Routing Hub Configuration User Guide

Oracle Banking Virtual Account Management

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Routing Hub Configuration User Guide

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10.2 10.3 10.4 11 Cha 12 Cor 13 Auc	I.3 Transformations View Edit Delete ining figuration	56 58 59 60 62 65 68
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10.2 10.3 10.4 11 Cha 12 Cor 13 Auc 14 Das 14.1	I.3 Transformations View Edit Delete ining figuration it Log hboard Routing Health Indicator Widget	56 58 59 60 62 65 68 68 68
10.2 10.3 10.4 11 Cha 12 Cor 13 Auc 14 Das 14.1 15 Trat	I.3 Transformations View Edit Delete ining figuration it Log hboard Routing Health Indicator Widget	56 58 59 60 62 65 68 68 69 69
10.2 10.3 10.4 11 Cha 12 Cor 13 Auc 14 Das 14.1 15 Trai 15.1	I.3 Transformations View Edit Delete ining figuration it Log hboard Routing Health Indicator Widget hsformation Type Velocity	56 58 59 60 62 65 68 68 68 69 69 71
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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 http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

1.4 Access to Oracle Support

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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

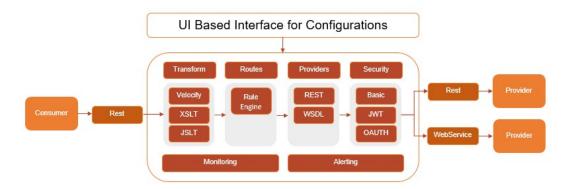
Oracle Banking Routing Hub is routing hub which enables seamless & standardized integrations between FSGBU

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.
- 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	9	
Oracle Service Consumer	View Edit Delete Export • JSON Configuration Request Audit	

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



Search Combo Box One Provides search functionality with case insensitive (Service consumer Name) Consumer Name)					
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.

ervice Consumers					
Service Consumers					
Add import search	Add Service Consumer		Enter 0 or more characters, up to a maximum of		
No items to display. Page 1 of 0 (1-0 of 0 items) K < > >	Name *		255. No numeric value a allowed.	allowed at beginning.No space	
	Oracle_Service_Consumer				
	Add				
	Group * select				
	Actions	Name	Value		
	No data to display				
				Save	
				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	 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 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 Maport search	Add Service Consumer ×	
Page 1 of0 (1-0 of0 items) K < > >	Name * Oracle_Service_Consumer	
	Environment Variables Add	
	Group Variable V C 🛅	
	Actions Name Value No data to display.	
	Save	



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 Timport search	Add Service Consumer	×	
Page 1 of 0 (1-0 of 0 items) K < > >	Name * C Add Environment Variable	Enter 0 or more characters, up to a maximum of 255. No numeric value allowed at beginning.No space allowed.	
	G Value		

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	Group / Variab	le			
Name	Text Box	Yes	Alphanumeric 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 	
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.

Navigation: Service Consumers -> Import

Service Consumers		, ¹⁰ ×
Service Consumers		
Add 🔂 Import search	Q	
No items to display.	Import Service Consumer ×	
Page 1 of0 (1-0 of0 items) К < Э И	File * Oracle_Service_Consumer_Consumer_is Select Extract Name * Oracle_Service_Consumer Service Providers Name External_Product_Processor 1.0	
	Import	

Component briefing						
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 only JSON file	Pops up file selection dialog box
Extract	Button	Yes				Extracts Consumer Name and Service Provider list from JSON file and displays it in the respective elements.



Name	Text Box	Yes	Alphanu meric with special charact ers	 Name cannot be blank Enter 0 or more characters, up to a maximum of 255 No numeric value at beginning and no space allowed 	Editable	Unique
Service Provider	Collapsible Header & Content					Displays the list of service providers that are present in JSON file
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	Consumer		Ø×	
Add Import search Oracle_Service_Consumer	Name Oracle_Serv	ice_Consumer			
Orade service consumer	A Environmen	Variables			
Page 1 of 1 (1-1 of 1 items) K < 1 > >	Group		-		
	Actions	Name	Value		
	1	BRANCH_CODE	Sheaders["branchCo	ode"[0]	



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 >	A Environment Variables	
	G Add -	
	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		1	×
Service Consumers			
😝 Add 🔊 Import ora	Export Service Consumer	×	
Oracle_Service_Consumer I Page 1 of 1 (1-1 of 1 items) K < 1 > <th>Name</th> <th>_</th> <th></th>	Name	_	
	Service Providers Name 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
- Default implementation of selected service providers with services (without Host, Port and Authentication Password)
- Default transformations
- All default implementation 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	Q	
Oracle_Service_Consumer	1	
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	,, ² ×
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	

Dracle Service_Consumer Consumer Services iervice Providers Consumer Services Add	
Add minport search Kernal_Product_Processor View Version 1.0 Dre EXTERNAL Edit	
Enternal Product_Processor View Arssion 1.0 View Date EXTERNAL Edit	
View Version 1.0 Edit Voe EXTERNAL	
Version 1.0 Edit	
/pe EXTERNAL	
tatus ACTIVE Delete	
Export	
e 1 of 1 (1 - 1 of 1 items) K < 1 Request Audit	

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 (Service Provider Name)		
Navigation: Service 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		



6.1 Add

User can create Service Provider manually.

Navigation: Service Providers-> Add

Service Consumers			л ^и Ж.
Oracle_Service_Consumer			
Service Providers Consumer Services			
Add 🔂 Import search	Add Service Provider	Enter 0 or more characters, up to a maximum of 255.	×
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		
		S	ave

Component b	Component briefing							
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments			
Product Name	Text Box	Yes	Alphanumeric 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 provider name			
Туре	Combo Box One	Yes			Predefined Values: INTERNAL / EXTERNAL			
Version	Text Box	Yes	Number	 Version cannot be blank Enter 0 or more characters, up to a maximum of 255. Enter only numeric or decimal values. 	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	

racle_Service_Consumer	Add Service Provider	_		×	
rvice Providers Consumer Services					
-	Product Name *		Туре *		
Add P Import search	External_Product_Process	or	EXTERNAL	Ψ	
	Version *		Active		
	1.0				
Version 1.0 Type EXTERNAL	▲ Headers				
Type EXTERNAL Status ACTIVE	Add				
	Actions	Name	Value		
ge 1 of 1 (1 - 1 of 1 items) K <	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: So	Navigation: Service Providers -> Headers -> 3 dot icon (operation menu)					
Edit	menu option				Pops up edit dialog	
Delete	menu option				Deletes header	
Navigation: So	Navigation: Service Providers -> Headers -> Add					
Name	Text Box	Yes	Alphanumeric 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. 		
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

acle_Service_Consumer			
ice Providers Consumer Services			
Add Add Import search	Add Service Provider	×	
xternal_Product_Processor	▶ Headers		
ersion 1.0 pe EXTERNAL atus ACTIVE	<mark>d Service Type URL WSDL ♥ http://whf00bzdr7023/FCUBS-ELCMWe</mark>	h/ElValidLimitService?WSDL Import	
1 of 1 (1 - 1 of 1 items) K <	Service	Operation	
	EIValidLimitService (EIValidLimitServiceSEI)	QueryValidLimitIO	
		Save	

Component b	Component briefing						
Component Name	Component Type	ls Mandatory	Comments				
Туре	Combo Box One	Yes	Predefined Values: WSDL / SWAGGER				
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.

Currently, non-SSL WSDL URL is only 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.

6.2 Import

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

Navigation: Service Providers -> Import

Service Consumers			,," ×
Oracle_Service_Consumer			
Service Providers Consumer Services			
😝 Add 🛛 🎦 Import 🛛 search 🔍 🔍			
External_Product_Processor :			
Version 1.0 Type EXTERNAL	Import Service Provider	×	
Status ACTIVE	File *		
Page 1 of 1 (1-1 of 1 items) K < 1 > >		Select	
		Import	

Component briefing						
Component Name	Component Type	ls Mandatory	Validation	Condition	Comments	
File	File picker	Yes	Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box	
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

Dracle_Service_Consumer			
ervice Providers Consumer Services			
Add 🛃 Import search	View Service Provider		ĭ≇ ×
External_Product_Processor	Product Name External_Product_Processor	Type	
Type EXTERNAL Status ACTIVE	Version	Active	
age 1 of 1 (1-1 of 1 items) K <	b Headerr	On	
	Service		
	Service	Operat	ation
	FIValidI imitService (FIValidI imitServiceSF	n Ouend	Alidl imitIO

6.4 Edit

User can modify the provider details.

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

Service Consumers				, ^{af} ×
Oracle_Service_Consumer				
Service Providers Consumer Services				
Add P Import search	Edit Service Provider		×	
External_Product_Processor	Product Name *	Type *		
Version 1.0	External_Product_Processor	EXTERNAL	Ψ	
Type EXTERNAL Status ACTIVE	Version *	Active		
	1.0			
Page 1 of 1 (1 - 1 of 1 items) K <	Headers			
	al Service			
	Type URL			
			Save	
	L			



6.5 Delete

User can delete the provider.

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

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

6.6 Export

User can export the provider configuration as JSON file.

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

= ORACLE			Shihpai Brench (004) Jun 25, 2020	JOHN DOE johndoem@obrh.com
Service Consumers				,," ×
Oracle_Service_Consumer				
Service Providers Consumer Services				
Add 🛃 Import search	٩			
External_Product_Processor	1			
Version 1.0 Type EXTERNAL Status ACTIVE Page 1 of 1 (1-1 of 1 items) K < 1	CONFIRMATION Do you want to export? Note: Sensitive data such as	Implementation Host, Port and Passv	vord 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

7 Implementation

Implementation comprises of 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

Oracle_Service_	Consumer > Service Provider	> External_Product_Processor 1.0		
Implementation				
🕒 Add 🛛 🔁	Import search	Q.		
Actions	Name	Description	Host	Port
1	External_Product_Processor_Default	Default Implementation	XXXXX	0

🔁 Add 🛃	Import search Q			
tions	Name	Description	Host Port	
View	External_Product_Processor_Default	Default Implementation	ххоск 0	
Edit Delete	if 1 items) K < 1 > →			
Export Request Audit				

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



<service Provider></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: In	nplementation -> 3 dot io	con (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

7.1 Add

User can create Implementation manually.

Navigation: Implementation-> Add

Service Consumers					,* ×
Oracle_Service	e_Consumer > Service Pro	viders > External_Produc	ct_Processor 1.0		
Implementation					
C Add a	Import search	Add Implementation	Enter 0 or more characters, up to a maximum of		
Actions	Name		255. No numeric value allowed at beginning.No space	Host	Port
1	External_Product_Processor_Default	Name *	allowed.	XXXXX	0
Page 1 of 1 (1-1of1items) K < 1 →	Description * Scheme * select * Authentication	Port *		



Component b	riefing				
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments
Name	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 implementation name
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. 	
Default	Switch				
Scheme	Combo Box One	Yes			Predefined Values: HTTPS / HTTP
Host	Text Box	Yes	Alphanum eric with special characters	 Host cannot be blank Enter 0 or more characters, up to a maximum of 255. No space allowed. 	
Port	Text Box	Yes	Number	 Port cannot be blank Enter 0 or more characters, up to a maximum of 6. Only numeric value allowed. 	



Authenticati on	Collapsible Header & Content		Authentication Details
Headers	Collapsible Header & Content		Implementation specific headers
Service	Collapsible Header & Content		Implementation specific service details
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.

NOTE: In case of no authentication, NONE needs to be set as Authentication Type.

Process of configuration of these is described below.

Service Consumers	s					,," ×
Oracle_Servic	ce_Consumer > Service Pro	viders > External_Product_Pro	ocessor 1.0			
Implementation						
Add	Import search	Edit Implementation		×		
Actions	Name				Host	Port
1	External_Product_Processor_Default	http 💌 xoox	0		xxxxx	0
		Authentication				
Page 1 of 1	(1-1 of 1 items) K < 1 >	Type JWT_TOKEN				
			Password *			
		BASIC				
		JWT_TOKEN				
		OAUTH_TOKEN				
			Save			

Component briefing						
Component Name	Component Type	ls Mandatory	Data type	Validation	Comments	
Туре	Combo Box One	Yes			Predefined Values: NONE / BASIC / JWT_TOKEN / OAUTH_TOKEN	
Username	Text Box		Alphanum eric with special characters	 Username cannot be blank Enter 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed. 	Username is mandatory if authentication type is BASIC / 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

Service Consumers				
Oracle_Service_Cor	nsumer > Service Prov	iders > External_Product_Processor	1.0	
Implementation		Add Implementation	×	
🔂 Add 🔂 imp	ort search			
Actions N	lame	Authentication	Enter 0 or more characters, up to a maximum of	Host Port
E D	kternal_Product_Processor_Default	Add Header	255. No numeric value allowed at beginning.No space allowed.	xxxxx 0
Page 1 of 1 (1-1 of	1 items) K < 1 >	Acti No di ≽ Sen	OK Save	

plementation		Add Implementation	i .		×		
Add a	Import search	mak	nnnn) ~			
tions	Name	Authentication				Host	Port
External_Product_Processor_Default		Headers				xxxxx	0
		Add 🕄					
e 1 of 1 (1 - 1 of 1 items) K < 1 >	Actions	Name	Value			
		Edit	appld	CMNCORE			
		▶ s Delete					
					Save		



Component	Component	ls	Data	Validation	Comments
Name	Туре	Mandatory	type		Comments
Add	Button				Pops up add
					dialog
Navigation: Ir	nplementation	-> Headers ->	> 3 dot icor	(operation menu)	
Edit	menu option				Pops up edit
					dialog
Delete	menu option				Deletes header
Navigation: Ir	nplementation	-> Headers ->	> Add	1	1
Name	Text Box	Yes	Alphanu meric with special characte rs	 Name cannot be blank Enter 0 or more characters, up to a maximum of 255. No numeric value at 	
				beginning and no space allowed.	
Value	Text Area	Yes	Alphanu meric with special characte rs	• 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 heade details and displays it in the list



7.1.3 Service

Service Consumers					,,** ×
Oracle_Service_Consumer > Service Pro	viders > External_Pro	duct_Processor 1.0			
Implementation					
Add Emport search	Add Implementation		×		
Actions Name				Host	Port
External_Product_Processor_Default	External_Product_Processor_Default Headers			XXXXX	0
Page 1 of 1 (1-1 of 1 items) K < 1 >	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		
URL	Text Box	Yes	Service URL of the file location		
Gateway Prefix	Text Box				
Import	Button		Extracts the service information from URL and displays it in the Service list		



7.2 Import

User can create a implementation by importing the JSON file.

Navigation: Implementation -> Import

Service Consumers				, ³⁴ - 3
Oracle_Servic	e_Consumer > Service Providers >	External_Product_Processor 1.0		
Implementation				
Add	import search Q			
Actions	Name	Description	Host Po	ort
(1)	External_Product_Processor_Default	Default Implementation	xxxx 0	
Page 1 of 1 ((1-1 of 1 Hems) K < 1 > 3.	Import Implementation × File * Select Import		

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 only JSON 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 dot icon) -> View
----------------------------	-------------------	----------------------

Add	import search	View Impleme	retation		₿ ×		
Actions	Name	view impleme				Host	Port
Esternal_Product_Processor_Default Page 1 of 1 (1 - 1 of 1 items) k < 1 >		Name External_Pr Description Default Imples	oduct_Processor_Default	Default On		X00X	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							,, ¹⁸ ×
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

plementation	2				
Ctions	Import search	9	Description	Host	Port
	External_Product_Processor_De	efault	Default Implementation	XXXXX	0
e 1 of 1 (1 - 1 of 1 items) K < 1		×		
		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				, ^w >
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

Service Consumer	rs			$_{\mu^{t\ell}}$ \times
Oracle_Servi	ice_Consumer			
Service Providers	Consumer Services			
🚹 Add	import search	٩,		
Actions	Name		Description	
:	List_Facilities		This service fetches the list of facilities available for party id	
Page 1 of 1	(1 - 1 of 1 items) K < 1 >	к		
Service Consumer	15			,, ^{se} ×
	rs ice_Consumer			,,* ×
				,,** ×
Oracle_Servi	ice_Consumer	Q		× 34
Oracle_Servi	ice_Consumer Consumer Services	Q	Description	× *,
Oracle_Servi	Consumer Services	्	Description This service fetches the list of facilities available for party id	** ×
Oracle_Servi Service Providers Add Actions	Consumer Services			× ² 4
Oracle_Servi Service Providers	Consumer Consumer Services Import Rearch Name Facilities			** ×
Oracle_Servi Service Providers • Add Actions • View Page	Consumer Consumer Services Import Rearch Name Facilities			, ²⁴ X
Oracle_Servi Service Providers Image: Construction of the service of the ser	Consumer Services Consumer Services Import search Name Facilities I items) K < 1 >			,*" ×
Oracle_Servic Service Providers Add Actions I View Page Edit Delete Export	ice_Consumer Consumer Services import search Name facilities 1 items) K < 1 > tion			,*" ×
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name facilities 1 items) K < 1 > tion			,** ×
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name 1 items) K < 1 > tion			× **
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name 1 items) K < 1 > tion			× *,
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name 1 items) K < 1 > tion			× »,
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name 1 items) K < 1 > tion			× »,
Cracle_Servi Service Providers Add Actions i View Page Edit Delete Export Configura	ice_Consumer Consumer Services import search Name 1 items) K < 1 > tion			× »,

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				ام	××
Oracle_Service_Consumer					
Service Providers Consumer Services	Add Service	Enter 0 or n 255.	nore characters, up to a maximur	n of	
Add import search	ID *		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		

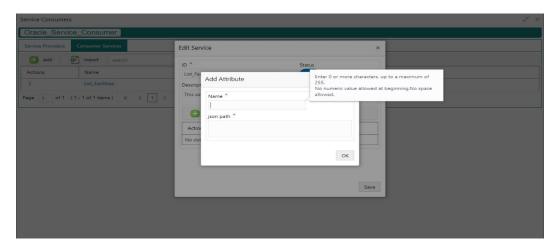


Component b	riefing				
Component Name	Component Type	ls Manda tory	Data type	Validation	Comments
ld	Text Box	Yes	Alphanum eric with special characters	Name cannot be blank Enter 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed.	Unique Service Id
Status	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						× ⁹ 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	Navigation: Consumer Services -> Headers -> 3 dot icon (operation menu)							
Edit	menu option					Pops up edit dialog		
Delete	menu option					Deletes attribute		



Navigation: C	onsumer Ser	vices -> Hea	ders -> 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]



8.2 Import

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

Navigation: Consumer Services -> Import

Service Consumers			1	×
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 - 1 of 1 items) K < 1 > >	Impor	ort Service ×	
		File *	* Select Import	

Component briefing							
Component Name	Component Type	ls Mandatory	Data type	Validation	Condition	Comments	
File	File picker	Yes		Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box	
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				× * ×
Oracle_Service_Consumer				
Service Providers Consumer Services	Edit Service		×	
🕒 Add 🛛 🔂 Import search	ID *	Status		
Actions Name	List_Facilities			
E List_Facilities	Description *			
Page 1 of 1 (1 - 1 of 1 items) K < 1	> This service fetches	the list of facilities available for part	ly id	
	Add			
	Actions	Attribute Name	json path	
	No data to display.			
			1000775	
			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
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	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

Oracle_S	ervice_Consumer >	Consum	er Services > List_Facilities		
Transformatic	on Routing				
🔂 Add	Import search		Q		
Actions	Name	Status	Product Processor	Implementation	Service
1	List_Facilities_Trf_01	ACTIVE	External_Product_Processor 1.0		ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO
Page 1	of 1 (1-1 of 1 items) K	< 1	к		
		Consum	ar Santinas I s List Facilities		,
Oracle_S	ervice_Consumer >	Consum	er Services > List_Facilities		,
Oracle_S	ervice_Consumer >	Consum			,
Oracle_So Transformatio	ervice_Consumer > on Routing import search		Q	Implementation	
Oracle_S	on Routing Market Search Name	Status	Q. Product Processor	Implementation	Service
Oracle_So Transformatio	ervice_Consumer > on Routing import search		Q Product Processor External_Product_Processor 1.0	Implementation	
Oracle_So Transformation Add Actions	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
Oracle_S Transformation Add Actions I Pag Edit	ervice_Consumer > m Routing import search Name List Facilities_Trf_01 f 1 items) K	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Oracle_S Transformatio Add Actions I Pag Edit Delett Export	ervice_Consumer > m Routing import search Name List Facilities_Trf_01 f 1 items) K	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Oracle_S Transformatio Add Actions I Pag Edit Delett Export	ervice Consumer > n Routing import search Name List Facilities Trf_01 f 1 Rems) K e	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Oracle_S Transformatic Add Actions I View Pag Edit Delet Export	ervice Consumer > n Routing import search Name List Facilities Trf_01 f 1 Rems) K e	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Oracle_S Transformatic Add Actions I View Pag Edit Delet Export	ervice Consumer > n Routing import search Name List Facilities Trf_01 f 1 Rems) K e	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Transformatic Add Actions I View Pag Edit Export	ervice Consumer > n Routing import search Name List Facilities Trf_01 f 1 Rems) K e	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service
Oracle_S Transformatic Add Actions I View Pag Edit Delet Export	ervice Consumer > n Routing import search Name List Facilities Trf_01 f 1 Rems) K e	Status ACTIVE	Q Product Processor External_Product_Processor 1.0	Implementation	Service

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



Pops up request audit log

<consumer Service></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.

Navigation: Transformation-> Add

Service Consumers				د سر
Oracle_Service_Consumer	> Consumer Services > Lis	t_Facilities		
Transformation Routing	Add Transformation	Enter 0 or more characters, up to a ma 255. No numeric value allowed at beginnin- allowed.		×
Actions Name				
List_Facilities_Trf_01	Product Processor			l) - QueryValidLimitIO
Page 1 of 1 (1 - 1 of 1 items)	Product Processor *	Implementation	Service *	
A Contraction of the second se	select •	select v	select	•
	▶ Service			
	Request Transformation			
	Response Transformation			
			Sa	we
				_

Component briefing							
Component Name	Component Type	ls Mand atory	Data type	Validation	Comments		
Name	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 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 Processor	Collapsible Header			
Product Processor	Combo Box One	Yes		Displays provider list relevant to consumer
Implementati on	Combo Box One			Displays implementation list relevant to selected provider
Service	Combo Box One	Yes		Displays service list relevant to selected provider and implementation
Service	Collapsible Header & Content			Displays service details of selected service
Headers	Collapsible Header & Content			Displays header list relevant to selected provider, implementation and service User can change the header values. Value can either be hardcoded or can be Velocity mapping.
Path Params	Collapsible Header & Content			Displays path param list relevant to selected service User can change the param values. Value can either be hardcoded or can be Velocity mapping.
Query Params	Collapsible Header & Content			Displays query param list relevant to selected service User can change the param values. Value can either be hardcoded or can be Velocity mapping.



Request Transformati on	Collapsible Header		
Туре	Combo Box One		Predefined Values: VELOCITY / JSLT
Template	Text Area		User has to define the template in which provider accepts. Please refer Transformation Type for syntax
Response Transformati on	Collapsible Header		
Туре	Combo Box One		Predefined Values: VELOCITY / JSLT / XSLT
Template	Text Area		User has to define the template in which consumer accepts. Please refer Transformation Type for syntax
Save	Button		Saves transformation details

9.2 Import

User can create a transformation by importing the JSON file.

Navigation: Transformation -> Import

Service Cons	umers						,, ^w ×
Oracle_S	Service_Consumer	> Consum	er Services	> List_Facilities			
Transformati	on Routing						
Add	import search		Q				
Actions	Name	Status	Product Proces	ssor	Implementation	Service	
I	List_Facilities_Trf_01	ACTIVE	External_Produ	ict_Processor 1.0		ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLir	nitlO
Page 1	of 1 (1 - 1 of 1 items) k	< 1	к к	Import Transformat	ion	×	
				File *			
					Selec	ct	
					Impo		



Component briefing						
Component Name	Component Type	ls Mand atory	Validation	Condition	Comments	
File	File picker	Yes	 Allows only to select one file 	Accepts only JSON file	Pops up file selection dialog box	
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**

		; vv

Oracle_Se	rvice_Consumer	View Transformation			ß	×	
fransformation	Routing	Name		Active			
Add	lmport sea	List_Facilities_Trf_01		On			
Actions	Name	I Product Processor					
	List_Facilities_Trf_01	Product Processor External_Product_Processor 1.0	Implementation select		Service ElValidLimitService (ElValidLimitService		QueryValidLimitIO
	((-) of Fitterns)	Service					
		Request Transformation					
		Response Transformation					
						1	

9.4 Edit

User can modify the transformation details.

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

ansformation	Routing	Edit Transformation			×	
Add Add	Mame import	Name * List_Facilities_Trf_01		Active		
	List_Facilities_Trf_01	Product Processor			l) - Quer	vValidLimitIO
ge 1 of	1 (1 - 1 of 1 items)	Product Processor *	Implementation	Service *		
ing and parameters		External_Product_Processor 1.0	▼ select	▼ ElValidLimitService (ElV	/alidLimitS 👻	
		Service				
		Request Transformation				
		Response Transformation				
					Save	



9.5 Delete

User can delete the transformation.

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

Service Consumer	s				* ×
Oracle_Servi	ice_Consumer >	Consum	er Services > List_Facilities		
Transformation	Routing				
Add	Import search		٩		
Actions Na	ame	Status	Product Processor	Implementation	Service
: Lis	t_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?		contem

9.6 Export

User can export the transformation configuration as JSON file.

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

Service Consumers					^y ×
Oracle_Service_Consumer >	Consum	er Services > List_Facilities			
Transformation Routing					
Add 🔂 Import search		٩			
Actions Name	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			×	
		Do you want to export?		1	
				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

Oracle	nsumers					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
OTUOIO_	Service_Consumer	> Consu	mer Se	ervices > List_Facilities		
Transforma	ition Routing					
🔂 Adi	d search	0				
Actions	Name	Start/Stop	Rule	Product Processor	Implementation	Service
:	List_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	> >	(
Transforma	Service_Consumer	> Consu	mer Se	ervices > List_Facilities		,** ×
Oracle_	Service_Consumer	٩	mer Se	Product Processor	Implementation	,√ × Service
Oracle_ Transforma Adu Actions	Service_Consumer				Implementation External.Product_Processor_Default	
Oracle_ Transforma Ada Actions	Service_Consumer tion Routing d search Name Var Content Oute_01 av	Q Start/Stop		Product Processor External_Product_Processor 1.0		Service

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



<consumer Service></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			
E List_Facilities_Route_01	al Rule			LimitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1-1 of 1 items)	Expression Editor *			
	Iransformations			
	🔂 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	 Default Rule 	Custom Rule					
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 Con	sumers								** ×
Oracle_S	Service_Con	Expression Editor	Carrie					×	
Transformat	tion Routing	Expression Editor							
G Add	search							×	
Actions	Name	Attribute *		Operator *		Value *	Condition Type		
1	List_Facilities_Ro	select	*	select	*		søløct	*	SEI) - QueryValidLimitIO
Page 1	of 1 (1 - 1 of 1								
								Save	
								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) - QueryVälidLimittO
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 briefing						
Component Name			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			Ø	e ×	
Transformation Routing Image: Add search Actions Name		s_Route_01 s	rt/Stop Au TART STOP Of	ito Shutdown ff		
EList_Facilities_Route_01	Transform					LimitServiceSEI) - QueryValidLimitIO
Page 1 of 1 (1-1 of 1 items)	Actions	Product Processor External_Product_Processor 1.0	Implementation External_Product_Processor_Default	Transformation 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.

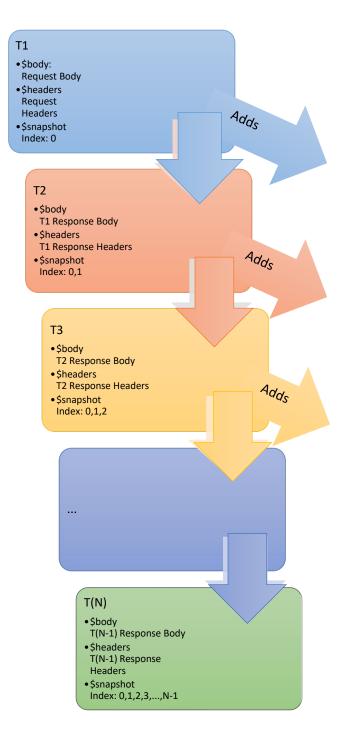
So, end-user can access response body or headers of all processed transformations at any given step.

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 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				$_{\mu^{b^{\prime}}}$ \times
Monitoring				
Window Type		Window Size		
Count Time		100	\sim \sim	
🛋 Alert				
Minimum number of calls		Failure rate threshold		
100	~ ^	50%	~ ~	
🛋 Email Alert				
Email Addresses				
Ciner Addresses				
				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	No		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	Text Box	No	Once the failure rate crosses the
Addresses			failureRateThreshold, then end-user
			will be notified about the event via
			mail.
			This property will be semi- colon separated email addresses

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.



13 Audit Log

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

Request Audit 2¹² - 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 < > >

Request Aud	lit					، ^{یر} (
Request Id			Consumer Consumer Service			
Provider			Provider Implementation Provider Service			
			Request Audit Details	<		
Transformation			Request Id eqwiLi5IXb4N1dZTT8KKZimRnxj3Q16tby8u5n0VkV6280dtIsNFN1hZcJmWrgCuxhwCn2vic8kbbqNHuiELNt 8	3		
Search			0 0 0			
Request Id	Consumer	Consumer	OBRH Request Provider Request Provider Response OBRH Response Timestamp	te	Status	User Id
eqwiLi5IX	Oracle_Service_Consumer	List_Facilities	2021-02-23T12:34:42.128+05:30 Message)_L	SUCCE	JOHNDOE
xvA8tBqg	Oracle_Service_Consumer	List_Facilities	["headers":["branchCode":["004"];"Authorization";["Bearer ey/hbGr0JUU2UxM95ey/0aVQiOiIILCJzdWI0JPQKRYX0FOSUtFVCIsImF1ZCI6IIdFQiIsImIhdCl6MTYxNDA 2Mzc4NiwiZxwij6XNjE0MPOVMc32/CR_P)_L	FAILURE	JOHNDOE
rKiNdo6q	Oracle_Service_Consumer	List_Facilities	Jo42XYSH7cEb7k2BxUWWHNS3W_N9d92RJuxrKMD53baju9hWpG7RB8yY_dn1T08H05sA856liGBqa_j- PSTaw]_Content-Type*[Tapplication/json]_User-Agent*[TMozila/5.0 (Windows NT 10.0; Win64; x64)	>_L	FAILURE	JOHNDOE
OcfSvi3rO	Oracle_Service_Consumer	List_Facilities)_L	FAILURE	JOHNDOE
7QNJXRx	Oracle_Service_Consumer	List_Facilities)_L	SUCCE	JOHNDOE

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



Request Audit									
Request Id			Consumer		c	onsumer Service			
Provider			Provider Implementa	ition	p	rovider Service			
Transformation			Request Audit Details Request Id	vSvtWoq6je9WbLae4BKK0	(08 IsliRi Ina 1a2xEVAaHGau	KIGWiSd7XSfG8axMhqbnP0			
Search Request Id	Consumer	Consumer	9Tb OBRH Request	Provider Request	Provider Response	OBRH Response		Status	User Id
eqwiLi5IX	Oracle_Service_Consumer	List_Facilities	Timestamp 2021-02-23T12:30:31.796	i+05:30			0_L	SUCCE	JOHNDOE
xvA8tBqg	Oracle_Service_Consumer	List_Facilities		0aWQiOiliLCJzdWliOiJPQk	arer 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	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.



14 Dashboard

14.1 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.

Consumer Service	×
	9
	~
Routing	
All List_Facilities_Route	
Series Successful Calls	
Value 100.0	
100% Successful Failed Calls	



15 Transformation Type

15.1 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]
- 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/3.0/apidocs/org/apache/velocity/tools/generic/XmITool.</u>

> Date Tool

Syntax: \$date.methodName()

Please refer

https://velocity.apache.org/tools/3.0/apidocs/org/apache/velocity/tools/generic/DateTool. html

Json Tool

Syntax: \$json.methodName()

Please refer

https://velocity.apache.org/tools/3.0/apidocs/org/apache/velocity/tools/generic/JsonTool. html

Math Tool

Syntax: \$math.methodName()

Please refer

https://velocity.apache.org/tools/3.0/apidocs/org/apache/velocity/tools/generic/MathTool .html

Number Tool

Syntax: \$number.methodName()

Please refer

https://velocity.apache.org/tools/3.0/apidocs/org/apache/velocity/tools/generic/NumberT ool.html



Escape Tool
 Syntax: \$esc.methodName()
 Please refer
 https://velocity.apache.org/tools/3.0/apidocs/org/apache/velocity/tools/generic/EscapeT_ool.html

> Serialization of object into its equivalent Json representation

Syntax: \$custom.toJson(src)

Parameters:

src - Object

Returns: String

• 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.

15.2 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.

15.3 JSLT

JSLT is a complete query and transformation language for JSON.



16 Oracle Banking Routing Hub Integration Specification

16.1 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 whf00lse:7002/api-gateway/platojwtauth			Sen	d 🔹	
Parar Head	ms Authorization Headers (12) Body	Pre-request Script Tests Settings				Cookies Code
	KEY	VALUE	DESCRIPTION			
	кеу appld	VALUE SECSRV001	DESCRIPTION			



Request Payload

POST	▼ whf00lse:7002/api-gateway/platojwtauth	Send v Save v
Params Ai	rthorization Headers (12) Body Pre-request Script Tests Settings	
none	form-data 🔍 x-www-form-urlencoded 🌒 raw 🜑 binary 🔍 GraphQL JSON 🔻	
3 .	username": "VEVTVFVTRVIx", password": "VEVTVFVTRVIx"	1
4		

Response Payload



16.2 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 -

- 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.

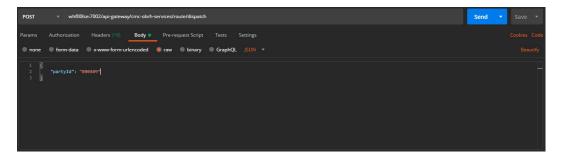
Example - Below are the screenshots of route dispatch for ServiceConsumer **Oracle_Service_Consumer** and ServiceConsumerService **List_Facilities**

Headers

•

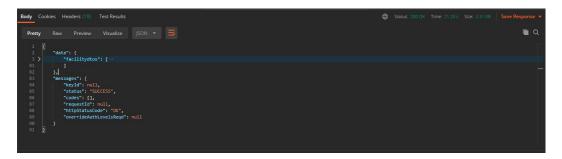
POS	r v whf00lse:7002/api-gateway/cmc-obrh-services/route/dispatch					Send v
Param	s Authorization Headers (17) Body Pre-request Script Test					
		VALUE	DESCRIPTION	••• Bu	lk Edit	Presets \vee
\checkmark	Content-Type	application/json				
\checkmark	appld	CMNCORE				
	entityld	DEFAULTENTITY				
	userid	TESTUSER1				
\checkmark	branchCode	004				
\checkmark	Authorization	Bearer ((token))				
\checkmark	SERVICE-CONSUMER	Oracle_Service_Consumer				
\checkmark	SERVICE-CONSUMER-SERVICE	List_Facilities				

Request Payload





Response Payload on Successful Dispatch



Response Payload on Failed Dispatch



16.3 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

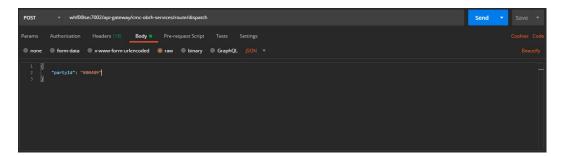
Query Params

POST	▼ whf00lse:7()02/api-gateway/c	mc-obrh-sen	vices/route/dispatch?is/	lsync=true			Send	•	
Params • Query Param		Headers (17)	Body 单	Pre-request Script	Tests	Settings				
KEY				VALUE			DESCRIPTION			
🖌 isAsync				true						

Headers

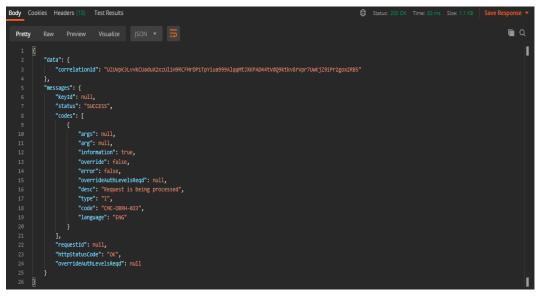
POST v whf00lse:7002/api-gateway/cmc-obrh-services/route/dispatch	'isAsync≈true			Send 🗸
Params Authorization Headers (17) Body Pre-request Script Te				
Headers 💿 9 hidden				
		DESCRIPTION	••• Bulk Edit	Presets \vee
Content-Type	application/json			
✓ appld	CMNCORE			
I entityld	DEFAULTENTITY			
✓ userId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

Request Payload





Response Payload



16.4 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.

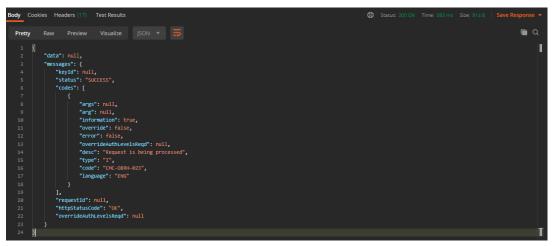
Example - Below are the screenshots of route dispatch for

ServiceConsumer Oracle_Service_Consumer and ServiceConsumerService List_Facilities

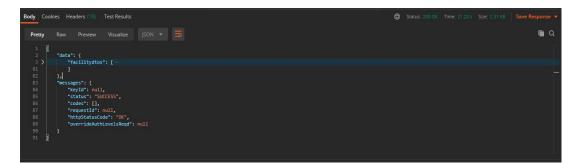
Headers

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)



17 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.kafka.server.path=<KAFKA_SERVER_PATH>

-Dcmc-obrh-services.zookeeper.server.path=<ZOOKEEPER_SERVER_PATH>

In order to receive routing failure mail notification via plato-alerts-management-service, then set the below property to true,

Otherwise set it to false

-Dcmc-obrh-services.kafka.enabled=<KAFKA_ENABLED>

In order to disable the modification of imported data (i.e. Factory Shipped data), then set the below argument to true (otherwise false).

-Dobrh.factory-shipped-data.readonly=true

In order to use Custom Truststore for HTTPS scheme,

-Dobrh.truststore.path=<TRUSTSTORE_PATH>

-Dobrh.truststore.password=<TRUSTSTORE_PASSWORD>

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 configure for SSL/Authentication enabled Kafka broker,

-Dspring.cloud.stream.kafka.binder.jaas.options.username=<Zookeeper user created for clients>

-Dspring.cloud.stream.kafka.binder.jaas.options.password=<Zookeeper user encrypted password for clients>

-Dspring.cloud.stream.kafka.binder.configuration.ssl.truststore.location=<location of client trust store certificate>

-Dspring.cloud.stream.kafka.binder.configuration.ssl.truststore.password=<Pass code of client truststore certificate>

NOTE: Please refer Plato Infrastructure Services Installation Guide.

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

