Oracle® Enterprise Limits and Collateral Management

ELCM Interface with FCUBS/OBCL/External System Integration User Guide

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Oracle Enterprise Limits and Collateral Management ELCM Interface with FCUBS/OBCL/External System Integration User Guide, Release 14.8.0.0.0

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Preface

1.1 Purpose

This guide is designed to help the user to quickly get acquainted with the Customer Standard Instructions maintenance process.

1.2 Audience

This guide is intended for the central administrator of the Bank who controls the system and application parameters and ensures smooth functionality and flexibility of the banking application.

1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at https://www.oracle.com/corporate/accessibility/.

Access to Oracle Support

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

1.4 Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve.

Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1.5 Related Resources

For more information on any related features, refer to the following documents

- End user license agreement.
- Gateway Services documents.

1.6 Conventions

The following text conventions are used in this document:

Table 1-1 Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1.7 Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.

1.8 Acronyms and Abbreviations

The list of the acronyms and abbreviations used in this guide are as follows:

Table 1-2 Acronyms and Abbreviations

Abbreviation	Description
BC	Bills and Collection
CD	Corporate Deposit
EJB	Enterprise Java Beans
ECM	Oracle Banking Enterprise Collateral Management system
ELCM	Oracle Banking Enterprise Limits and Collateral Management system
ELM	Oracle Banking Enterprise Limits Management system
FCUBS	Oracle FLEXCUBE Universal Banking
JDBC	Java Database Connectivity
JPA	Java Persistence API
LC	Letter of Credit
MM	Money Market
OBCL	Oracle Banking Corporate Lending

Table 1-2 (Cont.) Acronyms and Abbreviations

Abbreviation	Description
ODT	Open Development Tools
POJO	Plain Old Java Object
SQLJ	A SQLJ program is a Java program containing embedded SQL statements.
TD	Term Deposit
XML	eXtensible Markup Language

1.9 Basic Actions

Table 1-3 Basic Actions

Action	Description
Approve	Used to approve the initiated report. This button is displayed, once the user click **Authorize**.
Audit	Used to view the maker details, checker details, and report status.
Authorize	Used to authorize the report created. A maker of the screen is not allowed to authorize the report. Only a checker can authorize a report, created by a maker.
Close	Used to close a record. This action is available only when a record is created.
Confirm	Used to confirm the performed action.
Cancel	Used to cancel the performed action.
Compare	Used to view the comparison through the field values of old record and the current record. This button is displayed in the widget, once the user click **Authorize**.
Collapse All	Used to hide the details in the sections. This button is displayed, once the user click **Compare**.
Expand All	Used to expand and view all the details in the sections. This button is displayed, once the user click **Compare**.
New	Used to add a new record. When the user click **New**, the system displays a new record enabling to specify the required data.
OK	Used to confirm the details in the screen.
Save	Used to save the details entered or selected in the screen.
View	Used to view the report details in a particular modification stage. This button is displayed in the widget, once the user click **Authorize**.
View Difference only	Used to view a comparison through the field element values of old record and the current record, which has undergone changes. This button is displayed, once the user click **Compare**.
Unlock	Used to update the details of an existing record. System displays an existing record in editable mode.

1.10 Symbols and Icons

The following symbols and icons are used in the screens.

Table 1-4 Symbols and Icons - Common

Symbol/Icon	Function
	Minimize
	Maximize
	Close
	Perform Search
	Open a list
	Add a new record
	Navigate to the first record
	Navigate to the last record

Table 1-4 (Cont.) Symbols and Icons - Common

Symbol/Icon	Function
	Navigate to the previous record
	Navigate to the next record
	Grid view
	List view
	Refresh
	Click this icon to add a new row.
	Click this icon to delete an existing row.
	Click to view the created record.
	Click to modify the fields.

Table 1-4 (Cont.) Symbols and Icons - Common

Symbol/Icon	Function
	Click to unlock, delete, authorize or view the created record.

Table 1-5 Symbols and Icons - Audit Details

Symbol/Icon	Function
	A user
	Date and time
	Unauthorized or Closed status
	Authorized or Open status

Table 1-6 Symbols and Icons - Widget

Symbol/Icon	Function
	Open status
	Unauthorized status

Table 1-6 (Cont.) Symbols and Icons - Widget

Symbol/Icon	Function
	Closed status
	Authorized status

2

ELCM Integration with OBCL/FCUBS

This topic describes about the ELCM Integration with OBCL/FCUBS.

The ELCM integration with OBCL/FCUBS enables the following:

- ELCM standalone integration with FCUBS and OBCL
- New services for FCUBS/OBCL integration
  - ELCM with FCUBS/OBCL-SYNC Mode
  - ELCM with FCUBS/OBCL-ASYNC Mode
- ELCM co-deployed with FCUBS/OBCL
- Linking LC contract and corporate deposits in collateral

This chapter contains the following sub topics:

- Prerequisites
- Interface of standalone ELCM with FCUBS/OBCL
- Integration Process
- ELCM Co-deployed with FCUBS/OBCL
- LC, TD, BC, CD, and MM Contract to Link in Collateral

2.1 Prerequisites

2.1.1 Prerequisites in Oracle Banking ELCM

This topic describes about the prerequisites in oracle banking ELCM Integration with OBCL/ FCUBS Process.

The following parameters should be set up in Oracle Banking ELCM:

- In **CSTB_PARAM** table, if the **ELCM_SETUP_MODE** is set to **E** then the POJO call is initiated.
- If the option **ELCM_SETUP_MODE** is not set to **E**, then in **CSTB_PARAM** table **OBCL-ELCM-EXT-CALL** parameter should be maintained.

- If **OBCL-ELCM-EXT-CALL** is set to **Y**, then in **CSTB_PARAM** table **ELCMCALL\u0002MODE** parameter is verified.
- If **ELCM-CALL-MODE** parameter value is set to **S**, then **ELCM** web service Sync call is made from **OBCL**.
- If **ELCM-CALL-MODE** parameter value is set to **A**, then **ELCM** web service ASync call is made from **OBCL**.

2.2 Interface of standalone ELCM with FCUBS/OBCL

This topic describes about the interface of ELCM with FCUBS/OBCL stage in ELCM Integration with OBCL/FCUBS Process.

Interface between FCUBS or OBCL to ELCM supports two modes.

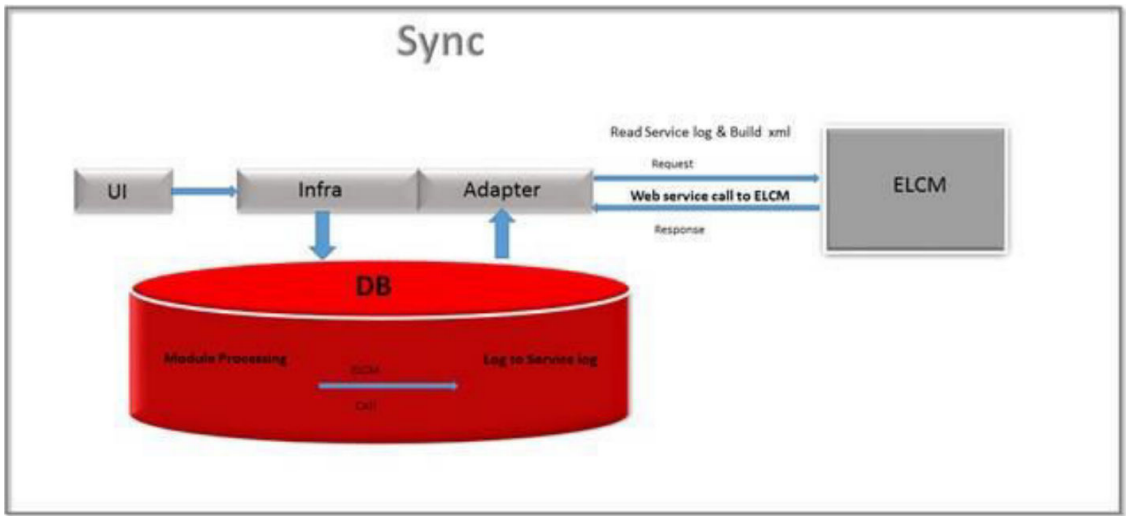
- ELCM with FCUBS/OBCL-SYNC mode
- ELCM with FCUBS/OBCL-ASYNC mode
- ELCM with SYNC Mode
  This topic describes about the ELCM with SYNC Mode in oracle banking ELCM Integration with OBCL/ FCUBS Process.
- ELCM with FCUBS/OBCL-ASYNC Mode
  This topic describes about the ELCM with FCUBS/OBCL-ASYNC Mode in oracle banking ELCM Integration with OBCL/ FCUBS Process.

2.2.1 ELCM with SYNC Mode

This topic describes about the ELCM with SYNC Mode in oracle banking ELCM Integration with OBCL/ FCUBS Process.

- For this implementation, a new adapter layer is created in FCUBS /OBCL system to interact with ELCM through web services.
- During contract creation, if a limit request is created, FCUBS/OBCL logs the request to the service log tables.
- Adapter layer prepares the request based on the service log entry and invokes the web service of ELCM for further processing.
- Response received from the external limit system is shown during the transaction itself.

Figure 2-1 SYNC Mode

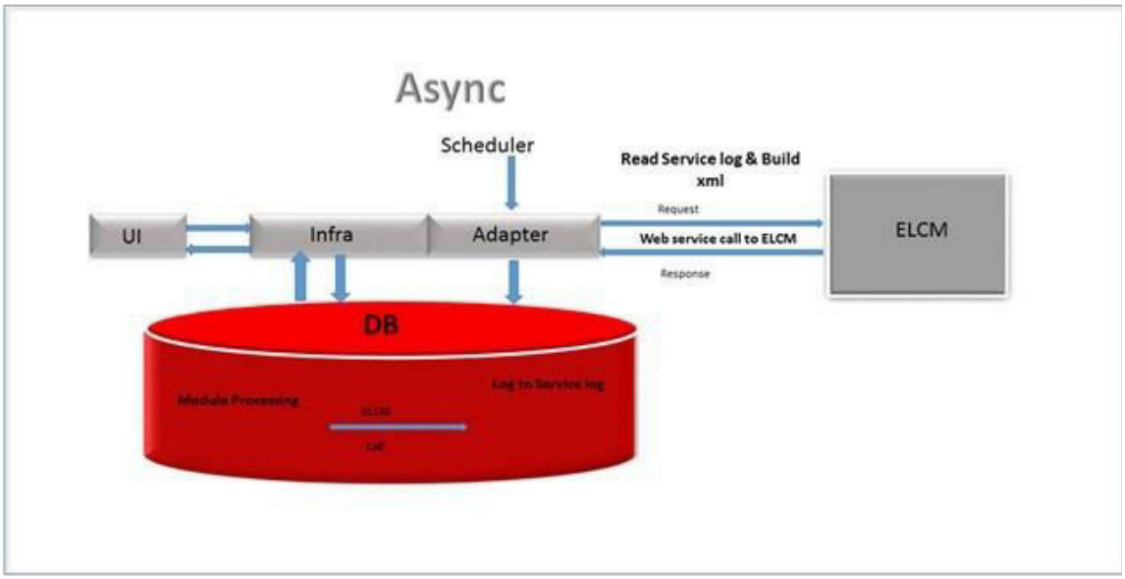


2.2.2 ELCM with FCUBS/OBCL-ASYNC Mode

This topic describes about the ELCM with FCUBS/OBCL-ASYNC Mode in oracle banking ELCM Integration with OBCL/ FCUBS Process.

- For ASYNC installation mode, communication between the FCUBS/OBCL and ELCM does not happen in single transaction window.
- FCUBS/OBCL transaction authorization would not be allowed until response from limit system is received.
- During contract creation, if a limit request is created, FCUBS/OBCL logs the request to the service log tables.
- A job/scheduler processes these records from this table, creates a request xml and the sends the request to ELCM for processing.
- If the processing from the ELCM side has any overrides, then an override error message is converted to an information message, sent to FCUBS side stating the record have overrides which needs to be manually accepted/rejected.
- Override error message details and request xml are logged into the override tables in ELCM and to the cstb_overide tables.
- Override Action screen is introduced for accepting or rejecting the override information. In addition, the processing of the transactions are performed after the overrides are accepted or rejected.

Figure 2-2 ASYNC Mode



2.3 Integration Process

This topic describes about the Integration Process in oracle banking ELCM Integration with OBCL/ FCUBS Process.

This section contains the following subtopics:

- Maintaining Override Action
- Querying Valid Lines
- External System Maintanance
- Configure Accounting System for a Host Code
- Maintain Integration Parameters
- ELCM Web Services
- Maintaining Override Action
  This topic describes about the Maintaining Override Action.
- Querying Valid Lines
  This topic describes about the Querying Valid Lines.
- External System Maintanance
  This topic describes about the External System Maintanance.
- Configure Accounting System for a Host Code
  This topic describes about the Configure Accounting System for a Host Code.
- Maintain Integration Parameters
  This topic describes about the Maintain Integration Parameters.
- ELCM Web Services
  This topic describes about the ELCM Web Services
- ELCM Co-deployed with FCUBS/OBCL
  This topic describes about the brief introduction of ELCM Co-deployed with FCUBS/OBCL data segment in ELCM Integration with OBCL/FCUBS Stage.

- LC, TD, BC, CD, and MM Contract to Link in Collateral
  This topic describes about the brief introduction of LC, TD, BC, CD, and MM Contract to Link in Collateral in ELCM Integration with OBCL/FCUBS Stage.

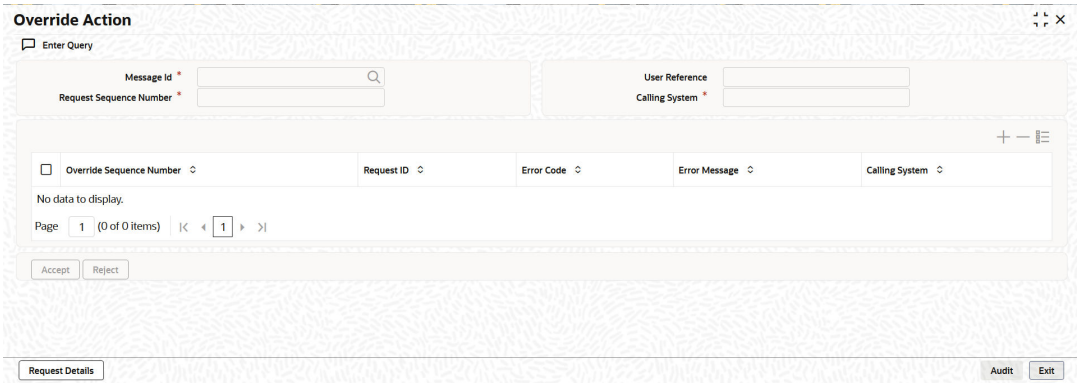
2.3.1 Maintaining Override Action

This topic describes about the Maintaining Override Action.

1. On the Home screen, specify **GEDOVDAC** in the text box and click the icon.

   The **Override Action** screen is displayed.

Figure 2-3 Override Action



2. On **Override Action** screen, specify the fields.

   For more information on fields, refer to the field description table.

Table 2-1 Override Action Fields and Description

Field	Description
Message ID	Indicates an unique message ID. The adjoining option list displays all the valid message IDs. You can select the appropriate one.
User Reference	The user reference number gets defaulted once you select the message ID. The reference number is the identification that you specify for searching the messages. The User reference is the OL contract reference number and you can query the overrides based on the contract reference.
Calling System	Indicates the source system that calls ELCM. For example, OBCL or FCUBS.
Request Sequence Number	This is a DB sequence number generated by the system which is maintained along with message ID to make a composite key.
Override Sequence Number	Indicates the number of overrides for a single transaction. For example, if there are 2 overrides for single transaction it shows as 2 different overrides.
Request ID	Unique id for the Request XML that comes from the external system.
Error Code and Error Message	The overrides in the ELCM while booking the contract is displayed here along with the error message and error code. You have to accept or reject these overrides.

Table 2-1 (Cont.) Override Action Fields and Description

Field	Description
Accept and Reject	• If **Accept** button is clicked, the system allows you to process the transaction. • If **Reject** button is clicked, the overrides are rejected and you have to delete the transaction and book a new transaction. • Click **Request Details**, the 'Override Request Details' screen appears. The following details are fetched from the external system. – **Status** - The status of the override is displayed. – **O** – The override is open, that is, pending for approval or rejection – **S** - Accepted – **R** - Rejected – **User Reference** - Contract reference is displayed. – **Linkage Reference Number** - The reference number of Limit attached in the contract is displayed. – **Customer Number** - Indicates the customer CIF – **Limit Type** - Type of the limit attached. Collateral – C, Liability – L, Facility - F and Collateral Pool - P – **Utilization Currency** - Indicates the contract currency. – **Utilization Amount** - Indicates the contract amount. – **Error Code** - ELCM override code displaying during contract creation. – **Calling System** - Indicates the source system that calls ELCM. For example, OBCL or FCUBS.

2.3.2 Querying Valid Lines

This topic describes about the Querying Valid Lines.

FCUBS requires limit details for linkages at a module level. In this case, FCUBS interacts with the ELCM systems and request for valid limit details for the customer. Response received from the limit systems are displayed for linkages.

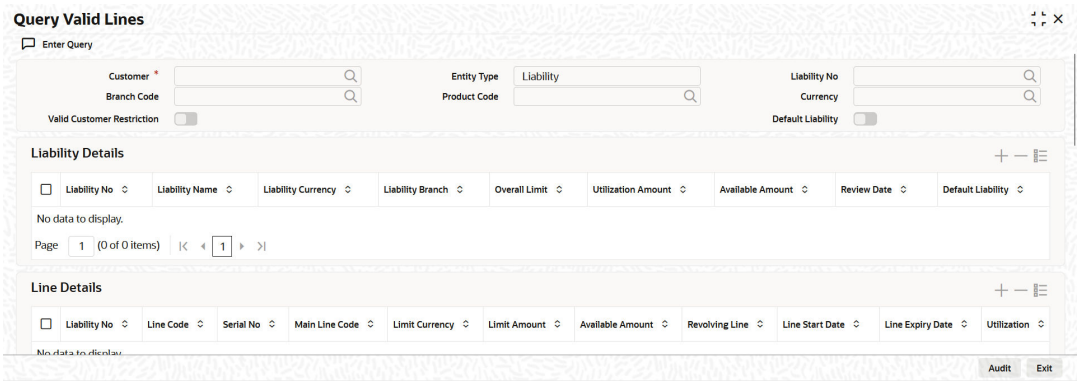
- A new web service **ELValid Limit Service** is developed in ELCM which returns all the valid lines from facility, collateral, and collateral pool.
- 360 customer view also invokes the **ELValidLimitService** for displaying the limit details.

ELCM process web service request from the FCUBS and sends response back to FCUBS with valid line details.

1. On the Home screen, specify **GEDQVLLN** in the text box and click the icon.

   The **Query Valid Lines** screen is displayed.

Figure 2-4 Query Valid Lines



2. On **Query valid line** screen, specify the fields.

   For more information on fields, refer to the field description table.

Table 2-2 Query Valid Lines Fields and Description

Field	Description
Customer	Specify the customer code. The adjoining option list displays all the valid customer codes. You can select the appropriate one.
Entity Type	Obligation, system fetches details of collaterals of obligation type wherein customer given is the guarantor CIF.
Liability No	Select the Liability Number. You can query the valid lines on the basis of Customer no or/and Liability no.
Default liability	When a customer is linked to multiple liabilities by checking default liability, system fetches details of selected entity type/ALL entities belonging to the liability with which customer is having default linkage. When default liability is unchecked, system fetches details of selected entity type/ALL entities belonging to the liability to which customer is linked and selected against the liability number. When no liability number is selected, system fetches details of selected entity type/ALL entities belonging to all the liabilities to which customer is linked.

> **Note:**
>
> All the details of the Customer no or/and Liability no can be viewed in the Limit Type sections.

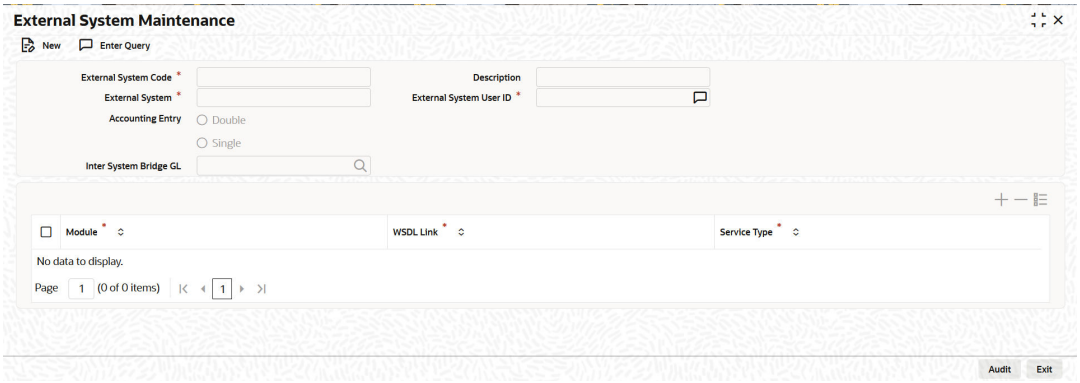
2.3.3 External System Maintanance

This topic describes about the External System Maintanance.

1. On the Home screen, specify **GEDEXMNT** in the text box and click the icon.

   The **External System Maintanance** screen is displayed.

Figure 2-5 External System Maintanance



2. On **External System Maintanance** screen, specify the fields.

   For more information on fields, refer to the field description table.

Table 2-3 External System Maintanance Fields and Description

Field	Description
External System Code	A unique code for maintaining external system details, that is for WSDL URL. For example, external system code for OBCL is OBCL, for FCUBS it is ROFC.
Description	This field is optional. It describes about external system code. For example, if you have multiple ROFCs you can differentiate in description.
External System	Indicates external system class. You can either select ‘FCUBS’ or ‘Others’ from the dropdown list.
External System User ID	Indicates the user ID used for login.
Module ID	Indicates the module code used for external system. For example, TD, ST, OL, MM, and so on.
WSDL Link	Indicates the link to access the web service.

The following table indicates the maintenance required for ROFC interface.

Table 2-4 ROFC interface

External System	Module	Description
ROFC	CASA	Service to be invoked in ROFC during facility modification.
ROFC	OVD	Service to be invoked in case of deferred override response or dua-auth response.
ROFC	OB	Sice to be invoked to send guarantee collateral details.
ROFC	LC	Service to send LC collateral linkage details
ROFC	TD	Service to block TD
ROFC	CD	Service to block CD

The following table indicates the maintenance required for OBCL interface.

Table 2-5 OBCL interface

External System	Module	Description
OBCL	OVD	Service to be invoked in case of deferred override response or dual-auth response.

2.3.4 Configure Accounting System for a Host Code

This topic describes about the Configure Accounting System for a Host Code.

You can configure the accounting system using host code in the Host Parameter screen. This screen captures all the external system details for the given host code.

1. On the Home screen, specify **GEDHSTMN** in the text box and click the icon.

   The **Host Param Maintanance** screen is displayed.

Figure 2-6 Host Param Maintanance

2. On **Host Param Maintanance** screen, specify the fields.

   For more information on fields, refer to the field description table.

Table 2-6 Host Param Maintanance - Field Description

Field	Description
Host Code	Specify the host code.
Host Description	Specify the brief description for the host.
Accounting System Code	Specify the accounting system code.

2.3.5 Maintain Integration Parameters

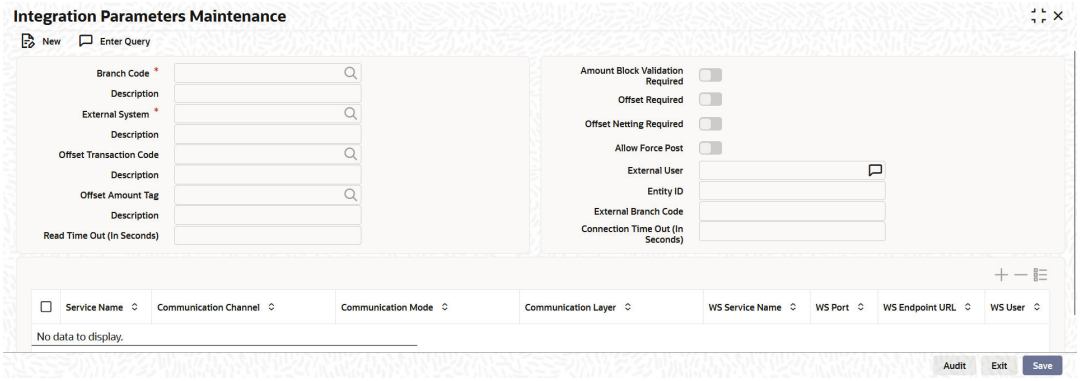
This topic describes about the Maintain Integration Parameters.

You have to maintain integration parameters for External LOV and ELCM Utilization. This maintenance must be done for all branches. This maintenance is done through Integration Parameters Maintenance screen.

- On the Home screen, specify **GEDHSTMN** in the text box and click the icon.

  The **Integration Parameters Maintanance** screen is displayed.

Figure 2-7 Integration Parameters Maintenance



You need to maintain the integration parameters for the following:

- External Lov – ExtLovService
- ELCM Utilization – ELUtilizationService

External Lov

Table 2-7 External Lov - Fields and Description

Fields	Description
External System	External system name is specified here. **For example**: OLELCM
Service Name	The service name for which the maintenance is done. For example, ELUtilization Service for ELCM and ExtLovService for External LovExtLovService.
Communication Channel	The communication channel like REST, CUSTOM, WEB SERVICE, and so on are specified here.
Communication Mode	The communication mode can be SYNC/ASYNC.
Rest Service IP	You have to maintain the IP address. **For example**: ELCM IP.
Rest Service Port	You have to maintain port details. **For example**: ELCM Port.
Rest Service Pattern	You have to maintain rest service pattern. **For example**: LovService.
Rest Service Context	You have to maintain rest service context. **For example**: FCJNeoWeb.
External User	ELCM user should have access to all branches and autoauth.

ELCM Utilization

Table 2-8 ELCM Utilization - Fields and Description.

Field	Description
External System	External system name is specified here. **For example**: OLELCM.

Table 2-8 (Cont.) ELCM Utilization - Fields and Description.

Field	Description
Service Name	The service name for which the maintenance is done. **For example**: • ELUtilizationService for ELCM • ExtLovService for External LovExtLovService
Communication Channel	The communication channel like REST, CUSTOM, WEB SERVICE, and so on are specified here.
Communication Mode	The communication mode can be SYNC/ASYNC.
WS Service Name	The service name needs to be maintained here. For example, ELUtilizationService.
WS Endpoint URL	The WSDL of the services are maintained here. For example, ELCM utilization service WSDL link
WS User	ELCM user should have access to all branches and autoauth.
External User	ELCM user should have access to all branches and autoauth.

2.3.6 ELCM Web Services

This topic describes about the ELCM Web Services

A new web service ELValidLimitService is developed in ELCM which returns all the valid lines from facility, collateral, and collateral pool. In addition, it also invokes 360 customer view.

The new header tag used in ELCM web services are the following:

- Finalreq
- Mode
- Ext Trip Id

2.3.6.1 Finalreq

- This header tag is for identifying the override information from the FCUBS system.
- FinalReq is set as **N** if there are overrides in the FCUBS system.
- FinalReq is set as **Y** if there is a no override in the FCUBS system.
- If FinalReq is set as **N**, then ELCM processes the records, validate all the business rules but the transaction is not persisted.
- If the FinalReq Flag is set as **Y**, then only the records are persisted in ELCM side and the success response is sent to the user

2.3.6.2 Mode

- This header tag is identity installation mode for the ELCM system.
- Mode can be Async(A) ,Sync(S) or default
- If FinalReq is **N** and mode value is set **A**, then the override error message is converted to an information message and then updated in the response xml and is returned to the calling system.

2.3.6.3 Ext Trip Id

Ext trip is a place holder to send Multi Trip ID specific for ELCM to FCUBS/OBCL once the overrides have been accepted.

2.3.7 ELCM Co-deployed with FCUBS/OBCL

This topic describes about the brief introduction of ELCM Co-deployed with FCUBS/OBCL data segment in ELCM Integration with OBCL/FCUBS Stage.

In a co-deployed system of FCUBS/OBCL and ELCM, the process flow between the systems happens through Application (JPA) layer. Insulation layer is calling the GatewayEJB of ELCM with same request xml.

In the standalone version of ELCM, changes are made to process all ELCM Function IDs in the Application layer itself. To support this, the Function IDs for which persistence was done using POJO in DB was converted to JPA.

ELJBean class has been modified to route to business process flow to application layer instead of database.

2.3.8 LC, TD, BC, CD, and MM Contract to Link in Collateral

This topic describes about the brief introduction of LC, TD, BC, CD, and MM Contract to Link in Collateral in ELCM Integration with OBCL/FCUBS Stage.

The TD, SB, CA,CD and MM contract can be linked to collateral using External LOV service. ExtLovService is configured for external FCUBS system through IFDINPRM screen.

These term deposits or contracts can be created as a collateral through Accounts and Contracts collateral creation screen (GCDCOLAC). Post linkage a block is created on the TD, SB, CD and CA accounts using the below services.

- TD – FCUBSCustomerService
- CD - FCUBSSTService
- SB/CA- FCUBSCustomerService

3
ELCM Integration with External System

This topic describes about the brief introduction of ELCM Integration with External System Stage in ELCM Interface with FCUBS/OBCL/External System Integration Process

Oracle Banking Enterprise Limits and Collateral Management system (OBELCM) supports Oracle Banking Enterprise Limits Management system (OBELM) and Oracle Banking Enterprise Collateral Management system (OBECM) as a separate installation. In addition, it supports integration with external ELM/ECM systems.

You can use OBELM or OBECM to support seamless integration with external ELM/ECM systems.

This chapter contains the following sections:

3.1 OBELM and OBECM co-deployed

This topic describes about the brief introduction of OBELM and OBECM co-deployed.

No changes to this functionality as these modules are co-deployed.

3.2 OBELM with External ECM

This topic describes about the brief introduction of OBELM with External ECM.

- OBELM system provides external collateral pool service to populate the pool details and valid limit service to fetch the liability details of the customer.
- External ECM system creates the collateral pool in OBELM system by using the services exposed.

- External ECM system provides collateral block service to update collateral details.
- OBELM system calls the collateral block service for any change in the pools linked to facility.

3.3 OBECM and External ELM

This topic describes about the brief introduction of OBECM and External ELM.

- OBECM system provides the collateral block service and valid limit service. Valid limit service fetches the liability and collateral details for any customer.
- External ELM system uses the services exposed to get the collateral details for facility creation.
- External ELM system calls the collateral block service for any change in the collaterals linked to facility.

3.4 OBECM and OBELM deployed separately

This topic describes about the brief introduction of OBECM and OBELM deployed separately

- OBELM system provides external collateral pool service to populate the pool details and valid limit service to fetch the liability details of the customer.
- OBECM system creates the collateral pool in OBELM system by using the services exposed.
- OBECM system provides collateral block service to update collateral details and valid limit service to fetch liability details.
- OBELM system calls the collateral block service for any change in the pools linked to facility.

3.5 Maintenances for OBELM and OBECM

3.5.1 Valid Limit Service

The Valid Limit Service (GEDQVLLN) is modified to fetch the limit details based on limit type.

For more information on valid limit service, refer to Querying Valid Line section.

4
Annexure

4.1 Technical changes

Remediation for SQLJ in 12cR2 and standalone ELCM without POJO classes are introduced.

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