

Product Release Notes
Oracle FLEXCUBE Payments 12.4.0.0.0
[May] [2017]



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1. Release Notes

1.1 Background

Oracle Financial Services Software Services Limited has developed Oracle FLEXCUBE Payments for providing a payment solution which acts as a standalone payment product processor, catering to requirements of both Retail & Corporate segments. The agile and scalable nature of the solution helps in adapting quickly to market changes. This is a unified payments platform for local and cross-border payment types.

Its mission-critical and robust architecture and the use of leading-edge industry standards ensure almost limitless scalability.

1.2 Purpose

The purpose of this Release Note is to highlight the various features in Oracle FLEXCUBE Payments Release 12.4.0.0.0.

1.3 Abbreviations

Abbreviation	Description
ACH	Automated Clearing House
SEPA	Single Euro Payments Area
SCT	SEPA Credit transfer
DDA	Demand Deposit Accounts
FX	Foreign Exchange
NACHA	National Automated Clearing House Association
SEC	Standard Entry Class
IAT	International ACH transactions
gpi	global payments innovation
SWIFT	Society for Worldwide Interbank Financial Telecommunication
C2B	Corporate-to-Bank (C2B)
REST	Representational State Transfer
SOAP	Simple Object Access Protocol

Abbreviation	Description
JSON	JavaScript Object Notation
JMS	Java Message Service
STP	Straight-through processing
SEPA	Single Euro Payments Area

For module code and description details, please refer to Annexure C section.

1.4 Release Highlights

The scope of the current release *Oracle FLEXCUBE Payments 12.4.0.0.0* is to develop the below features apart from providing enhancements and fixes to the existing functionality.

- US Network localization
- Clearing & instrument handling
- SWIFT & SEPA 2017 - Rule book
- Externalization of pricing

1.5 New Functionalities

1.5.1 Oracle FLEXCUBE Payments for US Fedwire Payments Messaging

System enhanced to support the outgoing /incoming Payments for Customer transfer and Bank transfer functionalities related to US Fedwire Payments along with the below features.

- Processing of Fedwire Payments Transaction
- Manual initiation of Outgoing Payments
- Business validations of Outgoing Fedwire messages
- Derivation of Type Code of Sub-type Code
- Support for multiple Network Cut-off times
- Support for Fedwire Holidays
- Support for Fedwire Business day spanning 2 calendar days

1.5.2 Oracle FLEXCUBE Payments for US ACH Payments Messaging

- System enhanced to support the Outgoing & Incoming US NACHA Payments features.
- Outgoing NACHA Payments processing are supported in channels viz., ReST, SOAP, JSON over JMS and UI. Various validations supported on NACHA in addition to, the transaction must include an ACH Standard Entry Class (SEC) Code to designate how the transaction was authorized by the originator. SEC Code - CIE (Customer Initiated Entry) is supported.
- Incoming NACHA payments processing: NACHA file received from the network will undergo various processing steps (i.e. File Upload, File Parsing and File Level Duplicate check and Receipt Accounting) and various checks and validations.

1.5.3 Oracle FLEXCUBE Payments for SWIFT gpi Messaging

System enhanced to support the following SWIFT gpi functionality

- SWIFT gpi payments for incoming and outgoing customer transfer (MT103).
- System supports Block 3 –Tags 111 & 121 population for outgoing customer transfer.
- System enhanced to support generation & population of UETR - Unique End to End Transaction Reference based on IETF's RFC 4122 Version 4 of generation algorithm.
- System enabled to support STP of incoming MT103 message received with gpi header.
- System supports incoming and outgoing MT199 gpi confirmation messages and upload of gpi directory.

1.5.4 Oracle FLEXCUBE Payments Instruments – Clearing

Oracle FLEXCUBE Payments Instruments clearing enables the banks helps in Instruments clearing process. Local Clearing process supports the following features

- Ability to Process Inward and Outward Clearing Transactions.
- Ability to upload & process bulk files received for Outward Clearing.
- Straight through processing of Inward Clearing Files received from Clearing House.
- Ability to link up to an External DDA system for Cheque Verification.

1.5.5 Oracle FLEXCUBE Payments Instruments – Demand Draft & Banker's Cheque

Facility is provided to issue domestic DD/BC instruments and handle the payment of the same while received in local clearing. The main features available are as below:

- Ability to Issue Instruments – Demand Draft & Managers Cheques.

- Ability to make Payments using such Instruments.
- Provision for cancellation/stop payment of the instruments issued.
- Facility for instrument status query.
- Handling of instrument requests received as part of mixed payload.

1.5.6 Oracle FLEXCUBE Payments Instruments – Positive Pay

New functionality introduced to facilitate the customer to share “Check Issue File” (Details of Checks drawn on the Accounts) which Bank will match against checks presented. Positive Pay functionality is achieved by providing below facilities:

- Positive Pay Agreement Maintenance.
- Ability to upload a Positive Pay File.
- Facility for amendment or status change of the positive pay records.
- Ability to validate the Positive Pay data as part of Inward Clearing and track the status.

1.6 Enhancements to the existing modules

1.6.1 C2B Corporate File Browser

Corporate File Browser enables users to view all the received pain.001 file statuses. Query the required file status based on message id, customer no, status etc is supported.

1.6.2 Creditor Bank BIC based on Beneficiary IBAN

- System enhanced to resolve Creditor Bank BIC based on Beneficiary IBAN for ACH Outgoing Payment using IBAN Plus directory, to support EU regulation. Following conditions are validated as part of the same.
 - Network and Beneficiary IBAN check digit validation.
 - Beneficiary IBAN adheres to the respective Country IBAN Structure.
 - Record in IBAN plus directory.
- For ACH Outgoing payments initiated from Upload channels like C2B, ReST, SOAP & JSON over JMS, Creditor Bank BIC is resolved during STP processing.

1.6.3 External Accounting Systems

- System enhanced to support accounting entries hand-off to External Accounting System. An External Accounting system per host can be configured at Host Parameter maintenance.
- Accounting Entries handoff will be triggered during transaction processing immediately after posting entries. Accounting Entries will be handed over in an xml format to the External Accounting System via JMS Queue and the hand off status will be updated.

1.6.4 External Pricing

Provision to pick up pricing from external system has been enhanced in the current release. An External Pricing system per host can be configured at Host Parameter maintenance.

1.6.5 JSON over JMS response

System enhanced to support the generation and delivery of response through JMS Queue for Payment requests received from JSON over JMS Channel (i.e. MDB Channel).

1.6.6 MIS & UDF Requirement Summary

System enhanced to support capturing MIS & UDF details in all the modules. Defaulting MIS /UDF group details and provision for MIS/UDF value input for transactions are supported.

1.6.7 MT101 Processing

Payments system enhanced to support the processing of MT101 payment initiation message. Following steps involved in processing of MT101- Request for transfer

- Support for Outgoing MT101 messages.
- Incoming MT101: Supports the processing of MT101 received from the following entities i.e. Bank, Non-financial institution (Corporate) Account owner and Party (Head-office or Subsidiary) authorized by the Account owner.
- Agreement Maintenances (Ordering Customer, Instruction Party and forwarding agent maintenance) is the key step in processing of incoming MT101.
- Processing in Account Servicing Institution role and Forwarding agent role.

1.6.8 MT103 Remit

- Provision made to generate a MT 103 Remit message. While both sender & receiver are being a remit member, message could be sent with tag 77T.

1.6.9 Pain.002 Payments status report

- System enhanced to support generation of ISO payment status report – pain.002 xml message to non-financial institution as a response for pain.001 C2B File.
- Bilateral agreement maintenance between the agent and the non-financial institution customer is supported.
- Pain.002 is generated on completion of Step1 of C2B – pain.001 processing. The generated pain.002 is validated against XSD to conform to the Rules laid out by ISO.
- Status Mapping supports various status codes that can be conveyed to the customer.
- Corporate File Browser screen is provided for the users to view all the received pain.001 file handoff details.

1.6.10 Pre-funded payments Allowing GLs

- System enhanced to support pre-funded payments from upload channels – ReST, SOAP, JSON Over JMS.
 - Pre-Funded payments is supported on outgoing payments of ACH, RTGS, Cross Border & BOOK Transfer payments.
 - ECA check & charge pickup are not applicable for pre-funded payments
 - EAC Check is applicable.

1.6.11 Sanctions and ECA reject notification

- System enhanced to send notification to initiating channels for Sanctions or ECA Reject of Payments and Collections.
- These notifications triggering are configurable at Source Network Preferences maintenance.
- These notifications will be triggered when SC or ECA systems return a Reject status.
- Notification generated is in JSON Format.

1.6.12 Sanctions hit

System enhanced to hold payments in compliance GL, if the payment gets a hit in Sanctions Check. This is done for both Incoming & Outgoing payments.

1.6.13 SWIFT LAU

- System enabled for SWIFT Alliance LAU to secure messaging between FLEXCUBE Payments and SWIFT. This is to ensure if any interference with the message as it is transmitted between source and destination, the checksum will fail to indicate the message integrity has been breached.

- Two new screens are introduced “SWIFT LAU In Maintenance” and “SWIFT LAU Out Maintenance” to maintained the LAU key.
- SWIFT LAU maintenance data will be referred by EMS module for calculation of checksum for outbound & authentication of inbound messages.
- System also enhanced to display the LAU checksum values in the “Incoming Browser”, “Incoming File Browser”, “Outgoing Browser” & “Outgoing File Browser”.

1.6.14 SWIFT 2017 Support

System enhanced to support SWIFT 2017 Rule book changes.

1.6.15 Transaction Repair Queue

- System enhanced to support the following Actions in Transaction repair queue on pending records: Repair, Return, Cancel, Authorize, Delete, View Queue Action, View Transaction and View Errors.
- All Payment Types and Transaction Types if encountered with erroneous data will land in Transaction Repair Queue except Faster Payments.
- Transaction Repair Queue Screen will have a ‘Repair Status’ field both as Search Field and Display Field. When a Payment is logged in Repair Queue, its Repair Status will be marked as ‘Pending’.
- User will be able to correct the erroneous data and push the transaction for further processing.
- Ability to configure charges to repair a transaction is introduced.

1.6.16 Charge Claim Processing

- Accounting of Outgoing MT191 – enhanced to debiting Receivable GL and crediting Income GL on outgoing 191 generation. And on receipt of Charge payment, the Receivable is credited.
- Outgoing MT191 – Matching against Incoming MT202 / MT910 to track which claims are settled and which ones are still pending, along with Manual Matching.
- Incoming MT191 - Credit to Vostro account instead of sending MT202 for charges, if the receiver holds Vostro of receiver.

1.6.17 FX Deal

FX Deal ref number capturing and sharing the to the external system along with FX rate request is supported. This enables the FX system to track & utilize the deal accordingly.

1.6.18 Network Switching

Selecting a higher priority network when more than one RTGS network is resolved by system is supported.

1.6.19 Direct Debit R type Transactions

Support to handle following R type (exception) transactions in Direct Debit module is introduced:

- Direct Debit Outgoing
 - a. Cancel (pre settlement Reject) – generates camt.056
 - b. Reverse (post settlement) – generates pacs.007
 - c. Processing of the following messages received from debtor agent:
 - i. Pre settlement Reject – pacs.002
 - ii. Return of Outgoing Collection (post settlement) – pacs.004
 - iii. Refund of Outgoing Collection (post settlement) – pacs.004
- Direct Debit Incoming
 - a. Reject (pre settlement) – generates pacs.002
 - b. Return (post settlement) – generates pacs.004
 - c. Refund (post settlement) – generates pacs.004
 - d. Processing of the following messages received from creditor agent:
 - i. Cancellation of Incoming Collection (pre settlement) – camt.056
 - ii. Reversal of Incoming Collection (post settlement) – pacs.007
- Processing of Rejects from CSM for any of the outward message sent out.

2. Components of the Software

2.1 Documents accompanying the software

The various documents accompanying the software are as follows:

- Release Note
- Installer Kit
- User Manuals and Installation manuals

http://docs.oracle.com/cd/E87428_01/index.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE Payments 12.4.0.0.0 that form part of this release are as follows:

1. Host
 - UI Components (JS,XML)
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
2. New UI Application Server
 - Java Sources
 - Configuration files used for deployment
3. Interface
 - ASCII interface sources
 - ✓ Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
4. Gateway
 - Java application layer
 - ✓ Java sources
 - ✓ Configuration files used for deployment
 - ✓ ReST
5. Messaging layer
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
6. Services
 - ✓ The WSDL files for the service supported
 - ✓ The XSDs of the messages involved
 - ✓ Structure (dictionary) of the XSD documented as excel sheets (Message-dictionary-xls)
 - ✓ The service documents – describing the services
7. Includes OIM adapter
8. Installation utilities
9. Front end based installation for host
10. Front end based installation for Gateway

11. Script based installation for gateway application server components
12. Installation documents for
 - Oracle FLEXCUBE Installer documents
 - Gateway
13. Online Help Files

3. Annexure – A: Environment Details

3.1 Tech Stack

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Payments	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure	12.2.1.2.0
				Java HotSpot (TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 121
				Open Symphony Quartz	2.2.3
				Oracle Toplink	12.2.1.2.0
		Database Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle Database 12c Enterprise Edition	12.1.0.2.0
		Client Machines Important - Browser Support is strictly tied to the Browser itself, and no longer based on the Operating System.	Windows 7	Internet Explorer	11.0.96
				Mozilla Firefox	53
				Google Chrome	58.0.3029.81
			Windows 8	Internet Explorer	11.0.9600.18639
				Mozilla Firefox	50.0.2
				Google Chrome	57.0.2987.133
			Windows 10	Microsoft Edge	38.14393.0.0
				Mozilla Firefox	45.9.0
				Google Chrome	58.0.3029.96
			Mac OS X	Safari	9.1.1 (9537.86.6.17)
		Google Chrome		57.0.2987.133	
		Single Sign On Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	JDK 1.7 Update 131
				Oracle WebLogic Server	10.3.6
				Oracle Identity Management (OID)	11.1.1.9.0
				Oracle SOA suite	11.1.1.9.0
Oracle Identity And Access Management	11.1.2.3.0				

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Payments Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.2.0
	HTTP Servlet (incoming)				
	EJB (incoming)				
	MDB (incoming)				
	Notifications (outgoing)				
Oracle FLEXCUBE Payments ReST	Web services	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	1.8 Update 121
				Oracle WebLogic Server	12.2.1.2.0
				Oracle Toplink	12.2.1.2.0

4. Annexure – B: Third Party Software Details

Licensor Name	Licensed Technology	Version
Apache	Apache Commons Transaction 1.2	1.2
MetaStuff, Ltd.	Dom4j	1.6.1
Apache	xercesImpl.jar	2.11
Apache	xml-apis.jar	2.11.0
Sean Owen	PJL Compressing Filter	1.8.1
Apache	Apache XMLBeans	2.6.0
Apache	Xalan	2.7.2
Yahoo	YUI Compressor	2.4.8
Apache	XML Commons Resolver	1.2
Apache	commons-logging	1.2
Apache	Commons Collections	4.1
The Apache Software Foundation	Serializer	2.7.2
Apache	Apache Commons Codec	1.10
Apache	Ant	1.10.1
Apache	Apache POI	3.15
Apache	Commons Net	3.5
Apache	commons-io	2.5
Apache	Log4J	2.8.1
Apache	jackson-annotations	2.8.1
Apache	jackson-core	2.8.1
GitHub	jackson-databind	2.8.1
SLF4J	Simple Logging Façade for Java (SLF4J)	1.7.23
Terracota	Quartz Job Scheduler	2.2.3
SLF4J	SLF4J Simple Logging Façade for Java (slf4j-api-1.7.23)	1.7.23

5. Annexure – C: Module Code and Description

Module Code	Module Description
PB	Book/Internal Transfer
PC	Collections
PX	Cross Border Payments
PR	Domestic High Value (RTGS)
PA	Domestic Low Value
PQ	Exception Queues
PI	Immediate Payments
PM	Payments Core
PP	Pricing
PS	Standing Instructions
PG	Clearing & Instruments handling
PN	US ACH (NACHA)
PW	US Fedwire



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