

Oracle FLEXCUBE Direct Banking

Bulk Host Interface Documentation
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1.1. Intended Audience

This Bulk Host Interface Documentation is intended for the following audience:

- Application Architects
- End to End Designers
- Business Service Detailed Designers and Developers
- Implementation Partners

1.2. Documentation Accessibility

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

1.3. Access to OFSS Support

<https://support.us.oracle.com>

1.4. Structure

This document is structured into the below listed sections

Section 1 Overview

The section gives a brief overview of the bulk functionality.

Section 2 Host Interface Modes

This section details the interfacing modes supported in Oracle FLEXCUBE Direct Banking for communication with the host to realize bulk payment instructions.

Section 3 Data Exchange

This section details the methodology used for exchanging bulk payment data with the host system.

Section 4 Status Matrix for Bulk

This section describes the various status flows available in Oracle FLEXCUBE Direct Banking for bulk processing.

2. Overview

Oracle FLEXCUBE Direct Banking is a multi channel e-banking platform with support for customer touch points like Internet, Mobile Phones and PDAs. Oracle FLEXCUBE Direct Banking is based on the industry standard Java Standard Edition (Java SE) and Oracle Java Enterprise Edition (Java EE) platforms.

Oracle FCDB provides a transaction for Bulk File processing, which reads the Transactions data from a file and process and exchange that data with Host.

This Document provides the details of host interfacing modes with host for available bulk transactions. Document also explains the configuration details for host interfacing and bulk status matrix on various file processing steps.

3. Host Interface Modes

There are various integration modes available for Bulk with host. “BulkHostAdapter.class” will handle the interface handling according to modes.

3.1. CPG Mode

CPG Mode is known as Common Payment Gateway Mode.

This mode allows the bulk interfacing with host via staging table. FCDB will have the Database link of Host database. Host database schema will have a Staging table and a wrapper function (whose synonym will be available in FCDB Database schema). FCDB will call this wrapper function to send the Bulk Prepared data via BulkFTTimer based on record Status in BTFILERECDMAP as Pick up for Sent (PFS).

Staging table's replica is available at FCDB end as “Bulk_FT_Details” and “Bulk_FT_Master”. The data preparation is configurable by host interface xls. Bulk Host Data Preparation is done during “Process” step of bulk, after User Authorizes the record / File.

Please find the below configurations for CPG data preparation –

Configuration Name	Place	Description
BULK.CPG.MASTER.XSL	Configured in msthostinterface adtnl_params column.	BULK_FT_MASTER table insert configuration with host xls.
BULK.CPG.DETAILS.XSL	Configured in msthostinterface adtnl_params column.	BULK_FT_DETAILS table insert configuration with host xls.
BULK_CPG_MASTER_QUERY	Configured in msthostinterface adtnl_params column.	Bulk_FT_Master table insert query.
BULK_CPG_DETAILS_QUERY	Configured in msthostinterface adtnl_params column.	Bulk_FT_Details table insert query.
FLEXML.MODE	Configured in msthostinterface adtnl_params column.	Value as “G” for CPG Mode.

3.2. JMS Mode

This Mode allows Bulk transactions to send over JMS / MQ as XML Message on Host Queue. Response will be sent by host on FCDB Clone Queue as XML Message. Configurations for this mode are can be maintained in msthostinterface table for transactions.

Please note that CPG tables will not be involve in this mode, No entries will go in Bulk_FT_Master and Bulk_FT_Details tables. No Wrapper function and staging table creation will be required.

Configuration Name	Place	Description
FLEXML.MODE	Configured in msthostinterface adtnl_params column.	Value as Q-JMS, E-EJB, W-JWS, etc.
FLEXML.MQ.PREFIX	Configured in msthostinterface adtnl_params column.	Prefix of properties maintained to send message.
RESPONSE.CLASS.NAME	Configured in msthostinterface adtnl_params column.	Name of Response DTO
FLEXML.REQUSET.XSL	Configured in msthostinterface adtnl_params column.	Host xsls to be applied for Request
FLEXML.RESPONSE.XSL	Configured in msthostinterface adtnl_params column.	Host xsls to be applied for Response
REQ.XSD.VALIDATION.FLAG	Configured in msthostinterface adtnl_params column.	Request validation required flag
RES.XSD.VALIDATION.FLAG	Configured in msthostinterface adtnl_params column.	Response validation required flag
FCDB.REQ.XSL.NAME	Configured in msthostinterface adtnl_params column.	Used for fetching Asynchronous Request.
FCDB.RES.XSL.NAME	Configured in msthostinterface adtnl_params column.	Used for sending Asynchronous Response.

4. Data Exchange

FCDB exchanges the data with host based on interfacing mode (explained in earlier section). Data exchange in Bulk is continues offline process with host, which is performed by timer. BulkFTTimer is responsible for bulk data exchange with host. The duration of timer is configurable via Administrative User.

Timer pickups up the data once the status of records is PFS and sending the request data to configured host interface channel. Once the data successfully sent to host, the status updated as 11 (Send to Host).

CPG Mode will call the wrapper function & picks up the data from Bulk_FT_Master, Bulk_FT_Details tables and set into wrapper function and exchange the data. Host response will be pulled up by BulkControlMessageTimer, which will be pooling on staging table and picks up the status based on staging table status 'P' or 'R' and update the bulk FCDB tables including initauth table's status with host reference number or Reject reason accordingly.

JMS Mode will picks up the data from bfilemap msg xml and transforms with host xls to generate the host xml message, and send over JMS queue of host. Host response will be send on FCDB Clone Queue from Host as XML message, CloneQueueReceiveMDB will process the response message and update the status including the host reference number or rejected message / error message.

BulkControlMessageTimer updates the file's final status once all the records processed, based on that it generates a control message to mark file its final status.

Please note that if CPG mode is not enabled then ControlMessageTimer will not pull up the host status. It will only generate control message for marking file's final Status.

5. Status Matrix for Bulk

Bulk File upload transaction goes through various steps and the status of file / records gets updated according to the step processing and transaction data validations.

Please find the various status updates during Bulk File processing steps / interfaces,

Step	File Status Code	Record Status Code	Status on Admin Screen	Status on Customer Screen
UPLOAD				
PREPROCESS	1	1	Initiated	Initiated
AUTH	1>>3>>25	1>>25	Work In Progress	Under Process
PROCESS	25	24	Picked for Processing	Under Process
*(BULKFTTIMER)	25	11/23	Under Process/ Error	Under Process/ Error
COMPLETE	71/72	5/4	Accepted/ Rejected	Accepted/ Rejected

6. APPENDIX

6.1. Bulk CPG Host Staging Table Status Matrix

Please find the staging table status update details as below –

Status	Status Details	Description
U	Data newly inserted	FCDB Inserts data in default status.
W	Under process	Host marks once data picks up for process.
P	Data Processed	Data processing completed successfully.
R	Data in repaired queue (Marked in error)	Data processing completed with error.

6.2. Host Maintenance

Here in below steps we have explained critical maintenance steps required for new message type "BULKPAY".

1. Maintain the new "BULKPAY" message type in "Common Payment Message Types" screen, function id "MSDCOMPT".
2. Maintain the Queue in "Queues" screen, function id "MSDQUEUE".
3. Maintain STP rule for the Queue in "STP rules" screen, function id "MSDMTUDF"
4. For PC module processing, the source code and product category mapping to Message type will be done at "Message Mapping" screen , function id "PCDMSGMT"
5. For PC module processing, the Queue, Message type and product category linked in following screen "Product Mapping"

6.3. Host Processing

At Host side processing will start from package "MSPKS_BULK_FT_PC_PROCESSING" , here insertion into CPG data source will happen.

If all the transaction in FCDB file inserted into CPG from is data source then CPG records status will be updated to "U" (This means records ready for further PC/FT processing).

The "CPG_UPLOAD" job will pick up these ready records ("U" status) from CPG data source. This will create PC or FT contracts in the HOST.

The parameter value maintained in `cstb_param` for parameter `LIQD_MODE` must be P for parallel and S for sequential processing for FT SDMC or Bulk SDSC

Consol FT contract for SDMC would be created using the product maintained in the FT Branch ParameterMaintenance screen (FTDBRMNT)

For creating SDMC FT contracts, need to run the job `PC_PROCESS_FT_CONS` and `PR_PROCESS_CPG_UPLOAD` using `CSSJOBBER` screen.

In order to have a multiple jobs to run in parallel for FT SDMC, the value for job queue process can be set with higher in number in the database parameter settings.

`FT_CONS` and existing `CPG_UPLOAD` processes can be maintained in `pctb_process_status` table with subsequent process sequences to have a parallel processing of FT SDMC.