# Routing Hub Configuration User Guide

# Oracle Banking Supply Chain Finance

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#### **Routing Hub Configuration User Guide**

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# 1 Preface

#### 1.1 Purpose

This document enables the user to integrate Oracle Products with External Product Processor through Oracle Banking Routing Hub Platform.

# **1.2 Intended Audience**

This document is intended for the following audience:

- Customers
- Partners

#### **1.3 Document Accessibility**

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

# 1.4 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit

http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

#### 1.5 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

The subsequent chapters describe following details:

- Introduction
- Preferences & Database
- Configuration / Installation



# 2 Introduction

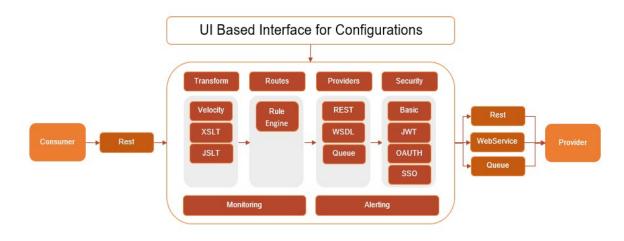
Oracle Banking Routing Hub is routing hub which enables seamless & standardized integrations between FSGBU

Banking Product using configurations provided as part of the product Infrastructure.

Consumer Application does not need to know

- Servicing Providers or Product Processors Product processor to which the integration is required.
- Name of the Service Logical name of the service e.g. Funds Transfer, Letter of Credit Initiation
- Messaging structure of Service Structure of the message e.g JSON, XML.
- Communication Protocol Web services, Rest API, Queue.
- Can be integrated with different versions of a Product processors

In this document we have shown the maintenance of two product i.e." Oracle Service Consumer" as Service Consumer and "External Product Processor" as Service Provider





# 2.1 Acronyms & Definitions

Following are some of the acronyms and abbreviations you are likely to find in this user manual:

Abbreviation & Definitions	Description
Service Consumers	Are Applications need to integrate with multiple product processors with loosely couple integration layer available as Oracle Banking Routing Hub. Service Consumer integrates with Oracle Banking Routing Hub
Service Providers	This are product processors available to serve the request send by Oracle Banking Routing Hub on behalf of Service Consumer
Service	Are Soap Web Services imported through WSDL or Rest Web Services imported through Swagger
Headers	Are headers require by product processor while sending request



# 3 Start Maintenance - Login Screen

Open Browser, Hit URL and Launch Oracle Banking Routing Hub.

Sign In
User Name *
Password *
Sign In
Cancel

Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Comments		
User Name	Text Box	Yes	Alphanumeric			
Password	Text Box	Yes	Alphanumeric with special characters			
Sign In	Button			Navigates to Dashboard / menu screen		
Cancel	Button					



# 4 Main Menu Screen

=	Ê
Menu Item Search Q	
Core Maintenance	
Security Management 🔹 🕨	

Component briefing				
Component Name	Component Type	Comments		
Core Maintenance	Main menu item			
Routing Hub	Sub menu item			
Configuration	Sub menu option	Navigates to Configuration screen		
Service Consumer	Sub menu option	Navigates to Service Consumer screen		
Request Audit	Sub menu option	Navigates to Request Audit screen		

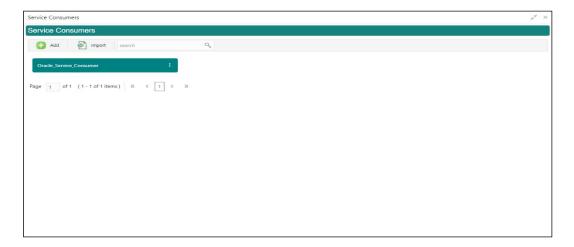


# 5 Service Consumer

Service Consumer is Oracle product which will invoke Oracle Banking Routing Hub API, Oracle Banking Routing Hub will analyse, evaluate destination product processor and transform data into format of the same.

Service Consumer comprises of the source and destination integration details.

#### Navigation: Core Maintenance -> Routing Hub -> Service Consumers



Service Consumers		*
Service Consumers		
😝 Add 🛛 🎦 Import search	٩,	
Oracle_Service_Consumer	View Edit	
Page 1 of 1 (1 - 1 of 1 items) K < 1	Delete Export JSON	
	Configuration SQL Request Audit	
L		

Component briefing					
Component Name	Component Type	Condition	Comments		
Add	Button		Pops up add dialog		
Import	Button		Pops up import dialog		



Search Navigation: Service	Combo Box One	icon (operation	Provides search functionality with case insensitive (Service Consumer Name) <b>menu)</b>
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	Sub menu item		
JSON	menu option		Exports in JSON
SQL	menu option		Exports in SQL
Configuration	menu option		Pops up configuration dialog
Request Audit	menu option		Pops up request audit log

# 5.1 Add

User can create Service Consumer manually.

Service Consumer  Add Service Consumer  Inter 0 or more characters. up to a maximum of 25.  No numeric value allowed at beginning.No space allowed.  Oracle_Service_Consumer  Environment Variables  Add   Croup *  Service  Actions Name Value  No data to display.  Save	vice Consumers					
No items to display.     Add Service Consumer     Enter 0 or more characters up to a maximum of 255.       Name *     Name *     No numeric value allowed at beginning. No space allowed.       Oracle_Service_Consumer     If a construction of construction of a constru	ervice Consumers					
Page t of 0 (1-0 of 0 items)     K < > >       Name *     Name *       Oracle_Service_Consume(       Invironment Variables       Invintervert       Inv		Add Service Consumer				
Environment Variables      Add       Group *      sedect      Actions     Name     Value      No data to display.					llowed at beginning.No space	
Group * select  Actions Name Value No data to display.		A Environment Variables				
No data to display.		Group *	Ŧ			
Save			Name	Value	_	
					Save	

Navigation: Sorvice Consumers -> Add

Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments	
Name	Text Box	Yes	Alphanumeric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255</li> <li>No numeric value at beginning and no space allowed</li> </ul>	Unique Service Consumer name	
Environment Variables	Table Content					
Save	Button				Saves the Service Consumer	

#### 5.1.1 Environment Variables

User will be able to define the group of variables which can be accessed throughout the specific consumer's configuration.

Below is the syntax for accessing environment variables:

\$env.Environment\_Group\_Name.Environment\_Variable\_Name

eg: \$env.COMMON.BRANCH\_CODE

Service Consumers		,
Service Consumers		
Add       import       search         No items to display.         Page       t       of 0       (1-0 of 0 items)       K       X       X	Add Service Consumer ×          Name *         Oracle_Service_Consumer         Environment Variables         Group         Group         Add *         Group         Add *         Mame         Value         No data to display.	
	Group Variable Value Actions Name Value No data to display.	



Service Consumers					,* ×
Service Consumers					
Add import search No items to display.	Add Service Consumer		×	1	
Page 1 of 0 (1-0 of 0 items) K < > >	Add Environment Group		Enter 0 or more characters, up to a maximum of 255. No numeric value allowed at beginning.No space allowed.		
	Gr C Actions	Name	OK		
	No data to display.		Save		

Service Consumers			,* ×
Service Consumers			
Add Elimport search	Add Service Consumer	×	
Notem to dapa). Page 1 of 0 (1+0 of 0 items) κ ← → x	Add Environment Variable	Enter 0 or more characters, up to a maximum of 255. No numeric value allowed at beginning.No space allowed.	

Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments	
Add	Menu Item					
Group	Menu option				Pops up add group dialog	
Variable	Menu option				Pops up add variable dialog	
Navigation: Service Consumer -> Environment Variables -> 3 dot icon (operation menu)						
Edit	menu option / icon				Pops up edit dialog	



Delete	menu option / icon				Deletes group / variable			
Environment	Environment Group / Variable							
Name	Text Box	Yes	Alphanumeric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255</li> <li>No numeric value at beginning and no space allowed</li> </ul>				
Value	Text Area				Value can either be hardcoded or Velocity mapping.			
ок	Button				Saves the group / variable and displays it in the list			



### 5.2 Import

User can create a service consumer by importing the JSON file and manually selecting the service Providers or select all providers that needs to be imported.

User can also import zip file in order to import all the configuration JSON files together.

Navigation: Service Consumers -> Import

Service Consumers		
Service Consumers		
😝 Add 🛛 🔂 Import Search	Import Service Consumer	×
No items to display. Page 1 of 0 (1-0 of 0 items) K < >	File * Orade_Service_Consumer_Consume Select Name * Orade_Service_Consumer	
	Overwrite estended templates Ves  No Jervice Providers	
	Name External_Product_Processor 1.0	
		Input

Componen t Name	Componen t Type	ls Manda tory	Data type	Validation	Condition	Comments
File	File picker	Yes		Allows only to select one file	Accepts JSON and ZIP file	Pops up file selection dialog box
Extract	Button	Yes				Extracts Consumer Name and Service Provider list from JSON file only and displays it in the respective elements.



Name	Text Box	Yes	Alphanu meric with special charact ers	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255</li> <li>No numeric value at beginning and no space allowed</li> </ul>	Editable	Name is required only for JSON file Predefined Values:
Overwrite extended templates	Radio Button	Yes				Yes / No Yes: This option is for overwriting the extended templates in configuration and No: This option is for retaining the existing extended templates in configuration.
Service Provider	Collapsible Header & Content					Displays the list of service providers that are present in JSON file only
Import	Button					Imports Service Consumer

**NOTE:** Below data needs to be changed after importing consumer configuration file:

- Implementation Host and Port
- Implementation Authentication Password

#### 5.3 View

User can view consumer details and can also switch to edit form by clicking on edit icon. Navigation: Service Consumers -> Operation Menu (3 dot icon) -> View



Service Consumers	-				,* ×
Service Consumers	View Service	e Consumer	C	×	
Add Eimport search	Name				
Oracle_Service_Consumer		rvice_Consumer			
Page 1 of 1 (1-1 of 1 items) K < 1 > >	d Environme	nt Variables			
	COMMON	T w	-	_	
	Actions	Name BRANCH_CODE	Value Sheaders["branchCode"[0]		
	1.				
				_	



# 5.4 Edit

User can modify the consumer details.

Navigation: Service Consumers -> Operation Menu (3 dot icon) -> Edit

Service Consumers		×***
Service Consumers		
🕒 Add 🔊 Import ora		
	Edit Service Consumer ×	
Oracle_Service_Consumer	Name *	
	Oracle_Service_Consumer	
Page 1 of 1 (1 - 1 of 1 items) K < 1	X	
	Group *	
	select *	
	Actions Name Value	
	No data to display.	
	Save	

#### 5.5 Delete

User can delete the consumer.

Navigation: Service Consumers -> Operation Menu (3 dot icon) -> Delete

Service Consumers			× *,
Service Consumers			
🛃 Add 🛃 Import ora	٩		
Oracle_Service_Consumer :			
Page 1 of 1 (1-1 of 1 items) K < 1	к		
		×	
	Do you want to delete the record?	1	
		Confirm Cancel	



#### 5.6 JSON Export

User can export the consumer configuration as JSON file.

Navigation: Service Consumers -> Operation Menu (3 dot icon) -> Export -> JSON

Service Consumers			,,** ×
Service Consumers			
🚯 Add 🛃 Import ora	م	_	
Oracle_Service_Consumer :	Export Service Consumer	×	
Page 1 of 1 (1-1 of 1 items) K < 1 >	Name Oracle_Service_Consumer Service Providers Service Providers Service Providers Service Product_Processor 1.0 External_Product_Processor 1.0		
		Export	

#### Note:

• User has an option to select service providers from the list which needs to be exported or can click on "Select All" option for all service providers.

• JSON Export feature will export below data:

- Selected service consumer
- All consumer services
- Selected service providers with services
- All implementations of selected service providers with services (without Host, Port and Authentication Password)
- All transformations
- All routes

#### 5.7 SQL Export

User can export the consumer configuration as SQL file.

Navigation: Service Consumers -> Operation Menu (3 dot icon) -> Export -> SQL

Service Consumers		* ×
Service Consumers		
😝 Add 🛛 🛜 Import ora	Q.	
Oracle_Service_Consumer		
Page 1 of 1 (1 - 1 of 1 items) K < 1	X     CONFIRMATION     X	
	Do you want to export? Note: Sensitive data such as implementation Host, Port and Password will not be exported	
	Confirm Cancel	

**NOTE:** SQL Export feature will export entire configuration without Host, Port and Authentication Password details.



# 6 Service Providers

Service Providers are the product processors configure to process request send by Oracle Banking Routing Hub on behalf of service consumers.

Service Provider comprises of destination integration details.

Navigation: Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Service Providers

Service Consumers	,, <sup>2</sup> ×
Oracle_Service_Consumer	
Service Providers Consumer Services	
🔁 Add 🛛 🖗 import search 🔍	
External_Product_Processor :	
Version 1.0	
Type EXTERNAL Status ACTIVE	
Page 1 of 1 (1-1 of 1 items) K < 1 > X	

Service Consumers		,я <sup>12</sup> — Ж
Oracle_Service_Consumer		
Service Providers Consumer Services		
🕂 Add	0	
External_Product_Processor Version 1.0 Type INTERNAL Status ACTIVE Page 1 of1 (1-1of1 items) K < 1	View Edit Delete Export Request Audit	
	Clear Cache	

Component briefing							
Component Name	Component Type	Condition	Comments				
<service Consumer&gt;</service 	Button		Navigates back to Service Consumers				



Add	Button		Pops up add dialog
Import	Button		Pops up import dialog
Search	Combo Box One		Provides search functionality with case insensitive (Service Provider Name)
Navigation: Serv	ice Providers -> 3 dot	icon (operation	menu)
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	menu option		Exports in JSON
Request Audit	menu option		Pops up request audit log
Clear Cache	menu option		Clears SOAP client cache



# 6.1 Add

User can create Service Provider manually.

Navigation: Service Providers-> Add

Service Consumers			* ×
Oracle_Service_Consumer			
Service Providers Consumer Services			
Add E Import search	Add Service Provider	Enter 0 or more characters, up to a maximum of X	
External_Product_Processor	Product Name *	No numeric value allowed at beginning.No space allowed.	
Version 1.0 Type EXTERNAL Status ACTIVE	Version *	Active	
Page 1 of 1 (1 - 1 of 1 items) K <	Headers		
	Service		
		Save	

Component b	Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments		
Product Name	Text Box	Yes	Alphanumeric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>	Unique provider name		
Туре	Combo Box One	Yes			Predefined Values: INTERNAL / EXTERNAL INTERNAL type should be used for oracle products.		



					EXTERNAL type should be used for non- oracle products
Version	Text Box	Yes	Number	<ul> <li>Version cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>Enter only numeric or decimal values.</li> </ul>	Unique provider version
Active	Switch				Predefined Values: ACTIVE / INACTIVE If provider is marked as inactive, then all related routes will be stopped.
Headers	Collapsible Header & Content				Provider specific headers
Service	Collapsible Header & Content				Provider specific service details
Save	Button				Saves the Service Provider



#### 6.1.1 Headers

External product processor might require some standard headers to be passed along with the request.

User can specify the headers which are required by service endpoints for its all implementations but not present in swagger file.

These headers can be configured in Oracle Banking Routing Hub using the steps given below

Service Consumers			
Oracle_Service_Consumer	Add Service Provider	×	
Service Providers Consumer Services			
Add 🔂 Import search	Product Name External_Proc	Enter 0 or more characters, up to a maximum of 255. No numeric value allowed at beginning.No space	
	Version * Name *	allowed.	
External_Product_Processor	1.0		
	Value Value		
Type EXTERNAL Status ACTIVE	Add		
	Actions		
Page 1 of 1 (1 - 1 of 1 items) K <	1 No data to d		
	▶ Service	ок	
	- Service		
		Save	

cle_Service_Consumer	Add Service Provider			×	
ce Providers Consumer Services	Product Name *		Type *		
Add Add Import search	External_Product_Processo	or	EXTERNAL	Ψ	
	Version *		Active		
	1.0				
rision 1.0 pe EXTERNAL	d Headers				
atus ACTIVE	🕒 Add				
	Actions	Name	Value		
1 of 1 (1 - 1 of 1 items) K <	1 Edit	appld	CMNCORE		
	▶ s Delete			1	
				Save	

Component briefing							
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments		
Add	Button				Pops up add dialog		



Navigation: Service Providers -> Headers -> 3 dot icon (operation menu)							
Edit	menu option				Pops up edit dialog		
Delete	menu option				Deletes header		
Navigation: Se	Navigation: Service Providers -> Headers -> Add						
Name	Text Box	Yes	Alphanumeric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>			
Value	Text Area	Yes	Alphanumeric with special characters	• Enter 0 or more characters, up to a maximum of 255.	Value can either be hardcoded or can be Velocity mapping.		
ОК	Button				Saves the header details and displays it in the list		



# 6.1.2 Service

vice Providers Consumer Services			
Add Add Import search	Add Service Provider	×	
External_Product_Processor	Headers		
Version 1.0 Iype EXTERNAL Itatus ACTIVE	Service           Type         URL           WSDL         http://whf00bzdr.7023/FCUBS-ELCMWell	b/EWalldLimitService?WSDL Import	
e 1 of 1 (1 - 1 of 1 items) K <	Service	Operation	
	ElValidLimitService (ElValidLimitServiceSEI)	QueryValidLimitIO	
	ElValidLimitService (ElValidLimitServiceSEI)	QueryValidLimitiO	

Component briefing					
Component Name	Component Type	ls Mandatory	Comments		
Туре	Combo Box One	Yes	Predefined Values: WSDL / SWAGGER / OTHERS		
URL	Text Box	Yes	Service URL of the file location		
Gateway Prefix	Text Box		Gateway Prefix is context path of below formatted URL http://host:port/gateway-prefix/endpoint		
Import	Button		Extracts the service information from URL and displays it in the Service list		

#### 6.1.2.1 WSDL

The Web Services Description Language (WSDL) is an XML-based interface description language that is used for describing the functionality offered by a web service.

Both SSL and non-SSL WSDL URL are supported.

**NOTE:** In case there is a change in wsdl file, then same wsdl file need to be imported again in order to update the provided service information in routing hub.



#### 6.1.2.2 SWAGGER

Swagger is an Interface Description Language for describing RESTful APIs expressed using JSON.

Currently, Swagger 2.0 & OpenAPI 3.0 both are supported.

**NOTE:** In case there is a change in swagger file, then same swagger file need to be imported again in order to update the provided service information in routing hub.



#### 6.1.2.3 OTHERS

"OTHERS" option is for adding REST API details manually when provider does not have swagger file.

Service Consumers				× ** «
Oracle_Service_Consumer	Edit Service Provider		×	
Service Providers Consumer Services	✓ Service		^	
🕂 Add 🖓 Import Search	Type Name * OTHERS			
	Http Method * Endpoint *		- 8	
External_Product_Processor	Select 🔻			
Version 1.0	Gateway Prefix 🔞		- 18	
Type INTERNAL Status ACTIVE	Service Headers		- 18	
Page 1 of 1 (1 - 1 of 1 items) 1	Service Query Params	Add	Į	
	Service	Operation	- 18	
	ElValidLimitService (ElValidLimitServiceSEI)	QueryValidLimitIO	- 88	
			~	
		Save	e	
		Operation QueryValidLimitIO		

Component b	Component briefing					
Component Name	Component Type	ls Mandatory	Validation	Comments		
Name	Text Box	Yes	<ul> <li>Name cannot be blank</li> <li>No space allowed at beginning.</li> </ul>	Name of operation		
Http Method	Combo Box One	Yes		Predefined Values: GET / POST / PUT / PATCH / DELETE		
Endpoint	Text Box	Yes	<ul> <li>Endpoint cannot be blank</li> <li>No space allowed at beginning.</li> </ul>	Endpoint URL of operation		
Gateway Prefix	Text Box			Gateway Prefix is context path of below formatted URL http://host:port/gateway- prefix/endpoint		



Service Headers	Collapsible Header & Content		Endpoint specific headers Value can either be hardcoded or can be Velocity mapping.
Service Query Params	Collapsible Header & Content		Endpoint specific query parameters Value can either be hardcoded or can be Velocity mapping.
Add	Button		Adds the endpoint details in the Service list

**NOTE:** In case there is a change in existing endpoint, then same endpoint details need to be entered again with the new changes in order to update the existing provided service information in routing hub.

# 6.2 Import

User can create a service provider by importing the JSON file.

User can also import zip file in order to import all the configuration JSON files together (except parent level configuration JSON files).

Service Consumers	** ×
Oracle_Service_Consumer	
Service Providers Consumer Services	
Add	
External_Product_Processor :	
Version 1,0 Type INTERNAL	Import Service Provider ×
Status ACTIVE	File *
Page 1 of 1 (1 - 1 of 1 items) K < 1 > X	Oracle_Service_Consumer_c
	hope

Navigation: Service Providers -> Import



Component briefing						
Component Name	Component Type	ls Mandatory	Validation	Condition	Comments	
File	File picker	Yes	Allows only to select one file	Accepts JSON and ZIP file	Pops up file selection dialog box	
Overwrite extended templates	Radio Button	No			Predefined Values: Yes / No Yes: This option is for overwriting the extended templates in configuration No: This option is for retaining the existing extended templates in configuration. Note: This option is only visible if ZIP file is selected	
Import	Button				Imports Service Provider	

**NOTE:** Below data needs to be changed after importing provider configuration file:

- Implementation Host and Port
- Implementation Authentication Password

#### 6.3 View

User can view provider details and can also switch to edit form by clicking on edit icon. Navigation: Service Providers -> Operation Menu (3 dot icon) -> View



acle_Service_Consumer					
vice Providers Consumer Services					
Add 🔂 Import search	View Service Provider		ß	×	
External_Product_Processor	Product Name	Туре			
fersion 1.0	External_Product_Processor	EXTERNAL			
ype EXTERNAL tatus ACTIVE	Version	Active			
atus Active	1.0	On			
e 1 of 1 (1 - 1 of 1 items) K	< Headers				
	▲ Service			1	
	Service		Operation		
	FIValidI imitService (FIValidI imitServiceSF	n	Ouen/ValidLimitIO	1	
				_	



# 6.4 Edit

User can modify the provider details.

Navigation: Service Providers -> Operation Menu (3 dot icon) -> Edit

Service Consumers				"* ×
Oracle_Service_Consumer				
Service Providers Consumer Services				
Add Emport search	Edit Service Provider		×	
External_Product_Processor	Product Name *	Type *		
Version 1.0	External_Product_Processor	EXTERNAL	·	
Type EXTERNAL	Version *	Active		
Status ACTIVE	1.0			
Page 1 of 1 (1-1 of 1 items) K <	Headers			
	A Service			
	Type URL			
			Save	

# 6.5 Delete

User can delete the provider.

Navigation: Service Providers -> Operation Menu (3 dot icon) -> Delete

Service Consumers			,," ×
Oracle_Service_Consumer			
Service Providers Consumer Services			
Add 🔁 Import search	٩		
External_Product_Processor			
Version 1.0 Type EXTERNAL Status ACTIVE		×	
Page 1 of 1 (1-1 of 1 items) K < 1	Do you want to delete the record?	Confirm Cancel	



#### 6.6 Export

User can export the provider configuration as JSON file.

Navigation: Service Providers -> Operation Menu (3 dot icon) -> Export

			Shihpai Branch ( 004) Jun 25, 2020	JOHN DOE johndaem@obrh.com
Service Consumers				,," ×
Oracle_Service_Consumer				
Service Providers Consumer Services				
Add 🔁 Import search	٩			
External_Product_Processor	:			
Version 1.0 Type EXTERNAL Status ACTIVE Page 1 of1 (1-1 of 1 items) K < 1	CONFIRMATION     De you want to export?     Note: Sensitive data such as imple	mentation Host. Port and Password w		

**NOTE:** Below data will not be exported:

- Implementation Host
- Implementation Port
- Implementation Authentication Password

The above data needs to be configured manually after importing the configuration file. Same has been mentioned in Import section



# 7 Implementation

Implementation comprises of Eureka client instance, Queue, Host, Port, authentication and implementation specific service details. Oracle Banking Routing Hub supports webservice and Rest API.

**NOTE:** Default implementation is created whenever a new service provider is added.

Navigation: Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Service Providers -> <Specific Service Provider> -> Implementation

							× <sup>2</sup> <sup>2</sup>
Oracle_Service_C	Consumer > Service F	Providers > External_Product_Processor	1.0				
Implementation							
🔂 Add 🔂 I	mport Search	٩					
Actions Name		Description	Service Name	Host	Port	Queue	
External_Pro	duct_Processor_Default	Default Implementation		X000X	0		
Page 1 of 1 (1-	1 of 1 items ) K < 1	к					
Service Consumers		Providers > External_Product_Processor	1.0				** ×
Oracle_Service_C		۹		Hort	Dort		"* ×
Oracle_Service_C			1.0 Service Name	Host	Port	Queue	, <sup>2</sup> ×
Oracle_Service_C	mport Search	Q Description Default Implementation					," ×



Component briefing							
Component Name	Component Type	Condition	Comments				
<service Consumer&gt;</service 	Button		Navigates back to Service Consumers				
<service Provider&gt;</service 	Button		Navigates back to Service Providers				
Add	Button		Pops up add dialog				
Import	Button		Pops up import dialog				
Search	Combo Box One		Provides search functionality with case insensitive (Implementation Name)				
Navigation: Implementation -> 3 dot icon (operation menu)							
View	menu option	Non- editable	Pops up view dialog				
Edit	menu option		Pops up edit dialog				
Delete	menu option						
Export	menu option		Exports in JSON				
Request Audit	menu option		Pops up request audit log				
Clear Cache	Menu option		Clears SOAP client cache				



# 7.1 Add

User can create Implementation manually.

#### Navigation: Implementation-> Add

Service Consumers					$_{\mu}^{\mu}$ $\times$
Oracle_Service_Consumer > Service Pro	Add Implementation	×			
Implementation					
Add E Import Search	Name *				
Actions Name	Description *		Host	Port	Queue
External_Product_Processor_Default			XXXXX	0	
Page 1 of1 (1-1 of1 items) K < 1 →	Type * Default Eureka Instance DEFAULT * Service Name * Select * Headers Consise	Save			

Component b	Component briefing								
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments				
Name	Text Box	Yes	Alphanum eric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>	Unique implementation name				



Description	Text Area	Yes	Alphanum eric with special characters	<ul> <li>Description cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 1000.</li> <li>No space allowed at beginning or ending of the value.</li> </ul>	
Туре	Combo Box One	Yes			Predefined Values: DEFAULT / QUEUE <b>Note:</b> DEFAULT type is for REST and SOAP API calls.
Default	Switch				Each type can have one default implementation.
Eureka Instance	Switch				Eureka Instance option is available only for internal providers and default type. By default, Eureka Instance will be toggled ON for internal providers and OFF for external providers.



Scheme	Combo Box One	Yes			Scheme option is available only for default type. Predefined Values: HTTPS / HTTP
Service Name	Text Box	Yes		<ul> <li>Service Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No space allowed.</li> </ul>	If <b>Eureka Instance</b> is toggled ON and type is default, then only service name is required.
Host	Text Box	Yes	Alphanum eric with special characters	<ul> <li>Host cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No space allowed.</li> </ul>	If <b>Eureka Instance</b> is toggled OFF and type is default, then only host and port is required.
Port	Text Box	Yes	Number	<ul> <li>Port cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 6.</li> <li>Only numeric value allowed.</li> </ul>	If <b>Eureka Instance</b> is toggled off and type is default, then only host and port is required.



Authenticati on Headers	Collapsible Header & Content Collapsible		Authentication option is available only when <b>Eureka</b> <b>Instance</b> is toggled OFF and type is default. Header option is available only when
	Header &		type is default.
	Content		
Service	Collapsible Header & Content		Service option is available only when type is default.
Queue	Content		Queue content is available only when type is queue.
Save	Button		Saves the Implementation



#### 7.1.1 Authentication

If External Product processor require authentication to connect to it, Oracle Banking Routing Hub provides standard authentication mechanism schemes like BASIC, JWT, OAUTH\_TOKEN, SSO, OAUTH\_TOKEN\_OIC

**NOTE:** In case of no authentication, NONE needs to be set as Authentication Type. In case of identity propagation, SSO needs to be set as Authentication Type. In case of OIC integration, OAUTH\_TOKEN\_OIC needs to be set as Authentication Type.

Process of configuration of these is described below.

Service Consumers							$_{\mu}^{\mu}$ $\times$
Oracle_Service_Consumer > Service Pro	Edit Implementatior			×			
Add E Import search	Default Implementat	tion Host *	Port *				
Actions Name  External_Product_Processor_Default	http 💌	X000X	0	er	rvice Name	Host	Port 0
Page         1         of1         (1 - 1 of 1 items)         K         <         1         >	Type NONE	•		ł			
	NONE BASIC	^		1			
	JWT_TOKEN			J			
	OAUTH_TOKEN	*	Sa	ave			

Component b	riefing				
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments
Туре	Combo Box One	Yes			Predefined Values: NONE / BASIC / JWT_TOKEN / OAUTH_TOKEN / SSO / OAUTH_TOKEN_ OIC
Username	Text Box		Alphanum eric with special characters	<ul> <li>Username cannot be blank</li> </ul>	Username is mandatory if authentication type is BASIC /



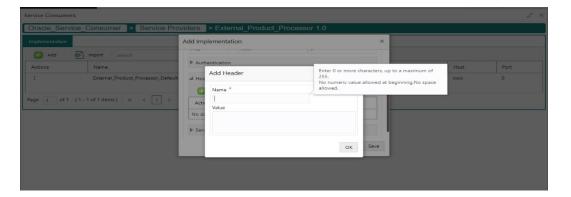
			<ul> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>	JWT_TOKEN / OAUTH_TOKEN
Password	Text Box	Alphanum eric with special characters	Password cannot be blank	Password is mandatory if authentication type is BASIC / JWT_TOKEN / OAUTH_TOKEN

#### 7.1.2 Headers

External product processor might require some standard headers to be passed along with the request.

User can specify the headers which are required by service endpoints for specific implementation but not present in swagger file.

These headers can be configured in Oracle Banking Routing Hub using the steps given below





Implementation		Add Implementation			×		
Add	Import search	inde		-			
Actions	Name	Authentication				Host	Port
1	External_Product_Processor_Default	Headers	A Headers				0
		🔂 Add					
age 1 of 1	(1 - 1 of 1 items) K < 1 >	Actions	Name	Value			
		Edit	appld	CMNCORE			
		▶ s Delete					
					Save		

Component b	riefing				
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments
Add	Button				Pops up add dialog
Navigation: In	nplementation	-> Headers ->	> 3 dot icor	(operation menu)	
Edit	menu option				Pops up edit dialog
Delete	menu option				Deletes header
Navigation: In	nplementation	-> Headers ->	> Add		
Name	Text Box	Yes	Alphanu meric with special characte rs	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>	
Value	Text Area	Yes	Alphanu meric with special	<ul> <li>Enter 0 or more characters, up to a maximum of 255.</li> </ul>	Value can either be hardcoded or can be Velocity mapping.



		characte	
		rs	
ОК	Button		Saves the header details and displays it in the list

## 7.1.3 Service

Service Consumers						,,** ×
Oracle_Servic	e_Consumer > Service Pro	viders > External_P	roduct_Processor 1.0			
Implementation						
Add 🗧	import search	Add Implementation		×		
Actions	Name				Host	Port
	External_Product_Processor_Default	Headers			XXXXX	0
Page 1 of 1 (	(1 - 1 of 1 items) K < 1 >	A Service				
		Type URL WSDL +		Import		
		Service	Operation			
		No data to display.				
				Save		
				,		

Component briefing					
Component Name	Component Type	Is Mandatory	Comments		
Туре	Combo Box One	Yes	Predefined Values: WSDL / SWAGGER / OTHERS		
URL	Text Box	Yes	Service URL of the file location		
Gateway Prefix	Text Box		Gateway Prefix is context path of below formatted URL http://host:port/gateway- prefix/endpoint		



Import	Button	Extracts the service
		information from URL and
		displays it in the Service list



#### 7.1.3.1 WSDL

The Web Services Description Language (WSDL) is an XML-based interface description language that is used for describing the functionality offered by a web service.

Both SSL and non-SSL WSDL URL are supported.

**NOTE:** In case there is a change in wsdl file, then same wsdl file need to be imported again in order to update the provided service information in routing hub.

#### 7.1.3.2 SWAGGER

Swagger is an Interface Description Language for describing RESTful APIs expressed using JSON.

Currently, Swagger 2.0 & OpenAPI 3.0 both are supported.

**NOTE:** In case there is a change in swagger file, then same swagger file need to be imported again in order to update the provided service information in routing hub.

#### 7.1.3.3 OTHERS

"OTHERS" option is for adding REST API details manually when provider does not have swagger file.

Service Consumers						$\times \pi^{\mu}$
Oracle_Service_Consumer > Service Pro	viders > External Product Processor 1.0		-			
Implementation	Edit Implementation	×				
🕂 Add 🔁 Import Search	Service	· · · · · · · · · · · · · · · · · · ·				
Actions Name	Type Name * OTHERS T			Host	Port	Queue
External_Product_Processor_Default	Http Method * Endpoint *			xxxxx	0	
Page 1 of 1 (1 - 1 of 1 items) K < 1 >	Select					
	Gateway Prefix 🚳					
	Service Headers					
	Service Query Params					
		Add				
	Service Operation					
	No data to display.					
			,			
		Save				
		save				

Component briefing					
Component Name	Component Type	ls Mandatory	Validation	Comments	
Name	Text Box	Yes	<ul> <li>Name cannot be blank</li> <li>No space allowed at beginning.</li> </ul>	Name of operation	



Http Method	Combo Box One	Yes		Predefined Values: GET / POST / PUT / PATCH / DELETE
Endpoint	Text Box	Yes	<ul> <li>Endpoint cannot be blank</li> <li>No space allowed at beginning.</li> </ul>	Endpoint URL of operation
Gateway Prefix	Text Box			Gateway Prefix is context path of below formatted URL http://host:port/gateway- prefix/endpoint
Service Headers	Collapsible Header & Content			Endpoint specific headers Value can either be hardcoded or can be Velocity mapping.
Service Query Params	Collapsible Header & Content			Endpoint specific query parameters Value can either be hardcoded or can be Velocity mapping.
Add	Button			Adds the endpoint details in the Service list

**NOTE:** In case there is a change in existing endpoint, then same endpoint details need to be entered again with the new changes in order to update the existing provided service information in routing hub.



## 7.1.4 Queue

Oracle_Service_Consumer > Service P	Add Implementation		×			
Implementation	Type *	Default				
Add	QUEUE	•				
	Queue Broker *	Request Reply Pattern *				
Actions Name	WEBLOGIC_JMS	<ul> <li>JMS_MESSAGEID</li> </ul>	· ·	Host	Port	Queue
External_Product_Processor_Default	Request Queue			XXXXXX	0	
age 1 of 1 (1-1 of 1 items) K < 1		Queue *		_		
	Response Queue					
	Connection Factory	Queue				
			-			
			Save			

Component briefing					
Component Name	Component Type	Is Mandatory	Comments		
Queue Broker	Combo Box One	Yes	Predefined Values: WEBLOGIC_JMS		
Request Reply Pattern	Combo Box One	Yes	Predefined Values: JMS_MESSAGEID / JMS_CORRELATIONID JMS_MESSAGEID is default request-reply pattern.		



Connection Factory	Text Box	Connection Factory is JNDI
		based connection factory
		name which is used to
		create connection for JMS
		client.
		Request Connection Factory
		is mandatory, and Response
		Connection Factory is
		optional.
		Response Connection
		Factory is needed when
		destination is going to
		respond back after
		processing the request.
Queue	Text Box	Queue Name is JNDI based
		destination name.
		Request Queue Name is
		mandatory, and Response
		Queue Name is optional.
		Response Queue Name is
		needed when destination is
		going to respond back after
		processing the request.



#### 7.2 Import

User can create an implementation by importing the JSON file.

User can also import zip file in order to import all the configuration JSON files together (except parent level configuration JSON files).

Navigation: Implementation -> Import

Service Consumers					,,** ×
Oracle_Service_	Consumer > Service Providers >	> External_Product_Prod	cessor 1.0		
Implementation					
	Import search Q				
Actions	Name		Description	Host	Port
1	External_Product_Processor_Default	-	Default Implementation	XXXX	0
	-1 of 1 Hems) K < 1 > X	Import Implementation	Select		

Component b	Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Conditio n	Comments	
File	File picker	Yes		Allows only to select one file	Accepts JSON and ZIP file	Pops up file selection dialog box	
Import	Button					Imports Implementation	

NOTE: Below data needs to be changed after importing implementation configuration file:

- Implementation Host and Port
- Implementation Authentication Password



## 7.3 View

User can view implementation details and can also switch to edit form by clicking on edit icon.

Navigation:	Implementation	-> Operation	Menu (3 d	lot icon) -> View
-------------	----------------	--------------	-----------	-------------------

Add	Import search						
Actions	Name	View Impleme	entation		2 ×	Host	Port
Esternal_Product_Processor_Default  Page 1 of 1 (1-1 of 1 items) κ < 1 >	Name External_Product_Processor_Default Description Default Implementation		Default On		XXXXX	0	
		Scheme http Authentica	Host xxxx	Port 0	_		
		▶ Headers			_		

# 7.4 Edit

User can modify the implementation details.

Navigation: Implementation -> Operation Menu (3 dot icon) -> Edit

Service Consumers							,, <sup>18</sup> ×
Oracle_Service	Consumer > Service Pro	viders > Exter	al_Product_l	Processor 1.0			
Implementation							
Add a	Import search	Edit Implementati	on		×		
Actions	Name					Host	Port
I	External_Product_Processor_Default	Name * External_Product_F	rocessor_Default	Default		XXXXX	0
Page 1 of 1 (	1 - 1 of 1 items) K < 1 →	Description * Default Implement	ation				
		Scheme *	Host *	Port *			
		http	X000X	0			
		Authentication					
					Save		
					_		



#### 7.5 Delete

User can delete the implementation.

Navigation: Implementation -> Operation Menu (3 dot icon) -> Delete

Add	Import search	٩			
Actions	Name		Description	Host	Port
1	External_Product_Processor_De	efault	Default Implementation	XXXXX	0
		Do you want to delete the record?	Confirm Cancel		

## 7.6 Export

User can export the implementation configuration as JSON file.

Navigation: Implementation -> Operation Menu (3 dot icon) -> Export

Service Consumers				, <sup>w</sup> >
Oracle_Servic	e_Consumer > Service Providers > External_Pro	duct_Processor 1.0		
Implementation				
Add 6	Import search Q			
Actions	Name	Description	Host	Port
Actions	External_Product_Processor_Default	Default Implementation	XXXXX	0
	Do you want to export? Note: Sensitive data such as Implem	entation Host, Port and Password will not be exported		

**NOTE:** Below data will not be exported:

- Implementation Host
- Implementation Port
- Implementation Authentication Password

The above data needs to be configured manually after importing the configuration file. Same has been mentioned in Import section



## 8 Consumer Services

Consumer Services defines the service ID which is going to be send from service consumer. This will also cater transformation and route definition as well.

Consumer Services comprises of source integration details.

Navigation: Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Consumer Services

				$_{\mu^{\rm sf}}$ $\times$
Oracle_Service	_Consumer			
Service Providers	Consumer Services			
🕒 Add 🔂	Import search	٩,		
Actions	Name		Description	
1	List_Facilities		This service fetches the list of facilities available for party id	
Page 1 of 1 (1	-1 of 1 items ) K < 1 > >			
Sanisa Consumars				× ×
Service Consumers	Canaumar			$\mu^{\mu^{\mu^{\mu}}}$ ×
Oracle_Service				, <sup>w</sup> ×
Oracle_Service	Consumer Services			,, <sup>12</sup> ×
Oracle_Service	Import search	Q		,,** ×
Oracle_Service	Consumer Services Import search Name	0	Description	,,* ×
Oracle_Service       Service Providers	Consumer Services Import search Name Facilities	٩	Description This service fetches the list of facilities available for party id	** ×
Oracle_Service	Consumer Services Import search Name	٩,		** ×
Oracle_Service Service Providers Add & Actions i View Pag Edit Delete	Consumer Services Import search Name Facilities	Q		× *,
Oracle_Service Service Providers Add & Actions i View Pag Edit Delete Export	Consumer Services Import search Name  Saclifies I items ) K < 1 > 3	Q		× **
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	Q		,* ×
Oracle_Service Service Providers Add & Actions i View Pag Edit Delete Export	Consumer Services Import search Name Facilities I items ) K < 1 > 3	9		,** ×
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	0		,,** ×
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	Q		,,** ×
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	٩		,* ×
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	0		,* ×
Oracle_Service Service Providers Add Actions i View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	0		* ×
Oracle_Service Service Providers  Add  Actions  View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	Q.		, * ×
Oracle_Service Service Providers  Add  Actions  View Pag Edit Delete Export Configuration	Consumer Services Import search Name Facilities I items ) K < 1 > 3	Q.		* ×

Component briefing					
Component Name	Component Type	Condition	Comments		
<service consumer=""></service>	Button		Navigates back to Service Consumers		
Add	Button		Pops up add dialog		



Import	Button		Pops up import dialog
Search	Combo Box One		Provides search functionality with case insensitive (Consumer Service Name)
Navigation: Consumer	Services -> 3 d	lot icon (operation m	enu)
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	menu option		Exports in JSON
Configuration	menu option		Pops up configuration dialog
Request Audit	menu option		Pops up request audit log

### 8.1 Add

User can create Consumer Service manually.

Navigation: Consumer Services-> Add

Service Consumers				"* ×	
Oracle_Service_Consumer					
Service Providers Consumer Services	Add Service	Enter 0 or 255.	more characters, up to a maxim	um of	
🕀 Add 🔂 Import search	ID *		No numeric value allowed at beginning.No space		
Actions Name	1				
E List_Facilities	Description *				
Page 1 of 1 (1 - 1 of 1 items) K < 1 >					
	Add				
	Actions	Attribute Name	json path		
	No data to display.				
			Save		

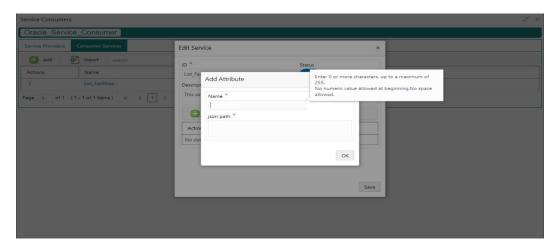


Component briefing					
Component Name	Component Type	ls Manda tory	Data type	Validation	Comments
ld	Text Box	Yes	Alphanum eric with special characters	Name cannot be blank Enter 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed.	Unique Service Id
Status	Switch	Yes			Predefined Values: ACTIVE / INACTIVE If consumer service is marked as inactive, then all related routes will be stopped.
Description	Text Area	Yes	Alphanum eric with special characters	Description cannot be blank Enter 0 or more characters, up to a maximum of 1000. No space allowed at beginning or ending of the value.	
Attributes	Table Content				
Save	Button				Saves the Consumer Service



## 8.1.1 Attributes

Service Consumers						× <sup>9</sup> 4
Oracle_Servic	ce_Consumer					
Service Providers	Consumer Services	Edit Service			×	
Add	Import search	ID *		tatus		
Actions	Name	List_Facilities				
i	List_Facilities	Description *				
Page 1 of 1 (	(1 - 1 of 1 items ) K < 1 >	This service fetche	es the list of facilities available fo	r party id		
		Add				
		Actions	Attribute Name	json path		
		Edit	ENTITY	\$.body.entity		
		Delete				
					Save	



Component b	Component briefing					
Component Name	Component Type	ls Mandatory	Data type	Validation	Condit ion	Comments
Add	Button					Pops up add
Navigation: C	onsumer Servi	ces -> Headers	s -> 3 dot icon (	(operation menu)		dialog
Edit	menu option					Pops up edit dialog
Delete	menu option					Deletes attribute



Navigation: Consumer Services -> Headers -> Add						
Name	Text Box	Yes	Alphanumeri c with special characters	Name cannot be blank Enter 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed.		
JSON Path	Text Area	Yes	Alphanumeri c with special characters	Value cannot be blank Enter 0 or more characters, up to a maximum of 255. No space allowed.		Value will be JSON path.
ОК	Button					Saves the header details and displays it in the list

#### NOTE:

- Using \$.body, user can access request body.
   Syntax: \$.body.fieldName
   Example: \$.body.branchCode
- Using \$.headers, user can access request headers. Syntax: \$.headers["fieldName"][0] Example: \$.headers["branchCode"][0]
- Using \$.env, user can access environment variables. Syntax: \$.env.group.variable



#### 8.2 Import

User can create a consumer service by importing the JSON file.

User can also import zip file in order to import all the configuration JSON files together (except parent level configuration JSON files).

Navigation: Consumer Services -> Import

Service Consumers	* ×
Oracle_Service_Consumer	
Service Providers Consumer Services	
🔁 Add 🛛 Import Search 🔍	
Actions Name	Description
I List_Facilities	This service fatches the list of facilities suclishing for north in
Page 1         of1 (1-1 of1 litens)         x         < 1	Import Service ×

Component	Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Condition	Comments	
File	File picker	Yes		Allows only to select one file	Accepts JSON and ZIP file	Pops up file selection dialog box	
Overwrite extended templates	Radio Button	Yes				Predefined Values: Yes / No Yes: This option is for overwriting the extended templates in configuration and	
						No: This option is for retaining the existing extended templates in configuration.	



Import	Button			Imports
				Consumer
				Service



#### 8.3 View

User can view consumer service details and can also switch to edit form by clicking on edit icon. Navigation: **Consumer Services -> Operation Menu (3 dot icon) -> View** 

Service Consumers				,," ×
Oracle_Service_Consumer				
Service Providers Consumer Services	View Service		₿ ×	
Add 🔂 Import search	ID	Status		
Actions Name	List_Facilities	On		
E List_Facilities	Description			
Page 1 of 1 (1 - 1 of 1 items) K	This service fetches the list of	facilities available for party id		
	Actions Attrib	ute Name json path	path	
	No data to display.			

### 8.4 Edit

User can modify the consumer service details.

Navigation: Consumer Services -> Operation Menu (3 dot icon) -> Edit

Service Consumers	5				× * ×
Oracle_Servic	ce_Consumer				
Service Providers	Consumer Services	Edit Service		×	
Add	Import search	ID *	Status		
Actions	Name	List_Facilities	Status		
1	List_Facilities	Description *			
Page 1 of 1	(1 - 1 of 1 items ) K < 1 >	This service fetches	the list of facilities available for part	ty id	
		🔂 Add			
		Actions	Attribute Name	json path	
		No data to display.			
				Save	



#### 8.5 Delete

User can delete the consumer service.

Navigation: Consumer Services -> Operation Menu (3 dot icon) -> Delete

Service Consumers			* ×
Oracle_Service	e_Consumer		
Service Providers	Consumer Services		
Add 🗧	Import search	Q	
Actions	Name		Description
i	List_Facilities		This service fetches the list of facilities available for party id
Page 1 of 1 (	1 - 1 of 1 items) K < 1	CONFIRMATION     Do you want to delete the	

## 8.6 Export

User can export the consumer service configuration as JSON file.

Navigation: Consumer Services -> Operation Menu (3 dot icon) -> Export

Service Consumers			,* ×
Oracle_Servic	e_Consumer		
Service Providers	Consumer Services		
Add 😜	Import search	٩	
Actions	Name		Description
I	List_Facilities		This service fetches the list of facilities available for party id
Page 1 of 1 (	1 - 1 of 1 items ) K < 1	CONFIRMATION	Confirm Cancel



## 9 Transformation

Transformation acts as an assembling and transforming data from source to destination and viceversa. This will take place under consumer service. This converts data of service consumer into service provider

Navigation: Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Consumer Services -> <Specific Consumer Service> -> Transformation

	ervice Consumer >				
		Consum	er Services > List_Facilities		
ransformatio	on Routing				
Add	Import search		٩,		
Actions	Name	Status	Product Processor	Implementation	Service
1	List_Facilities_Trf_01	ACTIVE	External_Product_Processor 1.0		ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
ge 1	of 1 (1 - 1 of 1 items) K	< 1	к		
vice Consi	umers				
		Consum	er Services > List_Facilities		
racle_S	ervice_Consumer >	Consum	> List_Facilities		
ransformatic	pn Routing	Consum	er Services > List_Facilities		
ansformatic	ervice_Consumer >	Consum		Implementation	Service
ansformatic Add Add Actions	ervice_Consumer > Routing mport search Name List Facilities_Trf_01		Q	Implementation	
racle_S ansformatic tions	ervice_Consumer > an Routing an Routing an import search Name List_Facilities_Trf_01	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
racle_S Insformatic Add ctions View Edit	ervice_Consumer > Routing Import search Name List Facilities_Trf_01 1 items) K	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
racle_S ansformatio tions View Edit Delet	ervice_Consumer > n Routing import search Name List Facilities_Trf_01 f litems) K	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
racle_S ansformatic Add ctions View Edit Delet Expor	rt t	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
racle_S ansformatio Add ctions View Edit Delet Expor	ervice_Consumer > n Routing import search Name List Facilities_Trf_01 f litems) K	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
racle_S ansformation Add actions View Edit Delet Expon	rt t	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Add Actions View S Edit Expoi	rt t	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Add Actions User Sector	rt t	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Add Actions User Sector	rt t	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Add Actions User Sector	rt terrice Consumer >	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Add Actions User Sector	rt terrice Consumer >	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service

Component briefing							
Component Name	Component Type	Condition	Comments				
<service Consumer&gt;</service 	Button		Navigates back to Service Consumers				



Pops up request audit log

<consumer Service&gt;</consumer 	Button		Navigates back to Consumer Services
Add	Button		Pops up add dialog
Import	Button		Pops up import dialog
Search	Combo Box One		Provides search functionality with case insensitive (Transformation Name)
Navigation: Tr	ansformation -> 3 d	ot icon (operatior	n menu)
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	menu option		Exports in JSON

Request

Audit

menu option



# 9.1 Add

User can create Transformation manually.

Service Consumers				×
Oracle_Service_Consumer	Add Transformation	Enter 0 to 255 characters. No numeric value allowed at beginni allowed.	ng.No space	×
🕒 Add 🔗 Import Sear	1			
Actions Name	I Product Processor			
	Product Processor *	Implementation	Service *	
List_Facilities_Trf_01	Select *	Select	Select	• QueryValidLimitIO
Page 1 of1 (1-1 of1 items)	Service Request Transformation Response Headers			
	Response Transformation			
				Save

Component b	Component briefing							
Component Name	Component Type	ls Mand atory	Data type	Validation	Comments			
Name	Text Box	Yes	Alphanum eric with special characters	<ul> <li>Name cannot be blank</li> <li>Enter 0 or more characters, up to a maximum of 255.</li> <li>No numeric value at beginning and no space allowed.</li> </ul>	Unique Transformation Name			
Active	Switch				Predefined Values: ACTIVE/INACTIVE If transformation is marked as inactive, then user will not be able to select transformation in routing.			



Product	Collapsible			
Processor	Header			
Product	Combo Box	Yes		Displays provider list relevant to
Processor	One			consumer
Implementat	Combo Box			Displays implementation list
ion	One			relevant to selected provider
Service	Combo Box	Yes		Displays service list relevant to
	One			selected provider and
				implementation
Service	Collapsible			Displays service details of
	Header &			selected service
	Content			
Headers	Collapsible			Displays header list relevant to
	Header &			selected provider, implementation and service
	Content			User can change the header values.
				Value can either be hardcoded
				or can be Velocity mapping.
Path Params	Collapsible Header &			Displays path param list relevant to selected service
	Content			User can change the param values.
				Value can either be hardcoded
				or can be Velocity mapping.
Query Params	Collapsible Header &			Displays query param list relevant to selected service
	Content			User can change the param values.
				Value can either be hardcoded
				or can be Velocity mapping.



Request	Collapsible		
Transformati	Header		
on			
Body Type	Combo Box		Predefined Values:
	One		RAW / FORM_DATA
			Note: This option is only visible
			if selected service is REST
			service.
Туре	Combo Box		Predefined Values:
	One		VELOCITY / JSLT / XSLT
Template	Text Area		User has to define the kernel template in which provider accepts.
			Refer Transformation Type for
			syntax and Multipart Request
			for sample request if body type
			is FORM_DATA
Extended Template	Text Area		User has to define the custom template in order to extend the kernel template.
			Please refer Extensibility and Transformation Type for syntax
			Note: This option is not visible if body type is FORM_DATA.
Response Headers	Collapsible Header & Content		Response Headers is used for specifying additional headers required to be part of routing hub response headers.
			Value can either be hardcoded
			or can be Velocity mapping.
Туре	Combo Box		Predefined Values:
	One		VELOCITY / JSLT / XSLT
Template	Text Area		User has to define the kernel template in which consumer accepts.



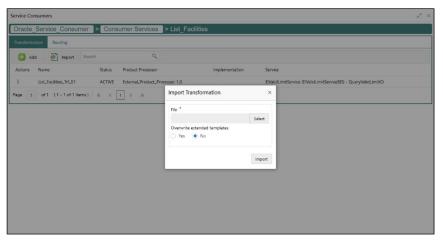
			Refer Transformation Type for syntax
Mocking required?	Switch		Predefined Values: YES / NO If flag is marked as yes, then routing hub will return the mocked template output (with extended template output if mentioned) to consumer without invoking provider API.
Mock Template	Text Area		User has to define the kernel mocked template in which consumer accepts. Refer Transformation Type for syntax
Extended Template	Text Area		User has to define the custom template in order to extend the kernel template. Refer Extensibility and Transformation Type for syntax
Save	Button		Saves transformation details

#### 9.2 Import

User can create a transformation by importing the JSON file.

User can also import zip file in order to import all the configuration JSON files together (except parent level configuration JSON files).

#### Navigation: Transformation -> Import





Component b	Component briefing							
Component Name	Component Type	ls Mand atory	Validation	Condition	Comments			
File	File picker	Yes	<ul> <li>Allows only to select one file</li> </ul>	Accepts JSON and ZIP file	Pops up file selection dialog box			
Overwrite extended templates	Radio Button	Yes			<ul> <li>Predefined Values:</li> <li>Yes / No</li> <li>Yes: This option is for overwriting the extended templates in configuration</li> <li>No: This option is for retaining the existing extended templates in configuration.</li> </ul>			
Import	Button				Imports Transformation			

### 9.3 View

User can view transformation details and can also switch to edit form by clicking on edit icon.

```
Navigation: Transformation -> Operation Menu (3 dot icon) -> View
```

Service Consumers					, *
Oracle_Service_Consumer	View Transformation			l x ×	
Transformation Routing	Name List_Facilities_Trf_01		Active On		
Actions Name	I Product Processor				
List_Facilities_Trf_01	Product Processor External_Product_Processor 1.0	Implementation select	Service ElValidLimitService (ElVa	I) - QueryValid	LimitIO
	Service     Request Transformation				
	<ul> <li>Response Transformation</li> </ul>				



## 9.4 Edit

User can modify the transformation details.

Navigation: Transformation -> Operation Menu (3 dot icon) -> Edit

Service Consumers	;							"" ×
Oracle_Servic	ce_Consumer	> Consumer Services	> Lis	t_Facilities				
Transformation	Routing	Edit Transformation					×	
	import sea	Name *			Active			
Actions Nar		List_Facilities_Trf_01						
E List	_Facilities_Trf_01	Product Processor						I) - QueryValidLimitIO
Page 1 of 1	(1 - 1 of 1 items)	Product Processor *		Implementation		Service *		
		External_Product_Processor 1.0	*	select	*	ElValidLimitService (ElValidLimitS		
		► Service						
		Request Transformation						
		Response Transformation						
							Save	

## 9.5 Delete

User can delete the transformation.

Navigation: Transformation -> Operation Menu (3 dot icon) -> Delete

Service Consumers				×
Oracle_Service_Consumer > 0	Consumer Services > List_Facil	lities		
Transformation Routing				
Add Timport search	٩			
Actions Name 5	Status Product Processor	Implementation	Service	
EList_Facilities_Trf_01	ACTIVE External_Product_Processor 1.0		ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO	
Page 1 of 1 (1-1 of 1 items) K	< 1 CONFIRMATION Do you want to delete the record		nfim Cancel	



# 9.6 Export

User can export the transformation configuration as JSON file.

Navigation: Transformation -> Operation Menu (3 dot icon) -> Export

Service Const	umers				
Oracle_S	ervice_Consumer >	Consum	er Services > List_Facilities		
	on Routing				
Add	Import search		٩		
Actions	Name	Status	Product Processor	Implementation	Service
i	List_Facilities_Trf_01	ACTIVE	External_Product_Processor 1.0		ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
Page 1	of 1 (1 - 1 of 1 items) K	< 1			×
			Do you want to export?		T
					Confirm Cancel



# 10 Routing

Routing defines no rule or rule-based route configuration. Route decide the actual request to be send to which service provider based on maintenance and evaluation.

Navigation: Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Consumer Services -> <Specific Consumer Service> -> Routing

ervice Consumers	Service Co	nsumers					»"
Add       Sparch       C         Actions       Name       Start/Stop       Rule       Product Processor       Implementation       Service         I       Litt_Facilities, Route_01       External_Product_Processor 1.0       External_Product_Processor_Default       DValidLimitService (EValidLimitServiceSE) - QueryValidLimitD)         Page       1       of 1       (1-1 of 1 items)       K < (1 > X       X       X       X         Page       1       of 1       (1-1 of 1 items)       K < (1 > X       X       X       X       X         Page       1       of 1       (1-1 of 1 items)       K < (1 > X       X       X       X       X         Page       1       of 1       (1-1 of 1 items)       K < (1 > X       X	Oracle	Service_Consumer	> Consu	mer S	Prvices > List_Facilities		
Adians       Name       Start/Stop       Rule       Product Processor       Implementation       Service         i       List_facilities, Route, 01       External_Product_Processor 1.0       External_Product_Processor_Default       EValidLimitService (EValidLimitServiceSE) - QueryValidLimitD         Page 1       of 1       (1 - 1 of 1 items)       K< < 1 > X       X       X       X         Structe Consumers       Consumer > Consumer > Consumer > List_Facilities       X       X       X         Oracle_Service_Consumer > Consumer > List_Facilities       Facilities       X       X       X         interface       Name       Sarx/Stop       Rule       Product Processor 1.0       External_Product_Processor_Default       EValidLimitService (EValidLimitServiceSE) - QueryValidLimitD         Product Processor       Implementation       Service       X       X       X         Add       search       Consumer > Consumer > List_Facilities       X       X       X       X         Tansformation       Name       Sarx/Stop       Rule       Product Processor 1.0       External_Product_Processor_Default       EValidLimitService(EValidLimitServiceSE) - QueryValidLimitD         Sarx/Stop       Rule       Product Processor 1.0       External_Product_Processor_Default       EValidLimitService(EValidLimitServiceSE) - QueryValid	Transform	ation Routing					
I       Lat_facilities_Route_01       External_Product_Processor_Default       EtValidLimitService (EtValidLimitServiceSE) - QueryValidLimit10)         Page 1       of1 (1-1 of 1 items)       K < 1 > X       Image: X       Image: X       Image: X         ervice Consumers       Image: X       Image: X       Image: X       Image: X       Image: X       Image: X         Oracle Service_Consumer       > Consumer Services > List_Facilities       Image: X       Image: X       Image: X       Image: X       Image: X         Image: Add       search       Q       Image: X       Image: X       Image: X       External_Product_Processor_Default       Evaluation       Service         Image: Add       search       Q       Image: X       Im	🔂 Ad	d search	٩,				
Page 1 of 1 (1-1 of 1 items) K < 1 > X	Actions	Name	Start/Stop	Rule	Product Processor	Implementation	Service
ervice Consumers  Price Consumers  Price Consumer > Consumer > List_Facilities  Price Consumer > Consumer Services > List_Facilities  Price Consumer > Consumer Service > List_Facilities  Price Consumer > Consumer > Consumer Service > List_Facilities  Price Consumer > Consumer > Consumer Service > List_Facilities  Price Consumer > Consumer > Consumer Service > List_Facilities  Price Consumer > Consumer Service > Configuration = Consumer Service > Configuration =	:	List_Facilities_Route_01	•		External_Product_Processor 1.0	External_Product_Processor_Default	ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
Oracle_Service_Consumer       > Consumer Services       > List_Facilities         Transformation       Routing	Page 1	of 1 (1 - 1 of 1 items)	K < 1	> >			
Oracle_Service_Consumer       > Consumer Services       > List_Facilities         Transformation       Routing							
View     Poute_01     External_Product_Processor 1.0     External_Product_Processor_Default     EIValidLimitService (EIValidLimitServiceSEI) - QueryValidLimitIO       View     Edit     1 items.)     K < 1 > ×I     Edit	Oracle_ Transform	Service_Consumer		mer Se	ervices > List_Facilities		
View View 1 Items) K ( 1 > X Delete Configuration	Actions	Name	Start/Stop	Rule	Product Processor	Implementation	Service
Page     Edit     1 litems)     K     K     I       Delete     Configuration     I     I     I		Contraction Route_01	۲		External_Product_Processor 1.0	External_Product_Processor_Default	ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
Configuration	Pag Ec	lit 1 items )	к < 1	> >			
	Co	onfiguration					

Component briefing						
Component Name	Component Type	Condition	Comments			
<service Consumer&gt;</service 	Button		Navigates back to Service Consumers			



<consumer Service&gt;</consumer 	Button	Navigates back to Consumer Services
Add	Button	Pops up add dialog
Search	Combo Box One	Provides search functionality with case insensitive (Routing Name)

Navigation: Routing -> 3 dot icon (operation menu)

View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Configuratio n	menu option		Pops up configuration dialog
Request Audit	menu option		Pops up request audit log

#### 10.1 Add

User can create Routing manually.

#### Navigation: Routing -> Add

Service Consumers				,* ×
Oracle_Service_Consumer	Add Route			×
Transformation Routing	Name *	Start/Stop	Auto Shutdown	
Add search		START STOP		
Actions Name	O Default Rule   Custom Rule			
List_Facilities_Route_01	al Rule			LimitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1-1 of 1 items)	Expression Editor *			
	A Transformations			
	🔂 Add			
	Actions Product Processor	Implementation	Transformation	
			Sa	ve
				_



Component b	Component briefing					
Component Name	Component Type	ls Mandatory	Comments			
Name	Text Box	Yes	Unique routing name			
Start / Stop	Switch	Yes	Predefined Values: START / STOP If routing is marked as STOP, then consumer request will fail at routing hub level only.			
Auto Shutdown	Switch	Yes	Predefined Values: ON / OFF If AutoShutdown flag is ON, then route state will be changed to STOP if route failure goes beyond the threshold failure limit based on the monitoring and alert configuration.			
Rule Type	Radio Button	Yes	Predefined Values: Default Rule / Custom Rule			
Transformati ons	Collapsible Header & Content					
Save	Button		Saves the routing details			

# 10.1.1 Add Routing with Custom Rule

Service Consumers							,," ×
Oracle_Service_Consumer	Add Route					>	<
Transformation Routing	Name *		Start/Stop		Auto Shutdown		
Add search			START	STOP			
Actions Name	<ul> <li>Default Rule</li> </ul>	<ul> <li>Custom Rule</li> </ul>					
List_Facilities_Route_01	🛋 Rule						LimitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1 - 1 of 1 items)	Expression <i>Editor</i>	*					
	Transformations						
	🔂 Add						
	Actions	Product Processor		Implementation	Transforma	ition	
						Save	



Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Comments		
Expression	Text Area	Yes		User can view expression that is formed through expression editor.		
Editor	Button			Pops up expression editor dialog		

# 10.1.2 Add Custom Rule using Expression Editor

Service Consumers						,
Oracle_Service_Con Transformation Routing	Expression Editor	in in the product			×	
Add search	Attribute *	Operator *	Value *	Condition Type	×	
Actions Name List_Facilities_Ro	select 🔻	select 🔻		select	*	eSEI) - QueryValidLimitIO
Page 1 of 1 (1 - 1 of 1						
					Save	

Component briefing						
Component Name	Component Type	Is Mandatory	Comments			
Attribute	Combo Box One	Yes	Displays list of attributes relevant to consumer service			
Operator	Combo Box One	Yes	Logical operators to form an expression			
Value	Text Box	Yes				



Condition type	Combo Box One	Conditional Operators
Save	Button	Saves the expression

NOTE: String value should be quoted using single quotes (')

eg: 'abc'

List value should be comma separated values and quoted using single quotes ( ' ) eg: 'abc,xyz,1.23,true'

### **10.1.3 Transformations**

User can define the sequence of transformations for each routing in which request should be processed.

Sequence of transformations in list can be changed by using drag-n-drop feature.

Service Consumers						** ×
Oracle_Service_Consumer	> Consumer S	Services > List_Facilities				
Transformation Routing	Add Route				×	
Add search	O Default Rule	Custom Rule				
Actions Name	A Rule					
List_Facilities_Route_01	Expression Editor	*				imitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1-1 of 1 items)						
	Transformations					
	Add					
	Actions	Product Processor	Implementation	Transformation		
	No data to display.					
					Save	
Service Consumers				_	_	,* ×
Service Consumers	Consumer S	ervices > List_Facilities	_	_		/ ×
	Consumer S				×	/ ×
Oracle_Service_Consumer			Implementation *	-	×	× ×
Oracle_Service_Consumer Transformation Routing	Add Transformatic Product Processor * select		Implementation * select		×	/ ×
Oracle_Service_Consumer	Add Transformatio Product Processor * <i>select</i> Transformation *	v.			×	imiServiceSE) - QueryVälidLimitiO
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actions         Name	Add Transformatic Product Processor * select Transformation * select	on		•	×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformation Product Processor * select Transformation * select > Headers	v v		•	×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatic Product Processor * select Transformation * selecr Headers # Product Processor	v v		•	×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformation Product Processor * select Transformation * select > Headers	v v		•	×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatic Product Processor * select Transformation * selecr Headers # Product Processor	v v		•	×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatio Product Processor * select Transformation * selecr > Headers # Product Processor Service > Request Transform	antion			×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatic Product Processor * select Transformation * selecr Headers # Product Processor Service	antion			×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatio Product Processor * select Transformation * selecr > Headers # Product Processor Service > Request Transform	antion				
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatio Product Processor * select Transformation * selecr > Headers # Product Processor Service > Request Transform	antion			×	
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatio Product Processor * select Transformation * selecr > Headers # Product Processor Service > Request Transform	antion				
Oracle_Service_Consumer           Transformation         Routing           Add         search           Actons         Name           j         List_Facilities_Route_01	Add Transformatio Product Processor * select Transformation * selecr > Headers # Product Processor Service > Request Transform	antion				



Component bri	Component briefing					
Component Name	Component Type	ls Mandatory	Comments			
Product Processor	Combo Box One	Yes	Displays provider list relevant to consumer			
Implementation	Combo Box One	Yes	Displays implementation list relevant to selected provider			
Transformation	Combo Box One	Yes	Displays transformation list relevant to select provider & implementation			
Headers	Collapsible Header & Content		Displays header list relevant to selected implementation and transformation User can change the header values. Value can either be hardcoded or can be Velocity mapping.			
Product Processor	Collapsible Header & Content		Displays service details relevant to selected transformation			
Request Transformation	Collapsible Header & Content		Displays request transformation template			
Response Transformation	Collapsible Header & Content		Displays response transformation template			
ОК	Button		Saves the transformation details in list			



### 10.2 View

User can view routing details and can also switch to edit form by clicking on edit icon.

Navigation: Routing -> Operation Menu (3 dot icon) -> View

Service Consumers	_				/	×
Oracle_Service_Consumer	View Route			ľ	3 ×	
Transformation         Routing	Name List_Facilitie: Default R	s_Route_01		uto Shutdown Dff	LimitServiceSE() - QueryValidLimitIO	
Page 1 of 1 (1-1 of 1 items)	Actions	Product Processor External_Product_Processor 1.0	Implementation External_Product_Processor_Default	Transformation t List_Facilities_Trf_01		

### 10.3 Edit

User can modify the routing details.

Navigation: Routing -> Operation Menu (3 dot icon) -> Edit

Service Consumers				, * ×
Oracle_Service_Consumer	Edit Route		×	
Transformation Routing Add search Actions Name	Name * S List_Facilities_Route_01 Default Rule Custom Rule	tart/Stop Auto Shu START STOP	tdown	
EList_Facilities_Route_01	Transformations			LimitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1 - 1 of 1 items)	🕂 Add			
	Actions Product Processor	Implementation	Transformation	
	External_Product_Processor 1.0	External_Product_Processor_Default	List_Facilities_Trf_01	
			Save	



# 10.4 Delete

User can delete the routing.

Navigation: Routing -> Operation Menu (3 dot icon) -> Delete

Service Consum	iers					,," ×
Oracle_Ser	vice_Consumer	> Consu	ner Se	ervices > List_Facilities		
Transformation	Routing					
Add	search	٩,				
Actions Na	ame	Start/Stop	Rule	Product Processor	Implementation	Service
: Lis	t_Facilities_Route_01	٠		External_Product_Processor 1.0	External_Product_Processor_Default	ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
Page 1 of	1 (1 - 1 of 1 items)	К < 1	0	CONFIRMATION		×
			Do	you want to delete the record?		1
					Confirm	Cancel



# **11 Chaining**

End-user will be able to define the sequence of transformations for each routing in which request should be processed.

Chaining can be achieved by using snapshot list.

Snapshot list stores the response body and response headers whenever the transformation is processed.

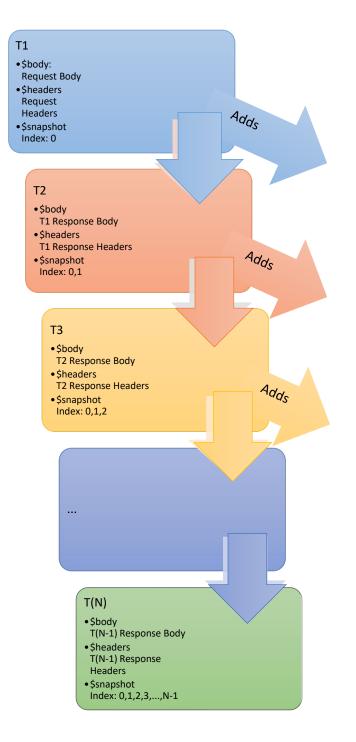
So, end-user can access response body or headers of all processed transformations at any given step.

### Syntax:

\$snapshot.get(index).body or \$snapshot.get(index).headers

**NOTE:** \$body and \$headers will refer the response body and headers of previous step.





Snapshot List					
Index	body	headers			
0	Request Body	Request Headers			
1	T1 Response Body	T1 Response Headers			
2	T2 Response Body	T2 Response Headers			
3	T3 Response Body	T3 Response Headers			



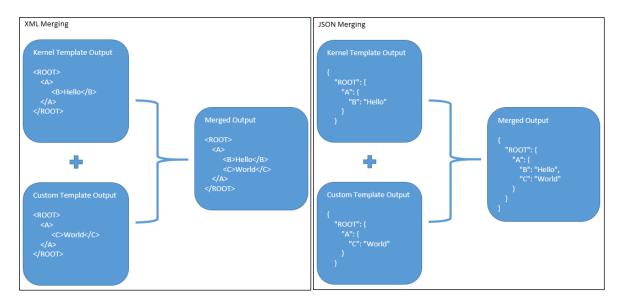
# **12 Extensibility**

Extensibility in Routing Hub refers to template extensibility and is achieved by specifying the extended templates for request and response kernel transformation templates.

And as part of extensibility, Routing Hub merges the output of kernel template and custom template in terms of JSON / XML merging.

In case of request, Routing Hub will send the merged output as request payload to provider. In case of response, Routing Hub will return the merged output as response back to consumer

Example:





# 13 Audit purging / archiving

Purging/Archiving of audit data is done on the basis of retention policy.

This process uses plato-batch-server for Job execution.

Below steps are required to schedule purging/archiving job (routingHubAuditRetentionJob) once cmc-obrh-services and plato-batch-server is UP and RUNNING:

1. Open "Configure Tasks" screen (Task Management -> Configure Tasks)

2. Select "Schedule" option

3. Select "Task Name" as routingHubAuditRetentionJob and "Task Trigger Name" will be generated automatically

4. Specify the CRON expression to daily EOD

In order to resolve table space issue of Audit table (CMC\_RH\_AUDIT\_EVENT\_LOG), Database Management Team has to configure database job which should be triggered after routingHubAuditRetentionJob.

This database job can be redefining the table (DBMS\_REDEFINITION) after purging/archiving is done or other approach.

So, unused LOB segment space can be released.

And in order to resolve table space issue of Audit history table (CMC\_RH\_AUDIT\_EVENT\_LOG\_HISTORY), Database Management Team has to configure database job to truncate table periodically basis.



# 14 Multipart request

[

Below is the sample template for multipart request:

```
{
    "key": "file",
    "type": "FILE",
    "value": "$body.files.get(0).file"
},
{
    "key": "name",
    "type": "TEXT",
    "content": "$body.name"
}
```

]



# **15** Configuration

End-user can configure the properties w.r.t. monitoring and alerting.

End-user can configure the same at System level and granular levels such as Consumer, Consumer Service and Routing.

### Navigation: Core Maintenance -> Routing Hub -> Configuration

Configuration					$_{\mu}^{\mu}$ $\times$
Monitoring					
Window Type			Window Size		
● Count ◯ Time		100	~ ~		
▲ Alert					
Minimum number of calls			Failure rate threshold		
	•			× ^	
▲ Email Alert					
Email Addresses					
Export					
Mark data as factory shipped					
					Clear Reset Save

Component briefing								
Component Name	Component Type	ls Mandatory	Validation	Comments				
Monitoring	Collapsible Header & Content		Monitoring properties are mandatory if alert properties have been configured.	This section has properties that are required by Breaker for storing and aggregating the outcome of calls using WindowType and WindowSize.				



Window Type	Radio Button	No		Predefined Values: COUNT / TIME The count-based sliding window aggregates the outcome of the last N calls (Window Size). The time-based sliding window aggregates the outcome of the calls of the last N seconds (Window Size).
Window Size	Number Box	Νο		This property is used to record the outcome of calls when the CircuitBreaker is closed. In case of count-based sliding window, window size will be N calls. In case of time-based sliding window, window size will be N seconds.
Alert	Collapsible Header & Content		Alert properties are mandatory if monitoring properti es have been configured.	This section has properties that are required for transitioning CircuitBreaker.
Minimum number of calls	Number Box	No		If minimumNumberOfCalls is 10, then at least 10 calls must be recorded, before the failure rate can be calculated. If only 9 calls have been recorded the CircuitBreaker will not transition to open even if all 9 calls have failed.



Failure rate threshold	Number Box	No	Configures the failure rate threshold in percentage. When the failure rate is equal or greater than the threshold the CircuitBreaker transitions to open and starts short-circuiting calls.
Email Alert	Collapsible Header & Content		This section has properties that are required for mail notification.
Email Addresses	Text Box	No	Once the failure rate crosses the failureRateThreshold, then end-user will be notified about the event via mail. This property will be semi- colon separated email addresses
Export	Collapsible Header & Content		This section has properties that are required for exporting configuration JSON. This section will be visible at system level only.
Mark data as factory shipped	Switch	Yes	This property is used to mark the exported configuration JSON as factory shipped JSON. So, end-user will not be able to modify or delete the certain data once imported. Default value is false.



### Example

Let say

WindowType is Count

WindowSize is 20

Minimum number of calls is 10

Failure rate threshold is 50%

Configured properties will behave as below:

After 10 (min number of calls) calls, routing would get shutdown if 50% (failure rate) of atmost last 20 (window size) calls have failed.

And if email address property is configured, then end-user will be notified as well.



## 16 Audit Log

Check Audit log on the below navigation path for Oracle Banking Routing Hub

#### Request Audit 2<sup>12</sup> - 2 Request Id Consumer Service Consumer Provider Implementation Provider Service rovider Transformation Route User Id Search Request Id Consumer Consumer Service Provider Provider Implementation Provider Service Transformation Route Status User Id No data to display. Page 1 of 0 (1-0 of 0 items) K < > >

#### Navigation: Core Maintenance -> Routing Hub -> Request Audit

Request Audit									× <sup>1</sup> 4
Request Id			Consumer			Consumer Service			
Provider			Provider Implementa	ation		Provider Service	100		
			Request Audit Details			×			
Transformation			Request Id						
			eqwiLi5IXb4N1dZTT8KKZi 8	mRnxj3Q16tby8u5n0VkV6	2B0dtIsNFN1hZcJmWrgC	uxhwCn2vlcBkbbqNHuiELNt3			
Search			° 🕜 ——						
Search						OBRH Response			
Request Id	Consumer	Consumer	OBRH Request Timestamp	Provider Request	Provider Response	OBKH Response	te	Status	User Id
eqwiLi5IX	Oracle_Service_Consumer	List_Facilities	2021-02-23T12:34:42.128	8+05:30			)_L	SUCCE	JOHNDOE
			Message						
xvA8tBqg	Oracle_Service_Consumer	List_Facilities	eyJhbGciOiJlUzUxMiJ9.eyJ 2Mzc4NiwiZXhwljoxNjE0N	/DY0Mzg2fQ.R-	RYX0FOSUtFVCIsImF1ZCI	6IIdFQilsImIhdCl6MTYxNDA	)_L	FAILURE	JOHNDOE
rKiNdo6q	Oracle_Service_Consumer	List_Facilities		HN53W_Nd9z3RJixrKMDSs application/json"],"User-Ag			)_L	FAILURE	JOHNDOE
0cfSvi3rO	Oracle_Service_Consumer	List_Facilities					)_L	FAILURE	JOHNDOE
7QNJXRx	Oracle_Service_Consumer	List_Facilities					)_L	SUCCE	JOHNDOE
Page 1 of	f 347 (1 - 5 of 1735 items)	К < 1 2	3 4 5 347	к <					



Request Audit	t								$_{\mu}^{\mu}$ $\times$
Request Id			Consumer		c	onsumer Service			
Provider			Provider Implementa	tion	P	rovider Service			
Transformation			Request Audit Details Request Id xvA8tBqgWQas1qC7pl2nt 9Tb	N5vtWog6ie9WbLae48KK0	K08JsIIRUpa1a2xFYAaHGau	I6WiSd7XSfG8axMhgbnP0			
Search Request Id	Consumer	Consumer	OBRH Request Timestamp	Provider Request	Provider Response	OBRH Response	te	Status	User Id
eqwiLi5IX	Oracle_Service_Consumer	List_Facilities	2021-02-23T12:30:31.796 Message	+05:30			)_L	SUCCE	JOHNDOE
xvA8tBqg	Oracle_Service_Consumer	List_Facilities	{"headers":{"branchCode": eyJhbGciOiJlUzUxMiJ9.eyJ	0aWQiOiliLCJzdWliOiJPQk	earer RYX0FOSUtFVCIsImF1ZCI6I 8L8tuyKAXZtKXDPmrnIsWp		)_L	FAILURE	JOHNDOE
rKiNdo6q	Oracle_Service_Consumer	List_Facilities	(Windows NT 10.0; Win64		ype":["application/json"],"U (KHTML, like Gecko) Chron		)_L	FAILURE	JOHNDOE
0cfSvi3rO	Oracle_Service_Consumer	List_Facilities					)_L	FAILURE	JOHNDOE
7QNJXRx	Oracle_Service_Consumer	List_Facilities					)_L	SUCCE	JOHNDOE
Page 1 of	f 347 (1 - 5 of 1735 items )	К < 1 2	3 4 5 347	к «					

Component briefing						
Component Name	Component Type	Condition	Comments			
Consumer	Text Box		Consume Name			
Consumer Service	Text Box		Service Consumer Name			
Provider	Text Box		Provider Name			
Provider Implementation	Text Box		Provider Implementation Name			
Provider Service	Text Box		Provider Service Name			
Transformation	Text Box		Transformation Name			
Route	Text Box		Route Name			
Request Id	Text Box		Correlation Id			
User Id	Text Box		User Id			



Search	Button	Search is done based on below things:	Performs search
		Case insensitive	operation with specified
		Pattern matching	values
		Single / Multi Column search	

**NOTE:** Clicking on "RequestId" value will display step by step execution of request with data such as Routing Hub Request & Timestamp, Provider Request & Timestamp, Provider Response & Timestamp, Routing Hub Response & Timestamp.



# 17 Dashboard 17.1 Routing Health Indicator Widget

User can view the metric information Successful calls vs Failed calls ratio of each routing.

NOTE: Failed calls here refer to the calls that are failed due to timeout issue.

6		_
Routing Health Indicate Consumer	Service	×
Oracle_Service_Cons Q		0
Routing		
All List_Faciliti	es Route	
T I I I I I I I I I I I I I I I I I I I	Series Successful Calls	
	Value 100.0	
100%	Succes	
	Failed 0	Calls



# **18 Transformation Type**

### 18.1 Velocity

Velocity is a Java-based template engine.

Velocity can be used to generate XML files, SQL, PostScript and most other text-based formats.

NOTE: In routing hub, Velocity will be used to generate JSON and XML.

- Using **\$body**, user can access request/response body.
   Syntax: \$body.fieldName
   Example: \$body.branchCode
- Using **\$headers**, user can access request/response headers.
   Syntax: \$headers["fieldName"][0]
   Example: \$headers["branchCode"][0]
- Using **\$bodyAsString**, user can access response body as string. Syntax: **\$bodyAsString**
- Below are some available extension methods:
  - Date Conversion
     Syntax: \$dateUtil.convert(inputDate, fromPattern, toPattern)
     Parameters:
    - inputDate String
    - fromPattern String
    - toPattern String

#### Returns: String

Please refer <u>https://docs.oracle.com/javase/8/docs/api/java/text/SimpleDateFormat.html</u> for different patterns

> Default Value

Syntax: \$custom.defaultValue(inputValue, defaultValue)
Parameters:

- inputValue Object
- defaultValue String

#### Returns: Object



Null Check

Syntax: \$custom.isNull(inputValue)

Parameters:

inputValue - Object

Returns: Boolean

- Random Number
   Syntax: \$mathUtil.getRandom()
   Returns: Object of Random class (java.util.Random)
- Xml Tool

Syntax: \$xml.methodName() Please refer <u>https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/XmlTool.</u> html

> Date Tool

Syntax: \$date.methodName()

### Please refer

https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/DateTool. html

Json Tool

Syntax: \$json.methodName()

### Please refer

https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/JsonTool. html

Math Tool

Syntax: \$math.methodName()

#### Please refer

https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/MathTool .html

Number Tool

Syntax: \$number.methodName()

### Please refer

https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/NumberT ool.html



Escape Tool
 Syntax: \$esc.methodName()
 Please refer
 <a href="https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/EscapeT">https://velocity.apache.org/tools/3.1/apidocs/org/apache/velocity/tools/generic/EscapeT</a>
 ool.html

Serialization of object into its equivalent Json representation

Syntax: \$custom.toJson(src)
Parameters:

src - Object

Returns: String

Get additional field's value based on fieldname

Syntax: \$custom.getFieldValueByld(jsonString, fieldname)
Parameters:

- jsonString String
- fieldname String

### Returns: String

Get list of additional fields based on fieldname prefix

**Syntax:** \$custom.getAdditionalFieldSetByType(jsonString,prefixval) **Parameters:** 

- jsonString String
- prefixval String

### Returns: List

• If issue occurred with hyphen in velocity template of Request or Response Transformation, then use get method.

### Example:

<FCUBS\_BODY>

- <Customer-IO>
  - <CUSTNO>003942</CUSTNO>
- </Customer-IO>
- </FCUBS\_BODY>
- If "\$in.FCUBS\_BODY.Customer-IO.CUSTNO" does not work ,

Use "\$in.FCUBS\_BODY.get("Customer-IO").CUSTNO" to get customer number.



### 18.2 XSLT

XSLT is a language for transforming XML documents into other XML documents, or other formats such as HTML for web pages, plain text or XSL Formatting Objects, which may subsequently be converted to other formats, such as PDF, PostScript and PNG.

**NOTE:** In routing hub, XSLT will be used to transform arbitrary XML to JSON.

### 18.3 JSLT

JSLT is a complete query and transformation language for JSON.



# **19 Oracle Banking Routing Hub Integration Specification**

## **19.1 Token Generation**

PlatoJWTAuth endpoint Signature -

- Path : /platojwtauth
- Headers:
  - > appld : SECSRV001
  - Content-Type : application/json
- Request Body:

```
{
```

"username": "",

"password": ""

}

- > Username and password will be base64 encoding of plaintext.
- Response Body:

```
{
  "token": "",
  "userAlreadyLoggedIn": "Y",
  "expires_in": 3180,
  "home_entity_id": "DEFAULTENTITY",
  "multi_entity_admin": "N",
  "multi_entity_admin_locale": ""
}
```

Example - Below are the screenshots

### Headers

POS	T v whf00lse:7002/api-gateway/platojwtauth			Sen	d 🔹	
Parar Head	ns Authorization Headers (12) Body ●	Pre-request Script Tests Settings				Cookies Code
	KEY	VALUE	DESCRIPTION			
	кеү appld	VALUE SECSRV001	DESCRIPTION			



#### **Request Payload**

POST	whf00lse:7002/api-gateway/platojwtauth	Send <b>v</b> Save <b>v</b>
Params Aut	norization Headers (12) Body Pre-request Script Tests Settings	Cookies Code
• none • f	orm-data 🔍 x-www-form-urlencoded 🌑 raw 🔍 binary 🔍 GraphQL _ JSON 💌	Beautify
3 "ра	ername": "VEVTVFVTRVIx", ssword": "VEVTVFVTRVIx"	
4 }		

### **Response Payload**



### **19.2 Synchronous Dispatch API Specification**

Dispatch endpoint is the **single** entry-point for invoking the routes configured in Oracle Banking Routing Hub for services of a Service Consumer.

Dispatch endpoint Signature -

- Method: POST / GET
- Path : /route/dispatch
- Headers:
  - > appld : CMNCORE
  - entityId : DEFAULTENTITY
  - > userId : <user id>
  - branchCode : <branch code>
  - Authorization : Bearer <Token>
  - > SERVICE-CONSUMER : <name of service consumer>
  - > SERVICE-CONSUMER-SERVICE : <name of service consumer service>



- Request Body:
  - Any valid JSON payload which shall act as input to the transformation template in request transformer.
- Response Body:

```
{
    "data": {}
    "messages": {}
}
```

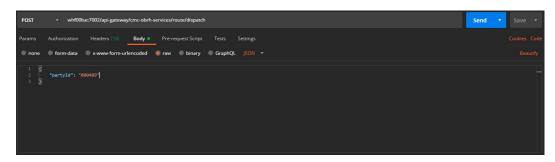
- If the route invocation succeeds, data JSON member would contain the transformed (optional) response of the provided service. If it's a provided web service and no response transformation template is supplied, XML Soap Body of response would be converted into JSON object and sent in data JSON member.
- If the route invocation fails due to misconfigured route or connection time out to ServiceProviderImpl or some other reason, relevant error messages would be sent in messages JSON member. In that case, data JSON member would be null or empty.

Example - Below are the screenshots of route dispatch for ServiceConsumer **Oracle\_Service\_Consumer** and ServiceConsumerService **List\_Facilities** 

#### Headers

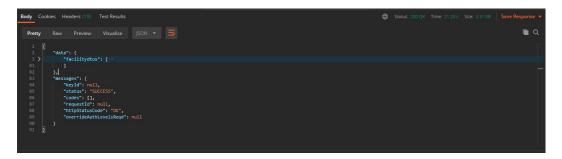
POS	ST v whf00lse:2002/api-gateway/cmc-obrh-services/route/dispatch						
Param	ns Authorization Headers (17) Body  Pre-request Script Test:						
		VALUE	DESCRIPTION	••• Bulk E	dit Presets 🗸		
$\checkmark$	Content-Type	application/json					
	appld	CMNCORE					
$\sim$	entityld	DEFAULTENTITY					
	userld	TESTUSER1					
$\sim$	branchCode	004					
	Authorization	Bearer ({token)}					
$\sim$	SERVICE-CONSUMER	Oracle_Service_Consumer					
	SERVICE-CONSUMER-SERVICE	List_Facilities					

### **Request Payload**

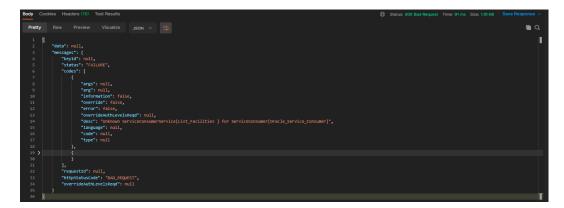




### Response Payload on Successful Dispatch



#### **Response Payload on Failed Dispatch**



### 19.3 Asynchronous Dispatch API Specification

Dispatch endpoint is the **single** entry-point for invoking the routes configured in Oracle Banking Routing Hub for services of a Service Consumer.

Dispatch endpoint Signature -

- Path : /route/dispatch
- Query Params:
  - ➢ isAsync : true
- Headers:
  - > appld : CMNCORE
  - entityId : DEFAULTENTITY
  - userId : <user id>
  - branchCode : <branch code>
  - > Authorization : Bearer <Token>
  - > SERVICE-CONSUMER : <name of service consumer>



- > SERVICE-CONSUMER-SERVICE : <name of service consumer service>
- Request Body:
  - Any valid JSON payload which shall act as input to the transformation template in request transformer.
- Response Body:

```
{
   "data": { "correlationId" : "" },
   "messages": {}
}
```

Example - Below are the screenshots of route dispatch for

ServiceConsumer Oracle\_Service\_Consumer and ServiceConsumerService List\_Facilities

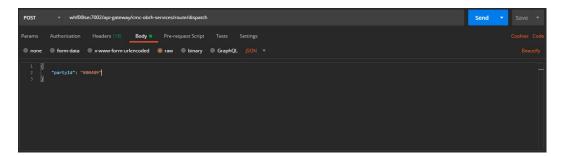
#### **Query Params**

POST	whf00lse:7002/api-gateway/cmc-obrh-services/route/dispatch?isAsync=true					Send	•					
Params • Query Param		Headers (17)	Body 单	Pre-request Script	Tests	Settings						
KEY				VALUE				DESCRIPTION				
🖌 isAsync	✓ isAsync			true								

#### Headers

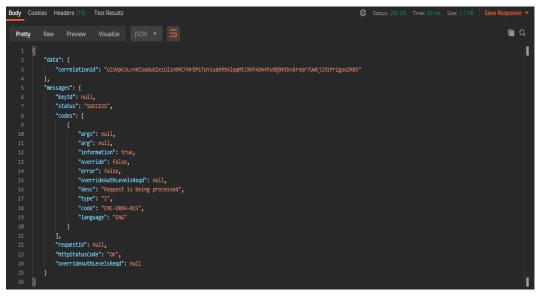
POST v whf00lse:7002/api-gateway/cmc-obrh-services/route/dispatch	'isAsync≈true			Send 🗸
Params  Authorization Headers (17) Body  Pre-request Script Te				
Headers 💿 9 hidden				
		DESCRIPTION	••• Bulk Edit	Presets $\vee$
Content-Type	application/json			
✓ appld	CMNCORE			
I entityld	DEFAULTENTITY			
✓ userId	TESTUSER1			
✓ branchCode	004			
Authorization	Bearer ({token}}			
SERVICE-CONSUMER	Oracle_Service_Consumer			
SERVICE-CONSUMER-SERVICE	List_Facilities			

#### **Request Payload**





#### **Response Payload**



### 19.4 Asynchronous Dispatch Response API Specification

Response endpoint Signature -

- Path : /route/dispatchResponse/{Correlation-Id}
  - > Correlation-Id will be coming from the response of dispatch endpoint.
- Headers:
  - > appld : CMNCORE
  - entityId : DEFAULTENTITY
  - > userId : <user id>
  - branchCode : <branch code>
  - Authorization : Bearer <Token>
- Response Body:

```
{
```

```
"data": {}
```

```
"messages": {}
```

}

If the route invocation succeeds, data JSON member would contain the transformed (optional) response of the provided service. If it's a provided web service and no response transformation template is supplied, XML Soap Body of response would be converted into JSON object and sent in data JSON member.



If the route invocation fails due to misconfigured route or connection time out to ServiceProviderImpl or some other reason, relevant error messages would be sent in messages JSON member. In that case, data JSON member would be null or empty.

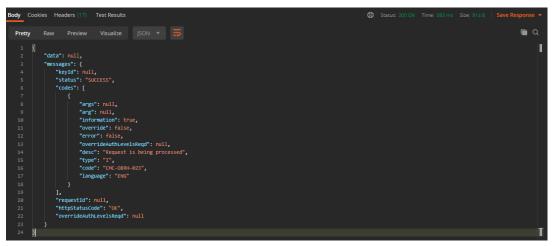
Example - Below are the screenshots of route dispatch for

ServiceConsumer Oracle\_Service\_Consumer and ServiceConsumerService List\_Facilities

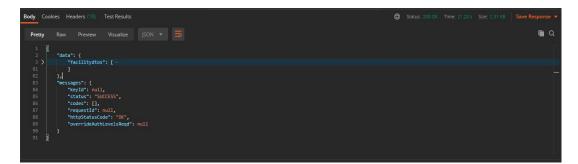
Headers

GET v whf00lse:7002/api-gateway/cmc-obrh-services/route/dispetch	Response/4WTTEvRceo3hfb8nd9wnql7uokPPSoLk2EyqjSeT8bA65vXWC2CGMyl	ef1y8rGxar3BidzYGdVhq4mFQiHWVCVRb		Gend v
Params Authorization Headers (15) Body  Pre-request Script Tes	ts Settings			
Headers 📀 9 hidden				
KEY	VALUE	DESCRIPTION	••• Bulk Edit	Presets $\vee$
Content-Type	application/json			
✓ appld	CMNCORE			
✓ entityld	DEFAULTENTITY			
✓ userid	TESTUSERI			
✓ branchCode	004			
Authorization	Bearer ((token))			

Response Payload when request is still processing



Response Payload when request is processed (on Successful Dispatch)







Response Payload when request is processed (on Failed Dispatch)



# 20 Oracle Banking Routing Hub VM Arguments

### Common Core Managed Server

-Dcmc-obrh-services.server.port=<SERVER\_PORT> -Dobrh.db.jndi=<CMNCORE\_JNDI>

-Dcmc-obrh-services.oic.oauth.scope=<OIC\_OAUTH\_SCOPE>
 -Dcmc-obrh-services.oic.secretStore.url=<OIC\_SECRET\_STORE\_URL>
 -Dcmc-obrh-services.oic.idcs.url=<OIC\_IDCS\_URL>
 -Dcmc-obrh-services.audit.retention.days=<AUDIT\_RETENTION\_POLICY\_DAYS>
 -Dcmc-obrh-services.audit.retention.archival=<AUDIT\_RETENTION\_POLICY\_APPROACH>
 (Y for archiving and N for purging)

In order to receive routing failure mail notification via plato-alerts-management-service, then set the below Property to true, (Default value is false) -Dobrh.alerts.enabled=<ALERTS\_ENABLED>

In order to change the behavior of auditing, then set the below property from predefined values (DEFAULT / KAFKA / LOG / OFF), (Default value is DEFAULT) -Dobrh.audit.type=<AUDIT\_TYPE>

NOTE: For KAFKA option, cmc-obrh-kafka-consumer service needs to be deployed.

In order to fail OBRH request if provider request fails with specific status code, then set the below property to comma-separated status codes -Dobrh.provider.exception.statuscodes=<STATUS\_CODES>

In order to overwrite the customization that is not part of configuration json, -Dobrh.import.overwrite=<IMPORT\_OVERWRITE> (Default value is false)

In order to use Custom Keystore and Truststore for HTTPS scheme,

-Dobrh.keystore.password.encoded=<IS\_PASSWORD\_ENCODED> (true, if password is base 64 encoded)

-Dobrh.truststore.path=<TRUSTSTORE\_PATH>

-Dobrh.truststore.password=<TRUSTSTORE\_PASSWORD>

-Dobrh.usekeystore=<USE\_KEYSTORE> (true, if keystore is required along with truststore)

-Dobrh.keystore.path=<KEYSTORE\_PATH>

-Dobrh.keystore.password=<KEYSTORE\_PASSWORD>

-Dobrh.keystore.alias=<KEYSTORE\_ALIAS>

-Dobrh.keystore.aliaspassword=<KEYSTORE\_ALIAS\_PASSWORD>

-Dobrh.ssl.protocol=<SSL\_PROTOCOL> (Default value is TLS)



In order to do tomcat deployment,

-Dobrh.server.isJavaEE=false (mandatory)

-Dobrh.taskexecutor.corepoolsize=<CORE\_POOLSIZE> (default is 50) (optional)

-Dobrh.taskexecutor.maxpoolsize=<MAX\_POOLSIZE> (default is 50) (optional)

-Dobrh.taskexecutor.queuecapacity=<QUEUE\_CAPACITY> (default is 100) (optional)

In order to set Proxy settings for HTTPS,

-Dhttps.proxyHost=<PROXY\_HOST\_NAME>

-Dhttps.proxyPort=<PROXY\_PORT>

-Dhttps.nonProxyHosts=<NON\_PROXY\_HOST\_LIST>

-Dhttp.nonProxyHosts=<NON\_PROXY\_HOST\_LIST>

**NOTE:** As per the Java Networking documentation, HTTPS protocol handler will use the same as the http handler (i.e. http.nonProxyHosts).

But in case of Weblogic, http.nonProxyHosts will not work for some reason.

So, use https non proxy host argument (i.e. https.nonProxyHosts).

In order to set logger level,

- Dplato.service.logging.level=<LOG\_LEVEL>

In order to do SSL based SOAP provider calls and if RoutingHub is deployed on weblogic environment,

-DUseSunHttpHandler=true

**NOTE:** This property will enforce WebLogic Server to use SUN SSL implementation (javax package) rather than the WebLogic one.

#### Plato Core Managed Server

Oracle Banking Routing Hub is using Multipart for Import feature.

By default, spring supports max 1MB file size and 10MB request size for Multipart.

In order to import bigger files,

plato-api-gateway.multipart.max-file-size=<MAX\_FILE\_SIZE> (default is 1MB)

plato-api-gateway.multipart.max-request-size=<MAX\_REQUEST\_SIZE> (default is 10MB)

**NOTE:** -1 for no size constraint

Example: plato-api-gateway.multipart.max-file-size=-1 plato-api-gateway.multipart.max-request-size=-1

### CMC-OBRH-KAFKA-CONSUMER

-Dcmc-obrh-kafka-consumer.server.port=<SERVER\_PORT>

