

EMS Interface
Oracle FLEXCUBE Universal Banking
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1. About this Manual

1.1 Introduction

This manual is designed to help acquaint you with the interface between Oracle FLEXCUBE and the other systems within your bank.

This manual provides you extensive explanations about the various maintenances required for the smooth exchange of data between Oracle FLEXCUBE and the applicable systems through the interface. It also gives you an insight into the processes involved in the actual exchange of data.

1.2 Audience

This 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 Acronyms and Abbreviations





Abbreviation	Description
System	Unless and otherwise specified, it shall always refer to Oracle FLEXCUBE system

1.4 Related Documents

- XML Interface document – outlines the details of the interface mechanism between Oracle FLEXCUBE and a system external to it
- The Procedure User Manual

1.5 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

2. The Oracle FLEXCUBE EMS Interface

2.1 Introduction

The EMS or the Electronic Messaging Service is a messaging interface between external systems and Oracle FLEXCUBE. This interface is implemented with the help of two windows services, one each for In and Out processing. This interface enables a connection to be established between Oracle FLEXCUBE and the external systems network resource for sending and receiving information.

The in-service connects to the external system resource (Windows machine, UNIX machine or MSMQ server) and transfers the data to the local windows machine, where the message is processed and uploaded to Oracle FLEXCUBE.

The out-service polls on an Oracle FLEXCUBE out table. As soon as a message is generated in the out table, it is picked up, formatted if required (for example, as a MS-Word document) and delivered to the external system through one of the delivery modes (FTP, MSMQ etc.).

2.1.1 Brief description of the process

2.1.1.1 For incoming messages

For the delivery modes NT and FTP

The message files are to be placed in the `ems\swift\in\ready`, in the ems server. The incoming message service (In-service) copies the file to the folder `ems\swift\in\wip` and performs further processes like formatting etc. Once the processes are completed, the file is moved to the folder `ems\swift\in\processed`.

Though all the folders are maintained in the EMS server, they can be mapped to any system.

For the QUEUE delivery mode

The messages are placed by the external system in the in queue. They are moved from there to the backup queue and sent for processing. Once processing is successful, the message is moved to the final queue.

2.1.1.2 For outgoing messages

For delivery modes NT and FTP

The messages are selected from the Oracle FLEXCUBE out table, formatted if required and moved to the folder `ems\swift\out\wip`. From here, the file is picked up and moved to `ems\swift\out`.

For the QUEUE delivery mode

The messages are sent to the out queue.

2.2 Maintaining EMS Details

The following maintenances are required for the EMS:

- Message Media Maintenance
- Message Media Control Maintenance

- Maintaining Folder structure
- Specifying Parameters and Values

2.2.1 Maintaining Message Media

You can invoke the 'Message Media Maintenance' screen by typing 'MSDMEDIA' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button. The below given screen displays:

The screenshot shows the 'Media Maintenance' application window. The window has a blue title bar with the text 'Media Maintenance' and standard window controls. Below the title bar is a 'New' button. The main area contains several input fields: 'Media Code *', 'Media Number', 'Description *', 'Message Suffix', 'Message Terminator', 'Number of Characters', and 'Media Priority *'. There are also three checkboxes: 'Test Word Required', 'Stop Processing', and 'Padding Required'. Below these is a 'Compatible Media' section with a table containing one row. At the bottom, there is a 'Fields' section with labels for 'Input By Date Time', 'Authorized By Date Time', and 'Modification Number', along with radio buttons for 'Authorized' and 'Open', and an 'Exit' button.

Specify the following details:

Media Code

Specify the media used for message propagation. For instance, SWIFT, MAIL etc

Media Description

Describe the media code.

Message Suffix

Specify the suffix to be added in the message.

Message Terminator

Specify the terminator to be used for terminating the message.

Number of Characters

Specify the total length of the message.

Media Priority

Specify the media priority. Based on the priority, the messages are processed with the media concerned.

Padding Required

Check this option if padding is required. Padding letters will be added at the end of each message.

2.2.2 Message Media Control

You can invoke the 'Message Media Control Maintenance' screen by typing 'MSDMCS' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button. The below given screen displays:

The screenshot shows a window titled "Media Control Systems" with a "New" tab. The form contains the following fields and options:

- Node * (text field)
- Media Control System * (text field)
- Media * (text field)
- Status: Active (dropdown menu)
- Delivery Type: Folder, Queue
- In Directory (text field)
- Out Directory (text field)
- File Prefix (text field)
- Unix In Directory (text field)
- Unix Out Directory (text field)
- In Queue (text field)
- Out Queue (text field)
- Media Type Selection: Unix Swift Server, Microsoft Message Queue, WebSphere Messaging Queue

At the bottom, there is a "Fields" section with the following columns and options:

Input By	Authorized By	Modification Number
Date Time	Date Time	Number
		<input type="checkbox"/> Authorized
		<input type="checkbox"/> Open

An "Exit" button is located in the bottom right corner.

Specify the following details:

Node

Specify the DB instance name.

Media

Select the media from the adjoining option list. The option list displays all the valid media maintained in the system.

Status

Select the status. The following are the options available:

- Active
- Passive

Delivery Type

Indicate the Mode of delivery. The following are the options available:

- Folder
- Queue

In Directory

Specify the directory in which the message files are to be placed by external system (Only for EMS_IN if delivery type is 'Folder').

Out Directory

Specify the directory in which the message files are sends to external system (Only for EMS_OUT).

In Queue

Specify the queue in which the message files are to be placed by external system (Only for EMS_IN if Delivery type is 'Queue').

Out Queue

Specify the queue in which the message files are sends to external system (Only for EMS_OUT).

Message Queue

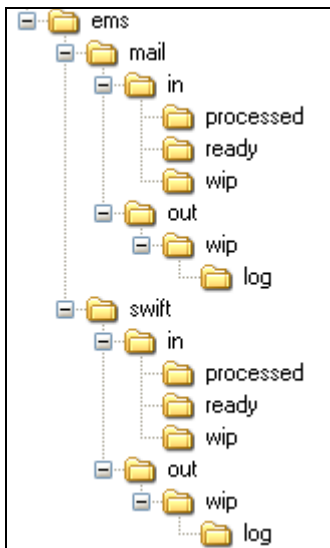
Select the queuing software being used in bank.

2.2.3 Maintaining Folder Structure

Maintain the following folder structure:

2.2.3.1 Folder Structure for Delivery Mode Folder

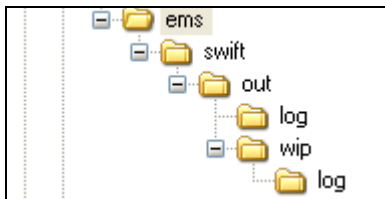
You should maintain the following folder structure on the Application server machine:



The sub-folders for the media – mail and swift – exist under the parent folder ems.

2.2.3.2 Folder Structure for Delivery Mode Queue

You should maintain the following folder structure on the Application server machine:



The sub-folders for the media – swift – exist under the parent folder ems.

2.2.4 Specifying Parameters and Values for fcubs.properties File

You should specify the following parameter values in fcubs.properties file

2.2.4.1 For Delivery Mode Folder

Parameter	Description
EMS_INT_QCF	Internal Queue Connection Factory. Example: (EmsQcf)
EMS_OUT_JMS_DLQ	Out messages dead letter queue. Example: (NOTIFY_QUEUE_DLQ)
EMS_IN_JMS_DLQ	In messages dead letter queue. Example: (NOTIFY_QUEUE_DLQ)
EMS_FILE_TRANSFER_MODE	Mode of file transfer. Example: FTP etc.

Parameter	Description
FTP_SRVR	FTP Server IP Address. Example: 169.165.98.11(if file Transfer Mode is ftp)
FTP_ID	FTP Server userId (if file Transfer Mode is ftp)
FTP_PWD	FTP Server Password. Example: 2fb0x66QSug=(FTP Server Password in encrypt format)
FILE_TYPE	file type. Example: .txt,.xlsx etc
SWIFT_FORMAT	1
MSG_DELIMITER	YES
MSG_TERMINATOR	YES
MEDIA	SWIFT

2.2.4.2 For Delivery Mode Queue

Parameter	Description
EMS_EXT_QCF	Out Queue Connection Factory - External System
EMS_INT_QCF	Internal Queue Connection Factory Examples(EmsQcf)
EMS_OUT_JMS_DLQ	Out messages dead letter queue Examples (NOTIFY_QUEUE_DLQ)
EMS_IN_JMS_DLQ	in messages dead letter queue Examples (NOTIFY_QUEUE_DLQ)
EMS_INIT_CTX_FACT	Application server context factory class in which server external queue create examples (weblogic.jndi.WLInitialContextFactory)
EMS_PRVDR_URL	Application server ip address in which server external queue create example weblogic server t3://127.0.0.1:7001
EMS_QUEUE_PRINCIPAL	Application server User Id in which external queue create.
EMS_QUEUE_CREDENTIALS	Application server Password in which external queue create.
EMS_FILE_TRANSFER_MODE	Mode of file transfer Examples FTP etc..
FTP_SRVR	FTP Server IP Address Examples 169.165.98.11(if file Transfer Mode is ftp)

Parameter	Description
FTP_ID	FTP Server userId (if file Transfer Mode is ftp)
FTP_PWD	FTP Server Password Examples 2fb0x66QSug=(FTP Server Password in encrypt format)
FILE_TYPE	file type examples .txt,.xlsx etc ..
SWIFT_FORMAT	1
MSG_DELIMITER	YES
MSG_TERMINATOR	YES
MEDIA	SWIFT

3. Maintaining Interface specific Details

3.1 Introduction

Oracle FLEXCUBE is an international universal banking solution catering to the treasury back office functions among other modules.

The details of all customer account transactions can be handed off to the external systems existing within your bank, through an interface. This document outlines the specifications of the interface between Oracle FLEXCUBE and the external systems.

The interface handles (hands off) data pertaining to the following functions:

- Account Statement hand off – the account statement hand off is performed based on the account statement cycle, maintained in the customer account maintenance, whereby the details of all account statements are generated.

The salient features of the interface are as follows:

- Data is transferred to the external system (s) through ASCII files in predefined file formats.
- Data is handed off at the end of the business day as a Batch file to the external system.



If Handoff fails you will need to trigger it once again.

3.1.1 Maintaining Account Statement Handoff

In Oracle FLEXCUBE, you can trigger the account statement generation online. System generates one file for each account.

The screenshot shows the 'Account Statement Report' window. It features several sections for configuration:

- Account Selection Type:** Radio buttons for 'One Account' (selected), 'Multiple Account', and 'Range'.
- Statement Type:** Radio buttons for 'Brief' (selected) and 'Detailed'.
- Date Range:** Text boxes for 'From Date' and 'To Date'.
- Single Account:** Text boxes for 'Account' and 'Account Currency', a 'Charge' dropdown menu, a 'Book Date' section with radio buttons for 'Booking Dated' (selected) and 'Value Date', and a checkbox for 'Show Linked Account Details'.
- Multiple Account:** A table with columns for 'Account Number' and 'Currency'. The table is currently empty.
- Print Options:** Radio buttons for 'View' (selected), 'Server Spool', and 'Print'.
- Range:** Text boxes for 'From Account Number', 'To Account Number', 'From Account Currency', and 'To Account Currency'.
- Bottom:** 'Charges' and 'Events' tabs, and 'Ok' and 'Exit' buttons.

In this screen you can capture the following attributes for generating the account statement:

Specifying the account number

This is a valid account number maintained in the system. The branch where the account is held will be displayed upon selecting the account.

Specifying the date range for account statement

The From and To date represent the date range for generating the account statement for the account. Enter the dates in date-month-year format.

Specifying the account currency

This is a valid currency of the account for which the statement needs to be generated.

After the fields have been entered, the following screen with the account details will be displayed.

The screenshot shows a 'Message Details' window with the following fields and content:

Reference Number: 100001010
DCN: CHO2654649
Version Number: 1

Sender: _____
Swift Message Type: _____

BANK FUTURA - HEAD OFFICE
BANK FUTURA - addr1
BANK FUTURA - addr2
BANK FUTURA - addr3

STATEMENT OF ACCOUNT FOR: 100001010
PERIOD OF STATEMENT : 01-NOV-07 - 30-NOV-07 PAGE: 1

COPY AS OF 30-NOV-07

CASH IN HAND DESCRIPTION	REFERENCE	Date	AMOUNT
Opening Balance		01-NOV-07	0.00

CLOSING CREDIT BALANCE	0.00	AVAILABLE BALANCE	0.00
0 DEBITS	0.00		
0 CREDITS	0.00		

Remarks: _____
Reject Reason: _____
Message Trailer: _____

Exit

Selecting multiple account numbers

In this section you can capture the following attributes for generating consolidated account statement for the customer having many accounts:

- Customer Number – a valid customer number maintained in the system.
- To Date – the date till which the account statement has to be generated.



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