Common Core - Gateway User Guide

Oracle Banking Payments
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Common Core - Gateway User Guide
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
https://www.oracle.com/industries/financial-services/index.html

Contents

1. Preface

1.1 Introduction

This manual is designed to help you quickly get acquainted with the Integration Gateway of Oracle Banking Payments.

It provides an overview to the module, and provides information on using the Integration Gateway module of Oracle Banking Payments.

You can further obtain information specific to a particular field by placing the cursor on the relevant field and striking <F1> on the keyboard.

1.2 Audience

This manual is intended for the following User/User Roles:

Role	Function
IT department members responsible for integration	Input functions for maintenance related to the gateway
IT managers	Authorization functions

1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

1.4 Organization

This manual is organized as follows:

Chapter	Description
Chapter 1	*About this Manual* gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	*Gateway Functions - An Overview* explains the features of this module.
Chapter 3	Gateway Maintenances explains the core features of this module.
Chapter 4	*Function ID Glossary* has alphabetical listing of Function/Screen ID's used in the module with page references for quick navigation.

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1.5   <u>Glossary of Icons</u>

This User Manual may refer to all or some of the following icons.

Icons	Function
✖	Exit
＋	Add row
－	Delete row
🔍	Option List

1.6   <u>Related Documents</u>

For further information on procedures discussed in the manual, refer to the Oracle Banking Payments manuals on:

- Common Procedures
- Products

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2. Gateway Functions - An Overview

2.1   Introduction

Integration of different applications and solutions is a key area in today's systems. A variety of specialized applications deployed on disparate platforms and using different infrastructure need to be able to communicate and integrate seamlessly with Oracle Banking Payments in order to exchange data. The Oracle Banking Payments Integration Gateway (referred to as 'Gateway' in the rest of the document) will cater to these integration needs.

The integration needs supported by the Gateway can be broadly categorized from the perspective of the Gateway as follows:

- Inbound application integration – used when any external system needs to add, modify or query information within Oracle Banking Payments

- Outbound application integration – used when any external system needs to be notified of the various events that occur within Oracle Banking Payments.

2.2   Inbound Application Integration

Oracle Banking Payments Inbound Application Gateway provides XML based interfaces thus enhancing the need to communicate and integrate with the external systems. The data exchanged between Oracle Banking Payments and the external systems will be in the form of XML messages. These XML messages are defined in FCUBS in the form of XML Schema Documents (XSD) and are referred to as 'FCUBS formats'

For more information on FCUBS formats refer the Message Formats chapter in this User Manual.

FCUBS Inbound Application Integration Gateway uses the Synchronous and Asynchronous Deployment Pattern for addressing the integration needs.

The Synchronous Deployment Pattern is classified into the following:

- Oracle Banking Payments EJB Based Synchronous Inbound Application Integration Deployment Pattern

- Oracle Banking Payments Web Services Based Synchronous Inbound Application Integration Deployment Pattern

- Oracle Banking Payments HTTP Servlet Based Synchronous Inbound Application Integration Deployment Pattern

Asynchronous Deployment Pattern is:

- Oracle Banking Payments MDB Based Asynchronous Inbound Application Integration Deployment Patten

2.2.1   EJB Based Synchronous Deployment Pattern

The Enterprise Java Beans (EJB) deployment pattern will be used in integration scenarios where the external system connecting to Oracle Banking Payments is 'EJB literate', i.e., the external system is capable of interacting with Oracle Banking Payments based upon the EJB interface. In this deployment pattern, the external system will use the RMI/IIOP protocol to communicate with the Oracle Banking Payments EJB.

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In this deployment pattern the EJB displayed by Oracle Banking Payments will be a stateless session bean. The actual request will be in the form of an XML message. After the necessary processing is done in Oracle Banking Payments based on the request, the response is returned to the external system as an XML message. The transaction control for the processing will stay with the Oracle Banking Payments EJB.

2.2.2 Web Services Based Synchronous Deployment Pattern

The web services deployment pattern will be used in integration scenarios where the external system connecting to Oracle Banking Payments wants to connect using standards-based, inter-operable web services.

This deployment pattern is especially applicable to systems which meet the following broad guidelines:

- Systems that are not 'EJB literate', i.e., such systems are not capable of establishing connections with Oracle Banking Payments based upon the EJB interface; and/or
- Systems that prefer to use a standards-based approach

In this deployment pattern, the external system will use the SOAP (Simple Object Access Protocol) messages to communicate to the Oracle Banking Payments web services.

The services displayed by Oracle Banking Payments are of a 'message based' style, i.e., the actual request will be in the form of an XML message, but the request will be a 'payload' within the SOAP message. After the necessary processing is done in Oracle Banking Payments based on the request, the response is returned to the external system as an XML message which will be a 'payload' within the response SOAP message. The transaction control for the processing will stay with the Oracle Banking Payments.

2.2.3 HTTP Servlet Based Synchronous Deployment Pattern

The HTTP servlet deployment pattern will be used in integration scenarios where the external system connecting to Oracle Banking Payments wants to connect to Oracle Banking Payments using simple HTTP messages.

This is especially applicable to systems such as the following:

- Systems that are not 'EJB literate', i.e., are not capable establishing a connections with Oracle Banking Payments based upon the EJB interface; and/or
- Systems that prefer to use a simple http message based approach without wanting to use SOAP as the standard

In this deployment pattern, the external system will make an HTTP request to the Oracle Banking Payments servlet.

For this deployment pattern, Oracle Banking Payments will display a single servlet. The actual request will be in the form of an XML message. This XML message is embedded into the body of the HTTP request sent to the Oracle Banking Payments servlet. After the necessary processing is done in Oracle Banking Payments based on the request, the response is returned to the external system as an XML message which is once again embedded within the body of the response HTTP message. The transaction control for the processing will stay with the Oracle Banking Payments.

2.2.4 MDB Based Asynchronous Deployment Pattern

The MDB deployment pattern is used in integration scenarios where the external system connecting to Oracle Banking Payments wants to connect to Oracle Banking Payments using JMS queues.

This is especially applicable to systems such as the following:

- Systems that prefer to use JMS queues based approach without wanting to wait for the reply

Here external system sends messages in XML format to request queue on which an MDB is listening. When a message arrives on the queue, it is picked up for processing. After the necessary processing is done in Oracle Banking Payments, based on the request, the response is sent to the response queue as an XML message

2.3 Outbound Application Integration

The Outbound Application Integration is also called the Oracle Banking Payments Notify Application Integration layer. This application layer sends out notification messages to the external system whenever events occur in Oracle Banking Payments.

The notification messages generated by FCUBS on the occurrence of these events will be XML messages. These XML messages are defined in FCUBS in the form of XML Schema Documents (XSD) and are referred to as 'FCUBS formats'

For more information on FCUBS formats refer the Message Formats chapter in this module.

2.4 Responsibilities of Integration Gateway

The primary responsibilities of Oracle Banking Payments Integration Gateway include the following:

- Authentication
- Duplicate recognition
- Validation
- Routing
- Logging of messages

2.5 Deployment of Oracle FLEXCUBE Integration Gateway

Message communication - incoming or outgoing from/to an external system in Oracle FLEXCUBE will happen only through an Oracle FLEXCUBE Integration Gateway. Hence, it becomes the first point of contact or last point of contact with the database in message flow. The Oracle FLEXCUBE Integration Gateway can be deployed to support both the distributed and single schema deployments of Oracle FLEXCUBE:

- Distributed deployment of FCUBS – In this situation the database components of the Gateway are deployed as two or more schemas
  - The messaging schema as part of SMS schema in the SMS and/or HO instance
  - The business schema(s) in the various branch schemas in the branch instance(s)
- Single schema deployment of FCUBS – In this situation the database components of the Gateway (messaging and business) are both deployed as part of the single Oracle FLEXCUBE schema.

2.6   Deployment Patterns for Application Integration

Business Integration Needs	Nature of Integration	Oracle FLEXCUBE Deployment Pattern	Remarks
Inbound Transactions into Oracle FLEXCUBE	Synchronous	FLEXCUBE UBS EJB	Recommended
		FLEXCUBE UBS HTTP Servlet	This can be used if the external system cannot communicate to Oracle FLEXCUBE using EJB.
		FLEXCUBE UBS Web Services	This can be used if the external system chooses to communicate only through Web Services.
	Asynchronous	FLEXCUBE UBS MDB	This can be used if the external system chooses to communicate only through JMS queues
Inbound Queries into Oracle FLEXCUBE	Synchronous	FLEXCUBE UBS EJB	Recommended
		FLEXCUBE UBS In Servlet	This can be used if the external system cannot communicate to Oracle FLEXCUBE using EJB.
		FLEXCUBE UBS Web Services	This can be used if the external system chooses to communicate only through Web Services.
	Asynchronous	FLEXCUBE UBS MDB	This can be used if the external system chooses to communicate only through JMS queues
Handoffs from Oracle FLEXCUBE	Asynchronous	FLEXCUBE UBS Notify	Recommended

3. Gateway Maintenances

3.1 Introduction

This chapter contains the following sections:

- Section 3.2, "External System"
- Section 3.3, "Access Rights to an External System"
- Section 3.4, "Upload Source Definition"
- Section 3.5, "Gateway Maintenances"
- Section 3.6, "Incoming Message Browser"
- Section 3.7, "Outgoing Message Browser"
- Section 3.8, "Amendment Maintenance"

3.2 External System

This section contains the following topics:

- Section 3.2.1, "Defining an External System"
- Section 3.2.2, "Viewing External System Details"

3.2.1 Defining an External System

You need to define an external system that will communicate with the Oracle FLEXCUBE Integration Gateway. You can define an external system using the 'External System – Detailed' screen.You can invoke this screen by typing 'GWDETSYS' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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The various details required by the 'External System - Detailed' screen are described below.

3.2.2   Viewing External System Details

The details of previously defined external Systems can be viewed using the 'External System - Summary' screen as shown below. You can invoke this screen by typing 'GWSETSYS' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

This summary screen can be used to search for external systems which match the data specified for any of the following criteria:

- Authorization Status
- External System
- Dead Letter Queue
- Record Status
- Default Response Queue

The 'Result' list shows the external systems which match your query. The search functions available are:

Advanced

Click **Advanced** to specify queries with logical operators such as AND, OR and NOT.

Reset

Click **Reset** to empty the values in the criteria fields, so that you may begin a new search.

Query

After specifying your search criteria click **Query** to view the list of results which match your search criteria.

Refresh

Click **Refresh** to refresh the list of results.

3.3   Access Rights to an External System

This section contains the following topics:

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3.3.1 Defining Access Rights to an External System

You can define access rights to an external system using the 'External System Functions – Detailed' screen.You can invoke this screen by typing ''GWDETFUN' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

External System Functions

New   Enter Query

External System *	Description
Function *	
Action *	Bulk SMS Check
Service Name	
Operation Code	

Fields   Audit   Exit

In the above screen, you need to specify the following details:

External System

Select an external system for which you wish to provide access rights. The adjoining option list displays all the external systems you have maintained in the 'External Systems – Detailed' screen.

Function ID

Select a Function ID from the list of values by clicking the adjoining option list. The function ids are invoked from Gateway Functions.

Action

Select an action for the external system from the option list provided.

Service Name

This displays the service name based on the Function ID and Action you select.

Operation Code

This displays the Operation Code based on the Function ID and Action you select.

3.3.2 Viewing External System Function Details

You can view the access rights details which have already been defined using the 'External System Functions - Summary' screen as shown below. You can invoke this screen by typing

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'GWSETFUN' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

External System Function Summary

| Search | Advanced Search | Reset | Clear All | | Records per page | 15 ▼ |

˅ Search (Case Sensitive)

| Authorization Status | ▼ | Record Status | ▼ | Function | 🔍 |
| Action | 🔍 | External System | 🔍 | | |

Search Results

Lock Columns 0 ▼

☐	Authorization Status ⇕	Record Status ⇕	Function ⇕	Action ⇕	External System ⇕

No data to display.

Page 1 Of 1 |< ‹ 1 › >|

Exit

This summary screen can be used to search for external system functions which match any of the following criteria:

- Authorization Status
- External System
- Record Status
- Action
- Function

The 'Result' list shows the external system functions which match your query. The search functions available are:

Advanced

Click **Advanced** to specify queries with logical operators such as AND, OR and NOT.

Reset

Click **Reset** to empty the values in the criteria fields, so that you may begin a new search.

Query

After specifying your search criteria click **Query** to view the list of results which match your search criteria.

Refresh

Click **Refresh** to refresh the list of results.

3.4   Upload Source Definition

This section contains the following topics:

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3.4.1 Maintaining Upload Source Details

Oracle FLEXCUBE facilitates upload of data from an external source. The details of the source from which data has to be uploaded need to be maintained in Oracle FLEXCUBE using the 'Upload Source Maintenance' screen. You can invoke the 'Upload Source Maintenance' screen by typing 'CODSORCE' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

The following details need to be captured here:

Source Code

Specify a code for the for the source from which data has to be uploaded to Oracle FLEXCUBE.

Description

Give a small description for the source code specified.

Base Data From FLEXCUBE

Check this box to indicate if base data has to be uploaded from Oracle FLEXCUBE.

3.4.2 Specifying Upload Source Preferences

You can set preferences for upload of data from an external source in the 'Upload Source Preferences Maintenance' screen. You can invoke the 'Upload Source Preferences

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Maintenance' screen by typing 'CODUPLDM' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

The following details are captured here:

Source Code

Select Source Code from the option list. Depending on the source code you select here data is uploaded from that source into Oracle FLEXCUBE.

Module Code

You can choose to upload data from a source directly onto a module in FLEXCUBE. Indicate the module into which you would like to upload data from a given source.

On Override

Oracle FLEXCUBE generates override messages in case it encounters any discrepancies during data upload. You can choose to do any of the following:

- Ignore – Select this option to ignore such error messages and continue with the upload process
- Put on Hold – Select this option to put the record on hold for user intervention later
- Reject – Select this option to reject the record

On Exception

In case a serious error occurs during data upload, Oracle FLEXCUBE generates an error message. You can choose to put the record with the error on hold. In such a case, choose 'Put on Hold' from the list of options available. If you would like to reject the record altogether, choose 'Reject'.

Post Upload Status

If you would like to automatically authorize the data that is uploaded into Oracle FLEXCUBE choose the 'Authorize' option here.

If you would like the record to be put on hold choose this option in this field.

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If you would like the record to be unauthorized, choose the 'Unauthorized' option in this field. The record will not be authorized automatically on upload. You will have to manually authorize the data.

Purge Days (Calendar)

Specify the days maintained for purging of the data uploaded.

Allow Deferred Processing

Check this option to defer processing of amendment and cancellation uploads.

Allow EOD with Deferred

Check this option to proceed even if the records exist in the deferred processing log.

If it is unchecked, then the EOD process halts until the deferred process log is cleared.

Allow Delete

Check this option to delete the process log.

3.5   Gateway Maintenances

This section contains the following topics:

- Section 3.5.1, "Maintaining Gateway Details"

3.5.1   Maintaining Gateway Details

Using the 'Gateway Maintenance Detailed' screen, you can maintain the basis for creation of MT tasks for Gateway message. You can invoke this screen by typing 'STDGWINT' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

Gateway Maintenance		⌐⌐ X
🗐 New 💬 Enter Query		
Gateway Maintenance		
Branch Code *	🔍	
External System *	🔍	
Module Code *	🔍	
		+ − ▤
☐ Service Name * ◇	Operation Code * ◇ Task Initiation Required ◇	Effective Date ◇
No data to display.		
Page 1 (0 of 0 items) |◁ ◁ 1 ▷ ▷|		Audit Exit

In this screen, you can specify the following details:

Branch Code

Specify the branch code of the bank. This adjoining option list displays all valid branches maintained in the system. You can choose the appropriate one.

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External System

Specify the name of the external system. This adjoining option list displays all the external systems maintained in the system. You can choose the appropriate one.

Module Code

Specify the module name. This adjoining option list displays all the modules maintained in the system. You can choose the appropriate one.

Service Name

Specify the service name of the module selected. This adjoining option list displays all the service names maintained in the system. You can choose the appropriate one.

Operation code

Specify the operation code of the service. This adjoining option list displays all valid operation codes maintained in the system. You can choose the appropriate one.

Effective Date

Specify the date from which the gateway message maintenance becomes effective. Effective date should be equal to or greater than the application date.

3.6 Incoming Message Browser

The messages received from the external system will be displayed in the Incoming Message Browser.

This section contains the following topics:

- Section 3.6.1, "Invoking Incoming Message Browser Detailed Screen"
- Section 3.6.2, "Viewing Incoming Message Details"

3.6.1 Invoking Incoming Message Browser Detailed Screen

You can invoke the 'Incoming Message Browser' screen by typing 'GWDINBRW' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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In the 'Incoming Message Browser' screen you can view the details of the messages received from the external systems. You can also view the messages in the XML format or the Text format.

Click 'Text View' button to view the incoming messages in text format.

Click 'XML View' button to view the 'Gateway Browser Window' screen which displays the messages in XML format.
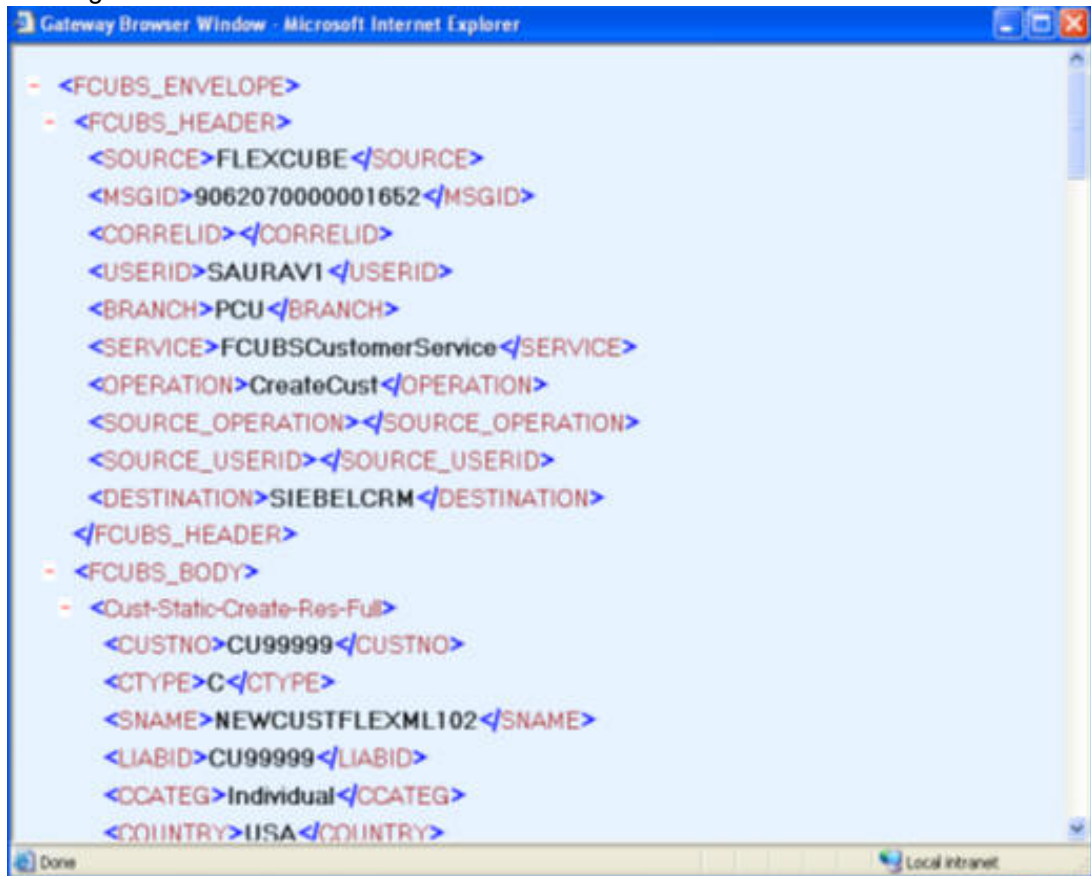
3.6.2 Viewing Incoming Message Details

The summary of all messages received from the external system can be viewed using the 'Incoming Message Browser - Summary' screen as shown below. You can invoke this screen

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by typing 'GWSINBRW' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

This summary screen can be used to search for incoming messages which match the criteria (Message Reference Number, External System, Service Name etc) you specify. The 'Result' list shows the messages which match your query. The search functions available are:

Advanced

Click **Advanced** to specify queries with logical operators such as AND, OR and NOT.

Reset

Click **Reset** to empty the values in the criteria fields, so that you may begin a new search.

Query

After specifying your search criteria click **Query** to view the list of results which match your search criteria.

Refresh

Click **Refresh** to refresh the list of results.

3.7   Outgoing Message Browser

This section contains the following topics:

3.7.1   Invoking Outgoing Message Browser Detailed Screen

Once the incoming messages have been processed, a response message will be sent to the external systems along with the status of the processed messages. The response messages will be displayed in the 'Outgoing Message Browser'. You can invoke the 'Outgoing Message

Browser' screen by typing 'GWDOTBRW' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

Outgoing Message Browser

Enter Query

Message Reference *		External System
Message Id		Correlation Id
Message Status		Service Name
Operation Code		Branch
FLEXCUBE Reference		User Id
Their User Id		Server Date Stamp
Response Queue Message Id		Branch Date
Queue Name		Related Message Reference

Repair Reason

Text View   XML View

Exit

In the 'Outgoing Message Browser' screen you can view the details of the messages sent to the external systems. You can also view the messages in the XML format or the Text format.

Click 'Text View' button to view the response message in text format.

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Click 'XML View' button to view the response messages in XML format as shown below:

3.7.2 Querying Outgoing Message Browser

You can query the list of outgoing messages using the 'Outgoing Message Browser - Summary' screen. You can invoke this screen by typing 'GWSOTBRW' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.
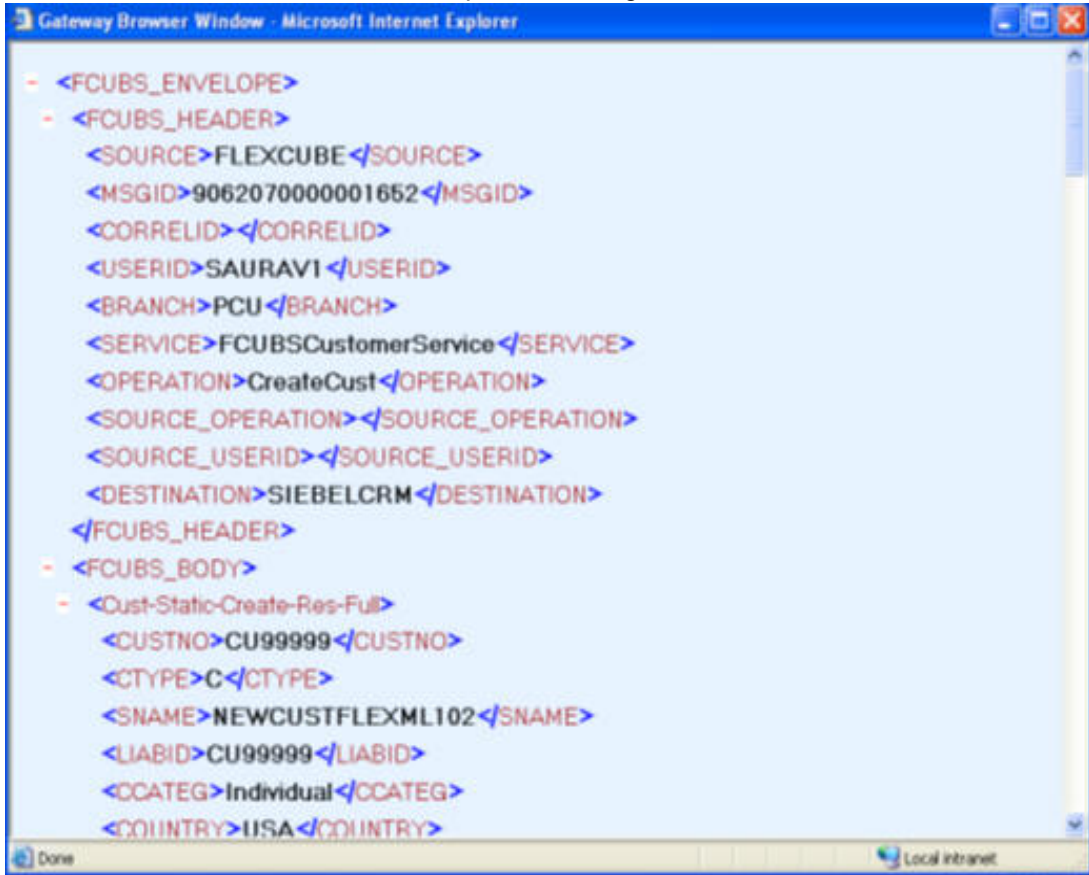
ORACLE®
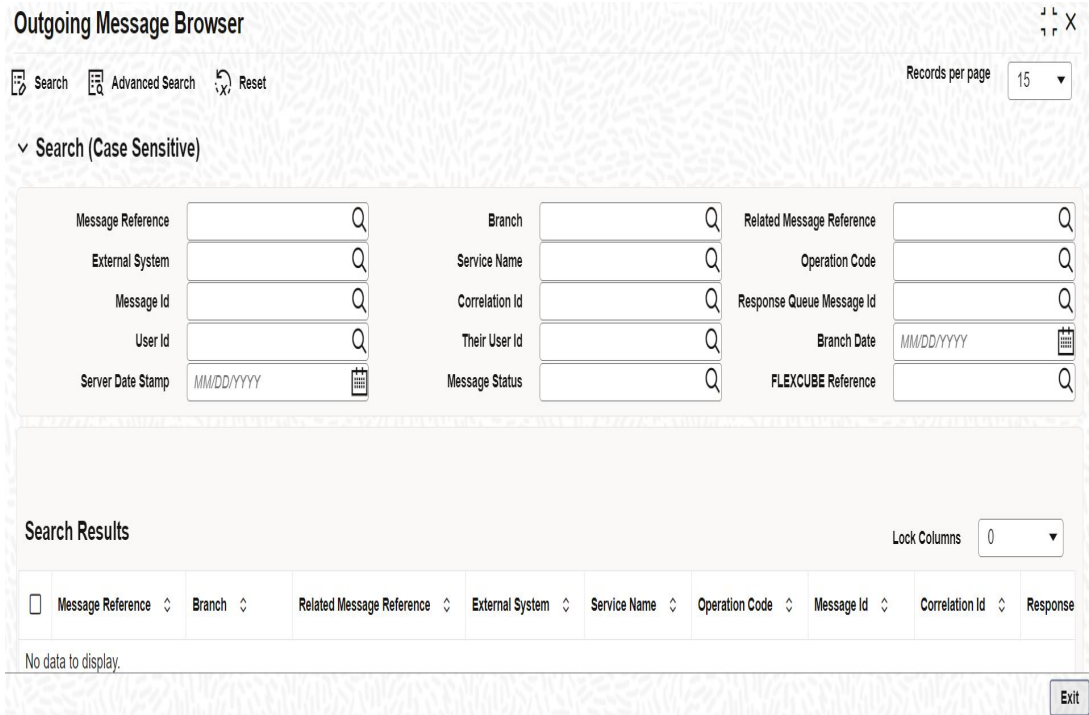
This query screen can be used to search for outgoing messages which match the criteria (Message Reference Number, External System, Service Name etc) you specify. The 'Result' list shows the messages which match your query. The search functions available are:

Advanced

Click **Advanced** to specify queries with logical operators such as AND, OR and NOT.

Reset

Click **Reset** to empty the values in the criteria fields, so that you may begin a new search.

Query

After specifying your search criteria click **Query** to view the list of results which match your search criteria.

Refresh

Click **Refresh** to refresh the list of results.

3.8 Amendment Maintenance

This section contains the following topics:

3.8.1 Maintaining Gateway Amendment Details

To recall, you need to identify the fields that can be amended by an external system, say, a Siebel CRM application.

Every amendment request coming from such a system has the following data:

- Service Name: – This is a broad level grouping of similar operations within a module in Oracle FLEXCUBE. The service names are published by Oracle FLEXCUBE. As an example, you can consider FCUBSCustomerAccountService. This service is exposed by the FCUBS Interface Gateway to do a permissible operation on a customer account.

- Operation Name:- This is the name of the operation that the external system wishes to perform within the service. These operations names are published by Oracle FLEXCUBE. As an example, you can consider ModifyCustomer, which is for modification of a customer.

- External Operation Name:- This is the specific area of operation that an external system is performing on its side within the broad context of the Oracle FLEXCUBE's amendment. In an external system, if the personal details of a customer are changed, this has a unique name by which it is identified within Oracle FLEXCUBE. Similarly, if the limits related details of a customer are modified, it also has a unique name.

It is through the 'Gateway Amendment Maintenance' screen that you maintain a set of amendable fields, which can amend in Oracle FLEXCUBE whenever a request for the same will be send from an external system. Based on this maintenance, the amendment request is addressed by Oracle FLEXCUBE. Invoke this screen by typing 'GWDAMDMT' in the field at the top right corner of the Application tool bar and clicking the adjoining arrow button.

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The screen is as shown below:

Gateway Amendment Maintenance

New   Enter Query

External System *	Source Operation *
Origin System *	Service Name
	Operation Code

Amendable Nodes

	Node Name *	New Allowed	Delete Allowed	All Records

No data to display.

Page 1 (0 of 0 items) |< < 1 > >|

Amendable Fields

	Field Name *

Audit   Exit

External System

Select the relevant external system. Based on the maintenance here, only the fields that are selected as amendable can be modified if a request comes from the chosen external system.

Note

The maintenance pertaining to external systems is factory shipped for your bank.

Origin System

Specify the origin system for which the amendment details are applicable.

For example, if we have a record that is created by a specific external system say 'CRM', and the requirement is that, for records created by this specific external system, only a set of fields are modifiable then, we should specify Origin System as CRM and FLEXCUBE as the External System. This Origin System field is used to identify such requirements wherein the amendable fields can be different if the Origination and Modification of the record are of different external sources.

You can specify the Origin System with the same value as the External System for Non FP services. For FP module services, you can provide the value as 'FLEXCUBE' and the respective External system can be specified in the External System field.

This feature is made available only for the FP modules with source operation as PMDTRONL_MODIFY.

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Source Operation

The free format text (without spaces) which identifies the amendment you are doing. This is mandatory.

Note

Source Operation will be defaulted as (FUNCTIONID)_MODIFY, if the Source Operation is not sent from an external system and the function ID will be derived from Service and Operation combination.

Service Name

The relevant service name, this is a broad level grouping of similar operations within a module in Oracle FLEXCUBE. The service names are published by Oracle FLEXCUBE.

Note

The maintenance pertaining to service names is factory shipped for your bank

Operation Code

The relevant operation code. This is the operation that the external system wishes to perform within the selected service. The operation names are published by Oracle FLEXCUBE. As an example, you can take 'ModifyCustomer', which is for modification of a customer record. Each operation under different service names is identified by a unique code.

Note

The maintenance pertaining to operation codes is factory shipped for your bank.

Amendable Nodes

Node Name

Specify the node name. Alternatively, you can select the node name from the option list. The list displays all valid nodes maintained in the system.

New Allowed

Check this box if 'New Allowed' is applicable.

Delete Allowed

Check this box if 'Delete Allowed' is applicable.

All Records

Check this box if all records are applicable.

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4. Function ID Glossary

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