

Product Release Note
Oracle FLEXCUBE Universal Banking
Release 12.3.0.0.0
[Dec] [2016]





Product Release Note
[Dec] [2016]
Version 12.3.0.0.0

Oracle Financial Services Software Limited
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/

Copyright © 2007, 2016, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Table of Contents

1. RELEASE NOTES	1-1
1.1 BACKGROUND	1-1
1.2 PURPOSE.....	1-1
1.3 ABBREVIATIONS	1-1
1.4 RELEASE HIGHLIGHTS	1-2
1.5 ENHANCEMENTS TO THE EXISTING MODULES	1-2
1.5.1 <i>INFRA UI Enhancements and HTML5/Css3 qualification</i>	1-2
1.5.2 <i>Standalone Architecture Changes</i>	1-2
1.5.3 <i>Islamic Finance Enhancements</i>	1-3
1.5.4 <i>Core Module Enhancements</i>	1-5
1.5.5 <i>Term Deposit Module Enhancements</i>	1-5
1.5.6 <i>Consumer Lending Module Enhancements</i>	1-5
1.5.7 <i>PC – CL Integration For Collections</i>	1-5
1.5.8 <i>Fast Accounting Changes</i>	1-5
1.5.9 <i>IC Module Changes:</i>	1-6
1.5.10 <i>Interface Module Enhancements</i>	1-6
1.5.11 <i>OFSAA Integration</i>	1-6
1.5.12 <i>SWIFT 2016 SRG Changes</i>	1-6
1.5.13 <i>SEPA SDD CORE 9.2 and SDD B2B 7.2 Changes</i>	1-6
1.5.14 <i>Functions with Changed Function Code</i>	1-7
2. COMPONENTS OF THE SOFTWARE	2-1
2.1 DOCUMENTS ACCOMPANYING THE SOFTWARE	2-1
2.2 SOFTWARE COMPONENTS.....	2-1
3. ANNEXURE – A: ENVIRONMENT DETAILS	3-1
3.1 TECH STACK – ORACLE.....	3-1
3.2 TECH STACK – IBM.....	3-4
4. ANNEXURE – B: THIRD PARTY SOFTWARE DETAILS.....	4-1
5. ANNEXURE – C: MODULE CODE AND DESCRIPTION.....	5-1

1. Release Notes

1.1 Background

Oracle Financial Services Software Limited has developed Oracle FLEXCUBE Universal Banking to 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 highlight the enhancements in Oracle FLEXCUBE Universal Banking 12.3.0.0.0

1.3 Abbreviations

Abbreviation	Description
UDE	User Defined Elements
SCV	Single Customer View
BPEL	Business Process Execution Language
BPMN	Business Process Management and Notation
EOD	End of Day
FIS	FLEXCUBE Information Server
OD	Over Draft
SSO	Single Sign On
UI	User Interface
ReST Services	Representational State Transfer services
XIRR	Internal Rate of Return for irregular cash flows
IRR	Internal Rate of Return
OFSA	Oracle Financial Services Analytical Applications
IBAN	International Bank Account Number

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

1.4 **Release Highlights**

The scope of the current release Oracle FLEXCUBE Universal Banking 12.3.0.0.0 includes enhancements in Islamic Finance, Consumer Lending, Core, CASA, CL, TD, Messaging modules, Interface changes and forward porting of applicable fixes related to incidences reported in previous versions along with Technical Qualification changes to comply with Latest Tech Stack.

1.5 **Enhancements to the Existing Modules**

1.5.1 **INFRA UI Enhancements and HTML5/Css3 qualification**

The following features have been added in FLEXCUBE UBS UI to qualify and enrich with features of HTML5/CSS3.

- Redesigned login page with choice of theme and font size.
- Landing page redesigned with a slider menu, logical grouping of links, placeholder to enhance user input.
- Screen Launch with slide down transition effect and slider menu overlay.
- Form elements redesigned with animated look and background color to distinguish mandatory and normal elements.
- Place holder text showing date format in date fields, for better user experience
- Proportionally scaled images/signature to fit into the specified width and height of the area
- Message window displayed with Fadden Transition effect and a responsive layout.

1.5.2 **Standalone Architecture Changes**

As part of this change, common entities and services of FCUBS have been segregated into a common/standalone core. This includes following areas

- SMS
- Core entities - (Bank, Branch, Country, Currency, Holiday Calendar, Periodic Rates)
- Core infrastructure
- EOD infrastructure
- Integration Gateway
- Generic interface
- Electronic Messaging System

This is to avoid redundancy and also to have standardization of common core across FLEXCUBE product processors. This would also enable other Oracle FLEXCUBE product processors e.g. Payments, Corporate Lending to be co-deployed with FCUBS. All these product processors including FCUBS have been enhanced to work with Common Core.

1.5.3 Islamic Finance Enhancements

1.5.3.1 Rental advice compensation adjustment to next schedule

System enhanced to collect the compensation amount from the customer only after advising the same to the customer. To achieve this, modification is done to generate the Rental Advice without compensation for Musharaka / Musharaka under Construction / Ijarah financing accounts. Auto liquidation process modified for excluding compensation amount for liquidation and the same will be moved to Special Component with due date as due date of the next rental period.

In manual liquidation it will be possible to liquidate the compensation amount calculated till date or move it to the next rental period.

1.5.3.2 Life Takaful Support

System enhanced to define and calculate Life Takaful for Islamic finance products. Life takaful will be supported for both construction period and post construction period for construction finance products.

1.5.3.3 Murabaha Balloon Payment

System enhanced to offer balloon repayment feature to the customers availing Murabaha financing. Balloon repayment can be availed with and without rollover options. System has capability to derive the balloon profit rate as the IRR, based on a notional schedule for the given original amount financed, tenure and rate.

1.5.3.4 Asset rescheduling changes

System enhanced to display Installment details in rescheduling input screen. Bank will be able to reschedule construction period profit only for an account.

1.5.3.5 Guarantor Salary Account enhancements

Facility provided to have limit days for considering guarantor and other CASA accounts for settlement at finance account level to enable banks with flexibility and control at individual finance contract level.

System enhanced to specify the applicability of guarantor settlement processing at product level.

System enhanced to allow linkage of salary accounts of different currency to finance account.

1.5.3.6 View XIRR for Murabaha and Istisna

System enhanced to allow the user to view the XIRR used for schedule re-distribution along with the actual XIRR.

1.5.3.7 UIDB & Construction period enhancements

Un-earned Profit Booking (UIDB) event provided to book the total profit upfront for other profit components along with main profit component. Whenever there is a change in profit, UIDB event will be triggered to post the difference in the amount.

System enhanced to reduce manual intervention by automatically rebuilding the schedules on construction end date amendment for Istisna Product.

1.5.3.8 Musharaka Variable Rent Outstanding Principal on Default

System enhanced to configure variable rental recalculation based on outstanding principal for Musharaka and Musharaka under construction products. Batch process enhanced to recalculate the variable rental for the next immediate period based on the Principal outstanding amount if the principal is not paid on the due date.

System enhanced to calculate incentive in case the overdue is paid and the same will be paid as part of next liquidation date of variable rent component. Facility provided to configure incentive percentage for manual and auto liquidation.

1.5.3.9 Nominal Disbursement for Ijarah product

System enhanced to support nominal disbursement for forward Ijarah product categories and also enabled for upfront profit booking based on the nominal disbursement amount.

1.5.3.10 Window of Repayment

System enhanced to specify the window of repayment for Istisna accounts in Istisna contract creation screen. System calculates the construction period schedule based on end of construction date and window of repayment. All other schedule will be derived based on the construction period due date.

1.5.3.11 Flat and Reducing Profit Methods

Following two new profit calculation methods for Murabaha and Istisna has been introduced:

- Flat profit method: Profit is calculated at a flat percentage rate and then equally divided across the repayment tenure.
- Simple Average method: Profit is calculated at simple rate with reducing principal and then averaged across the repayment tenure.

1.5.3.12 Support For Handover Date

System enhanced to support handover period for Forward Ijarah, Musharaka under construction and Istisna product categories. Provided support to automatically re-build schedules on handover date amendment.

1.5.3.13 Vendor Payment

Vendor Payment screen modified to provide payable bank and payable branch from Bankers Cheque or Demand Draft Issuer Banks Details' screen if the payment is done by demand draft or Bankers Cheque.

1.5.3.14 AAOIFI compliance for Islamic Banking

FCUBS Islamic banking business processes i.e. contracts, lifecycle events and related accounting entries have been assessed to be in compliance with the standards published by Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI).

1.5.4 Core Module Enhancements

1.5.4.1 Account Switching Service Changes

System is enhanced to support Account Switching Operations and Messages. A set of new screens are provided for capturing and managing the request and response workflow defined by the Account Switching Service Definition for UK. Message browser would be provided to view the outgoing and incoming message.

1.5.5 Term Deposit Module Enhancements

1.5.5.1 TD Negative Interest Support

System enhanced to support negative interest for Term Deposits. During redemption, if debit interest is due, system will reverse the accounting entries for negative interest.

System allows waiving of penalty during partial redemption.

System allow multiple formulas support, If there is more than one formula of same type then amount calculation will happen separately.

1.5.6 Consumer Lending Module Enhancements

1.5.6.1 CL Negative Interest Support

System enabled to support the Consumer Loans module with negative interest rate. Based on this feature, accruals would be allowed on expense and payable for the negative amounts. The negative amount would either be paid to the customer or settled against the overdue schedules of the loan. The posting of negative amounts would be done using the new amount tag.

1.5.6.2 CL Billing Notice Changes

System enhanced to regenerate billing notice, if there is any rate change in the current schedule post billing notice generation. Facility provided to adjust the additional amount to the upcoming schedule due to rate change.

1.5.7 PC – CL Integration For Collections

Consumer lending module enhanced to generate IBAN for Loan Account based on account level parameters.

Payments and collections module enhanced to capture loan account number. The incoming payment and outgoing collection transaction processing enhanced to process loan based on the loan account number.

The CL Account input and Manual Disbursement screen enhanced to capture the payment details.

1.5.8 Fast Accounting Changes

System enabled to support Fast Accounting to reduce the transaction window time by enabling this feature at module level. As part of the transaction, customer account withdrawal balance will get updated after performing the necessary validations whereas the other functions handled by the current accounting such as posting accounting entries, IB, etc., will get processed later (out of the transaction window) as part of an asynchronous job/batch. Statement, passbook printing and query screens are modified to refer new data stores.

1.5.9 IC Module Changes:

To reduce the load on IC End of Day process, intraday batch is provided which would perform the following:

- IC Resolution
- Value Dated balance update
- Back valued processing
- IC Calculation and Accrual (Entries will not be posted).

1.5.10 Interface Module Enhancements

1.5.10.1 SCV Handoff– UK Regulatory Support

System enhanced to provide Single Customer View file that contains the data of customer/depositor and the related accounts/deposits for the FSCS in order to speed up the compensation payout process in case bank fails. Generation of following files supported in CSV format.

- SCV Depositor and Account Information
- SCV Details of Account
- Exclusion Depositor and Account Information
- Exclusion Details of Account
- Ineligible Depositor and Account Information
- Ineligible Details of Account

1.5.11 OFSAA Integration

System enhanced to develop an interface between Oracle Universal banking System and Oracle Financial Services Analytical application for sending the transaction data & maintenance data. Following features provided to address the same.

- Data Handoff from different tables of FCUBS to OFSAA.
- Providing Full or Incremental Data based on staging tables.
- Handling of failure data during extraction.
- Batch Configuration for Data Extraction.

1.5.12 SWIFT 2016 SRG Changes

Supports SWIFT 2016 Standard Release Guide changes for category 3 messages (Treasury Markets – Foreign Exchange, Money Markets and Derivatives) and category 9 messages (Cash Management and Customer Status).

1.5.13 SEPA SDD CORE 9.2 and SDD B2B 7.2 Changes

Supports SEPA RB Core 9.2 and B2B 7.2 changes, as follows,

- Sequence type 'FRST' is optional under SDD mandate for recurrent Core and B2B collections.
- SMNDA indicator in the Original Debtor Account instead of Original Debtor Agent.
- SDD Core collections presented for the first time, on a recurrent basis or as a one-off collection can be presented up to D-1 inter-bank business day.

1.5.14 Functions with Changed Function Code

The following List of Function IDs has been converted to Extensible and non-extensible functions were deprecated.

Deprecated Function ID (Non Extensible)	New Function ID (Extensible)	Function Description	Module Code
XPDVNDMT	XPDVNMNT	Vendors Maintenance	Core
CSDEPBLK	CDDEPBLK	Deposit Block Input	CD
CSSEPBLK	CDSEPBLK	Deposit Block Input Summary	CD
CODUPLDM	CODUPLMN	Source Preferences	GW
ICQRATES	ICDRTEQY	Interest Rates	Core
FTSNOREL	FTSNEREL	Information Query	FT
PCDCLRNT	PCDCLNWK	Clearing Networks	PC

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 - These can be accessed from the link http://docs.oracle.com/cd/E80148_01/index.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE 12.3.0.0.0 that form part of this release are as follows:

- Host
 - UI Components (JS,XML)
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - Reporting Components(Data models(xdm), Reports(xdo, rpd and rtf))
 - Process Framework components (BPEL,BPMN,BAM,BRE)
- New UI Application Server
 - Java Sources
 - Configuration files used for deployment
- Interface
 - Clearing interface sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - ASCII interface sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - ODI interface
 - Stored Procedures (Packages, Views)
 - Models, Scenarios
- Branch
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - UI Components (JS,XML)
 - Java sources
- Gateway

- Java application layer
 - Java sources
 - Configuration files used for deployment
 - Messaging layer
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - 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
- ReST Services
 - Java application layer
 - Java sources
 - Configuration files used for deployment
- Adapters
 - Oracle GL Adapter
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - Java sources
 - Oracle MANTAS Adapter
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - UI Components (JS,XML)
 - Oracle BIB Adapter
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
 - Java sources
- Conversion Utilities
- Installation utilities
 - Front end based installation for host
 - Front end based installation for branch database
 - Front end based installation for branch front end
 - Script based installation for interface backend
 - Script based installation for interface application server components
 - Front end based installation for Gateway backend
 - Script based installation for gateway application server components
 - Script based installation for ReST Services
 - Installation documents for
 - Oracle FLEXCUBE Installer documents
 - Gateway
 - Switch Interface
 - ReST Services
- SMS Related Components
- Oracle FLEXCUBE Information Server

- Stored Procedures (Packages, Functions, Procedures, Views)
 - Repositories and pre-defined Reports
- Online Help Files

3. Annexure – A: Environment Details

3.1 Tech Stack – Oracle

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Universal Banking	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure	12.2.1.1.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 111
				Open Symphony Quartz	2.2.3
				Oracle Toplink	12.2.1.1.0
		Document Management System	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	10.3.6
				JDK	JDK 1.7 Update 121
				Oracle Database (for RCU)	12.1.0.2.0
				Repository Creation Utility	11.1.1.9.0
				Oracle WebCenter Content Imaging	11.1.1.9.0
		Database Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	12.1.0.2.0
		Reporting Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.1.0
				JDK	JDK 1.8 Update 111
				Oracle Database (for RCU)	12.1.0.2.0
				Repository Creation Utility	12.2.1.1.0
				Oracle BI Publisher	12.2.1.1.0
		FLEXCUBE Information Server - Analytics	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.1.0
				JDK	JDK 1.8 Update 111
				Oracle Database (for RCU)	12.1.0.2.0
				Repository Creation Utility	12.2.1.1.0
				Oracle Business Intelligence Enterprise Edition (OBIEE)	12.2.1.1.0
		FLEXCUBE Information Server - Data	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle Golden Gate	12.2.0.1.0
Oracle Database (for RCU)	12.1.0.2.0				
Repository Creation Utility	12.2.1.1.0				

	# Client Machines	warehouse	Bit)	Oracle Data integrator	12.2.1.1.0
				Oracle Data integrator Java EE Agent	12.2.1.1.0
				Oracle WebLogic Server Infrastructure	12.2.1.1.0
		Windows 7	Internet Explorer	Microsoft Internet Explorer Release (11.*)	
			Mozilla Firefox	Mozilla Firefox Release(45+)	
			Google Chrome	Google Chrome Release(55+)	
			Windows 8	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release(47+)
				Google Chrome	Google Chrome Release(54+)
			Windows 10	Internet Explorer	Microsoft Edge
				Mozilla Firefox	Mozilla Firefox Release(47+)
				Google Chrome	Google Chrome Release(54+)
	Mac OS X	Mozilla Firefox	Mozilla Firefox for Mac (50+)		
		Safari	Safari 9+		
		Google Chrome	Google Chrome Release(55+)		
	Single Sign On Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	JDK 1.7 Update 99	
			Oracle WebLogic	10.3.6	
			Repository Creation Utility	11.1.1.9.0	
			Oracle Identity Management (OID)	11.1.1.9.0	
			Oracle SOA	11.1.1.9.0	
			Oracle Identity And Access Management	11.1.2.3.0	
			Oracle Webtier Utilities	11.1.1.9.0	
			Oracle Webgate	11.1.2.3.0	
			OID Connector	OID 11.1.1.6.0	
			UI Decentralized branch	Branch Application Server - Decentralized	JDK
	Apache Tomcat	8.0.32			
	Database Branch for Decentralized mode	Oracle WebLogic Server		12.2.1.1.0	
Oracle RDBMS Standard Edition (SE2)		12.1.0.2.0			

Oracle FLEXCUBE Universal Banking BPEL/BPM N Processes and Process Framework	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	1.8 Update 111
				Oracle WebLogic Server	12.2.1.1.0
				Oracle Repository Creation Utility (RCU) - To create SOA related schemas for BPEL	12.2.1.1.0
				Oracle SOA Suite, Oracle BPM Suite	12.2.1.1.0
Oracle FLEXCUBE Universal Banking Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.1.0
	HTTP Servlet (incoming)				
	EJB (incoming)				
	MDB (incoming)				
	Notifications (outgoing)				
Oracle FLEXCUBE Universal Banking Switch Integration Gateway	Switch Integration Gateway	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	1.8 Update 111
Oracle FLEXCUBE Universal Banking ReST	Web services	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	1.8 Update 111
				Oracle WebLogic Server	12.2.1.1.0
				Oracle Toplink	12.2.1.1.0

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

3.2 Tech Stack – IBM

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Universal Banking	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
				IBM WebSphere MQ Server	8.0.0.2
				Oracle Toplink	12.2.1.1.0
				Open Symphony Quartz	2.2.3
				Oracle WebCenter Content: Imaging	11.1.1.9.0
		Database Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	12.1.0.2.0
		# Client Machines	Windows 7	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release(45+)
				Google Chrome	Google Chrome Release(55+)
			Windows 8	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release(47+)
				Google Chrome	Google Chrome Release(54+)
			Windows 10	Internet Explorer	Microsoft Edge
				Mozilla Firefox	Mozilla Firefox Release(47+)
				Google Chrome	Google Chrome Release(54+)
Mac OS X	Mozilla Firefox		Mozilla Firefox for Mac 50+		
	Safari		Safari 9+		
	Google Chrome		Google Chrome Release(55+)		
Oracle FLEXCUBE Universal Banking Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
	HTTP Servlet (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
	EJB (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
	MDB (incoming)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9

				IBM WebSphere MQ Server	8.0.0.2
	Notifications (outgoing)	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
				IBM WebSphere MQ Server	8.0.0.2
Oracle FLEXCUBE Universal Banking	Switch Integration Gateway	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	JDK	IBM JDK 1.8_64
Oracle FLEXCUBE Universal Banking ReST	Web services	Integration Server	Oracle Enterprise Linux Server 6.6 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	8.5.5.9
				Oracle Toplink	12.2.1.1.0

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

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	Velocity	1.7
Apache	xercesImpl.jar	2.11.0
Apache	xml-apis.jar	2.11.0
OpenSymphony	Object-Graph Navigation Language (OGNL)	3.0.6
Sean Owen	PJL Compressing Filter	1.8.1
Apache	Apache XMLBeans	2.6.0
Oracle	Java Transaction API (jta.jar)	1.1
Apache	Xalan	2.7.2
Yahoo	YUI Compressor	2.4.8
Apache	XML Commons Resolver	1.2
Apache	commons-logging	1.2
Apache	Commons Lang	2.4
The Apache Software Foundation	Serializer	2.7.2
Apache	commons-collections	3.2.2
Apache	Apache Commons Codec	1.10
Apache	Ant	1.9.7
Apache	Apache Commons Codec	1.2
Apache	Apache POI	3.14
Apache	Commons Net	3.5
Apache	commons-io	2.5
Apache	Log4J	2.6.2
SLF4J	Simple Logging Façade for Java (slf4j-log4j12-1.7.21)	1.7.21
Terracota	Quartz Job Scheduler	2.2.3
SLF4J	Simple Logging Façade for Java (slf4j-api-1.7.21)	1.7.21
The Apache Software Foundation	commons-beanutils	1.9.3

5. Annexure – C: Module Code and Description

Module Code	Module Description
AM	Asset Management
ATM	Auto teller machine
BC	Bills & Collections
CASA	Current and Savings accounts
CD	Corporate Deposits
CE	Core Entities
CI	Islamic loans
CL	Consumer Lending
CN	Collection
CO (Core)	FLEXCUBE Core
CS	Core Services
DE	Data Entry
DL	Deposit locker
DS	Delivery System
DV	Derivatives
ED	Exchange Traded Derivatives
EG	Enterprise GL
FA	Fixed Assets
FC	FLEXCUBE Corporate
FGL	FLEXCUBE General Ledger
FI	Islamic Fixed assets
FT	Funds Transfer
FX	Foreign Exchange
IA	Islamic Asset Management

Module Code	Module Description
IB	Islamic Bills for collection
IC	Interest & Charges
ID	Islamic Derivatives
IF	Interface
II	Islamic ILM
ILM	Integrated Liquidity Management
IN	Intermediary
IP	Islamic Profit
IRM	Industry Reference Model
IT	Interactions
IV	Inventory
IZ	Islamic Securitization
LC	Letters of Credit
LD	Loans and Deposits
LE	Leasing
LI	Islamic letter of Credit
LM	Limits Maintenance
LQ	Liquidation Management
LS	Loan Syndication
MF	Micro Finance
MIS	Management Information System
MM	Money market
MO	Mortgages
OR	Origination
OT	Options

Module Code	Module Description
PC	Payments & Collections
PD	Post Dated Cheques
RB	Retail Bills
RE	Nostro Reconciliation
RP	Relationship Pricing
SE	Securities
SF	Structured Deposits
SI	Standing Instructions
SW	Switch Gateway
TD	Term Deposit
WB	Web Branch
WF	Work Flow
XP	Expense Processing