Product Release Note Oracle FLEXCUBE Universal Banking Release 14.2.0.0.0 December 2018





Product Release Note December 2018 Version 14.2.0.0.0

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1. Release Notes

1.1 Background

Oracle Financial Services Software Limited has developed Oracle FLEXCUBE Universal Banking, which enable banks to create a distributed network of branches for effective marketing and efficient handling of customer transactions.

Oracle FLEXCUBE Universal Banking is a real-time online solution, enabled for multi-currency, multilingual, multi-entity, multi-instance operations. Its mission-critical and robust architecture and use of leading-edge industry standard products ensure almost limitless scalability.

1.2 Purpose

The purpose of this Release Note is to propagate the enhancements in Oracle FLEXCUBE Universal Banking 14.2.0.0.0.

1.3 Abbreviations

Abbreviation	Description
BPEL	Business Process Execution Language
BPMN	Business Process Model and Notation
CASA	Current account and Savings Account
EOD	End of Day
KYC	Know Your Customer
SSO	Single Sign On
SWIFT	Society for Worldwide Interbank Financial Telecommunication
UI	User Interface
XML	eXtensible Markup Language
OD	Overdraft
LC	Letter of Credit
SFTP	Simple File Transfer Protocol
REST	REpresentational State Transfer
DB	Database
OBPM	Oracle Banking Payment
OFSAA	Oracle Financial Services Analytics Application
OBCL	Oracle Banking Corporate Lending

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



1.4 Release Highlights

The rationale for the release of Oracle FLEXCUBE Universal Banking version 14.2.0.0.0 is to support regulatory requirement and enhance features that are essential in competitive market.

Following are the features included in the release along with forward porting of applicable fixes related to the incidences reported in previous versions and technical qualification to comply with approved Tech Stack.

- Corporate DDA Enhancements
 - > Compounding of Interest Back Valuation
 - > Accounting referral for Dormancy other accounting overrides
 - Account Number reservation
 - > General Ledger code length Increase
- Trade Enhancements
 - > Documentary Credit & Guarantee Simulation
 - Bills and Collections Assignment of proceeds
 - > Enabling 740 generation during LC Amendment
 - Single step generation of MT734 on bill booking
 - > Bills and Collections Liquidation Amendment
 - > Sanction Check support in Bills and Collections
 - > Support for hold operation in Letters of Credit Issuance and Amendment
 - > Support for hold operation in Guarantee Issuance and Amendment
 - > Operation code selection based on Product type
 - > Trade integration with External corporate lending product processor (OBCL)
- Trade SWIFT 2018 Changes
 - > MT759- Ancillary Trade Structured Message
 - MT7xx Extension messages support with 45, 46, 47 & 49 tag
- SWIFT 2018 BIC PLUS UPLOAD Changes
- Trade SWIFT 2019 769 Change
- Financial Inclusion Enabling Loans for FI Clients
- Incremental changes to external payment integration (OBPM)
 - Support for MT110, MT111
 - Archival of Data
 - > Loans integration with Outgoing collections
- Support for Multi-tenant using Oracle 18c Container Database with Installation modes as
 - Shared Application
 - > Shared Application with Authentication
 - Shared Application with Shared Data (Default & Custom)
- Technical Changes
 - Integration with OFSAA for FCCM/CRM
 - > Branch INFRA segregation from common Core



1.5 **Release Enhancements**

1.5.1 Corporate DDA Enhancements

Compounding of Interest Back Valuation

- Feature to compound Back valued interest for past liquidation has been introduced
- This is achieved by using a new SDE and configuration at IC product level
- Liquidation of the back valued interest is split across liquidation dates from back valued date to current date and is posted with those liquidation dates+1. Interest would then be compounded with the Account Balance to every next liquidation period.

Accounting referral for Dormancy and Managing Account Status

- Transactions raising specific accounting overrides are routed to various accounting referral queues
- The original transaction can be authorised only after the accounting overrides have been authorised
- Configuration available to define queues and mapping overrides and authorisers to the queue
- Multiple level authorisation is available

Account Number reservation

- Facility to reserve/generate account number with minimal details and give upfront to customer
- Reserved account would not be available for any operations till it is activated

General Ledger Code Length Increase

• GL code length has been increased to 20 characters from 9 characters

1.5.2 <u>Trade Enhancements</u>

Documentary Credit & Guarantee - Simulation

- Simulation support through gateway for operations mentioned below;
 - LC Amendment
 - Guarantee Issuance
 - Guarantee amendment
 - Bills and Collections
- Operations supported in the corresponding screen through gateway can be simulated. The response message has details such as message generated, charge, commission details etc.



Documentary Credit - Assignment of proceeds

Support for assignment of proceeds functionality in Letter of Credit & Bills and Collections
module will enable the assignee (other than beneficiary) to receive the payment directly
during the liquidation of bill

Enabling 740 generation during LC Amendment

• System supports to add Reimbursement bank, during LC Amendment from LC Amendment screen. System generates MT740 message when Reimbursement Bank added during LC amendment and on subsequent LC Amendments, system generates MT747 message.

Single step generation of MT734 on bill booking

 The existing system generation of MT734 in two steps of bill booking and modification of bill with discrepancy details has been modified to generate MT734 on bill booking itself as single step process by capturing discrepancy details.

Bills and Collections Liquidation Amendment

- System enhanced to support amendment of Bill liquidation before liquidation authorization
- Details provided during liquidation initiation would be available for liquidation amendment. User shall modify liquidation details and proceeds liquidation of bill.

Sanction Check support in Bills and Collections

- Enhancement to do sanction check in BC module based on parameters
- Sanction check request will be sent during bills liquidation, if sanction check parameters are enabled.
- Sanctions Check would be enabled based on three parameters:
 - Branch level
 - Counterparty
 - Product level
- Provision to restrict change or authorization of transactions that are pending for Sanction Check

Support for hold operation in Letters of Credit Issuance and Amendment

- System supports to put contract on Hold from LC Contract Online and LC Amendment screens whether contract is already authorized or not authorized.
- Hold support for financial amendments with or without beneficiary confirmation from LC Amendment Confirmation
- User can unlock contracts put on HOLD, modify details if required and Save
- Deletion of Hold is supported



Support for hold operation in Guarantee Issuance and Amendment

- System supports to put contract on Hold from Guarantee Contract Online and Guarantee Amendment screens whether contract is already authorized or not authorized.
- Hold support for financial amendments with or without beneficiary confirmation from Guarantee Amendment Confirmation
- User can unlock contracts put on HOLD, modify details if required and Save
- Deletion of Hold is supported

Operation code selection based on Product type

 In Letter of credit and Guarantee contract screens, the operation code will be available for selection based on product type chosen in the contract

Trade integration with External corporate lending product processor (OBCL)

- Established the integration of Trade module with external Corporate Lending Product Processor (OBCL) Web service. Functional enhancements for Trade OBCL Integration are:
 - > Loan processing during Import Bill Liquidation authorization
 - Loan processing during Shipping Guarantee creation authorization
 - > Loan processing during Guarantee/SBLC Claim Settlement authorization
 - Linkage of Packing Credits in Export Bills, with outstanding loan amount from OBCL thorough Combined LOV
 - > Bills with Link to Loan can be accessed from OBCL thorough External LOV
- Multi Limit support during OBCL Loan creation
- Multi Loan Payment support for Packing Credit Loans

1.5.3 Trade - SWIFT 2018 Changes

SWIFT2018_MT759- Ancillary Trade Structured Message

- Support for generation of MT759 Ancillary Trade Structured Message as per SWIFT 2018 standards
- This message is to request or provide information, such as a fraud alert or a financing request, concerning an existing trade transaction such as a documentary credit, demand guarantee, standby letter of credit, or an undertaking.



SWIFT 2018 changes related to Extension messages

- Support for generation of additional extension messages for MT700/701, MT710/711, 707/708, MT720/721. Changes related to below Overview fields:
 - Description of Goods (Tag 45A, Tag 45B)
 - Description of Documents and Clauses (Tag 46A, Tag 46B)
 - > Additional Conditions (Tag 47A, Tag 47B)
 - > Special Payment Conditions for Beneficiary (Tag 49G, Tag 49M)
 - > Special Payment Conditions for Receiving Bank (Tag 49H, Tag 49N)
- System supports max of 52000 characters for Goods, Documents and Additional Conditions and 32000 for Special Payment Conditions for Beneficiary and Receiving Bank.
- System validates, total length of each message, say MT700 or MT701 should not exceed max 10000 characters and total length of all 8 (MT 700 -> 1 and MT707->7) messages should not exceed 80000 characters.
- STP processing enhanced to support upload of additional extension messages MT700/701, MT707/708MT710/711, MT720/721

1.5.4 SWIFT 2019 - 769 Change

- Advice of Reduction related changes have been incorporated
 - > Advice of Reduction field modified as display field in Guarantee Online
 - > Advice of Reduction and related fields introduced in Guarantee Amendment
 - Amendment / Cancellation initiated in Guarantee Amendment screen without Beneficiary confirmation. MT769 message generated in AMND/CANC event
 - STP Processing of MT769 enhanced to initiate amendment/cancellation in Guarantee amendment screen
 - > Mail support for Advice of Reduction Message type

1.5.5 Financial Inclusion - Enabling Loans for FI Clients

- System is enhanced to provide Financial Inclusion customers with Retail Loan facility
- Following functionalities are provided with minimal features
 - Loan Account Creation
 - Loan Manual Disbursement
 - Loan Payment
 - Loan Account Status Change

1.5.6 OBCL Integration for sharing Corporate Deposit Product Details

- System is enhanced to integrate with OBCL for populating the Corporate Deposits (CD) product details
- On creation of new CD product or modification of an existing CD product, system will share the required details to OBCL via web service



1.5.7 SWIFT 2018 – BIC PLUS UPLOAD Changes

- BIC Plus 2018 will be similar to BIC 8-character code with 3 optional characters for the addition of a branch identifier but the definition of BIC will be redefined.
- The new source option added in "ISDBICPU BIC Upload" screen
 - > BICPLUS2018
 - BICPLUS2018 Country
 - BICPLUS2018 Currency
 - BICPLUS2018 Holiday
 - > BICPLUS2018 Holiday Services
 - > BICPLUS2018 Time zone

1.5.8 Incremental changes to external payment integration (FCUBS-OBPM Integration Phase-2

Support for MT110, MT111 Messaging

• Enhancement for integrating External Payment System for MT110 and MT111 message generation for foreign currency instruments have been brought in

Archival of Data

 System is enabled for archiving the records of queue table for a certain period of days(parameter), based on process status

OBPM Integration - Loan account direct debit

- Option to maintain Periodic instruction for outgoing collections (direct debit)
- Process of executing the direct debit request/Periodic instructions on an activation date, from handing over the instruction details to OBPM and receipts/rejects handling is supported.

1.5.9 Support for Multi-tenant using Oracle 18c Application container feature

- Container Database/Application Container feature of Oracle (18C) facilitates multi-tenant architecture with support for sharing of application/code and data
- This feature is used to deploy multi-tenant environment in FLEXCUBE UBS
- Four deployment modes are available under this feature
 - Shared Application In this deployment mode only the application would be shared among tenants
 - Shared Application with Authentication In this deployment mode, application as well as user authentication would be shared among tenants
 - Shared Application with Shared Data (Default) In this mode, application, user authentication and reference data like country, currency, product would be shared among tenants
 - Shared Application with Shared Data –(Custom) This is an extension of default option with a choice during installation to remove some of the entities from being shared



1.5.10 Technical Changes

Integration with OFSAA - FCCM/CRM

- Oracle FLEXCUBE provides comprehensive data to cater to the analytical requirements of OFSAA. This enhancement caters the handover the CRM and FCCM related data to OFSAA.
 - The data will be extracted as part of the OFSAA batch and reside in corresponding staging tables

Branch INFRA segregation from common Core

- Branch INFRA code is moved out from common core SVN into FCUBS SVN
- Branch infra is not used by any product processor other than FCUBS



2. Deprecated Functionality

- Funds Transfer module is deprecated
- Payments & Collections module is deprecated
- Common Payment Gateway is deprecated
- Virtual Account functionality from FCUBS CASA is deprecated



3. Components of the Software

3.1 Documents Accompanying the Software

The various documents accompanying the software are as follows:

- Product Release Note and Installer Kit
- User and Installation manuals <u>https://docs.oracle.com/cd/E99083_01/index.htm</u>
- Online Help Files

3.2 Software Components

Software Components of Oracle FLEXCUBE 14.2.0.0.0 that form part of this release are as follows:

- Host
 - > UI Components (JS,XML)
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - Tables, Types, Sequences, INC
 - Reporting Components(Data models(xdmz), Reports(xdoz),Subtemplate(xsbz))
 - Process Framework components (BPEL, BPMN, BAM, BRE)
- Branch
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - UI Components (JS,XML)
 - Java sources
- Java application layer
 - Java sources
 - > Configuration files used for deployment
- Integration Gateway
- Switch Gateway (ATM/POS/IVR)
- REST Services
 - Java application layer
 - → Java sources
 - → Configuration files used for deployment
- Oracle FLEXCUBE Information Server
 - Stored Procedures (Packages, Functions, Procedures, Views)
 - Repositories and pre-defined Reports
- Conversion Utilities
- Installation utilities
- ADF files used by Generic Interface (GI) incoming and outgoing
- Tools
 - ODT
 - > OFT



4. Tech Stack

4.1 Tech Stack – Oracle

Component	Deployment option	Machine	Operating System	Software	Version Number
		Application Server	Oracle Enterprise Linux Server 7.1	Oracle Fusion Middleware Infrastructure	12.2.1.3.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 181
			(x86 64 Bit)	Open Symphony Quartz	2.3.1-9f9e400
				Oracle Toplink	12.2.1.3.0
				Oracle WebLogic	12.2.1.3.0
	UI-Host and Centralized		Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	JDK	JDK 1.8 Update 181
Oracle				Oracle Database (for RCU)	18.3.0.0.0
FLEXCUBE Universal Banking				Repository Creation Utility	12.2.1.3.0
				Oracle WebCenter Content Imaging	12.2.1.3.0
			Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	18.3.0.0.0
			Oracle	Oracle WebLogic	12.2.1.3.0
		Reporting Server	Enterprise Linux Server 7.1 (x86 64 Bit)	JDK	JDK 1.8 Update 181
				Oracle BI Publisher	12.2.1.4.0
				Oracle WebLogic	12.2.1.3.0



	FLEXCUB E Information Server – Analytics	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	JDK	JDK 1.8 Update 181
			Oracle Business Intelligence Enterprise Edition (OBIEE)	12.2.1.4.0
			Oracle Golden Gate	12.3.0.1.0
			Oracle Database (for RCU)	18.3.0.0.0
	FLEXCUB E Information	Oracle Enterprise	Repository Creation Utility	12.2.1.3.0
	Server - Data	Linux Server 7.1	Oracle Data integrator	12.2.1.3.0
	warehouse	(x86 64 Bit)	Oracle Data integrator Java EE Agent	12.2.1.3.0
			Oracle Fusion Middleware Infrastructure	12.2.1.3.0
	Client Machines#	Windows 7	Internet Explorer	Microsoft Internet Explorer Release (11.*)
			Mozilla Firefox	Mozilla Firefox Release (62+)
			Google Chrome	Google Chrome Release (69+)
		Windows 8	Internet Explorer	Microsoft Internet Explorer Release (11.*)
			Mozilla Firefox	Mozilla Firefox Release (62+)
			Google Chrome	Google Chrome Release (69+)
		Windows 10	Internet Explorer	Microsoft Edge(40+)
			Mozilla Firefox	Mozilla Firefox Release (62+)
			Google Chrome	Google Chrome Release (69+)



			Mac OS X	Mozilla Firefox	Mozilla Firefox for Mac (62+)
				Safari	Safari- 11.1 (13605.1.133.1.4)
				Google Chrome	Google Chrome Release (69+)
				JDK	JDK 1.8 Update 181
				Oracle WebLogic	12.2.1.3.0
				Repository Creation Utility	12.2.1.3.0
		Single Sign	Oracle Enterprise Linux	Oracle Identity Management	12.2.1.3.0
		On Server	Server 7.1	Oracle SOA	12.2.1.3.0
			(x86 64 Bit)	Oracle Identity And Access Management	12.2.1.3.0
				Oracle Web tier Utilities	12.2.1.3.0
				Oracle Web gate	12.2.1.3.0
				OID Connector	OID 11.1.1.6.0
	UI Decentralized	Branch Application Server – Decentraliz ed	Oracle Enterprise Linux	JDK	1.8 Update 181
				Oracle WebLogic Server	12.2.1.3.0
	branch	Database Branch for Decentraliz ed mode	Server 7.1 (x86 64 Bit)	Oracle RDBMS Standard Edition (SE2)	18.3.0.0.0
Oracle	UI-Host and Centralized		Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	JDK	1.8 Update 181
FLEXCUBE Universal				Oracle WebLogic Server	12.2.1.3.0
Banking BPEL/BPM N Processes				Oracle Database (for RCU)	18.3.0.0.0
and Process Framework				Repository Creation Utility	12.2.1.3.0

				Oracle SOA Suite, Oracle BPM Suite	12.2.1.3.0
	Web services (incoming)				
Oracle	HTTP Servlet (incoming)		Oracle		12.2.1.3.0
FLEXCUBE Universal Banking	EJB (incoming)	Integration Server	Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	
Integration Gateway	MDB (incoming)				
	Notifications (outgoing)				
Oracle FLEXCUBE Universal Banking Switch Integration Gateway	Switch Integration Gateway	Integration Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	JDK	1.8 Update 181
Oracle	Web services	Oracle Enterprise Linux	JDK	1.8 Update 181	
FLEXCUBE Universal			Oracle WebLogic Server	12.2.1.3.0	
Banking REST			Server 7.1 (x86 64 Bit)	Oracle Toplink	12.2.1.3.0

Note: # Browser support is no longer based on Operating Systems but strictly tied to the browser themselves, no matter on which Operating Systems they are installed. Current release is certified on client workstations with Windows 7, 8, 10 and Mac OS X.



4.2 Tech Stack – IBM

Component	Deployment option	Machine	Operating System	Software	Version Number
			Oracle Enterprise	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
		Application Server	Linux Server 7.1 (x86 64	IBM WebSphere MQ Server	9.0.0.0
			Bit)	Open Symphony Quartz	2.3.1-9f9e400
	UI-Host and Centralized	Database Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	18.3.0.0.0
		Client Machines#	Windows 7	Internet Explorer	Microsoft Internet Explorer Release (11.*)
Oracle FLEXCUBE Universal				Mozilla Firefox	Mozilla Firefox Release (62+)
Banking				Google Chrome	Google Chrome Release (69+)
			Windows 8	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release (62+)
				Google Chrome	Google Chrome Release (69+)
			Windows 10	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release (62+)
				Google Chrome	Google Chrome Release (69+)



Component	Deployment option	Machine	Operating System	Software	Version Number
				Mozilla Firefox	Mozilla Firefox for Mac (62+)
			Mac OS X	Safari	Safari- 11.1 (13605.1.133.1.4)
				Google Chrome	Google Chrome Release (69+)
	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
	HTTP Servlet (incoming)	Integration Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
Oracle FLEXCUBE Universal Banking Integration	EJB (incoming)	Integration Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
Gateway	MDB (incoming)	Integration Server	Oracle Enterprise Linux Server 7.1 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
				IBM WebSphere MQ Server	9.0.0.0
	Notifications (outgoing)	Integration Server	Oracle Enterprise Linux Server 7.1	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
		(x86 64 Bit)	IBM WebSphere MQ Server	9.0.0.0	



Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Universal Banking	Switch Integration Gateway	Integration Server		JDK	IBM JDK 1.8_181
Oracle FLEXCUBE			Oracle Enterprise	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.0
Universal Banking REST	Web services	Integration Server	Linux Server 7.1 (x86 64 Bit)	Oracle Toplink	12.2.1.3.0

Note: # Browser support is no longer based on Operating Systems but strictly tied to the browser themselves, no matter on which Operating Systems they are installed. Current release is certified on client workstations with Windows 7, 8, 10 and Mac OS X.



5. Third Party Software Details

• For information on the third party software details, refer Oracle FLEXCUBE Universal Banking 14.2.0.0.0 License Guide

