SWIFTNet Services Integrator Messaging Hub Interface
User Guide

Oracle FLEXCUBE Universal Banking

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1.Preface

1.1   Introduction

This manual talks about the interface between Oracle FLEXCUBE and Oracle FLEXCUBE SWIFTNet Services Integrator Messaging Hub (FC SSI MH) for SWIFTNet connectivity and SWIFTNet Services.

1.2   Audience

This User Manual is intended for the following User/User Roles:

Role	Function
Back office data entry Clerks	Input functions for maintenance related to the interface
Back office Managers/Officers	Authorization functions

1.3   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.

1.4   Organization

This manual is organized as follows:

Chapter 1	*About this Manual* gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	*Oracle FLEXCUBE – FC SSI MH Interface* explains on how Oracle FLEXCUBE communicates with the SWIFT Correspondent via FC SSI MH for transfer of files.

1.5   Abbreviations

The table lists the abbreviations used in this User Manual:

Abbreviation	Description
FC SSI MH	Oracle FLEXCUBE SWIFTNet Services Integrator Messaging Hub
SC	SWIFT Correspondent

1.6   Related Documents

- The Procedure User manual

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1.7 Glossary of Icons

This User Manual may refer to all or some of the following icons:

Icons	Function
✖	Exit
➕	Add row
➖	Delete row
↗	Option List

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2. Oracle FLEXCUBE – FC SSI MH Interface

2.1   Introduction

Oracle FLEXCUBE communicates with the SWIFT Correspondent via FC SSI MH for transfer of files. It uses the SWIFT Net protocol 'Fileact' for this dispatch. The mode of communication is folder based with XML Data Layer. The Oracle FLEXCUBE MH adapter will handle the transfer of files from Oracle FLEXCUBE to FC SSI MH and vice versa.

To facilitate the dispatch of files, you have to maintain the following:

- Details of the file to be dispatched: You can maintain this in the 'Dispatch File Parameters' screen.
- Dispatch file generation details: You can maintain this in the 'Dispatch File Generation' screen.

For more details on dispatch file parameters, refer the section 'Maintaining Dispatch File Parameters' in the 'Maintaining Information specific to the Payments and Collections Module' chapter of the PC User Manual.

For more details on dispatch file generation, refer the section 'Generating Dispatch File' in the 'Processing a Payment or Collection TransactionOLE_LINK8OLE_LINK8' chapter of the PC User Manual.

This interface is capacitated to handle to both inbound and outbound services. Each of these services and the corresponding message formats are discussed in the following sections of this User Manual.

2.2   Handling Inbound Services

Oracle FLEXCUBE will receive the files from the SWIFT Correspondent (SC) through the FC SSIMH using the folder based communication mode of the Messaging Hub.

The sequence of the message exchanges between Oracle FLEXCUBE SSI MH for file transfers that are initiated from SC to Oracle FLEXCUBE is provided in the table below:

SWIFTNet Request	Origin	Request/Response Message	Destination	Remarks
FileAct PUT from SC to Oracle FLEX-CUBE	FC SSI	AcceptExchangeFileRequest	Oracle FLEXCUBE	This request will not be processed in Oracle FLEXCUBE and will be configured for Auto Accept in SSI MH

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	Oracle FLEX-CUBE	AcceptExchangeFileResponse	FC SSI	This response will not be Generated in Oracle FLEXCUBE and will be configured as Auto Accept in SSI
	FC SSI	IsExchangeFileRequest	Oracle FLEXCUBE	This message will be processed and the corresponding payload will be processed.
	FC SSI	ErrorInfo	Oracle FLEXCUBE	This message will not be processed.

You have to maintain the following folder structures in FC SSI MH for Oracle FLEXCUBE as a Business Application for file transfers initiated from SC:

Folder Name	Explanation
<FCC_LINE-ID>/CLIENT/REQ	SSI MH Adapter will receive the following in this folder: IsExchangeFileRequest ACKFile ErrorInfo The first two will contain FileAct envelope.
<FCC_LINE_ID>/CLIENT/FILEACT/PAYLOAD/PUT	SSI MH Adapter will receive payload for FileAct PUT request initiated by SC in this folder.

The sequence of events is listed below:

1. The Oracle FLEXCUBE MH adapter will poll on the envelope messages 'IsExchangeFileRequest' in the 'Client/Request' folder of SSI MH.

2. On receiving the envelope 'IsExchangeFileRequest', the corresponding payload file in the 'Payload' folder is transferred in to Oracle FLEXCUBE Application Server. The system picks up the appropriate payload file based on the logical file name in the envelope message.

3. The payload file from the Oracle FLEXCUBE Application Server will then be moved to the Oracle FLEXCUBE Database Server.

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4. The adapter will make a request message 'SEPA-Exchange-File-Req-MSG' with service name 'SEPAFileServices' and operation as 'FileUpload' and place the same on the Oracle FLEXCUBE Gateway MDB queue.

5. The request message 'SEPA-Exchange-File-Req-MSG' will now have the path of the payload file moved to the Database Server.

Note

The inbound services of the SSI MH Adapter will also process the error file messages and ACK file for the File transfer request initiated by Oracle FLEXCUBE.

For details, refer the section titled 'Handling Outbound Services' later in this chapter.

2.3 <u>Handling Outbound Services</u>

The outbound services of adapter will transfer files from the Oracle FLEXCUBE Database Server to FC SSI MH. The file to be transmitted will be created in the Oracle FLEXCUBE Database Server and the process will generate a notification alert to indicate the creation of the file.

The process will then follow the following sequence:

1. On receiving the notification alert from Oracle FLEXCUBE, the File handoff process in SSI MH Adaptor layer will start. The notification alert will have the reference to the file in the database server which needs to be moved to the FC SSI folder.

2. The Handoff file will move from the Database Server to the Application Server from where it will be transferred to the 'Payload' folder in FC SSI MH.

3. After completing the file transfer, the SSI MH adapter will put the envelope XML 'BaExchangeFileRequest message' in the FC SSI MH envelope folder.

The sequence of the message exchanges between the Oracle FLEXCUBE SSI MH for outbound services is given in the table below:

SWIFTNet Request	Origin	Request/Response Message	Destination	Remarks
FileAct PUT from Oracle Oracle FLEX-CUBE to SC	Business Application	BaExchangeFileRe-quest	FC SSI	This message would be generated by the MH adapter
	FC SSI	ErrorInfo[*]	Oracle FLEX-CUBE	This message would be processed by MH adapter

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SWIFTNet Request	Origin	Request/Response Message	Destination	Remarks
	FC SSI	AckFile	Oracle FLEX-CUBE	This message would be processed by MH adapter

You have to maintain the following folder structures in FC SSI MH for Oracle FLEXCUBE as a Business Application for file transfers initiated from Oracle FLEXCUBE:

Folder Name	Explanation
<FCC_LINE_ID>/SERVER/REQ	SSI MH Adapter will put the request file containing 'BaExchangeFileRequest' which will contain FileAct envelope
<FCC_LINE_ID>/SERVER/FILEACT/PAYLOAD/GET	SSI MH Adapter will put payload for FileAct PUT request initiated by Oracle FLEXCUBE in this folder.
<FCC_LINE_ID>/SERVER/RESP	SSI MH Adapter will receive response file containing following in this folder: AckFile ErrorInfo

2.3.1 Processing the ACK/Error File

On receiving the ACK/Error file, the adapter will make 'SEPA-ACK-File-Req-MSG' with service name as 'SEPAFILESERVICE'S and operation as 'FILESTATUS UPDATE' and place the same in the MDB queue of Oracle FLEXCUBE gateway.

This request will be further processed as follows:

- If the file transfer to the SC is successful, the file transfer status will be updated to 'Complete' and file will be moved to the Archive folder.
- If the file transfer to SC fails, the file transfer status will be updated to 'Failed'. The reason for the failure will also be mentioned.

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2.3.2 Viewing Transfer File Status

You can view the status of the file that will is transmitted in the 'Payment Gateway Browser' screen.

The following details are available in this screen:

- Reference number of the file transmitted
- Name of the file
- Path/location of the file
- File Transfer Status: The files will be in any one of the following status at any given point of time:
  - Pending (P)
  - Complete (C)
  - Failure (F)
- Reason for failure

You have the option to resend the files with transfer status as 'Failure'. Click 'Resend' button to initiate the transfer.

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2.3.3 Message Formats

The message formats are given below:

BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileRequest:: Envelope :: TransactionRef	Transaction reference for a given transaction. Same reference is sent back in response	Mandatory	
BaExchangeFileRequest:: Envelope:: LogicalName	Logical file name	Mandatory	Maximum length = 254
BaExchangeFileRequest:: Envelope:: Requestor	Application entity. DN of the Requestor	Optional	Maximum length = 100
BaExchangeFileRequest:: Envelope:: Responder	Responder	Optional	Maximum length = 100
BaExchangeFileRequest:: Envelope:: Service	SWIFT service name	Optional	Maximum length = 30
BaExchangeFileRequest:: Envelope:: OpType	FileAct operation type	Optional	Possible values=[PUT, GET]
BaExchangeFileRequest:: Envelope:: TransferDescription	Free Text about file transfer	Optional	
BaExchangeFileRequest:: Envelope:: TransferInfo	Structured data that can be analyzed by the server	Optional	
BaExchangeFileRequest:: Envelope:: MsgId	E2E application identifier of the message.	Optional	Maximum length = 40
BaExchangeFileRequest:: Envelope:: CreationTime	Request creation time	Optional	Date Format: YYYY-MM-DDTHH:MM:SSZ or YYYY-MM-DDTHH:MM:SS

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BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileRequest:: Envelope:: AckIndicator	The client application indicates to FC SSI to send an acknowledgement of message sent to SWIFTnet.	Optional The field will be configurable	Possible values=[TRUE, FALSE]
BaExchangeFileRequest:: Envelope:: RequestCrypto	SWIFTNet Link will operate signature and encryption automatically on request if this is set to TRUE	Optional	Possible values=[TRUE, FALSE] Note: In case value of ReqNrIndicator is TRUE, value of RequestCrypto must be set to TRUE
BaExchangeFileRequest:: Envelope:: ReqNrIndicator	TRUE Indicates that non-repudiation is requested for the Request.	Optional	Possible values=[TRUE, FALSE]
BaExchangeFileRequest:: Envelope:: DeliveryMode	Indicates whether store-and-forward (SnF) is used.	Optional	Possible values=[SnF, REALTIME]
BaExchangeFileRequest:: Envelope:: DeliveryNotif	Indicates whether a delivery notification is required	Optional	Possible values=[TRUE, FALSE] Note: In case value of ReqNrIndicator is TRUE, value of DeliveryNotif must be set to TRUE
BaExchangeFileRequest:: Envelope:: AckResponder	DN of the Responder that must be used in the header of the acknowledgement of reception of a file to address the server in charge of handling the acknowledgement	Optional	Maximum length = 100

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BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileRequest:: Envelope:: RequestType	Request type	Optional	Maximum length = 30
BaExchangeFileRequest:: Envelope:: Priority	The Priority of delivery	Optional	Possible values=[Urgent, Normal]
BaExchangeFileRequest:: Envelope:: Size	Size of file if OpType is PUT	Optional	
BaExchangeFileRequest:: Envelope:: FileInfo	User information about the file.	Optional	
BaExchangeFileRequest:: Envelope:: MaxSize	Maximum acceptable Size if the OpType is GET	Optional	
BaExchangeFileRequest:: Envelope:: RequestRef	Request reference	Optional	Maximum length = 30
BaExchangeFileRequest:: Envelope:: OrigTransferRef	Origin transfer reference	Optional	
BaExchangeFileRequest:: Envelope:: FileDescription	Description of file	Optional	
BaExchangeFileRequest:: Envelope:: PdIndication	Indicator of possible duplicate of emission	Optional	Possible values=[TRUE, FALSE]
BaExchangeFileRequest:: Envelope:: PdEmissionTime	Time of emission of a message	Optional	Multiple occurrences possible
BaExchangeFileRequest:: Envelope:: CompressionReq	Indicates whether Compression Required or Not	Optional	[TRUE, FALSE]

BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileRequest:: Envelope:: CompressionAlgo	Indicates which Compression algo has to be used	Optional	[ZIP,GZIP,NONE]
BaExchangeFileRequest:: Envelope:: CompressionAlgo	Indicates which Compression algo has to be used	Optional	[ZIP,GZIP,NONE]

Message format for IsExchangeFileRequest

Field Tag	Field Description	Optional / Mandatory	Restrictions
IsExchangeFileRequest:: Envelope :: TransactionRef	Transaction reference for a given transaction. Same as in request	Mandatory	Maximum length = 30
IsExchangeFileRequest:: Envelope :: TransferRef	The unique reference of the file transfer	Mandatory	Maximum length = 30
IsExchangeFileRequest:: Envelope :: LogicalName	Logical file name	Mandatory	Maximum length = 254
IsExchangeFileRequest:: Envelope :: PhysicalName	Physical file name	Optional	Maximum length = 254
IsExchangeFileRequest:: Envelope :: Crypto:: MemberRef	Elements that were signed	Optional	Multiple occurrences possible
IsExchangeFileRequest:: Envelope :: Crypto:: EncryptDn	The distinguished name of the decrypter.	Optional	Maximum length = 100
IsExchangeFileRequest:: Envelope :: Crypto:: Cryptouserinfo	Application-to-application information	Optional	
IsExchangeFileRequest:: Envelope :: GblStatus:: Severity	Result of the swCall function call	Optional	Possible values = [Fatal, Transient, Logic, Success, Warning]
IsExchangeFileRequest:: Envelope :: GblStatus:: Code	Status Code.	Optional	
IsExchangeFileRequest:: Envelope :: GblStatus:: Parameter	All error Parameters	Optional	Multiple occurrences possible

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Field Tag	Field Description	Optional / Mandatory	Restrictions
IsExchangeFileRequest:: Envelope :: GblStatus:: Text	Textual description	Optional	
IsExchangeFileRequest:: Envelope :: GblStatus:: action	Proposed corrective action	Optional	
IsExchangeFileRequest:: Envelope :: GblStatus:: Details:: Code	Status Code	Optional	Multiple occurrences possible
IsExchangeFileRequest:: Envelope :: GblStatus:: Details:: Text	Textual description	Optional	
IsExchangeFileRequest:: Envelope :: GblStatus:: Details:: Action	Proposed corrective action	Optional	

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Message format for ACKFile

Field Tag	Field Description	Optional / Mandatory / Required	Restrictions
AckFile:: Envelope :: TransactionRef	Transaction reference for a given transaction. Same reference is sent back in response	Mandatory	
AckFile:: Envelope :: FcssiRef	Transaction reference for a given transaction generated in FC SSI. Note: This tag is used in case of FileAct Put from Business application to SWIFTNet.	Optional	
AckFile:: Envelope:: TransferRef	The unique reference of the file transfer	Mandatory	Maximum length = 30
AckFile:: Envelope:: Status	Indicates the success or failure of the operation	Mandatory	Possible values =[SUCCESS, FAILURE]
AckFile:: Envelope:: TransferAnswer	Indicates if the file transfer was rejected or accepted by the server	Optional	Possible values=[Accepted, Rejected]
AckFile:: Envelope:: MsgId	E2E message identifier. Business application can relate the information to its transaction using this identifier as it is the same identifier sent by the business application.	Optional	Maximum length = 40
AckFile:: Envelope:: CreationTime	Original request creation time	Optional	Date Format: YYYY-MM-DDTHH:MM:SSZ or YYYY-MM-DDTHH:MM:SS
AckFile:: Envelope:: ackdescription	The answer of the delivery notification. Free Text.	Optional	

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Field Tag	Field Description	Optional / Mandatory / Required	Restrictions
AckFile:: Envelope:: RejectDescription	Indicates why the server application rejected the file transfer	Optional	
AckFile:: Envelope:: RejectInfo	Structured data about the file transfer rejection	Optional	
AckFile:: Envelope:: Size	File Size	Optional	
AckFile:: Envelope:: digeststatus	Digest status computed by FC SSI	Optional	Possible values = [TRUE, FALSE]
AckFile:: Envelope:: GblStatus:: Severity	Result of the swCall function call	Optional	Possible values = [Fatal, Transient, Logic, Success, Warning]
AckFile:: Envelope:: GblStatus:: Code	Status Code.	Optional	
AckFile:: Envelope:: GblStatus:: Parameter	All error Parameters	Optional	Multiple occurrences possible
AckFile:: Envelope:: GblStatus:: Text	Textual description	Optional	
AckFile:: Envelope:: GblStatus:: action	Proposed corrective action	Optional	

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Field Tag	Field Description	Optional / Mandatory / Required	Restrictions
AckFile:: Envelope:: GblStatus:: Details:: Code	Status Code	Optional	Multiple occurrences possible
AckFile:: Envelope:: GblStatus:: Details:: Text	Text description	Optional	
AckFile:: Envelope:: GblStatus:: Details:: Action	Proposed corrective action	Optional	
AckFile:: Envelope:: Responder	Responder	Optional	Maximum length = 100
AckFile:: Envelope:: ResponseRef	Response Ref	Optional	Maximum length = 30
AckFile:: Envelope:: PdIndication	Indicator of possible duplicate of emission	Optional	Possible values=[TRUE, FALSE]
AckFile:: Envelope:: PdEmissionTime	Time of emission of a message	Optional	Multiple occurrences possible

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Message format for Error File

Field Tag	Field Description	Optional / Mandatory/ Required	Restrictions
ErrorInfo:: TransactionRef	Transaction reference for a given transaction. Same reference is sent back in response	Mandatory	
ErrorInfo:: FcssiRef	Transaction reference for a given transaction generated by FC SSI.	Optional	Maxlength=30
ErrorInfo:: IdMsg	In case of MQ Interface, this should give the MQ Message ID of the associated message. For Folder Interface this field should contain the name of the associated message file.	Optional	
ErrorInfo:: Description	Text description of the error to the possible detailed level	Mandatory	
ErrorInfo:: DuplicationError	Flag indicating a duplication error	Optional	Possible values=[true, false]

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