Routing Hub Configuration User Guide

Oracle Banking Branch

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Routing Hub Configuration User Guide

Oracle Financial Services Software Limited Oracle Park Off Western Express Highway Goregaon (East) Mumbai, Maharashtra 400 063 India

Worldwide Inquiries: Phone: +91 22 6718 3000 Fax: +91 22 6718 3001 https://www.oracle.com/industries/financial-services/index.html

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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.

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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



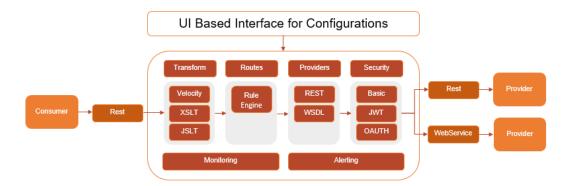
2 Introduction

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

| = | | |
|---------------------|---------|--|
| 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 | | | |

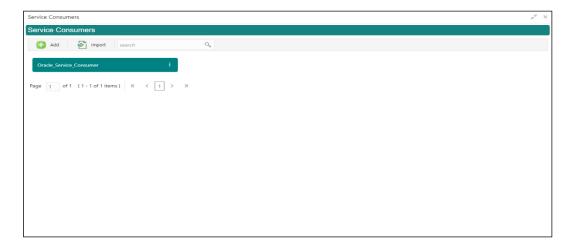


5 Service Consumer

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 | | $_{\mu^{k'}}$ \times |
|--|---|------------------------|
| Service Consumers | | |
| 🕂 Add 🛃 Import search | ٩ | |
| Oracle_Service_Consumer Fage 1 of 1 (1-1 of 1 items) K < 1 | View Edit Delete Export ↓ JSON Configuration SQL Request Audit | |
| | | |

| 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) menu) |
|-------------------------------|---------------|-----------------|---|
| 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.

| ld |
|----|
| |

| Service Consumers | | | × ³ 4 |
|--|-------------------------|--|------------------|
| Service Consumers | | | |
| Add Import search No items to display. Page 1 or 0 (1 - 0 of 0 items) K < > 3/ | Add Service Consumer | Enter 0 or more characters 255. No numeric value allowed allowed. | |
| | Oracle_Service_Consumer | Value | |
| | No data to display. | Save | |
| | | | |

| 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 | | ,, ¹² × |
|---|----------------------|--------------------|
| Service Consumers | | |
| Add Import search No items to display. Page 1 of 0 (1-0 of 0 items) K < > 3 | Add Service Consumer | |



| Service Consumers | | | | | , ¹² × |
|--|--------------------------------|------|--|--|-------------------|
| Service Consumers | | | | | |
| Add P Import search No items to display. | Add Service Consumer | | × | | |
| Page 1 of 0 (1 - 0 of 0 tems) K < > > | Add Environment Group | | Enter 0 or more characters, up to a maximum of 255. No numeric value allowed at beginning.No space allowed. | | |
| | Actions No data to display. | Name | 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 | | | | Deletes group / |
|-------------|----------------|-----|--|--|---|
| | / icon | | | | 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 | | × ** |
|--|--|---------|
| Service Consumers | | |
| Add Dimport search | A Import Service Consumer | × |
| No items to display. | Import Service Consumer | * |
| Page 1 of 0 (1-0 of 0 items) K < > > > > > > > > > > > > > > > > > > | File * Oracle_Service_Consumer_Consumer;s Name * Oracle_Service_Consumer Service Providers Name External_Product_Processor 1.0 | Estract |
| | | 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 | | | | | × ** 4 |
|--|--------------------|---------------|--------------------|--------|--------|
| Service Consumers | View Service | Consumer | | ĭ × | |
| Add Import search | Name Oracle_Set | vice_Consumer | | | |
| | A Environme | nt Variables | | | |
| Page 1 of 1 (1-1 of 1 items) K < 1 > X | Group | | Ŧ | | |
| | Actions | Name | Value | | |
| | : | BRANCH_CODE | Sheaders["branchCo | de"[0] | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



5.4 Edit

User can modify the consumer details.

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

| Service Consumers | | ,* × |
|--|--|------|
| Service Consumers | | |
| Service Consumers Add Import Oracle Service Consumer Import Page 1 of1 (1-1 of 1 items) K Import | Edit Service Consumer × Name * Oracle_Service_Consumer | |
| | No data to display. | |

5.5 Delete

User can delete the consumer.

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

| Service Consumers | | | × ^v ₈ |
|------------------------------------|-----------------------------------|----------------|-----------------------------|
| 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 ors Cracle Service Consumer Page 1 of 1 (1-1 of 1 items) K < 1 > 3 | Export Service Consumer × Name Oracle_Service_Consumer | |
| | 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 🛛 🚰 Import ora | ٩ | |
| Oracle_Service_Consumer | | |
| Page 1 of 1 (1 - 1 of 1 items) K < 1 | X OCONFIRMATION 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 Consume | N2 | $_{\mu^{k'}} \ \times$ |
|--|-------------------|------------------------|
| Oracle_Serv | rice_Consumer | |
| Service Providers | Consumer Services | |
| 🕂 Add | E import search Q | |
| External_Produces the second s | NAL | |
| | | |
| | | |

| vice Providers Consumer Services | vice Consumers | | |
|--|-----------------------------------|---------------|--|
| Add Import search Q External_Product_Processor View Version 1.0 Edit Type EXTERNAL Status ACTIVE | racle_Service_Consumer | | |
| External_Product_Processor View Version 1.0 Edit Type EXTERNAL Delete Status ACTIVE Export | rvice Providers Consumer Services | | |
| Version 1.0 Edit Type EXTERNAL Delete Status ACTIVE Export | 🕂 Add 🔂 Import search | ٩, | |
| View View View View View View View View | | | |
| Type EXTERNAL Delete Status ACTIVE Export | External_Product_Processor | View | |
| Status ACTIVE Delete Export | | Edit | |
| Export | | Delete | |
| e 1 of 1 (1-1 of 1 items) K < 1 Request Audit | ALLIS ACTIVE | Export | |
| | a off (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: 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 |



6.1 Add

User can create Service Provider manually.

Navigation: Service Providers-> Add

| Service Consumers | | | ć × |
|---|----------------------|--|-----|
| Oracle_Service_Consumer | | | |
| Service Providers Consumer Services | | | |
| 🛨 Add 🔁 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 * | select Active | |
| Page 1 of 1 (1 - 1 of 1 items) K < | ► Headers | | |
| | Service | | |
| | | Save | |
| | | | |
| | | | |
| | | | |

| Component b | riefing | | | | |
|-------------------|-------------------|-----------------|--|--|--|
| 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 INTERNAL type should be used for oracle products. |



| Version | Text Box | Yes | Number | Version cannot be blank Enter 0 or more | EXTERNAL type should be used for non- oracle products Unique provider version |
|---------|------------------------------------|-----|--------|---|--|
| | | | | characters, up to a maximum of 255.Enter only numeric or decimal values. | |
| 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 | Product Nam Add Header Enter 0 or more characters, up to a maximum of 255. |
| | External_Prof No numeric value allowed at beginning.No space allowed. |
| External_Product_Processor | 1.0 |
| Version 1.0 Type EXTERNAL | al Headers |
| Status ACTIVE | Add |
| | Actions |
| Page 1 of 1 (1 - 1 of 1 items) K < 1 | No data to d |
| | OK ■ |
| | Save |
| | |
| | |
| | |
| | |
| | |
| | |

| Service Consumers | | | | | د ۲ م |
|-------------------------------------|--|---------------|-----------|------|-------|
| Oracle_Service_Consumer | Add Service Provider | | | × | |
| Service Providers Consumer Services | | | | | |
| Add import search | Product Name * External_Product_Processor | Type | * RNAL | v | |
| External_Product_Processor | Version * 1.0 | A | ctive | | |
| Version 1.0 Type EXTERNAL | Headers | | | | |
| Status ACTIVE | 🕀 Add | | | | |
| Page 1 of 1 (1-1 of 1 items) K < 1 | Actions Edit | Name appld | Value | | |
| | ▶ s Delete | | | | |
| | | | | Save | |
| | | | | | · |
| | | | | | |
| | | | | | |
| | | | | | |

| Component b | riefing | | | | |
|-------------------|-------------------|-----------------|-----------|------------|-----------------------|
| 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: 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

| vice Providers Consumer Services | | | |
|--|---|-----------------------------------|--------|
| 🛨 Add 🛛 🎦 Import search | Add Service Provider | × | 1 |
| External_Product_Processor | ▶ Headers | | |
| Version 1.0 Ype EXTERNAL Status ACTIVE | d Service Type URL WSDL ✓ http://wh/00bzdr7023/FCUBS-ELCMWe | o/ElValidLimitService?WSDL Import | |
| e 1 of 1 (1 - 1 of 1 items) K < | Service ElValidLimitService (ElValidLimitServiceSEI) | Operation QueryValidLimitIO | |
| | | Save | |
| | | | - - |

| 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.

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.

6.2 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 Dimport search Q | |
| External_Product_Processor : | |
| Version 1.0 | Import Service Provider × |
| Type EXTERNAL Status ACTIVE | File * |
| | Select |
| Page 1 of 1 (1 - 1 of 1 items) K < 1 > > > | |
| | Import |
| | |
| | |
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| | |
| | |

| Component b | 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

| Add Import search View Service Provider External_Product_Processor Type External_Product_Processor External_Product_Processor Version 1.0 External_Product_Processor Type External_Product_Processor External_Product_Processor External_Product_Processor Version Active 1.0 On Headers Service Service Operation | Add Import search View Service Provider Import External_Product_Processor External_Product_Processor Version 1.0 External_Product_Processor Type External_Product_Processor External_Product_Processor External_Product_Processor Version Active 1.0 On age 1 of1 (1-1 of 1 Rems) K Service | Dracle_Service_Consumer | | | | | |
|--|---|-----------------------------------|--|---|-------------------|-----|--|
| External_Product_Processor View Service Provider >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> | External_Product_Processor View Service Provider Image: Constraint of the service o | vice Providers Consumer Services | | | | | |
| Version 1.0 Type KTERNAL Type EXTERNAL Version 1.0 Type EXTERNAL Version Active 1.0 On Headers # Headers # Service Service Operation Operation | Version 1.0 Type EXTERNAL Version 1.0 Type EXTERNAL Version Active 1.0 On age of1 (1-1 of 1 items) K < | Add E Import search | View Service Provider | _ | _ | @ × | |
| Status ACTIVE Version Active 1.0 On intervie Active Version Active 1.0 On intervie Active Service Service Operation | Status ACTIVE Version Active 1.0 On Headers 4 Service Service Operation | | | | | - 1 | |
| Age 1 of 1 (1-1 of 1 items) K < A Service Service Operation Operation | Age 1 of 1 (1-1 of 1 items) K < A Service Service Operation | | Version | | | | |
| Service Operation | Service Operation | age 1 of 1 (1 - 1 of 1 items) K < | ▶ Headers | | | | |
| | | | A Service | | | | |
| ENalidi imitSanica (ENalidi imitSanicaSEI) QuanAlalidi imitQ | FIValidi imitGensire (FIValidi imitGensire/SFI) Ossen/Aalidi imitO | | Service | | Operation | | |
| | | | EIValidI imitService (EIValidI imitServiceSE | n | Quer/ValidLimitIO | | |
| | | | | | | | |

6.4 Edit

User can modify the provider details.

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

| Service Consumers | | | | ,,, ^{ve} × |
|---|--|------------------------------|------|---------------------|
| Oracle_Service_Consumer | | | | |
| Service Providers Consumer Services | | | | |
| Add 🔂 Import search | Edit Service Provider | | × | |
| External_Product_Processor Version 1.0 Type EXTERNAL Status ACTIVE Page 1 of1 (1-1 of1 items) K < | Product Name * External_Product_Processor Version * 1.0 Headers af Service Type URL | Type * EXTERNAL Active | Save | |



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 | Q | | |
| External_Product_Processor : | | | |
| Version 1.0 Type EXTERNAL Status ACTIVE | CONFIRMATION | × | |
| | Do you want to delete the record? | I | |
| Page 1 of 1 (1-1 of 1 items) K < 1 | | Confirm Cancel | |
| | | | |
| | | | |
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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 johndoem@obrh.com |
|---|--------------|--|--------------------------------------|-------------------------------|
| Service Consumers | | | | $_{\mu^{\mu^{\mu}}}$ \times |
| Oracle_Service_Consumer | | | | |
| Service Providers Consumer Services | | | | |
| Add Simport search | ٩, | | | |
| External_Product_Processor Version 1.0 Type EXTERNAL Status ACTIVE Page 1 of 1 (1-1 of 1 items) K < 1 | CONFIRMATION | Implementation Host, Port and Password v | | |
| | | | | |
| | | | | |

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

| Service Consumers | | | | | ,, ¹⁰ × | | |
|--|--|--------------|-------|-----------|----------------------------|--|--|
| Oracle_Service_Consumer > Service Providers > | External_Product_Processor 1.0 | | | | | | |
| Implementation | | | | | | | |
| 🕒 Add 🛛 🔂 Import Search 🔍 | | | | | | | |
| Actions Name | Description | Service Name | Host | Port | Queue | | |
| External_Product_Processor_Default | Default Implementation | | XXXXX | 0 | | | |
| Page 1 of1 (1-1 of 1 items) K K 1 > X | | | | | | | |
| L | | | | | | | |
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| Service Consumers | | | | | ,,,* × | | |
| | External_Product_Processor 1.0 | | | | ,,** × | | |
| | External_Product_Processor 1.0 | | | | ,, ²⁴ × | | |
| Oracle_Service_Consumer > Service Providers > | External_Product_Processor 1.0 | | | | , ⁴ × | | |
| Oracle_Service_Consumer > Service Providers > | External_Product_Processor 1.0 Description | Service Name | Host | Port | ,x [∉] × Queue | | |
| Oracle_Service_Consumer > Service Providers > Implementation Add | | Service Name | Host | Port 0 | | | |
| Oracle_Service_Consumer > Service Providers > Implementation | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementation Add Import Search Q Actions Name View of times) View of times) View of times) | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementat | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Add Implementation Add Implementation Actions Name View vct_Processor_Default Past Edit Delete Implementation | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementat | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementat | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementat | Description | Service Name | | | | | |
| Oracle_Service_Consumer > Service Providers Implementation Implementat | Description | Service Name | | | | | |



| Component b | riefing | | |
|---------------------------------------|--------------------------|------------------|---|
| 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 i | con (operation | i 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 | | | | | $_{\mu}^{at}$ \times |
|---------------------------------------|---|------|-------|------|------------------------|
| Oracle_Service_Consumer > Service Pro | Add Implementation | × | | | |
| Implementation | | | | | |
| Add 🔂 Import Search | Name * | | | | |
| Actions Name | Description * | | Host | Port | Queue |
| External_Product_Processor_Default | | | XXXXX | 0 | |
| Page 1 of 1 (1-1 of 1 items) K < 1 > | Type * Default Eureka Instance DEFAULT * Service Name * Select * Headers & Sondro | Save | | | |

| Component briefing | | | | | |
|--------------------|-------------------|-----------------|--|--|-------------------------------|
| 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. | |
|--------------------|------------------|-----|--|--|---|
| Туре | Combo Box One | Yes | | | Predefined Values: DEFAULT / QUEUE Note: 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 | | Service Name cannot be blank Enter 0 or more characters, up to a maximum of 255. No space allowed. | If Eureka Instance is toggled ON and type is default, then only service name is required. |
| 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. | If Eureka Instance is toggled OFF and type is default, then only host and port is required. |
| Port | Text Box | Yes | Number | Port cannot be blank Enter 0 or more characters, up to a maximum of 6. Only numeric value allowed. | If Eureka Instance is toggled off and type is default, then only host and port is required. |



| Authenticati on | Collapsible Header & Content | Authentication option is available only when Eureka Instance is toggled OFF and type is default. |
|--------------------|------------------------------------|---|
| Headers | Collapsible Header & Content | Header option is available only when type is default. |
| 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.

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.

Process of configuration of these is described below.

| Service Consumers | | | | | | | $_{\mu}^{\mu}$ \times |
|--|----------------|------------------------|--------|------|-------------|-------|-------------------------|
| Oracle_Service_Consumer > Service Pro | Edit Implement | ation | | × | | | |
| Implementation | Default Implem | Default Implementation | | | | | |
| Actions Name | Scheme * | Host * | Port * | | ervice Name | Host | Port |
| External_Product_Processor_Default | http | × 2000X | 0 | | | x000x | 0 |
| Page 1 of 1 (1 - 1 of 1 items) $K < 1$ | Authenticatio | n | | _ | | | |
| | NONE | | - | | | | |
| | NONE | | ^ | | | | |
| | BASIC | | | | | | |
| | JWT_TOKEN | | | | | | |
| | OAUTH_TOKE | N | | ~ | | | |
| | SSO | | ~ | Save | | | |

| Component b | 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 / SSO | | | | | |
| Username | Text Box | | Alphanum eric with special characters | Username cannot be blank Enter 0 or more characters, up to a maximum of 255. | Username is mandatory if authentication type is BASIC / JWT_TOKEN / OAUTH_TOKEN | | | | | |



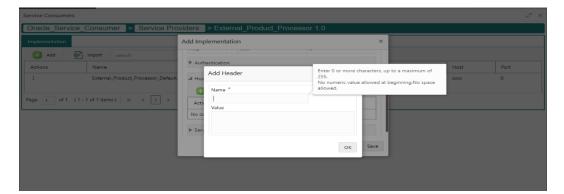
| | | | No numeric value at beginning and no space allowed. | |
|----------|----------|--|---|--|
| Password | Text Box | Alphanum eric with special characters | Password cannot be blank | Password is mandatory if authentication type is BASIC / JWT_TOKEN / OAUTH_TOKEN |

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 | | | | | | ,, ¹⁶ × |
|--|--------------------|----------------|-----------|------|-------|--------------------|
| Oracle_Service_Consumer > Service Pro | viders > External | _Product_Proce | essor 1.0 | | | |
| Implementation | Add Implementation | | | × | | |
| Add Pimport search | inde i la | www. | · · | | | |
| Actions Name | Authentication | | | | Host | Port |
| External_Product_Processor_Default | Headers | | | | XXXXX | 0 |
| | 🕂 Add | | | | | |
| Page 1 of 1 (1 - 1 of 1 items) K < 1 > | Actions | Name | Value | | | |
| | Edit | appld | CMNCORE | | | |
| | ▶ s Delete | | | | | |
| | | | | Save | | |
| | | | | 3476 | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |



| Component b | oriefing | | | | |
|-------------------|-------------------|-----------------|---|--|--|
| Component Name | Component Type | ls Mandatory | Data type | Validation | Comments |
| Add | Button | | | | Pops up add dialog |
| Navigation: Ir | nplementation | -> Headers -: | > 3 dot icor | (operation menu) | I |
| Edit | menu option | | | | Pops up edit dialog |
| Delete | menu option | | | | Deletes header |
| Navigation: Ir | nplementation | -> Headers -: | > Add | | |
| 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 header details and displays it in the list |



7.1.3 Service

| Service Consumers | | | | | | $_{\mu}^{\mu}$ \times |
|---------------------------------------|--------------------------|-----------------|--------|---|-------|-------------------------|
| Oracle_Service_Consumer > Service Pro | viders > External_Produc | t_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 > | Service | | | | | |
| | Type URL WSDL V | | Import | | | |
| | Service | Operation | import | | | |
| | | Operation | | | | |
| | No data to display. | | | | | |
| | | | | | | |
| | | | Save | | | |
| | | | | J | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| 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 | | 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 |



7.1.4 Queue

| racle_Service_Consumer > Service | Add Implementation | | × | | | |
|------------------------------------|----------------------|-----------------------------------|------|--------|------|-------|
| plementation | Type * | Default | | | | |
| Add 🖓 Import Search | QUEUE | • • | | | | |
| | Queue Broker * | Request Reply Pattern * | | | | |
| tions Name | WEBLOGIC_JMS | JMS_MESSAGEID | • I | Host | Port | Queue |
| External_Product_Processor_Default | A Request Queue | | | XXXXXX | 0 | |
| ie 1 of 1 (1 - 1 of 1 items) K < 1 | Connection Factory * | Queue * | | _ | _ | _ |
| | A 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 | Combo Box One | Yes | Predefined Values: |
| Pattern | | | 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.

Navigation: Implementation -> Import

| Service Consumers | | | | | ,, st × |
|-------------------|------------------------------------|-----------------------|------------------------|-------|--------------------|
| Oracle_Service_ | Consumer > Service Providers > | External_Product_Proc | essor 1.0 | | |
| Implementation | | | | | |
| 🔂 Add | Import search Q | | | | |
| Actions | Name | | Description | Host | Port |
| : | External_Product_Processor_Default | _ | Default Implementation | XXXXX | 0 |
| Page 1 of1 (1- | 1 of 1 items) K (1) > 3 | Import Implementation | Select | | |

| 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

| Oracle_Service_Consumer > Service Providers > External_Product_Processor 1.0 Implementation Implementation Implementation Actions Name Default 1 External_Product_Processor_Default On Description Default Xxxxx 0 Default Implementation Scheme Host Port Name Default Con Default Xxxx 0 Scheme Host Port Host Port Headers | Service Consumers | | | | | | , ^{se} - 5 |
|---|-------------------|--------------------------|---|------------|-----|-------|---------------------|
| Add Import search Actions Name : External_Product_Processor_Default Page 1 of 1 (1 - 1 of 1 items) K < 1 > Scheme Host Point Name View Implementation View Implementation Scheme Host Point Add View Implementation Description Default Implementation Scheme Host Point http Add View Implementation Scheme Host Point http Authentication | Oracle_Service | e_Consumer > Service Pro | viders > External_Product_Prod | cessor 1.0 | | | |
| Actions Name Host Port I External_Product_Processor_Default On Default xxxxx 0 Page 1 of 1 (1-1 of 1 items) K < 1 > Default implementation Scheme Host Port Scheme Host Port Host Implementation Implementation Implementation | Implementation | | | | | | |
| Actions Name Default None Default None Default None Default None Default None O Page 1 of 1 (1 - 1 of 1 items) κ < 1 > > Description On Default implementation <t< th=""><th>Add 🛃</th><th>Import search</th><th>View Implementation</th><th></th><th></th><th></th><th></th></t<> | Add 🛃 | Import search | View Implementation | | | | |
| Page 1 of 1 (1-1 of 1 items) K < 1 > External_Product_Processor_Default On Description Description Default Implementation Scheme Host Port http xxxx Authentication | Actions | Name | | | | Host | Port |
| http xxxx 0 ▶ Authentication | Page 1 of 1 (| | External_Product_Processor_Default Description | | | XODOX | 0 |
| | | | http xxxx | | _ 1 | | |
| | | | | | | | |
| | | | | | | | |

7.4 Edit

User can modify the implementation details.

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

| Service Consumers | | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|-------------------|------------------------------------|------------------------------------|-------------|------|-------|--|
| Oracle_Service_ | Consumer > Service Prov | viders > External_Product_Pro | ocessor 1.0 | | | |
| Implementation | | | | | | |
| 🔂 Add | Import search | Edit Implementation | | × | | |
| Actions | Name | | | | Host | Port |
| : | External_Product_Processor_Default | Name * | Default | | XXXXX | 0 |
| | | External_Product_Processor_Default | | | | |
| Page 1 of 1 (1- | 1 of 1 items) K < 1 > | Description * | | | | |
| | | Default Implementation | | | | |
| | | Scheme * Host * | Port * | | | |
| | | http 👻 xoox | 0 | | | |
| | | Authentication | | | | |
| | | | | | | |
| | | | | Save | | |
| | | | | | | |
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7.5 Delete

User can delete the implementation.

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

| mplementation | | | | | |
|---------------|-------------------------------|--|------------------------|-------|------|
| Add | Import search | 0, | | | |
| Actions | Name | | Description | Host | Port |
| : | External_Product_Processor_De | fault | Default Implementation | XXXXX | 0 |
| ge 1 of 1 | (1 - 1 of 1 items) K < 1 | CONFIRMATION Do you want to delete the record? | × | | |
| | | | Confirm Cancel | | |
| | | | | | |
| | | | | | |
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7.6 Export

User can export the implementation configuration as JSON file.

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

| Service Consumers | | | | μ^{ν} × |
|-------------------|---|--|------|---------------|
| Oracle_Service_ | Consumer > Service Providers > External_P | roduct_Processor 1.0 | | |
| Implementation | | | | |
| 🕂 bba 🔁 | Import search Q | | | |
| Actions | Name | Description | Host | Port |
| : | External_Product_Processor_Default | Default Implementation | XXXX | 0 |
| Page 1 of 1 (1- | 1 of 1 items) K < 1 | lementation 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 Consume | rs | | | $_{\mu^{t\ell}} \ \times$ |
|---|--|----|---|--------------------------------------|
| Oracle_Serv | ice_Consumer | | | |
| Service Providers | Consumer Services | | | |
| 🔂 Add | Import search | 0 | | |
| 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 > → | | | |
| | | | | |
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| | | | | |
| Service Consume | 15 | | | ,, ¹⁶ × |
| Service Consume | | | | $_{\mu^{k'}} \ \times \ _{^{N_{n}}}$ |
| Oracle_Serv | ice_Consumer | | | ,,* × |
| Oracle_Serv | ice_Consumer | 0 | | × *, |
| Oracle_Serv | ice_Consumer | Q. | Description | ,* ³² × |
| Oracle_Serv Service Providers | Consumer Services | Q | Description This service fetches the list of facilities available for party id | × % |
| Oracle_Serv Service Providers Add Actions i View | Consumer Consumer Services Import Search Name Caclifies | Q, | | ×* × |
| Oracle_Serv Service Providers Add Actions : View Page Edit | Consumer Consumer Services Timport search Name | Q | | ** × |
| Oracle_Serv Service Providers Add Actions i View | Consumer Consumer Services Import Search Name Caclifies | Q | | μ ^α × |
| Oracle_Serv Service Providers Add Actions : View Pag Edit Delete | Import search Name | Q. | | ,,** × |
| Service Providers Service Providers Add Actions I View Page Edit Delete Export | ice_Consumer Consumer Services import search Name 1 items) K < 1 | ٩ | | ,,,** × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | 9 | | ** × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | 9 | | ** × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | 9 | | ** × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | ٩ | | × × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | ٩ | | ,* × |
| Cracle_Serv Service Providers Add Actions i View Pag Edit Delete Export Configura | ice_Consumer Consumer Services import search Name 1 items) K < 1 | 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 me | 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

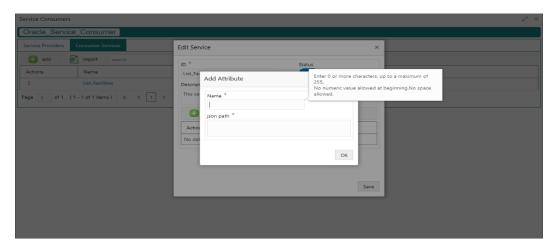
| Service Consumers | | | | | | | »" × |
|-------------------|--------------------------|---------------------|----------------|------------------------|---------------------------|-------------|------|
| Oracle_Service | Consumer | | | | | | |
| Service Providers | Consumer Services | Add Service | | Enter 0 or m 255. | ore characters, up to a m | aximum of | |
| 🕂 Add 🔂 | Import search | ID * | | No numeric allowed. | value allowed at beginnir | ig.No space | |
| Actions | Name | Ī | | |) | | |
| ÷ | 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 | 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 | | | | | × ^{اير} (|
|-------------------|--------------------------|---------------------|--|----------------|--------------------|
| Oracle_Service | _Consumer | | | | |
| Service Providers | Consumer Services | Edit Service | | | × |
| 🔂 bbA 🔁 | Import search | ID * | Sta | tus | |
| Actions | Name | List_Facilities | | | |
| : | List_Facilities | Description * | | | |
| Page 1 of 1 (1 | - 1 of 1 items) K < 1 > | This service fetche | s the list of facilities available for p | party id | |
| | | 🕂 Add | | | |
| | | Actions | Attribute Name | json path | |
| | | Edit | ENTITY | \$.body.entity | |
| | | Delete | | | |
| | | Delete | | | |
| | | | | | |
| | | | | Save | |
| | | | | | |
| | | | | | |
| | | | | | |



| Component briefing | | | | | | | | | |
|--------------------|-------------------|-----------------|-------------------|------------------|---------------|------------------------|--|--|--|
| Component Name | Component Type | ls Mandatory | Data type | Validation | Condit ion | Comments | | | |
| | | | | | | | | | |
| Add | Button | | | | | Pops up add dialog | | | |
| Navigation: C | onsumer Servi | ces -> Headers | s -> 3 dot icon (| (operation menu) | | | | | |
| 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. | | |
| OK | 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 | | $_{\mu}^{\nu}$ \times |
|--|--|-------------------------|
| Oracle_Service_Consumer | | |
| Service Providers Consumer Services | | |
| 🔁 Add 🔂 Import search 🔍 | | |
| 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 > → | Import Service × | |
| | Fie * Select | |

| 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**

| Oracle_Service_Consumer | |
|---|--|
| Service Providers Consumer Services View Service 🕼 🗙 | |
| Add Dimport search | |
| Actions Name List_Facilities On | |
| E List_Facilities Description | |
| Page 1 of 1 (1 - 1 of 1 items) K < 1 > This service fetches the list of facilities available for party id | |
| Actions Attribute Name json path | |
| No data to display. | |
| | |
| | |
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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 a | available for party id | |
| | 🕂 Add | | |
| | Actions Attribute Name | json path | |
| | No data to display. | | |
| | | | |
| | | | |
| | | | |
| | | Save | |
| | | | |
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8.5 Delete

User can delete the consumer service.

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

| Service Consumers | | | , ^е × |
|-------------------|------------------------|--|--|
| Oracle_Service | _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 | 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 | | | | , ^w × |
|-------------------|--------------------------|------------------------|--|------------------|
| Oracle_Servic | e_Consumer | | | |
| Service Providers | Consumer Services | | | |
| 🕒 Add 🗧 | Import search | 9 | | |
| 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 | | × | |
| | | Do you want to export? | 1 | |
| | | | Confirm Cancel | |
| | | | | |
| | | | | |
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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

| Service Consu | imers | | | | , st × |
|---------------|---------------------------|--------|--------------------------------|----------------|--|
| Oracle_Se | ervice_Consumer > | Consum | er Services > List_Facilities | | |
| Transformatio | n Routing | | | | |
| 🕂 Add | Import search | | Q | | |
| Actions | Name | Status | Product Processor | Implementation | Service |
| : | List_Facilities_Trf_01 | ACTIVE | External_Product_Processor 1.0 | | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO |
| Page 1 c | of 1 (1 - 1 of 1 items) K | < 1 | к | | |
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| | | | | | |
| | | | | | |
| Service Consu | mers | | | | , ^w |
| | ervice Consumer > | Consum | er Services > List Facilities | | |
| Transformatio | | | | | |
| Add | Import search | | ् | | |
| Actions | Name | Status | Product Processor | Implementation | Service |
| 1 | List Facilities_Trf_01 | ACTIVE | External_Product_Processor 1.0 | | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO |
| View | f1items) K | < 1 | k < | | |
| Edit | | | | | |
| Export | | | | | |
| | est Audit | | | | |
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| 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: Ti | 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 |

menu option

Request

Audit



9.1 Add

User can create Transformation manually.

Navigation: Transformation-> Add

| Service Consumers | | | | | ,, ¹⁰ × |
|--------------------------------|----------------------------|--|------------|------|-----------------------|
| Oracle_Service_Consumer | > Consumer Services > List | _Facilities | | | |
| Transformation Routing | Add Transformation | Enter 0 or more characters, up to a ma 255. | | × | |
| Add | Name * | No numeric value allowed at beginning allowed. | g.No space | | |
| Actions Name | | | | | |
| List_Facilities_Trf_01 | A Product Processor | | | |) - QueryValidLimitIO |
| Page 1 of 1 (1 - 1 of 1 items) | Product Processor * | Implementation | Service * | | |
| | select 💌 | select 💌 | select | * | |
| | | | | | |
| | Service | | | | |
| | Request Transformation | | | | |
| | 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 | 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 / XSLT |
| 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 Consu | imers | | | | | | , ^н К |
|---------------|-------------------------|--------|-----------------|---------------------|----------------|--|------------------|
| Oracle_S | ervice_Consumer > | Consum | er Services | > List_Facilities | | | |
| Transformatio | n Routing | | | | | | |
| Add | Import search | | ٩, | | | | |
| Actions | Name | Status | Product Process | or | Implementation | Service | |
| Actions | List_Facilities_Trf_01 | ACTIVE | External_Produc | t_Processor 1.0 | | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO | |
| - | of 1 (1-1 of 1 items) K | < 1 | к | Import Transformati | on | × | |
| | | | _ | File * | | | |
| | | | | | Select | | |
| | | | | | Impor | | |
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| 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

| Service Consumers | | | | |
|--|---|--------------------------|---|------------------------|
| Oracle_Service_Consumer | View Transformation | | I | × |
| Transformation Routing | Name List_Facilities_Trf_01 | Act | | |
| Actions Name | I Product Processor | | | |
| Actions Name : List_Facilities_Trf_01 Page 1 of 1 (1 - 1 of 1 items) | Product Processor External_Product_Processor 1.0 | Implementation select | Service ElValidLimitService (ElValidLimitService | l) - QueryValidLimitlO |
| | Service Request Transformation | | | |
| | Response Transformation | | | |
| | | | | - |

9.4 Edit

User can modify the transformation details.

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

| Service Cons | | | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|--------------|-------------------------|--|--------------------------|--------|---|------|--|
| Oracle_S | ervice_Consumer | Consumer Services > Li | ist_Facilities | | | | |
| Transformati | on Routing | Edit Transformation | | | | × | |
| Add Actions | Name Import | Name * List_Facilities_Trf_01 | | Active | | | |
| : | List_Facilities_Trf_01 | Product Processor | | | | | I) - QueryValidLimitlO |
| Page 1 | of 1 (1 - 1 of 1 items) | Product Processor * External_Product_Processor 1.0 | Implementation select | • | Service * 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 Consu | mers | | | | , ² × |
|---------------|---------------------------|--------|-----------------------------------|----------------|--|
| Oracle_Se | ervice_Consumer > | Consum | er Services > List_Facilities | | |
| Transformatio | n Routing | | | | |
| Add | Import search | | 9 | | |
| Actions | Name | Status | Product Processor | Implementation | Service |
| : | List_Facilities_Trf_01 | ACTIVE | External_Product_Processor 1.0 | | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO |
| Page 1 0 | of 1 (1 - 1 of 1 items) K | < 1 | | | × |
| | | | Do you want to delete the record? | | 1 |
| | | | | Co | onfirm Cancel |
| | | | | | |
| | | | | | |
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9.6 Export

User can export the transformation configuration as JSON file.

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

| Service Cons | sumers | | | | | , ^{ye} × |
|--------------|----------------------------|--------|--------------------------------|----------------|--|-------------------|
| Oracle_S | Service_Consumer > | Consum | er Services > List_Facilities | | | |
| Transformati | ion Routing | | | | | |
| Add | Import search | | 9 | | | |
| Actions | Name | Status | Product Processor | Implementation | Service | |
| : | 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? | | 1 | |
| | | | | C | Confirm | |
| | | | | | | |
| | | | | | | |
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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

| Service Con | isumers | | | | | × ^ع ر |
|-------------|--------------------------|------------|--------|--------------------------------|------------------------------------|--|
| Oracle_ | Service_Consumer | > Consu | mer Se | ervices > List_Facilities | | |
| Transforma | ation Routing | | | | | |
| 🕀 Ada | d search | Q | | | | |
| Actions | Name | Start/Stop | Rule | Product Processor | Implementation | Service |
| : | List_Facilities_Route_01 | ۲ | | External_Product_Processor 1.0 | External_Product_Processor_Default | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO |
| Page 1 | of 1 (1 - 1 of 1 items) | К < 1 |) > > | 1 | | |
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| Service Con | isumers | | | | | , ² × |
| Oracle_ | Service_Consumer | > Consu | mer Se | ervices > List_Facilities | | |
| Transforma | ation Routing | | | | | |
| 🔒 Add | d search | 0 | | | | |
| Actions | Name | Start/Stop | Rule | Product Processor | Implementation | Service |
| | Conte_01 | • | | External_Product_Processor 1.0 | External_Product_Processor_Default | ElValidLimitService (ElValidLimitServiceSEI) - QueryValidLimitIO |
| Pag Edi | 1 (10000) | к < 1 | > > | 4 | | |
| | elete | | | | | |
| | onfiguration | | | | | |
| | quest Audit | | | | | |
| | | | | | | |

| 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 | | , st × |
|------------------------------|---|--------------------------------------|
| Oracle_Service_Consumer | Add Route | < |
| Transformation Routing | Name * Start/Stop Auto Shutdown | |
| Add search | START STOP | |
| Actions Name | Default Rule Ocustom Rule | |
| List_Facilities_Route_01 | ⊿ Rule | LimitServiceSEI) - QueryValidLimitIO |
| Page 1 of 1 (1-1 of 1 items) | Expression <i>Editor</i>)* | |
| | | |
| | | |
| | ▲ Transformations | |
| | G Add | |
| | Actions Product Processor Implementation Transformation | |
| | Save | |
| | | |
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| 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 | | , st × |
|--------------------------------|---|--------------------------------------|
| Oracle_Service_Consumer | Add Route × | |
| Transformation Routing | Name * Start/Stop Auto Shutdown | |
| Actions Name | O Default Rule | |
| List_Facilities_Route_01 | al Rule | LimitServiceSEI) - QueryValidLimitIO |
| Page 1 of 1 (1 - 1 of 1 items) | Expression (<i>Editor</i>) * | |
| | Transformations | |
| | G Add | |
| | Actions Product Processor Implementation Transformation | |
| | Save | |
| | | |
| | | |
| | | |
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| | | |



| 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 | | | | | | | × * ₄ |
|--|-------------------|----------|---------------|---------|----------------|------|---------------------------|
| Oracle_Service_Con Transformation Routing | Expression Editor | | lat Pasilitaa | | | × | |
| Add search | Attribute * | Operator | | Value * | Condition Type | × | |
| List_Facilities_Ro | | ▼ 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.

| | | | | | | ,** × |
|---|--|---------------------------|----------------------------|----------------|------|--|
| Oracle_Service_Consumer | > Consumer S | ervices > List_Facilities | | | | |
| Transformation Routing | Add Route | | | | × | |
| Add search | O Default Rule | Custom Rule | | | | |
| Actions Name | A Rule | | | | | |
| List_Facilities_Route_01 | Expression Editor | * | | | | LimitServiceSEI) - 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 | | _ | _ | - | ,** × |
| Oracle_Service_Consumer | | | _ | _ | | # × |
| Oracle_Service_Consumer Transformation Routing | > Consumer S Add Transformatio | | _ | - | × | / × |
| Oracle_Service_Consumer Transformation Routing Add search | Add Transformatio | n | Implementation * | - | × | × * |
| Add search Actions Name | Add Transformatio | | Implementation * select | • | × | * * |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio | n | | v | × | |
| Add search Actions Name | Add Transformatio Product Processor * select Transformation * | vn * | | v | × | , × × |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers | vn * | | • | × | "ν" × umi5ervice5E) − QueryValidLimiti0 |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select | vn * | | v | × | umitServiceSE) - QueryValidLimitiO |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Headers Froduct Processor | vn * | | v | × | umitServiceSEI) - QueryValidLimittO |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Headers Froduct Processor | v v | | * | × | |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Product Processor Service | ation | | • | × | |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Product Processor Service Request Transform | ation | | | × | |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Product Processor Service Request Transform | ation | | v | × | |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Product Processor Service Request Transform | ation | | | | |
| Add search Actions Name List_facilities_Route_01 | Add Transformatio Product Processor * select Transformation * select Headers Product Processor Service Request Transform | ation | | | | LimitServiceSE) - Query ValidLimit(O |



| Component brie | 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 | | | | | , ¹ × |
|---|-------------------------|--------------------------------|------------------------------------|------------------------|--------------------------------------|
| Oracle_Service_Consumer | View Route | | | đ | × |
| Transformation Routing Image: Add search Actions Name | Name List_Facilities | | rt/Stop Auto TARI STOP Off | Shutdown | |
| EList_Facilities_Route_01 | Transform | ations | 1 | | LimitServiceSEI) - QueryValidLimitIO |
| Page 1 of 1 (1 - 1 of 1 items) | Actions | Product Processor | Implementation | Transformation | |
| | | External_Product_Processor 1.0 | External_Product_Processor_Default | List_Facilities_Trf_01 | |

10.3 Edit

User can modify the routing details.

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

| Service Consumers | | | | ,, ^{ar} × |
|--|--|------------------------------------|------------------------|--------------------------------------|
| Oracle_Service_Consumer | Edit Route | | × | |
| Transformation Routing Add search Actions Name | Name * List_Facilities_Route_01 © Default Rule Custom Rule | Start/Stop Auto Shu | ıtdown | |
| : List_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 Cor | nsumers | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|-------------|--------------------------|------------|--------|--------------------------------|------------------------------------|--|
| Oracle | Service_Consumer | > Consu | mer So | ervices > List_Facilities | | |
| Transforma | ation Routing | | | | | |
| 🕂 Ad | d search | ٩, | | | | |
| Actions | Name | Start/Stop | Rule | Product Processor | Implementation | Service |
| : | List_Facilities_Route_01 | ۲ | | 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 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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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.

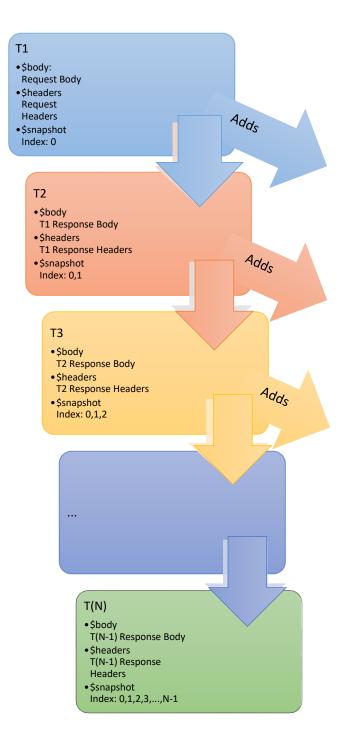
So, end-user can access response body or headers of all processed transformations at any given step.

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 | $_{\mu}^{\mu}$ \times | |
|-------------------------|-------------------------|--|
| / Monitoring | | |
| Window Type | Window Size | |
| Count Time | 100 🗸 🗸 | |
| ⊿ Alert | | |
| Minimum number of calls | Failure rate threshold | |
| 100 🗸 🗸 | 50% 🗸 🔨 | |
| ⊿i Email Alert | | |
| Email 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 | t | | | | | | | | $_{\mu}^{\nu}$ \times |
|-----------------|-------------------|------------------|---------------------------------------|----|------------------|------------------|-------|--------|-------------------------|
| Request Id | | | Consum | er | | Consumer Service | | | |
| Provider | | Provider | Provider Implementation | | Provider Service | | | | |
| Transformation | Transformation | | Route | | | User Id | | | |
| | | | | | | | | | |
| Search | | | | | | | | | |
| Request Id | Consumer | Consumer Service | vice Provider Provider Implementation | | Provider Service | Transformation | Route | Status | User Id |
| No data to disp | olay. | | | | | | | | |
| Page 1 of | f0 (1-0 of 0 item | 15) K < > X | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

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

| Request Audit | 1 | | | | | | | | ,, ³⁶ × |
|----------------|-----------------------------|-----------------|----------------------------|--|--|------------------------|-----|---------|--------------------|
| Request Id | | | Consumer | | c | onsumer Service | | | |
| | | | | | | | | | |
| Provider | | | Provider Implement | ation | P | rovider Service | | | |
| | | | Request Audit Details | | | × | | | |
| Transformation | | | Request Id | | | | | | |
| | | | eqwiLi5IXb4N1dZTT8KKZ 8 | imRnxj3Q16tby8u5n0VkV6 | 2B0dtlsNFN1hZcJmWrgCux | hwCn2vlcBkbbqNHuiELNt3 | | | |
| Search | | | ~ | ⊘ | O | ⊘ | | | |
| Request Id | Consumer | Consumer | OBRH Request Timestamp | Provider Request | Provider Response | OBRH Response | te | Status | User Id |
| eqwiLi5IX | Oracle_Service_Consumer | List_Facilities | 2021-02-23T12:34:42.12 | 8+05:30 | | |)_L | SUCCE | JOHNDOE |
| | | | Message | | | | | | |
| xvA8tBqg | Oracle_Service_Consumer | List_Facilities | 2Mzc4NiwiZXhwljoxNjE0 | J0aWQiOiliLCJzdWliOiJPQ MDY0Mzg2fQ.R- | RYX0FOSUtFVCIsImF1ZCI6II | |)_L | FAILURE | JOHNDOE |
| rKiNdo6q | Oracle_Service_Consumer | List_Facilities | | 'application/json"],"User-A | sbju9hWpG7RB8yY_dnTtO8t gent":["Mozilla/5.0 (Window | |)_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 | | | | | | | | | ,,, ^w × |
|----------------|---------------------------|-----------------|--|--|--|-------------------------|-----|---------|--------------------|
| Request Id | | | Consumer | | (| Consumer Service | | | |
| Provider | | | Provider Implementa | tion | 1 | Provider Service | | | |
| Transformation | | | Request Audit Details | | | × | | | |
| | | | Request Id xvA8tBqgWQas1qC7pl2nN 9Tb | v5vtWog6ie9WbLae4BKK(| 0X08JsIIRUpa1a2xFYAaHGau | il6WiSd7XSfG8axMhgbnP0 | | | |
| Search | | | O | | | •••• | | | |
| 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 | 2MzA2MywiZXhwljoxNjE0 | 0aWQiOiliLCJzdWliOiJPQ MDYzNjYzfQ.XVXWkvpei | kRYX0FOSUtFVCIsImF1ZCI6 O8L8tuyKAXZtKXDPmrnIsW | pZtfkjLm3qiTEVgu4SFFRci |)_L | FAILURE | JOHNDOE |
| rKiNdo6q | Oracle_Service_Consumer | List_Facilities | (Windows NT 10.0: Win64: | | Type":["application/json"],"U 6 (KHTML, like Gecko) Chror | |)_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 brie | efing | | |
|----------------------------|-------------------|-----------|---------------------------------|
| 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 values |
| | | 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.

| Routing Health Indicato | or | × |
|-------------------------|--|---|
| Consumer | Service | |
| Oracle_Service_Cons | List_Facilities | Q |
| Routing | | |
| All List_Facilitie | es_Route | |
| | Series Successful Calls Value 100.0 | d |
| 100% | Failed Ca | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |



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

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

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

| POST | ▼ whf00lse:7002/api-į | gateway/platojwtauth | | | | | Send | ▼ Save ▼ |
|---------|-----------------------|----------------------|--------------------|---------|----------|-------------|------|----------|
| Params | Authorization Headers | (12) Body • | Pre-request Script | Tests 🌒 | Settings | | | |
| Headers | s 💿 9 hidden | | VALUE | | | DESCRIPTION | | |
| 🗸 ар | pld | | SECSRV001 | | | | | |
| ✓ Co | ontent-Type | | application/json | | | | | |



Request Payload

| POST v whf00lse:7002/api-gateway/platojwtauth | | Send - Save - |
|---|--------------------------------|-----------------------------|
| Params Authorization Headers (12) Body • Pre | -request Script Tests Settings | |
| 🔵 none 🛛 form-data 🔍 x-www-form-urlencoded 🌘 rav | v 🔍 binary 🔍 GraphQL JSON 👻 | |
| 1 1 2 "username": "VEVTVFVTRVIx", 3 "password": "VEVTVFVTRVIx" 4 1 | | I T |

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": {}
}
```

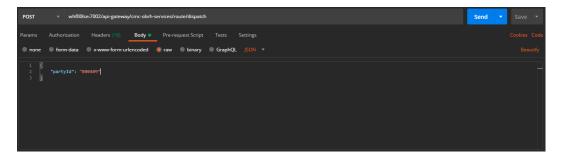
- If the route invocation succeeds, data JSON member would contain the transformed (optional) response of the provided service. If it's a provided web service and no response transformation template is supplied, XML Soap Body of response would be converted into JSON object and sent in data JSON member.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

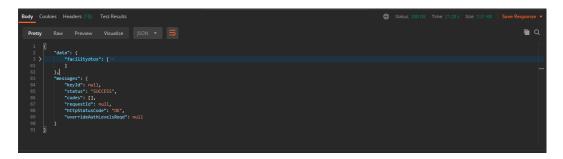
| POS | T v whf00lse:7002/api-gateway/cmc-obrh-services/route/dispatch | | | | Send ~ |
|--------------|--|-------------------------|-------------|--------------|-----------|
| Param | ns Authorization Headers (17) Body Pre-request Script Test | | | | |
| | | VALUE | DESCRIPTION | ••• Bulk Edi | Presets 🗸 |
| \checkmark | Content-Type | application/json | | | |
| \checkmark | appld | CMNCORE | | | |
| ~ | entityld | DEFAULTENTITY | | | |
| \checkmark | userld | TESTUSER1 | | | |
| ~ | branchCode | 004 | | | |
| \checkmark | Authorization | Bearer ((token)) | | | |
| ~ | SERVICE-CONSUMER | Oracle_Service_Consumer | | | |
| 2 | 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

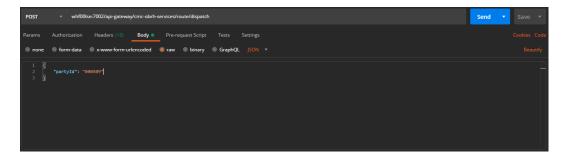
Query Params

| POST | whf00lse:7 | 7002/api-gateway/c | mc-obrh-serv | ices/route/dispatch?isA | sync=true | | | Send | • | |
|-------------------------|---------------|--------------------|--------------|-------------------------|-----------|----------|-------------|------|---|--|
| Params • Query Param | Authorization | Headers (17) | Body 😐 | Pre-request Script | Tests | Settings | | | | |
| KEY | | | | VALUE | | | DESCRIPTION | | | |
| 🖌 isAsync | | | | true | | | | | | |
| Кеу | | | | | | | | | | |

Headers

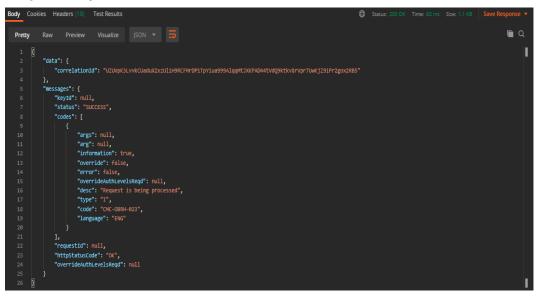
| POST v whf00lse:7002/api-gat | eway/cmc-obrh-services/route/dispatch? | isAsync∝true | | | Send 🗸 |
|-----------------------------------|--|-------------------------|-------------|--------------|-----------|
| Params Authorization Headers (17) | | | | | |
| Headers 🐵 9 hidden | | | | | |
| KEY | | VALUE | DESCRIPTION | ••• Bulk Edi | Presets ~ |
| Content-Type | | application/json | | | |
| Sabbig | | CMNCORE | | | |
| 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.

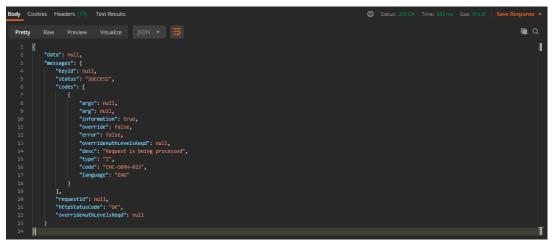
Example - Below are the screenshots of route dispatch for

ServiceConsumer Oracle_Service_Consumer and ServiceConsumerService List_Facilities

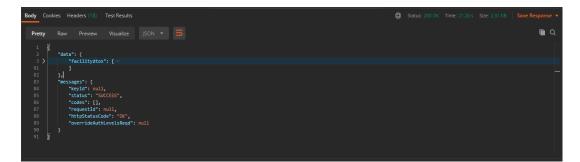
Headers

| GET v whf00lse-7002/api-gateway/cmc-obrh-services/route/dispatchResponse/AWTTEvRceo3hfb8nd9wnq7uokPPSoLk2EyqjSeT8bA65xXWC2CGMybEfhy8rGxar38idzYGdVhq4mFQHWVCVRb | | | | Send ~ |
|---|------------------|-------------|---------------|-----------|
| Params Authorization Headers (15) Body Pre-request Script Tests | Settings | | | |
| Headers 📀 9 hidden | | | | |
| KEY | VALUE | DESCRIPTION | ••• Bulk Edit | Presets 🗸 |
| Content-Type | application/json | | | |
| sppld | CMNCORE | | | |
| I entityId | DEFAULTENTITY | | | |
| S userid | TESTUSER1 | | | |
| ✓ 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 Oracle Banking Microservices Platform Foundation Installation Guide.

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

