

Product Release Notes
Oracle FLEXCUBE Investor Servicing
Release 14.5.1.0.0
[September] [2021]





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September 2021
Version 14.5.1.0.0

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1. Release Notes

1.1 Background

Oracle Financial Services Software Limited has a transfer agency solution which enables asset management companies and transfer agency service providers to offer comprehensive investor servicing capabilities for unitized products. Further Oracle FLEXCUBE Investor Servicing also enables mutual fund companies to create a distributed network of branches for effective servicing 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 14.5.0.0.0.

1.3 Abbreviations

Abbreviation	Description
FCIS	Oracle FLEXCUBE Investor Servicing
UH	Unitholder
SMS	Security Management System
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TA	Transfer Agency
DL	Distributed Ledger
GTA	Global Transfer Agency
EOD	End of Day
LOB	Line of Business
AMC	Asset Management Company
ODA	Oracle Digital Assistant

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

1.4 **Release Highlights**

The scope of the current release Oracle FLEXCUBE Investor Servicing 14.5.0.0.0 includes support for

- De-coupling Auto-entity mapping
- Time Zone at Service Location
- SWIFT Incoming/Outgoing Browser
- Integration with Oracle Digital Assistant (ODA)
- Segment Level EOD/BOD
- Emergency Holiday
- CIF Conversion
- CIF Association
- Batches - Local to Global CIF Conversion

1.5 **Release Enhancements**

Global Transfer Agency

Global transfer agency (GTA) feature enables transfer agents to set Multiple asset management companies for a single fund manager. It also allows investors to invest in funds belonging to one or more jurisdiction, based on their preference. GTA feature enables investor to have a single investment id for investments across jurisdictions and allows fund managers to have a global view of business.

1.5.1 **De-coupling of Auto-Entity Mapping:**

- System will restrict the auto mapping of entities on entity creation based on the new client country code 'AUTOENTITYMAP'.
- Using AUTOENTITYMAP flag Auto-Entity Mapping can be enabled or disabled to specific line of business.

1.5.2 **Time Zone at Service Location**

- Along with the Module level Time Zone, system enhanced to support the Service Location level Time Zone.
- New screen 'Service Location' is introduced to capture Time Zone for Service Location.
- Service Level Time Zone mapped will be defaulted during transaction capture, if not mapped, Module Time Zone will be defaulted.

1.5.3 **SWIFT Incoming/Outgoing Browser**

- System enhanced to restrict message browsing based on logged in module.

1.5.4 **Integration with Oracle Digital Assistant (ODA)**

- FCIS is integrated with Oracle Digital Assistant for Chatbot support.
- This enables back office application user to use chatbot to launch the subscription UI, capture data and complete the trade capture.

Chatbot also supports voice based interaction.

1.5.5 Segment Level EOD/BOD

As part of this Enhancement, system supports Segment Level EOD maintenance and Execution. In GTA setup, EOD will be triggered at both Segment level and FMG level and BOD execution will be common across all segments. For Segment level EOD execution below, new screens are introduced.

Segment Level EOD Maintenance Detail (UTDSGEMT)

A new screen 'Segment Level EOD Maintenance Detail (UTDSGEMT)' is introduced in the system to maintain EOD/Mini EOD activities for each segment.

- This screen is applicable only for Global Transfer Agency Setup
- Each segment represents one country/Agency Branch for which maintenance can be done independently.
- BOD activities will be common across all segments at FMG level.
- FMG level activities will be static data.
- This screen supports Unlock, Query and Authorize operations.
- Summary screen (UTSSEGMENT) is available for this maintenance.

Segment Pre End of Day Check - Execute Pre EOD(UTDSGPED)

A new screen 'Segment Pre End of Day Check' is introduced in the system to maintain Pre End of Day checks for each segment. This screen fetches Pre EOD count and Execute Pre EOD segment wise.

- This screen is applicable only for Global Transfer Agency Setup.

Segment EOD Execution Detail (UTDSGEOD)

A new screen 'Segment EOD Execution Detail (UTDSGEOD)' is introduced in the system to execute End of Day for each segment.

- This screen is applicable only for Global Transfer Agency Setup
- EOD will be triggered segment wise.
- BOD will be common across all segments at FMG level.
- Status of each activity will be displayed in the details section of this screen.

Segment Mini End of Day Execution (UTDSGEMI)

A new screen 'Segment Mini End of Day Execution (UTDSGEMI)' is introduced in the system to execute Mini End of Day for each segment.

- This screen is applicable only for Global Transfer Agency Setup
- This screen fetches Pre-Mini EOD count and Execute Mini EOD segment wise.
- Status of each activity will be displayed in the details section of this screen.

As per existing functionality, EOD/BOD is run at each schema level and will continue to exist and function in Non GTA setup. Existing EOD screens will be used for execution in Non GTA setup.

Segment Level EOD Processing:

- Enhancement has been done in the system to support Segment Level EOD processing in GTA setup.
- EOD will be triggered at both Segment level and FMG level and BOD execution will be common across all segments.

Segment EOD screens Impact:

Segment Pre End of Day Check - Execute Pre EOD (UTDSGPED):

- Pre EOD check has been enhanced to validate any activity introduced or removed post authorization of Segment Level EOD maintenance.
- New Pre EOD checks included to display Unauthorized Transaction and Maintenance Records from Other branches.

Segment Level Validation:

In GTA setup, Fund ID's and Unitholder ID's in the below mentioned existing screens are impacted for Segment level validation.

- FCIS Standing Instruction Detail (UTDSIN)
- Fund Rules Details (UTDFNDRL)
- Fund Preference Maintenance (UTDFPMNT)
- FCIS Group Definition Detail (UTDGRPFD)
- Income Distribution Setup Detail (UTDUHIDS)
- Share Class Conversion Ad-hoc Detail (UTDSCADH)
- Corporate Actions Maintenance Detail (UTDCOACT)
- Share Class Conversion Bulk Detail (UTDSCBLK)

Segment Level Batch Execution:

System enhanced to support Batch execution at Segment Level for the following screens.

Newly introduced Segment ID field is mandatory in GTA setup. This field will be an LOV, will list all the segments present in the system, and will be defaulted to value 'FMG' in Non GTA environment.

- UTDALLOC - Allocation Detail
- UTDCNRED - Confirm Redemption Detail
- UTDDIPMT- FCIS Process Dividend Payment
- UTDP RRIN- Process Dividend Reinvestments
- UTDSWGPR- Process Swinging Price
- UTDTSOFF- Transaction Sign Off

1.5.6 Emergency Holiday Maintenance

For GTA setup, Existing Emergency Holiday maintenance (UTDEM HOL) has been enhanced to maintain current business day as emergency holiday for a Fund or AMC or Fund Country or Currency in a segment. Also system supports maintaining all Funds as holiday in a segment. System level Emergency Holiday is not applicable for GTA setup.

1.5.7 CIF Conversion

Investors move from 'Normal AGY Branch' (Cross Branching Disabled) to 'Cross Branching Enabled AGY Branch' to increase the diversification of their Portfolio.

To provide this flexibility, system enhanced to support converting an Investor from 'Normal AGY Branch' to 'Cross branching enabled AGY branch'. This conversion process will enable an Investor to carry forward Outstanding units to 'Cross branching enabled AGY Branch' as well as to perform new transactions in Global Funds.

Conversion of Investors from 'Normal AGY Branch' to 'Cross Branching Enabled AGY branch' is considered as a two-step process.

1.5.7.1 CIF Conversion Maintenance

The first step is CIF Conversion maintenance. CIF Details which need to undergo CIF Conversion process is captured in this step and this step will also identify and list out pending business for the Customer.

- A new screen CIF Conversion Maintenance is introduced in the FMG Module.
- This Screen will support New, Edit, Delete, Authorize, Close and Re-open Operation.
- This screen is supported only in GTA Setup.
- User needs to input mandatory Fields CIF number, To AGY Module ID and Click on 'Fetch Pre-Check Details' button.
- On Click of this button , system will identify the pending business for the Customer /underlying UH in the Current branch and will display the results in all three tabs (Pre check /Linked Entities/Related Entities) of the screen.
- User has to clear the mandatory pre check to proceed with CIF Conversion Execution.
- For each underlying Unitholder in Promoted CIF , New unitholders has to be created in 'To AGY Module ID' and same has to be mapped in 'UH Details' Tab in the screen.

1.5.7.2 CIF Conversion Execution- Batch process

The second step involves the actual conversion process.

CIF Conversion Execution involves moving the CIF from Source AGY module ID to Destination AGY module ID and also transferring holdings of Underlying UH from Source AGY module ID to Destination AGY module ID.

- A new screen CIF Conversion Execution (UTDCIFEX) has been introduced in the FMG Module.
- This screen will be used to trigger CIF Conversion Process.
- Following Filter criteria Fields will be available in this screen to filter the CIF Conversion records.
 - Reference Number
 - CIF Number
 - From AGY Module ID
 - To AGY Module ID

- User shall input any of the above Filter criteria and Click on 'Populate' button.
- CIF conversion records having status as 'Ready for Conversion' or 'Conversion Failure' will be eligible for listing in this screen.
- Process (Drop Down) will have Value 'Yes/No'- Value of 'Process' in Header will get defaulted in 'Process' drop down of Multi Grid.
- On click of Populate button, System will apply filter criteria on eligible list of records and populate following details in the Multi Grid.
 - Reference Number
 - CIF Number
 - CIF Name
 - From AGY Module ID
 - To AGY Module ID
 - Process - Drop Down
- User can override the value of 'Process' drop down value. Records with value as 'Yes' will be processed during CIF Conversion.
- Users can process more than one CIF at a time.

1.5.8 CIF Association

Investors from 'Normal Branch' may be associated with an Investor from 'Cross branching Enabled AGY Branch' as a Beneficiary/Nominee/Joint Holder /Related Parties and Directors.

Currently, FCIS does not support accessing a 'Normal Branch Investor' in 'Cross branching Enabled AGY Branch'.

System enhanced to support the Flexibility of associating a 'Normal Branch Investor' to the 'Cross Branching enabled AGY Branch' using CIF Accessibility mapping screen (UTDCIFAC).

CIF Accessibility mapping screen (UTDCIFAC) will be enhanced to support new/ delete and authorize operations.

'Normal Branch Investor' has to be provided Access to 'Cross Branching Enabled AGY Branch' in this screen. Following Fields are available in this screen.

- 'From Module ID' - To be inputted as Current AGY Module ID of Investor (Normal AGY Branch).
- 'CIF Number' – CIF Number for which accessibility setup to be done.
- 'AGY Module ID' - To be inputted as Destination AGY Module ID (Cross Branching Enabled AGY Branch).

PII information of the associated Investor will be masked while displaying in LOV of Beneficiary/Nominee/Joint Holder or Related Parties, Director in customer and unitholder screen of 'Destination AGY Module ID'.

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/F41898_01/index.htm

2.2 Software Components

Software Components of Oracle FLEXCUBE Investor Servicing 14.5.0.0.0 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, Fund Price

- 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 8.3 (x86 64 Bit)	Oracle Fusion Middleware Infrastructure	12.2.1.4.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 281
				Open Symphony Quartz	2.3.2
		Database Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.10.0.0.0
		Document Management System	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.4.0
				Oracle WebCenter Content Imaging	12.2.1.4.0
				Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 281
		Reporting Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle Analytics Server	5.9.0
		Oracle FLEXCUBE Information Server –Analytics	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Java HotSpot(TM) JDK (with WebLogic Application Server)	JDK 1.8 Update 281
		Client Machines# For detailed information on Browser Support, please refer to the Oracle Software Web Browser Support Policy at https://www.oracle.com/middleware/technologies/browser-policy.html		Mozilla Firefox	Mozilla Firefox - Version 87.*
				Google Chrome	Google Chrome - Version 88.*
				Safari	Apple Safari - Version 14.*
				Microsoft Edge	MS Edge: 89.*

				JDK	JDK 8 Update 281
		Single Sign On Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.4.0
				RCU Utility (Windows)	12.2.1.4.0
				Oracle Internet Directory	12.2.1.4.0
				Oracle SOA	12.2.1.4.0
				Oracle Identity and Access Management	12.2.1.4.0
				OID Connector	12.2.1.4.0
Oracle FLEXCUBE Investor Servicing BPEL/BPMN Processes and Process Framework	UI-Host and Centralized	Application Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle WebLogic Server	12.2.1.4.0
				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 8.3 (x86 64 Bit)	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 8.3 (x86 64 Bit)	Oracle Machine Learning for R (OML4R)	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 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 8.3 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.5.1
				IBM WebSphere MQ Server	9.1.0.0
				Open Symphony Quartz	2.3.2
		Database Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	Oracle RDBMS Enterprise Edition	19.10.0.0.0
		Client Machines# For detailed information on Browser Support, please refer to the Oracle Software Web Browser Support Policy at https://www.oracle.com/middleware/technologies/browser-policy.html	Mozilla Firefox	Mozilla Firefox - Version 87.*	
			Google Chrome	Google Chrome - Version 88.*	
			Microsoft Edge	Microsoft Edge (89.*)	
			Safari	Apple Safari - Version 14*	
Oracle FLEXCUBE Investor Servicing Integration Gateway	Web services (incoming)	Integration Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.5.1
	HTTP Servlet (incoming)				
	EJB (incoming)				
	MDB (incoming)	Integration Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.5.1
				IBM WebSphere MQ Server	9.1.0.0
	Notifications (outgoing)	Integration Server	Oracle Enterprise Linux Server 8.3 (x86 64 Bit)	IBM WebSphere Application Server with inbuilt JVM (IBM JDK 1.8_64)	9.0.5.1
IBM WebSphere MQ Server				9.1.0.0	

#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 10 and Mac OS X.

4. Annexure – B: Third Party Software Details

- For information on the third party software details, refer Oracle FLEXCUBE Investor Servicing 14.5.0.0.0 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
PA	Pension Administrator