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Oracle Park

Off Western Express Highway Goregaon (East) Mumbai, Maharashtra 400 063 India Worldwide Inquiries: Phone: +91 22 6718 3000 Fax:+91 22 6718 3001 www.oracle.com/financialservices/

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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 <u>Audience</u>

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 <u>http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc</u>.

1.4 Organization

This manual is organized as follows:

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

1.5 <u>Abbreviations</u>

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



1.7 Glossary of Icons

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

lcons	Function	
×	Exit	
+	Add row	
-	Delete row	
	Option List	



2. Oracle FLEXCUBE – FC SSI MH Interface

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 Transaction' 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.

This chapter contains the following section:

• Section 2.1, "Inbound and Outbound Services"

2.1 Inbound and Outbound Services

This section contains the following topics:

- Section 2.1.1, "Handling Inbound Services"
- Section 2.1.2, "Handling Outbound Services"
- Section 2.1.3, "Processing the ACK/Error File"
- Section 2.1.4, "Viewing Transfer File Status"
- Section 2.1.5, "Message Formats"

2.1.1 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	Destinatio n	Remarks
---------------------	--------	--------------------------	-----------------	---------



FileAct PUT from SC to Ora- cle 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
	Oracle FLEX- CUBE	AcceptExchangeFileRe- sponse	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 mes- sage will be processed and the cor- responding payload will be pro- cessed.
	FC SSI	ErrorInfo	Oracle FLEXCUBE	This mes- sage will not be pro- cessed.

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</fcc_line-id>	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</fcc_line_id>	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.
- 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.
- 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.

2.1.2 Handling Outbound Services

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:

- 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 Applica- tion	BaExchangeFileReq- uest	FC SSI	This mes- sage would be gener- ated by the MH adapter



SWIFTNet Request	Origin	Request/Response Message	Destination	Remarks
	FC SSI	ErrorInfo [*]	Oracle FLEX- CUBE	This mes- sage would be pro- cessed by MH adapter
	FC SSI	AckFile	Oracle FLEX- CUBE	This mes- sage would be pro- cessed 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</fcc_line_id>	SSI MH Adapter will put the request file containing 'BaExchangeFileReq- uest' which will contain FileAct envelope
<fcc_line_id>/SERVER/FILEACT/PAYLOAD/GET</fcc_line_id>	SSI MH Adapter will put payload for FileAct PUT request initiated by Ora- cle FLEXCUBE in this folder.
<fcc_line_id>/SERVER/RESP</fcc_line_id>	SSI MH Adapter will receive response file containing following in this folder:
	AckFile
	ErrorInfo

2.1.3 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.



2.1.4 Viewing Transfer File Status

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

wayment Gateway - SEPA Outgoing File Details		- ×
File Reference File Path Failure Reason	File Name File Transfer Status	×
Records per page 15 First Previous 1 Of 1 Next Last Go	 ✓ Search Advanced Search 	Reset
Resend View		
File Transfer Status U - Pending C - Complete F - Failure R - Resend		Exit

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.



2.1.5 <u>Message Formats</u>

The message formats are given below:

BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileReq- uest:: Envelope :: Trans- actionRef	Transaction refer- ence 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 val- ues=[PUT, GET]
BaExchangeFileRequest:: Envelope:: TransferDe- scription	Free Text about file transfer	Optional	
BaExchangeFileRequest:: Envelope:: TransferInfo	Structured data that can be ana- lyzed by the server	Optional	
BaExchangeFileRequest:: Envelope:: Msgld	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



BaExchangeFileRequest Field Tag	Field Description	Optional / Mandatory	Restrictions
BaExchangeFileRequest:: Envelope:: AckIndicator	The client applica- tion indicates to FC SSI to send an acknowledgement of message sent to SWIFTnet.	Optional The field will be con- figurable	Possible val- ues=[TRUE, FALSE]
BaExchangeFileRequest:: Envelope:: RequestCrypto	SWIFTNet Link will operate signa- ture and encryp- tion automatically on request if this is set to TRUE	Optional	Possible val- ues=[TRUE, FALSE] Note: In case value of ReqN- rIndicator is TRUE, value of RequestCrypto must be set to TRUE
BaExchangeFileRequest:: Envelope:: ReqNrIndicator	TRUE Indicates that non-repudia- tion is requested for the Request.	Optional	Possible val- ues=[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 notifica- tion is required	Optional	Possible val- ues=[TRUE, FALSE] Note: In case value of ReqN- rIndicator 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



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



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 refer- ence for a given transaction. Same as in request	Mandatory	Maximum length = 30
IsExchangeFileRequest:: Envelope :: TransferRef	The unique refer- ence 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 occur- rences possible
IsExchangeFileRequest:: Envelope :: Crypto:: EncryptDn	The distinguished name of the decrypter.	Optional	Maximum length = 100
IsExchangeFileRequest:: Envelope :: Crypto:: Cryptouserinfo	Application-to- application infor- mation	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 Parame- ters	Optional	Multiple occur- rences possible



Field Tag	Field Description	Optional / Mandatory	Restrictions
IsExchangeFileRequest:: Envelope ::	Textual description	Optional	
GblStatus::			
Text			
IsExchangeFileRequest:: Envelope ::	Proposed correc- tive action	Optional	
GblStatus::			
action			
IsExchangeFileRequest:: Envelope ::	Status Code	Optional	Multiple occur- rences possible
GblStatus::			
Details::			
Code			
IsExchangeFileRequest:: Envelope ::	Textual description	Optional	
GblStatus::			
Details::			
Text			
IsExchangeFileRequest:: Envelope ::	Proposed correc- tive action	Optional	
GblStatus::			
Details::			
Action			



Message format for ACKFile

Field Tag	Field Description	Optional / Mandatory / Required	Restrictions
AckFile:: Envelope :: TransactionRef	Transaction reference for a given transac- tion. Same reference is sent back in response	Mandatory	
AckFile:: Envelope :: FcssiRef	Transaction reference for a given transac- tion generated in FC SSI. Note: This tag is used in case of FileAct Put from Business appli- cation 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 opera- tion	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:: Msgld	E2E message identi- fier. Business applica- tion can relate the information to its transaction using this identifier as it is the same identifier sent by the business applica- tion.	Optional	Maximum length = 40
AckFile:: Envelope:: CreationTime	Original request crea- tion 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	



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

Field Tag	Field Description	Optional / Mandatory / Required	Restrictions
AckFile:: Envelope:: GblStatus:: Details:: Code	Status Code	Optional	Multiple occur- rences 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 val- ues=[TRUE, FALSE]
AckFile:: Envelope:: PdEmissionTime	Time of emission of a message	Optional	Multiple occur- rences possible



Message format for Error File

Field Tag	Field Description	Optional / Mandatory/ Required	Restrictions
ErrorInfo:: TransactionRef	Transaction refer- ence for a given transaction. Same reference is sent back in response	Mandatory	
ErrorInfo:: FcssiRef	Transaction refer- ence for a given transaction gener- ated 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 val- ues=[true, false]

