Product Release Notes
Oracle FLEXCUBE Investor Servicing
Release 14.1.0.3.1
[March] [2020]

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FINANCIAL SERVICES

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Product Release Notes
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Version 14.1.0.3.1

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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 14.1.0.0.0

1.3 Abbreviations

Abbreviation	Description
FCIS	Oracle FLEXCUBE Investor Servicing
FMG	Fund Manager
UH	Unitholder
SMS	Security Management System
LEP	Life and Endowment Product
UT	Unit Trust
REST	Representational State Transfer
PA	Pension Administrator
FSA	Financial Services Authority
IA	Instrument Administrator
SWIFT	Society for Worldwide Interbank Financial Telecommunications
TA	Transfer Agency
IFA	Independent Financial Advisors

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

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1.4 Release Highlights

The scope of the current release Oracle FLEXCUBE Investor Servicing 14.1.0.0.0 is to extend the services of an existing component Oracle FLEXCUBE Investor Servicing for Pension Funds. This release supports

- Pension admin fee - Pension Module enhanced to support charge calculation for both Investment and ongoing fee.
- Dividend and Trailer fee handoff - To generate relevant orders in Pension from TA.
- Age based Re-balancing - Re-structure the Pension holdings automatically based on the age slab or pre-defined frequency.
- Standalone Offering – Pension funds module will now be available as standalone offering and can interface with external TA systems for transaction processing.
- Restful services - Provides a framework to expose Oracle FLEXCUBE Investor Servicing granular functionalities to the external world.
- SWIFT 2018 Regulations
- Financial Services Authority (FSA)
- Dilution levy at fund level
- Asset maintenance for pension funds
- Auto clearing support for pension orders
- Regular Contribution file data validation
- Support for Block chain adapter interface

1.5 Release Enhancements

Enhancements to existing Pension module:

1.5.1 Pension Admin Fee

System enhanced in pension module to support charge calculation for both Investment and ongoing fee. Annual maintenance charge or Investment charge structure can be maintained and mapped to the portfolio to compute charges. New batch program is now available to compute Annual maintenance charge System can support generation of withdrawal transactions for computed annual maintenance charge.

1.5.2 Dividend and Trailer Fee Handoff

System enhanced to support receipt of dividend reinvestment/negative dividends/trailer fee transactions from source system. These transactions will be processed in source system & details will be handed off to pension module.

New interface has been made available which will import transactions along with allocation details from source system. Pension funds module will then auto generate appropriate underlying transactions on receipt of above transactions from source system via the new interface.

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1.5.3 Age based Re-balancing

System enhanced to support age based & frequency based rebalancing. Users can define model portfolios & map them to employer/ employees/investors. Further users can define rebalancing rules based on age/frequency. System supports automatic age based rebalancing. Variations in portfolio can be tracked at pre-defined frequency & suitably reported.

New batch has been introduced to support rebalancing process & system has the ability to generate underlying orders (investment/withdrawal) based on rebalancing System supports processing of adjustment orders for both investments & withdrawals. Users can also use adjustment orders for age based rebalancing.

1.5.4 Standalone offering

Pension funds module will now be available as standalone offering. It can now interface with external systems for processing workplace pension transactions.

1.5.5 Restful Services

Oracle FLEXCUBE Investor Servicing external services need to be exposed as Rest based services which accepts and gives out data in JSON format. Based on these granular services, external applications or systems can build logical functional services.

1.5.6 SWIFT 2018 Regulations

System enhanced to meet the SWIFT 2018 regulation changes for various MX message definitions

1.5.7 Financial Services Authority (FSA)

System enhanced with provision to capture FSA Registration Number which will be unique across all the entities

1.5.8 Dilution Levy at Fund Family level

System enhanced to support dilution levy at fund family level. System will deduct the dilution levy if limit is breached at fund family level. Facility to override the dilution levy load to zero is supported

1.5.9 Asset maintenance for pension investments

System enhanced to support uploading assets of held-away assets. This new maintenance screen will allow users to create the assets of different asset classes like 'Mutual funds', 'Gold', 'Real estate' etc.

1.5.10 Auto clearing support for pension investments

System enhanced to support seamless clearing of pension orders through automatic clearing. System level clearing period is supported for various payment instruments.

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1.5.11 Regular Contribution data validation requirement

Pension CFU process is enhanced to validate the bulk contribution file from employer to ensure data integrity. Systems enhanced to reject the invalid file, validate contribution percentage and member group validations.

1.5.12 Blockchain Adapter Interface

Blockchain adapter will enable FLEXCUBE to exchange data with other TA systems over Blockchain.

Blockchain adapter enables FLEXCUBE to be interface with hyper ledger systems & can be used to send transactions to multiple nodes. It enables easy transformation of information between FLEXCUBE and hyper ledger datasets. Blockchain transactions can be viewed from FLEXCUBE.

Following transactions will be supported via adapter

– Subscription

– Redemption

– Switches

– Transfers

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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/F14148_01/index.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE 14.1.0.0.0 that form part of this release are as follows:

- Application Server
  - ➢ Java Sources
  - ➢ UI Components (JS, XML)
  - ➢ Reporting Components (Data models (xdmz), Reports (xdoz))
  - ➢ Process Framework components (BPEL)
- Database Server
  - ➢ 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
- REST Services
  - ➢ Java application layer
    - ☐ Java sources
    - ☐ Configuration files used for deployment
- Adapters
  - ➢ IS-UBS
  - ➢ FCIS DL Adapter for Mutual Fund Transactions

- ➢ 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
  - ➢ UI and Script based installation for Application Server, Database Server and Gateway
  - ➢ Installation documents for
    - ☐ FCIS Application Deployment
    - ☐ Gateway
- 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

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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.

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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.

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4. Annexure – B: Third Party Software Details

- For information on the third party software details, refer Oracle FLEXCUBE Investor Servicing 14.1.0.0.0 License Guide

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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
PA	Pension Administrator

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