DataLoadCS
- DataLoadKYC

ATTENTION If your firm has implemented multiple products, you are not required to load data separately for each product. You must run the data load batch once for all products.

OFSAA Support

Raise a Service Request (SR) in My Oracle Support (MOS) for queries related to the OFSAA applications.

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