Oracle® Banking Microservices Architecture

Events Delivery Configuration User Guide

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Oracle Banking Microservices Architecture Events Delivery Configuration User Guide, Release 14.8.0.0.0

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Purpose

This guide provides an overview to the events delivery module and takes you through the various steps involved in setting up and using the features offered by this module.

Audience

This document is primarily intended for IT department or partners deploying Oracle Banking Microservices Architecture products. Some information may be relevant to IT decision makers and users of the application are also included. Readers are assumed to possess basic awareness and knowledge of Oracle Banking Microservices Architecture products.

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

Related Resources

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

- *Oracle Banking Common Core User Guide*
- *Oracle Banking Getting Started User Guide*
- *Routing Hub Configuration User Guide*

Conventions

The following text conventions are used in this document:

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

Screenshot Disclaimer

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

Acronyms and Abbreviations

The list of the acronyms and abbreviations that you are likely to find in the guide are as follows:

Table Acronyms and Abbreviations

Abbreviation	Description
OBRH	Oracle Banking Routing Hub
EDP	Events Delivery Platform
OBMA	Oracle Banking Microservice Architecture
API	Application Programming Interface

Basic Actions

Table List of Basic Actions

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

Symbols and Icons

The following symbols and icons are used in the screens.

Table Symbols and Icons - Common

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

Table (Cont.) Symbols and Icons - Common

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

Table (Cont.) Symbols and Icons - Common

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

1 Overview

Events Delivery Platform or EDP is an events subscription and routing platform. Any product which publishes events on the configured kafka topics used by Oracle Banking products can onboard itself to the EDP platform and publish the list of events it wants other products to consume.

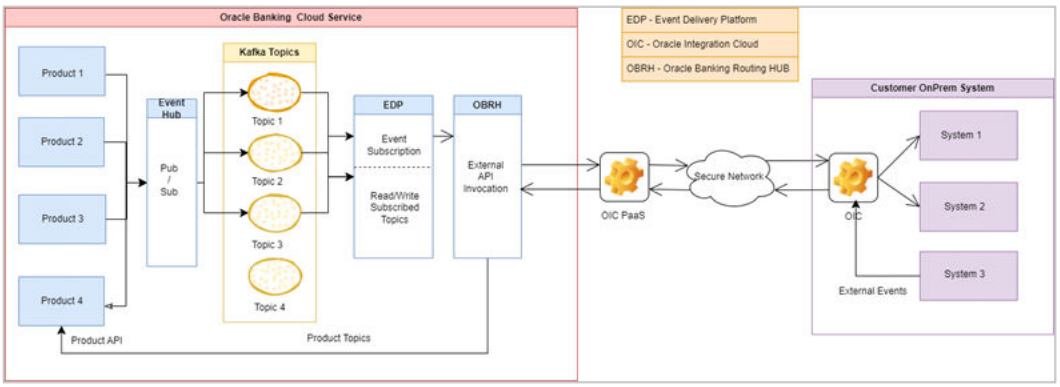
Any product interested in consuming the events from any published topic can subscribe to that event. Once the subscription is done, a consumer is registered dynamically and starts listening to that topic.

The Publisher products are Oracle Banking products and are called Internal Products while the products which subscribe to the published events are called External Products. A topic can be subscribed to by multiple external products.

An event when produced by a publisher is consumed by the EDP service and passed on to the OBRH (Oracle Banking Routing Hub) via dispatch API for further routing to all the consumers who have subscribed to that event. To enable routing through OBRH a ‘Service Consumers’ named EDP is provided out of the box in OBRH. The external product which needs to subscribe to the events published by internal products should configure its ‘Consumer Service’ has the host API details under the EDP ‘Service Consumer’. The list of all the services configured under EDP will come as dropdown values while subscribing for an event. After the successful subscription, the external products start listening to the events published on that topic.

There is also the Audits screen where we can see the events consumed by the external products. There is a whole range of filters to narrow down the search to messages of interest.

Figure 1-1 Architectural Diagram



2
Maintenance

This topic describes the systematic instructions to configure the events.

The products can be Internal or External. The internal products can publish the events. The external products can subscribe to the events published by the internal products.

The Maintenance screen displays the list of internal products added as a part of the Day 0 master script.

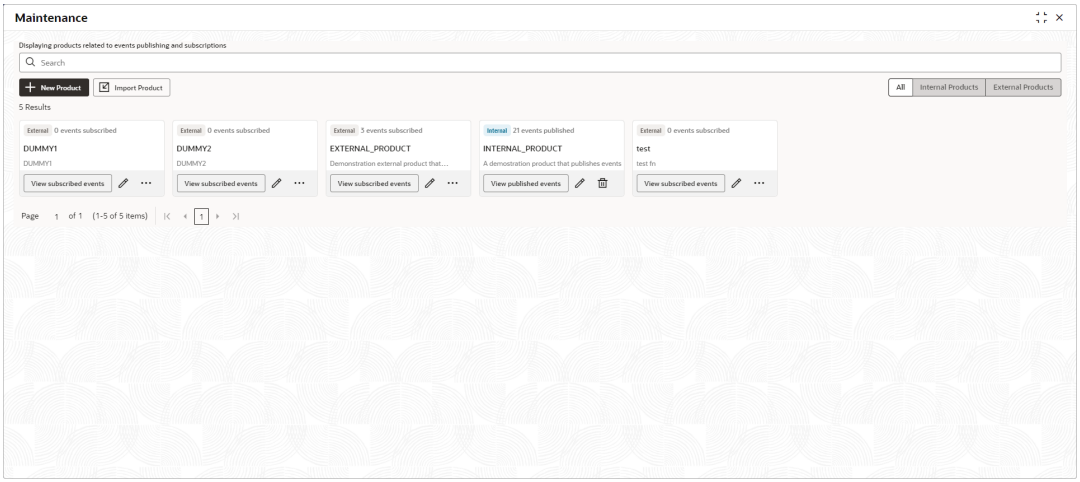
External Product can be added from the maintenance screen through the user interface provided. In additional, external products can also be imported. The option to export the external products is also provided to help moving the configurations from one environment to other.

Specify **User ID** and **Password**, and login to **Home** screen.

1. From **Home** screen, click **Event Delivery**. Under **Event Delivery**, click **Maintenance**.

   The **Maintenance** screen displays the products related to events publishing and subscriptions.

Figure 2-1 Maintenance



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

Table 2-1 Maintenance - Field Description

Field	Description
Product Type	Displays the type of the product. The available options are: • **Internal** • **External**

Table 2-1 (Cont.) Maintenance - Field Description

Field	Description
Event Subscribed in Number	Displays the number of events subscribed for an external product.
Event Published in Number	Displays the number of events published for an internal product.
Product Name	Displays the name of the product.
Product Description	Displays the description about the product.

2. Click **+ New Product** to add a new external product.

   The **New Product** overlays screen displays.

Figure 2-2 New Product

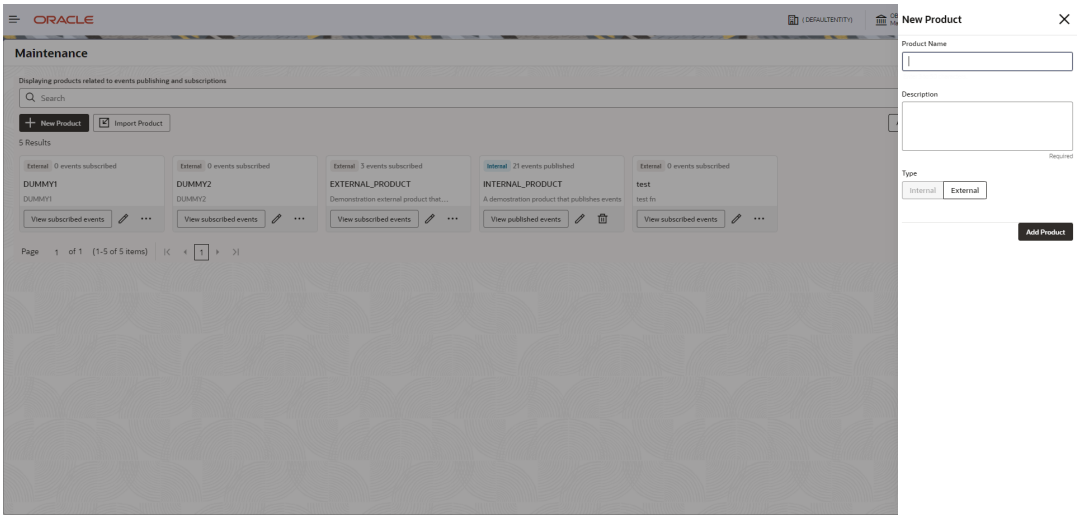


Table 2-2 New Product - Field Description

Field	Description
Product Name	Specify the name of the new product.
Description	Specify the description of the new product
Product Type	Select the type of the product. The available options are: • **External** • **Internal** (Disabled

3. Click **Import Product** button to import a new product
4. Click on the **View Subscribed events** button to view the subscribed events for an external product.
5. click on the **View Published events** button to view the subscribed events for an internal product.

3
Published Events screen

This topic describes the systematic instructions to publish the events.

The user can view all the events published by an internal product by clicking on it (The events here refer to the Topics in terms of Kafka). These events are added as a part of Day 0 master script.

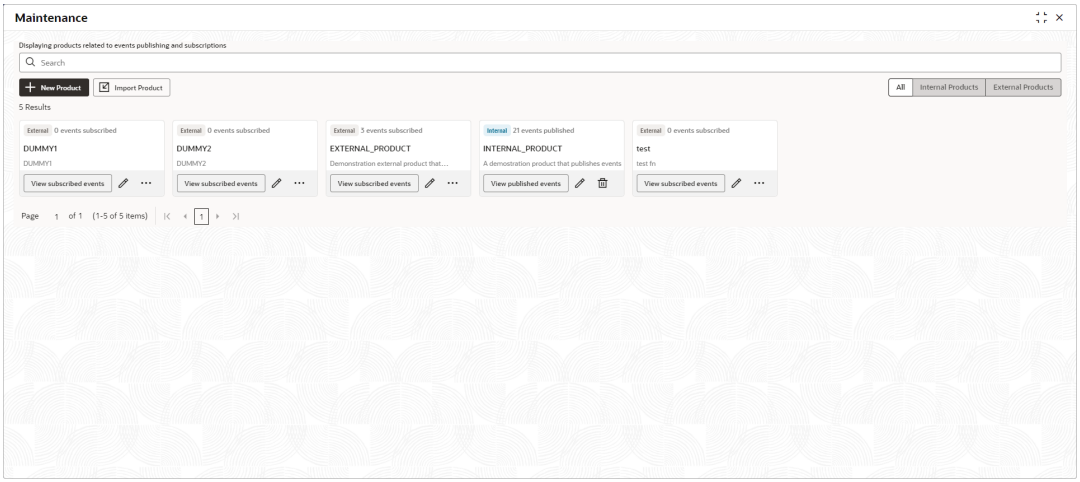
> **Note:**
>
> User can also add new event from the screen. Events can be of two types – String or Avro. In case of Avro events, you also need to add the Avro Schema file as well.

Specify **User ID** and **Password**, and login to **Home** screen.

1. From **Home** screen, click **Event Delivery**. Under **Event Delivery**, click **Maintenance**.

   The **Maintenance** screen displays the products related to events publishing and subscriptions.

Figure 3-1 Maintenance



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

Table 3-1 Maintenance - Field Description

Field	Description
Product Type	Displays the type of the product. The available options are: • **Internal** • **External**
Event Subscribed in Number	Displays the number of events subscribed for an external product.
Event Published in Number	Displays the number of events published for an internal product.
Product Name	Displays the name of the product.
Product Description	Displays the description about the product.

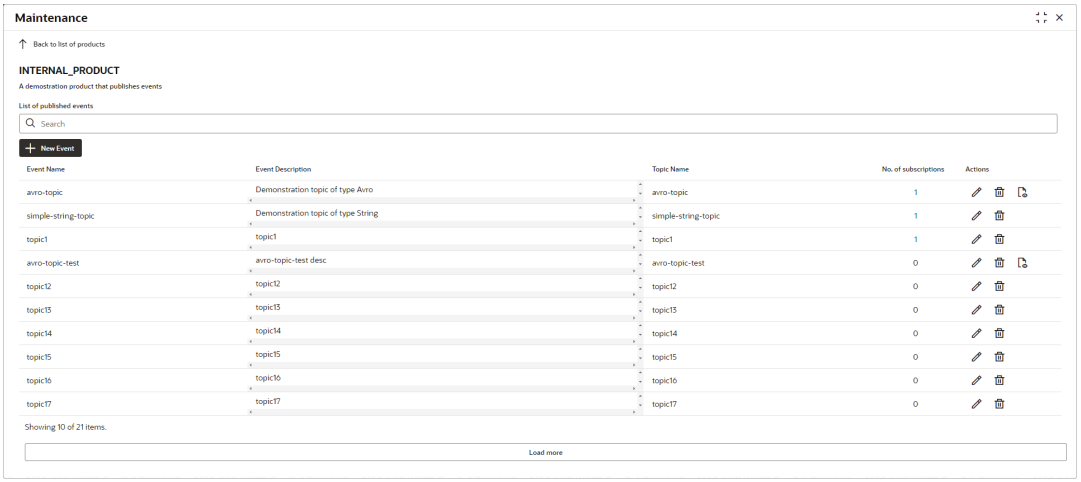
2. Select the Internal Products tab located in the upper right corner of the screen to filter internal products. You can click on the desired internal product directly by paginating through the list of the products displayed.

> **Note:**
>
> This is not a mandatory step.

3. click on the **View Published Events** to view the subscribed events for an internal product.

   The **View Published Events** screen displays.

Figure 3-2 View Published Events



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

Table 3-2 View Published Events - Field Description

Field	Description
Product Name	Displays the name of the product.
Description	Displays the description of the product.

Table 3-2 (Cont.) View Published Events - Field Description

Field	Description
Event Name	Displays name of the event published under the selected internal product.
Event Description	Displays description of the event published under the selected internal product.
Topic Name	Displays name of the topic for the event published under the selected internal product.
No. of subscriptions	Displays the number of subscriptions already done for the selected published event.

4. Perform the following actions for the events published.

   a. Click icon to edit the event.

   b. Click icon to delete the event.

   c. Click icon to search the existing events under the internal product.

   d. Click **No of Subscription** link to external products who have subscribed to the selected event.

4

Subscribed Events Screen

This topic describes the systematic instructions to subscribe the events.

The user can view all the events subscribed by an external product by clicking on it. The user can also subscribe new event from this option.

While subscribing to a new Event, you need to map the Endpoints configured in OBRH. For that a Service Consumer named **EDP** is provided out of the box in 'OBRH' Day 0 script. You can go to the **OBRH** maintenance screen and your corresponding Service providers and Consumer Service. Once that is done, you can see the added Consumer Service as dropdown value in **Map Endpoints** screen of new subscription.

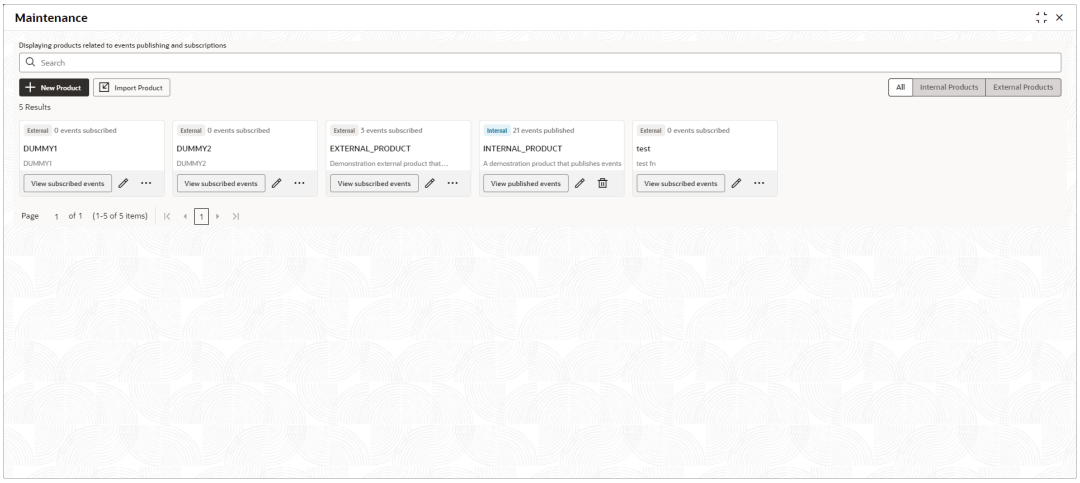
Once you subscribed, the **External Product** will start consuming all the messages published by the Publisher product on that event which you can check in the **Audit** screen.

Specify **User ID** and **Password**, and login to **Home** screen.

1. From **Home** screen, click **Event Delivery**. Under **Event Delivery**, click **Maintenance**.

   The **Maintenance** screen displays the products related to events publishing and subscriptions.

Figure 4-1 Maintenance



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

Table 4-1 Maintenance - Field Description

Field	Description
Product Type	Displays the type of the product. The available options are: • **Internal** • **External**
Event Subscribed in Number	Displays the number of events subscribed for an external product.
Event Published in Number	Displays the number of events published for an internal product.
Product Name	Displays the name of the product.
Product Description	Displays the description about the product.

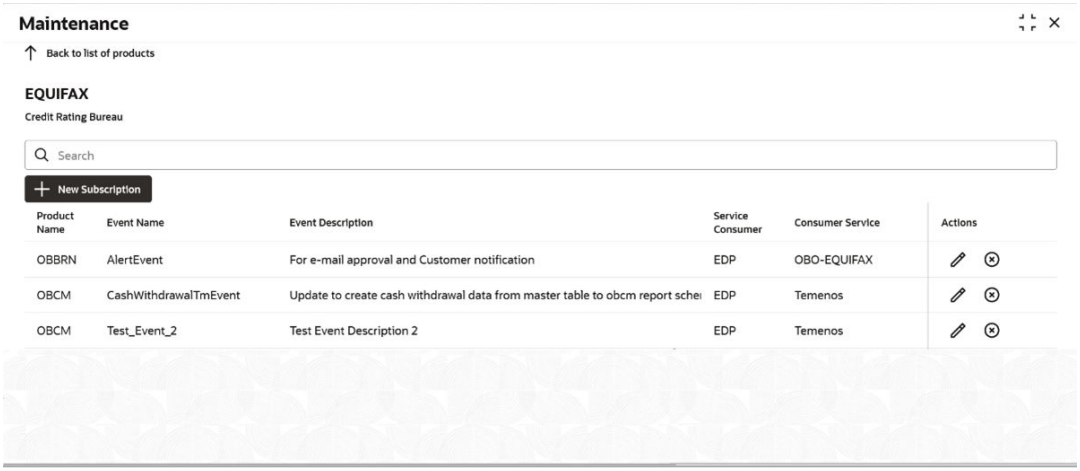
2. Select the **External Products** tab located in the upper right corner of the screen.

   The list of all the external product cards appears.

3. click on the **View Subscribed Events** to view the subscribed events for an external product.

   The **View Subscribed Events** screen displays.

Figure 4-2 View Subscribed Events



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

Table 4-2 View Subscribed Events - Field Description

Field	Description
Product Name	Displays the name of the product.
Description	Displays the description of the product.
Event Name	Displays name of the event published under the selected internal product.
Event Description	Displays description of the event published under the selected internal product.

Table 4-2 (Cont.) View Subscribed Events - Field Description

Field	Description
Service Consumer	Displays name of the service consumer for the selected subscribed event.
Consumer Service	Displays the consumer service details for the selected subscribed event.

4. Perform the following actions for the events published.

   a. Click icon to edit the event.

   b. Click icon to delete the event.

   c. Click icon to search the existing subscribed events under the external product.

- Adding a new Subscription
  This topic describes the systematic instructions to add a new subscription.

4.1 Adding a new Subscription

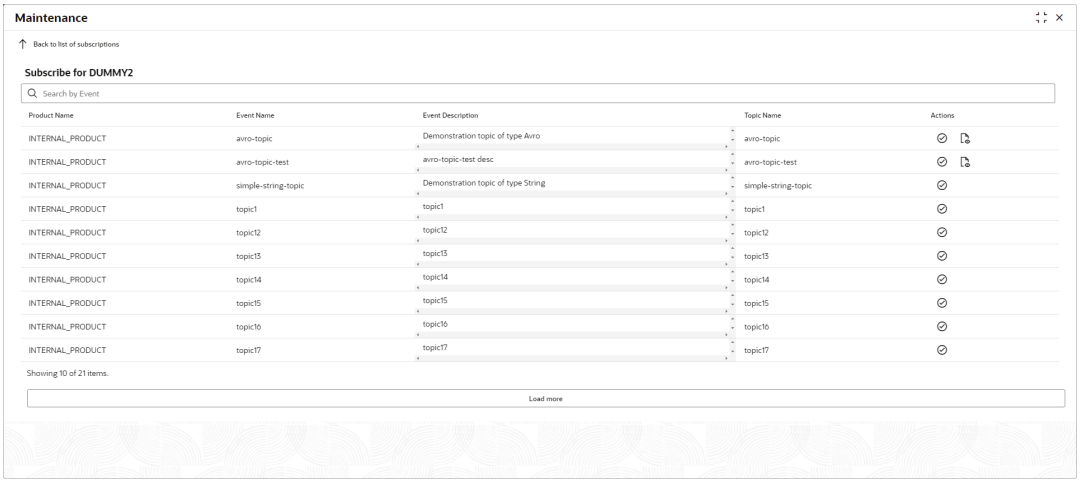
This topic describes the systematic instructions to add a new subscription.

Specify **User ID** and **Password**, and login to **Home** screen.

1. From **Home** screen, click **Event Delivery**. Under **Event Delivery**, click **Maintenance**.
2. Click **+ New Subscription** to add a new subscription. The Maintenance screen with added subscription appears.

   The **Maintenance** screen displays the products related to events publishing and subscriptions.

Figure 4-3 Maintenance



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

Table 4-3 Maintenance - Field Description

Field	Description
Product Name	Displays the name of the product.
Event Name	Displays name of the event published under the selected internal product.
Event Description	Displays description of the event published under the selected internal product.
Topic Name	Displays name of the topic of the event subscribed under the selected external product.

3. Perform the following actions for the events published.

   a. Click icon to edit the subscribed event.

   b. Click icon to delete the subscribed event.

   c. Click

   icon to search the existing subscribed events under the external product.

4. To map the Endpoints in **OBRH**, navigate to the **OBRH** maintenance screen, and add your corresponding Service providers and Consumer Service. The added Consumer Service is available in the ‘Consumer Service‘ dropdown while setting up Map Endpoints screen of new subscription.

> **Note:**
>
> Refer to the **Routing Hub Configuration User Guide** to know more about the **Service Providers** and **Consumer Service**.

5. In the **New Subscription** screen, click on the icon to map the Endpoints in OBRH by subscribing to a new Event. The Map Endpoint overlay screen appears with the EDP is added as a Service Consumer.

   The **Map Endpoints** overlay screen appears.

Figure 4-4 Map Endpoints for Event Subscription

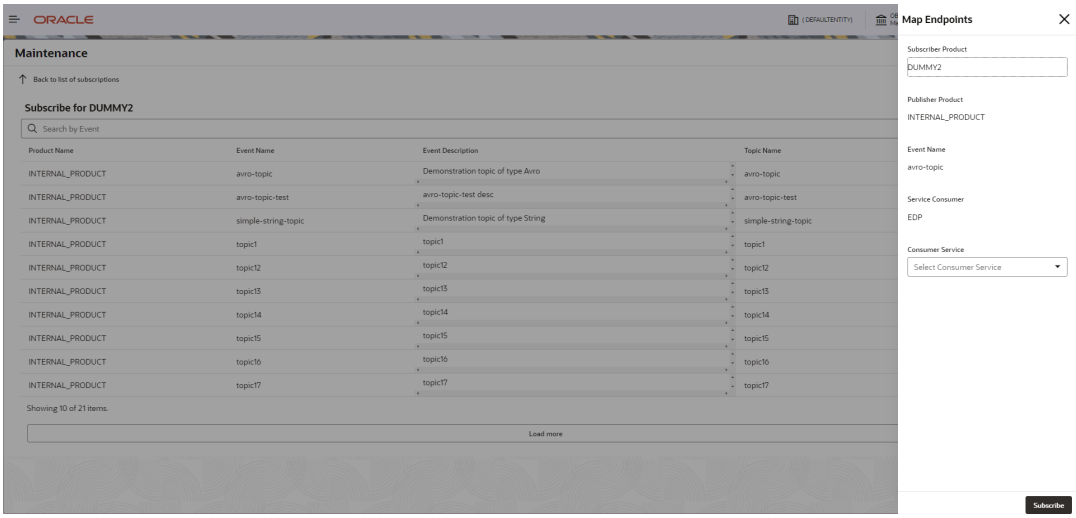


Table 4-4 Map Endpoints for Event Subscription - Field Description

Field	Description
Subscriber Product Name	Displays the name of the subscribed external product.
Publisher Product Name	Displays name of the publisher internal product.
Event Name	Displays name of the event under the product.
Event Description	Displays description of the event subscribed under the selected external product.
Service Consumer	Displays name of the service consumer.
Consumer Service	Select the consumer service as setup in the OBRH from the drop-down list.

6. Click **Subscribe** to subscribe the event for external product.

   The success message of event subscribed appears.

5
Audit screen

This topic describes the systematic instructions to audit events.

Specify **User ID** and **Password**, and login to **Home** screen.

1. From **Home** screen, click **Event Delivery**. Under **Event Delivery**, click **Audit**.

To view the messages of the external products:

2. Select the search criteria to filter out the messages.
   a. From the **Select Publisher** drop-down list, select the publisher product.
   b. From the **Select Published Event** drop-down list, select the published event for the product.
   c. From the **Select Subscriber** drop-down list, select the subscriber.

> **Note:**
>
> Since there can be multiple subscribers to a single event, user can select All or any Subscriber.

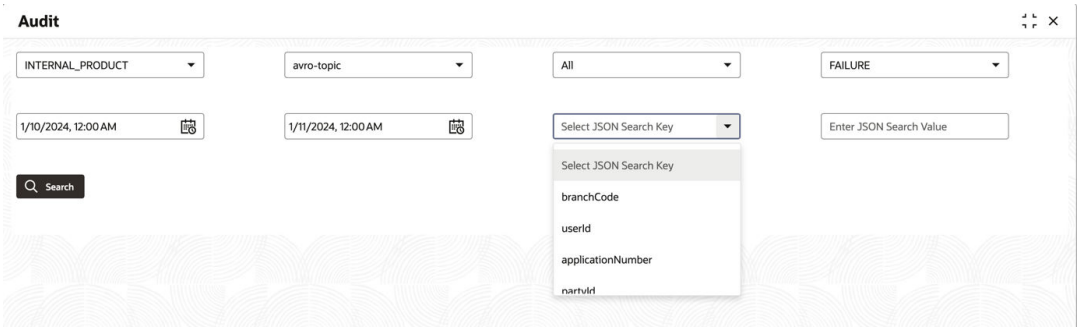
   d. From the **Select Status** drop-down list, select the status of the event.
   e. From the **From Date and Time** date calendar, specify the start date and time.
   f. From the **To Date and Time** date calendar, specify the end date and time.
   g. From the **Select JSON Search Key** drop-down list. select the json key.

> **Note:**
>
> This field appears, when the **Select Status** is selected as **Failure** or **Unsubscribed**.

   h. From the **Enter JSON Search Value**, specify the json search value.
3. Click **Search**, based on search criteria the search result appears.

   The **Audit Search with Filters** screen appears.

Figure 5-1 Audit



A

Functional Activity Codes

Table A-1 List of Functional Activity Codes

Screen Name	Functional Activity Code	Action	Description
AUDIT	PLATO_FA_EDP_AUDIT	VIEW	Search audit logs API for the audit screen
MAINTAINANCE	PLATO_FA_EDP_EVENT_UPDATE_ACTIONS	UPDATE	Create/Update/Delete the Events details (Internal products)
MAINTAINANCE	PLATO_FA_EDP_EVENT_VIEW_GETALL	GET	View the Events published with subscriber count
MAINTAINANCE	PLATO_FA_EDP_EVENT_GETALL	GET	View Events published by Internal product
MAINTAINANCE	PLATO_FA_EDP_PRODUCT	VIEW	View Products (Internal/ External)
MAINTAINANCE	PLATO_FA_EDP_PRODUCT_EXPORT	EXPORT	Export Product in JSON format file
MAINTAINANCE	PLATO_FA_EDP_PRODUCT_GETALL	GET	View Products(Internal/ External)
MAINTAINANCE	PLATO_FA_EDP_PRODUCT_IMPORT	IMPORT	Import Product from JSON format file
MAINTAINANCE	PLATO_FA_EDP_PRODUCT_UPDATE_ACTIONS	UPDATE	Create/Update/Delete Product details such as description
MAINTAINANCE	PLATO_FA_EDP_SUBSCRIPTION_GETALL	GET	Get/Filter subscriptions for External Product
MAINTAINANCE	PLATO_FA_EDP_SUBSCRIPTION_SEARCH	SEARCH	Search subscriptions for External Product
MAINTAINANCE	PLATO_FA_EDP_SUBSCRIPTION_UPDATE_ACTIONS	UPDATE	Create/Update/Delete subscription for External Product

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