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Oracle FLEXCUBE Investor Servicing
Release 12.1.0.7.1
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Product Release Note
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Version 12.1.0.7.1

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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>Fund Rule Changes.....</i>	<i>1-2</i>
1.5.2	<i>Legal Entity.....</i>	<i>1-2</i>
1.5.3	<i>Upload Changes</i>	<i>1-3</i>
1.5.4	<i>Transaction Related Changes.....</i>	<i>1-3</i>
1.5.5	<i>Regulation 28.....</i>	<i>1-3</i>
1.5.6	<i>Currency of Expression</i>	<i>1-4</i>
1.5.7	<i>User Interface Changes</i>	<i>1-5</i>
1.5.8	<i>Fund Price Changes</i>	<i>1-5</i>
1.5.9	<i>Periodic Load</i>	<i>1-5</i>
1.5.10	<i>Tax Override and Dividend Withholding.....</i>	<i>1-5</i>
1.5.11	<i>SWIFT Enhancement</i>	<i>1-6</i>
1.5.12	<i>Stop Codes.....</i>	<i>1-6</i>
1.5.13	<i>KYC Enhancement</i>	<i>1-6</i>
1.5.14	<i>Customer Enhancement</i>	<i>1-7</i>
1.5.15	<i>Annuity Validation and Tax Aggregation</i>	<i>1-7</i>
1.5.16	<i>Batch Enhancements.....</i>	<i>1-7</i>
1.5.17	<i>Fee Changes</i>	<i>1-7</i>
1.5.18	<i>Corporate Actions.....</i>	<i>1-7</i>
1.5.19	<i>Related Party</i>	<i>1-8</i>
1.5.20	<i>Garnishee Orders</i>	<i>1-8</i>
1.5.21	<i>Four Funds Tax Class.....</i>	<i>1-8</i>
2.	COMPONENTS OF THE SOFTWARE	2-9
2.1	DOCUMENTS ACCOMPANYING THE SOFTWARE.....	2-9
2.2	SOFTWARE COMPONENTS.....	2-9
3.	ANNEXURE – A: ENVIRONMENT DETAILS	3-1
4.	ANNEXURE – B: THIRD PARTY SOFTWARE DETAILS.....	4-1
5.	ANNEXURE – C: MODULE CODE AND DESCRIPTION	5-2

1. Release Notes

1.1 **Background**

Oracle Financial Services Software Limited has developed a mutual fund automation solution, Oracle FLEXCUBE Investor Servicing that enables mutual fund companies to create a distributed network of branches for effective marketing and efficient handling of unit holder transactions. Oracle FLEXCUBE Investor Servicing 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 Investor Servicing 12.1.0.0.0

1.3 **Abbreviations**

Abbreviation	Description
FCIS	Oracle FLEXCUBE Investor Servicing
ID	Identification
KYC	Know Your Customer
REG28	Regulation 28
CDSC	Contingent Deferred Sales Charge
FIFO	First In First Out
EPU	Earnings Per Unit
SI	Standing Instruction
EOD	End of Day
UH	Unitholder
FX	Foreign Exchange
EUSD	European Union Savings Directive
AMC	Asset Management Company
SWIFT	Society for Worldwide Interbank Financial Telecommunication
IML	Intended Maximum Limit

Abbreviation	Description
PIGS	Prudential Investment Guidelines Standard
FOREX	Foreign Exchange
LOV	List of Values
EFT	Electronic Funds Transfer
IPF	Individual Fund
CPF	Corporate Fund
RPF	Retirement Fund
UPF	Untaxed Fund
WAC	Weighted Average Cost
WHT	Withholding Tax
CGT	Capital Gains Tax

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

1.4 **Release Highlights**

The scope of the current release Oracle FLEXCUBE Investor Servicing 12.1.0.0.0 includes Regulation 28 Changes, Currency of Expression, Fund Rule, Legal Entity, Tax Override, Swift, Stop Code, Garnishee Orders, Specific Fund Price Changes, Mock Process for Periodic Load and Four Fund Tax Class.

1.5 **Enhancements to the Existing Modules**

1.5.1 **Fund Rule Changes**

- Maintain risk level at fund & Unitholder level
- Facility to mark a fund as Restricted Fund & provide restriction list for restricted inflow transaction types/ref types
- System will provide a warning if there is mismatch between the Unitholder risk level & fund risk level during investments
- System will provide a warning if there is any investment in restricted fund

1.5.2 **Legal Entity**

- New entity type – Legal entity has been introduced
- Facility to map the AMC to which the legal entity belongs.
- New fields- Fund Structure Applicable & Auto settle switch transactions introduced at entity level.

- New fields legal entity id & legal entity description will be added to fund rule demographic screen.

1.5.3 Upload Changes

- New upload mode –Incremental -made available which can be used to add/ modify specific unitholder/transaction/entity/broker details
- Existing upload formats will continue to be used for Incremental uploads.
- For Incremental mode- system will modify data present in upload file. If data provided in the file is already present in system- system will override existing data with new value provided in the file. If data is not present in system- system will add the data provided in the file.
- New upload for Light Weight Transaction is introduced.

1.5.4 Transaction Related Changes

- A new field “Restriction Level” made available in Fund Switch Restrict Detail screen
- Based on maintenance, validations will happen at the time of capture for switch/pseudo switch transactions
- Facility to move electronic order (SWIFT/Upload) received after cut off time to be moved automatically to the next business day.
- New field “Auto Settle Switch Transactions” is made available at entity level. If this field is checked for AMC, system will auto settle Pseudo Switch In leg Transaction when Switch Out leg is settled.
- In case of 100% outflows redemption/switch/transfers, if blocked/provisional units are present for the Unitholder and fund combination then warning message will be raised during transaction capture
- A new screen “PseudoSwitchLag Maintenance” made available to maintain lag between the Switch in transaction Date and the Switch out settlement Date
- The Pseudoswitchlag and Pseudoswitchcalenderbasis values for calculating the SwitchIn transaction date will be taken from this screen.
- The in leg of the pseudo switch transaction will be generated only on settlement of out leg- but the transaction date of the switch in leg will be based on new maintenance
- New field “Subscription Transaction date” introduced under Pseudo Switch details in Switch transaction screen- this field will be auto populated by system based on the derived switch in date.
- New flag “Trading at Cutoff Applicable” added in specific fund price details screen at fund rules level. If this flag is set as Yes, system will derive the transaction date also as single date in the specified pricing frequency.
- New field “Cancellation Calendar Basis” is introduced to specify the number of days in specific calendar. Also system is enhanced to have cancellation price as original subscription price..

1.5.5 Regulation 28

- New Screen Product-Nature of fund mapping (LEDPNFM) introduced to map nature of fund to specific products.
- New fields -Nature of Fund, Policy PIGS Status & Regulation 28 Auto switch preference made available at policy level
- Existing screen (UTDFICRM) is enhanced to support mapping of IML components as well to the fund.
- New tab – “Regulation 28 parameters” introduced at Product level to capture all Regulation 28 related parameters.

- Existing Screen –PIGSFOREX Compliance (UTDPIGSC) enhanced to support rules for online/batch validation for PIGS & FOREX validation.
- A new screen – PIGS Maintenance (LEDPIGB) made available which will allow users to maintain PIGS compliance check related parameters.
- Along with inflow transactions, PIGS & FOREX validations will be done for Outflow policy transactions.
- Material changes to a 'Grandfathered' contract will change the policy status to 'Regulated'.
- New batch process (Policy PIGS Status Updation) introduced as part of the EOD to amend the PIGS status of Grand Fathered contracts which had a material change transaction for the day.
- A new screen – PIGS Maintenance (LEPPIGS) made available which will allow users to maintain PIGS quarterly compliance check related parameters.
- New EOD batch process introduced and this will get executed based on the date maintained in the above screen.
- Auto Switch functionality is applicable only for Regulated contracts where Auto switch required is marked as Yes at policy level.
- A new batch 'Policy – Reg28 Auto-Switch Generation' introduced to generate Auto-Switch forcing the policy to be Regulation 28 compliant.

1.5.6 Currency of Expression

- New tab introduced in fund rule maintenance to record fund price currency details.
- Fund Price Currency: User can maintain the allowed list of currencies for the fund. This is a mandatory maintenance for the rest of the sections (General operating rules and Transaction Processing Rules)
- General operating Rules: User can maintain the holding amount limit validation for the fund price currency added.
- Transaction Processing Rules: User can maintain the min and max amount limits for the transaction types for the fund price currency added.
- New maintenance "unit holder currency of expression" introduced where unit holder's preferred currency can be maintained.
- System will default the UH currency of expression in the "transaction currency" field if available during transaction capture based on UH and fund combination.
- When a trade is placed in a currency that is allowed fund price currency for the fund then system will use fund price currency for unitization & no FX will be required.
- Subscription, redemption and switch screens are enhanced to show if the transaction is a currency of expression transaction.
- The price currency of switch out leg will be used as transaction currency for switch in leg transaction and the switch in leg Transaction amount will be settlement amount of out leg equivalent of switch out price currency.
- For transactions with transaction base currency as "fund price currency", the unit price and allocation price will show fund price currency details and base price will show fund base currency value (applicable for allocation and project allocation TAB in transaction screens).
- Fund price maintenance is enhanced to capture the prices in fund price currencies as well. New tab is introduced to capture the prices in fund price currencies.
- In case of transactions done in currency of expression, the load amount during the transaction allocation will be calculated in currency of expression as well as in FBC.
- The Normal Average Cost and Weighted Average Cost will always be calculated in Fund Base Currency.

- The gain will always be calculated in Fund Base Currency.
- The Withholding Tax (EUSD) will always be calculated in Fund Base Currency
- Trailer commission will be calculated in Fund Base Currency.
- The Pre EOD check “Number of Funds for which Fund Price has not been entered.” changed to check whether price in fund price currencies have been maintained for the day in the system .
- A new mandatory Pre EOD check introduced to validate any un-allotted transactions due to the change /deletion of fund price currencies at fund level. This Pre-EOD will display the list of impacted transactions with Transaction number, Fund id and Transaction currency details.

1.5.7 User Interface Changes

- Delegate operation extended to fund price which will allow the user to change the maker ID of fund price maintenance. This will enable the new maker to Edit /delete the fund price.
- SI maintenance enhanced to support user defined fields
- Enhance field lengths for specific fields

1.5.8 Fund Price Changes

Facility is provided to define special or ad-hoc price date for a date less than the application date. This new special price date can be a fund holiday. Facility to allow fund price capture on the next working date e.g. for a weekly priced fund if Friday which is a price date is declared a holiday then the next price date will be Monday

1.5.9 Periodic Load

- Facility to run periodic load accrual on any given day & the accrued amount details will be fetched as on the last process date till the app date (T- 1).
- Following methods are available for mock accrual
 - Average holding method
 - Latest Balance method
 - Average of opening and closing balance method
 - Average holding across funds
- Facility to amend Load ID field in the existing periodic load maintenance.
- For change in periodic load structure, system will enable user to modify the periodic load accruals setup to enable accruing from a date lesser than current application date

1.5.10 Tax Override and Dividend Withholding

- Changes brought at the component definition level where the component can be marked with a Tax rebate flag and the associated tax rebate link component can be mapped.
- Facility to define if the EPU has to be excluded for tax computation.
- The final tax amount will be derived based on the difference in the component marked for tax rebate and associated tax rebate link component (the source component where tax is already deducted).
- A new maintenance introduced to override the tax rate applicable for a unit holder – component combination.
- The current WHT maintenance has a new field “Allow override”, with this new field user will be able to override the taxation applicability for UT or LEP product.

1.5.11 SWIFT Enhancement

- Additional fields in Swift Message Setup screen for the generation of Manual and Automated Swift messages
- New fields in Swift Message Setup screen for supporting splitting of messages on character count limit
- New Screen for the maintenance of Distinguish Name (DN) Address
- Additional fields and sub screens for Incoming and Outgoing Message Browsers search criteria
- New fields and sub screen in Entity Maintenance screen for defaulting Agency Branch details, supporting Electronic Dealings and for new UH generation logic
- Supporting and maintenance of New Messages in FCIS
- Additional search field in the Transaction Summary screens
- New routing logic of incoming messages to schema
- Enhancing Manual Message generation
- Supporting additional tags for existing messages
- Support for multiple switch orders in a single SWIFT order message is provided. Moreover, corresponding acknowledgement and confirmation messages will be delivered like multiple orders' information, especially error handling (same handling as subscription and redemption orders).
- Validating Switch transaction based on new parameter
- List of New Messages introduced
 - Accounting Statement of HoldingsV02 - semt.003.001.02
 - Securities Message RejectionV02 - semt.001.001.03
 - Order Confirmation Status ReportV01 – setr.057.001.01
 - Price ReportV04 - reda.001.001.04
 - Price Report Cancellation - reda.002.001.04
 - Request for Order Confirmation Status ReportV01 - setr.058.001.01

1.5.12 Stop Codes

- New user maintenance 'Stop Code Maintenance' for maintaining Transaction, Dividend and new Payment restrictions
- New client communication and communication Mode restrictions at Unit Holder level
- Support to map multiple Stop Codes at Unit Holder level

1.5.13 KYC Enhancement

- KYC maintenance screen enhanced to support list of documents for country types
- Unit Holder KYC details enhanced for maintaining chasing details
- New section introduced in Unit Holder KYC screen for mapping documents for Fund, Fund Family and Legal Entity
- KYC Chasing Details can be viewed from Unitholder Screen. KYC Chasing details has 'Chasing Date', 'Chased By', 'Comments', 'Chased Method' such as email, Fax and PhoneNew hyperlink at transaction screen for viewing Unit Holder KYC details

1.5.14 Customer Enhancement

- Unit Holder screen enhanced to support separate banking instructions for Dividend Payment
- If no income distribution setup is available for the Unit Holder then system will take the banking instructions for dividend payment maintained at Unit Holder screen

1.5.15 Annuity Validation and Tax Aggregation

- New screen made available for Product Annual Annuity Limit Mapping to define the different lower and upper annual annuity income percentage boundary of a client request per product based on Client's age, Health status & Policy Start date
- Unit Holder screen enhanced to support maintaining health status of the customer
- Indicator for Tax Aggregation introduced at product level

1.5.16 Batch Enhancements

- Redemption Confirmation Batch Screen:
 - The following filter options are introduced in the screen:
 - Paid Date
 - Legal Entity (the corresponding values displayed based on the Fund chosen).
 - Fund Family
 - Dealing Date.
 - Settlement Due Date.
- AMC ID validation
 - An LOV menu for the AMC or Agent code field has been provided and this will take values based on the installation type – AMC or Distributor

1.5.17 Fee Changes

- A new method of CDSC calculation called 'Redemption Value' introduced in this release
 - As per this method, for any redemption order the free units get redeemed first and these are free of CDSC charge
 - Once the free units are exhausted, then the non free units are taken into consideration on FIFO basis to fulfill a redemption order.
- Enhancements done to the Consolidated Enquiry Screen
 - The consolidated enquiry screen enhanced to show the ageing details, amount of CDSC charged, the lots considered for each redemption order etc for the transactions in funds that are CDSC enabled

1.5.18 Corporate Actions

- Withholding set up has been enhanced to add a new multi grid selection option to select multiple country codes
- A new tab – 'Dividend Accrual' introduced in Consolidated enquiry screen' to show Dividend Accrual for Money Market Funds
- Facility to view dividend accrual in consolidated enquiry screen
- Support processing of negative cash dividend- If the EPU for the dividend is captured as a negative value then the system calculates the dividend amount and generates a redemption transaction with the amount that is equal to the dividend amount
- Calendar control for payment date and Issue date field has been introduced in Fund dividend payment screen
- Payment date field in the "Fund Dividend Payments" screen has been modified to have System, Fund and Currency holiday validation.

1.5.19 Related Party

- FCIS currently supports Related party association at the following Levels
- A new tab -Related party has been added to the entity maintenance screen to associate a Related Party to the entity
- A new tab - Related party has been added to the broker maintenance screen to associate a Related Party to the broker
- In Unitholder Screen, Entity type field to be opened up to support all existing entities along with Auth Rep
- New fields – Related Party Level & Related Party Value has been provided to support maintaining related party at Fund, Fund Family, Legal Entity, AMC level

1.5.20 Garnishee Orders

- In the Policy Maintenance Screen a new tab has been introduced to capture the Garnishee details like Garnishee Id, Garnishee start and end date, Payment details, Mode of payment (percentage or Amount) , Status of Garnishee.
- Garnishee orders can be created/added or modified as like any other SI Setup
- Payment details Tab of Policy Surrender Screen also has been enhanced to capture Garnishee details for a surrender transaction
- Details like Garnishee ID and the payment details can be ascertained from the Policy Surrender Screen.
- EFT has been impacted to extract all the payments as separate records based on payment splits instead of one consolidated value for annuity/surrender payments.

1.5.21 Four Funds Tax Class

- Provision to define the tax class in the system
- Associate the tax class at UH Tax category and Product level
- Fund level indicator to specify Fund Tax Class
- Policy level indicator to identify whether the Policy is UPF/CPF/RPF/IPF/ Client Responsible Tax (CRT)
- New WAC method- Life WAC introduced at Product & fund level
- Support for Tax class switch
- Product WHT Maintenance screen enhanced to support maintenance of tax class and load id.
- System enhanced to track and carry forward losses at Policy level and offset against future profits/gains ,
- Facility to compute & deduct CGT for all outflows based on the CGT load mapping.
- New batches introduced to compute the total gain on a policy outflow & generate a follow on CGT redemption transaction to the extent of capital gains Tax due to a Policy holder.

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 can be accessed from http://docs.oracle.com/cd/E67272_01/index.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE 12.1.0.0.0 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 and rtf))
 - Process Framework components (BPEL)
- New UI Application Server
 - Java Sources
 - Configuration files used for deployment
- Interface
 - ASCII interface sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
- 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
 - The service documents – describing the services
- Adapters
 - IS-UBS

- FCIS MDB Adapter
 - UI Components (JS,XML)
 - Java sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
- FCIS Callout Adapter
 - Java sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
- FCIS Insulation Adapter
 - Java sources
 - Stored Procedures (Packages, Functions, Procedures, Triggers, Views)
- Installation utilities
 - Front end based installation for host
 - 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
 - Installation documents for
 - Oracle FLEXCUBE Installer documents
 - Gateway
- SMS Related Components
- Online Help Files

3. Annexure – A: Environment Details

3.1 Tech Stack – Oracle

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Investor Servicing	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure (or) Oracle WebLogic Server	12.2.1.4.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 221
				Oracle Platform Security Services	12.2.1.3.0
				Open Symphony Quartz	2.3.1-ad5302c
		Database Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.6.0.0.0
		Document Management System	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.4.0
				Oracle WebCenter Content Imaging	12.2.1.4.0
		Reporting Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle Analytics Server	5.5.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 221
		Client Machines	#Supported Browsers	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release(66+)
				Google Chrome	Google Chrome Release(73+)
				Microsoft Edge	Microsoft Edge (41.16299.15)
				Safari	Safari 11+
		Single Sign On Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	JDK	JDK 1.8 Update 221
				Oracle Fusion Middleware Infrastructure	12.2.1.4.0
				Oracle Identity And Access Management	12.2.1.4.0
				Oracle Identity Management(OID)	12.2.1.4.0
				Oracle SOA	12.2.1.4.0
				OID Connector	OID 11.1.1.6.0

Oracle FLEXCUBE Investor Servicing BPEL/BPMN Processes and Process Framework	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure	12.2.1.4.0 (JDK 1.8 Update 221)
				Oracle SOA Suite, Oracle BPM Suite	12.2.1.4.0
Oracle FLEXCUBE Investor Servicing Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure (or) Oracle WebLogic Server	12.2.1.4.0
	HTTP Servlet (incoming)				
	EJB (incoming)				
	MDB (incoming)				
	Notifications (outgoing)				
Oracle FLEXCUBE Investor Servicing Machine Learning	Manual Deployment	Machine Learning Server	Oracle Enterprise Linux server 7.3 (x86 64 bit)	Oracle Machine Learning for R	1.5.1

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, 10 and Mac OS X.

3.2 Tech Stack – IBM

Component	Deployment option	Machine	Operating System	Software	Version Number
Oracle FLEXCUBE Investor Servicing	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.10
				IBM WebSphere MQ Server	9.0.4.0
				Open Symphony Quartz	2.3.1-ad5302c
		Database Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.6.0.0.0
		Client Machines	#Supported Browsers	Internet Explorer	Microsoft Internet Explorer Release (11.*)
				Mozilla Firefox	Mozilla Firefox Release(66+)
				Google Chrome	Google Chrome Release(73+)
				Microsoft Edge	Microsoft Edge (41.16299.15)
				Safari	Safari 11+
Oracle FLEXCUBE Investor Servicing Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.10
	HTTP Servlet (incoming)				
	EJB (incoming)				
	MDB (incoming)	Integration Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.10
				IBM WebSphere MQ Server	9.0.4.0
	Notifications (outgoing)	Integration Server	Oracle Enterprise Linux Server 7.4 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.0.10
				IBM WebSphere MQ Server	9.0.4.0

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, 10 and Mac OS X.

4. Annexure – B: Third Party Software Details

- For information on the third party software details, refer the latest Oracle FLEXCUBE Investor Servicing License Guide

5. Annexure – C: Module Code and Description

Abbreviation/ Acronym	Meaning
FCIS	Oracle FLEXCUBE Investor Servicing
SMS	Security Management System
LEP	Life and Endowment Product
UT	Unit Trust