

Messaging Hub user guide

Messaging Hub

IGT Consulting s.r.o

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Introduction

Overview of Messaging Hub

Messaging Hub is an integration tool that simplifies the management of messaging workflows between systems using Universal Messaging (UM) or Kafka. It allows users to configure connections, manage topics, and create interfaces for automated message delivery.

Purpose and Key Features

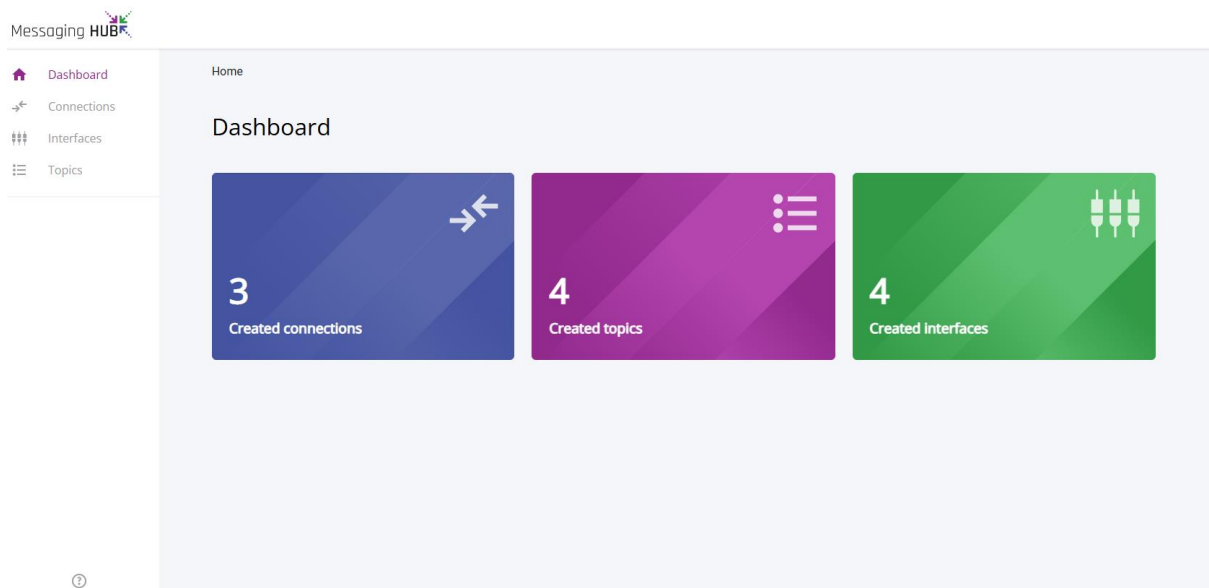
This guide provides step-by-step instructions for using the Messaging Hub, including managing connections, topics, and interfaces, to ensure seamless integration and efficient messaging workflows.

- Connections: Easily configure connections to UM or Kafka.
- Topics: Create, publish, and manage topics with schemas.
- Interfaces: Automate message delivery to endpoints through triggers.
- User-Friendly Interface: Navigate and manage configurations using an intuitive web-based UI.

How to Access Messaging Hub

- Open a web browser.
- Enter the Integration Server hostname in the address bar:
- <hostname>/MessagingHub
- Log in with your Integration Server credentials to access the Messaging Hub dashboard.

Here you can see the main Dashboard of Messaging hub and also home page.



The Home Page of Messaging Hub serves as a central dashboard, providing an overview of your system's key metrics. It displays the total number of Connections, Topics, and Interfaces created in the system. This information is presented in a clean, visually distinct format, allowing users to quickly gauge the system's current state and navigate to detailed management pages for each section.

Connections

Manage and configure connections to Universal Messaging or Kafka. These connections form the foundation for all further operations within the Messaging Hub.

Viewing Existing Connections

Messaging HUB

Dashboard

Connections

Interfaces

Topics

Home > Connections

Connections

+ ADD NEW CONNECTION

ALLUMKAFKA

Search expression

Connection name	Type	Server	State	Actions
UmConnection1	UM	umserver (192.168.1.221:9000)	Online	EDIT DELETE
KafkaConnection	KAFKA	192.168.1.65	Online	EDIT DELETE
UmConnectionTEST	UM	umserver (192.168.1.221:9000)	Online	EDIT DELETE

Rows per page: 10 1-3 of 3 results < >

The Connections Page in Messaging Hub provides a comprehensive list of all configured connections. Each connection entry displays critical details, including the type of connection (UM or Kafka), server IP address, and the current state (online or offline). From this list, users can manage connections efficiently by using the Edit or Delete buttons for each entry. This page ensures easy access and control over your system's messaging connections.

Creating a New Connection

Messaging HUB

Dashboard

Connections

Interfaces

Topics

Home > Connections > New

< Back

Create New connection

Connection type

UM

Connection name

connectionTEST

IS resource name

Prometheus URL (optional)

Document type prefix

prefixTEST

CANCEL CREATE CONNECTION

The Create New Connection page allows you to configure a new connection in Messaging Hub. To set up a connection, you need to specify:

- Connection Type: Select either UM or Kafka.
- Connection Name: Provide a unique name for the connection.
- IS Resource Name: Enter the resource name as defined on your Integration Server.
- Prometheus URL: Optionally include the Prometheus URL for monitoring purposes.
- Prefix: Define a global prefix under which all related resources will be created in the Integration Server.

This page ensures that you can seamlessly integrate new messaging systems into your environment with clear and customizable configurations.

Editing a Connection

The screenshot shows the 'Edit connection' page in the Messaging HUB interface. The left sidebar contains navigation links: Dashboard, Connections (active), Interfaces, and Topics. The main content area has a breadcrumb trail 'Home > Connections > Edit' and a '< Back' link. The title 'Edit connection' is displayed above the form. The form contains the following fields:

- Connection type:** A dropdown menu with 'UM' selected.
- Connection name:** A text input field containing 'UmConnectionTEST'.
- IS resource name:** A text input field containing 'messaging-hub-um1'.
- Prometheus URL (optional):** A text input field that is currently empty.
- Document type prefix:** A text input field containing 'um_connection_test'.

At the bottom of the form are two buttons: 'CANCEL' and 'SAVE CHANGES'.

The Edit Connection page allows you to modify the details of an existing connection. You can update fields such as:

- Connection Name
- IS Resource Name
- Prometheus URL
- Prefix

However, the Connection Type cannot be changed. This page ensures you can make adjustments to keep your connection configurations up-to-date without needing to create a new one.

Deleting a Connection

You can delete the whole connection from Messaging Hub and because of that you will loose access to all Topics created under that connection. However, Topics will still exists in Integration server.

Connection Detail

The screenshot shows the Messaging HUB interface. On the left is a sidebar with navigation links: Dashboard, Connections (active), Interfaces, and Topics. The main content area shows the breadcrumb 'Home > Connections > UmConnectionTEST' and a 'Back' link. The title 'UmConnectionTEST' is prominently displayed. Below it, the 'Connection Details' section includes 'EDIT' and 'DELETE' buttons. The details are organized into three panels: GENERAL, CPU, and MEMORY. The GENERAL panel lists Name, Realm Size, Server Time, and Update Interval. The CPU panel lists CPU Usage, Number of channels, Total published, and Total nodes. The MEMORY panel lists Free memory, Physical memory, Max heap memory, and Buffers created.

GENERAL	
Name	umserver (192.168.1.221:9000)
Realm Size	1
Server Time	Wed Nov 27 15:28:24 CET 2024
Update Interval	5000

CPU	
CPU Usage	0.75
Number of channels	2
Total published	0
Total nodes	4

MEMORY	
Free memory	960410216 B (approx. 915.92 MB)
Physical memory	16500453376 B (approx. 15.37 GB)
Max heap memory	1073741824 B (approx. 1 GB)
Buffers created	1600

The Connection Detail page provides an overview of a selected connection's general information, including:

Server Name: The name of the server hosting the connection.

Server Time: The current time on the server.

JMS Provider Resources: Insights into resource usage, such as CPU and memory, for the JMS provider (e.g., UM or Kafka).

This page helps monitor the connection's status and performance metrics at a glance.

Topics

Create and manage topics, define schemas, and publish messages. Topics serve as the channels through which data is exchanged between systems.

Viewing Topics for a Connection

The screenshot shows the Messaging HUB interface. On the left is a sidebar with navigation links: Dashboard, Connections, Interfaces, and Topics. The main content area is titled 'Topics' and includes a '+ ADD NEW TOPIC' button. Below this is a filter bar with 'ALL', 'UM', and 'KAFKA' tabs. A search bar labeled 'Search expression' is present. The main part of the page is a table with the following columns: Topic name, Type, Connection, and Actions. The table contains four rows of data. The Actions column for each row has two buttons: 'EDIT' (blue) and 'DELETE' (red).

Topic name	Type	Connection	Actions
UmConnection1	UM	UmConnection1	EDIT DELETE
KafkaTopic	KAFKA	KafkaConnection	EDIT DELETE
KafkaTopicTEST	KAFKA	KafkaConnection	EDIT DELETE
UmTopicTEST	UM	UmConnectionTEST	EDIT DELETE

At the bottom right of the table, it says 'Rows per page: 10' and '1-4 of 4 results' with navigation arrows.

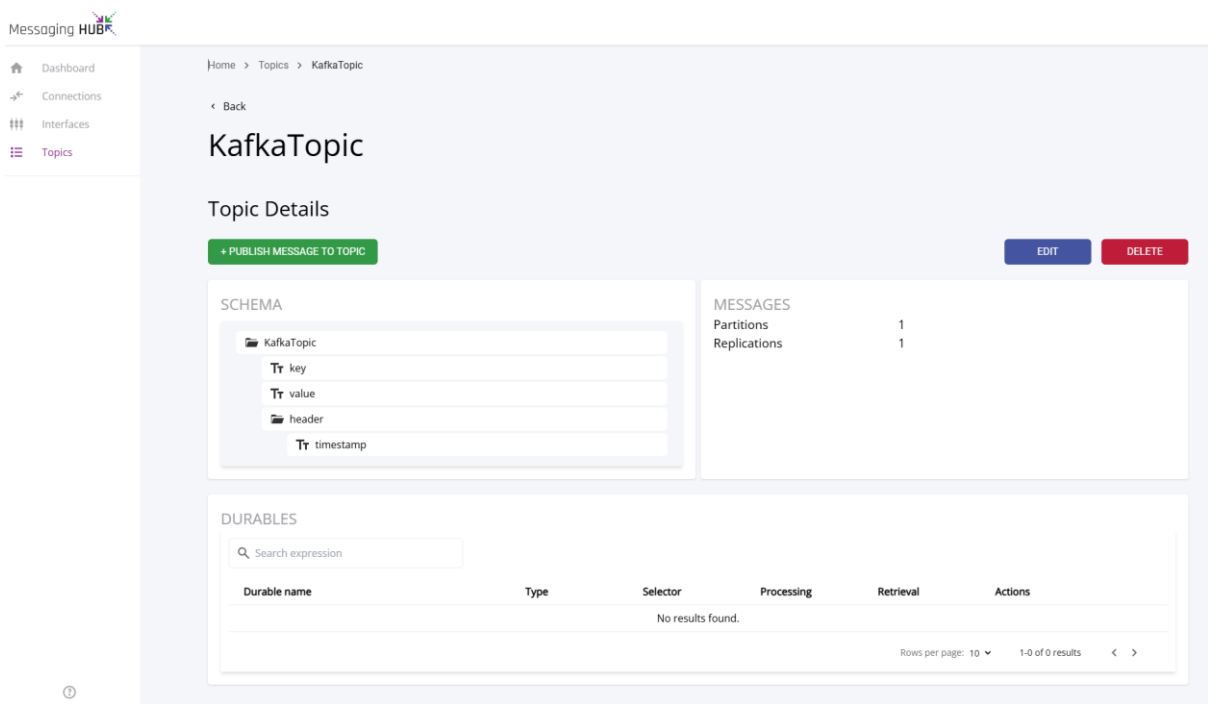
The Topics View provides a comprehensive list of all created topics, including details about the type of each topic (whether it is associated with Kafka or Universal Messaging) and the connection under which it was created. From this page, users can access detailed information about any topic by clicking on it, as well as modify or delete topics using the available edit and delete buttons. This view ensures efficient management and oversight of all topics in the system.

Creating a New Topic

The screenshot shows the 'Create new topic' form in the Messaging HUB. The sidebar is the same as in the previous screenshot. The main content area is titled 'Create new topic' and has a '< Back' link. The form is divided into three sections: 'Topic information', 'Schema', and 'Actions'. The 'Topic information' section has three fields: 'Topic Name' (with a yellow highlight and a '1.' label), 'Package' (a dropdown menu with 'Default' selected), and 'Connection' (a dropdown menu with 'UmConnection1' selected and a '2.' label). The 'Schema' section has a text area with a file icon and a '3.' label. At the bottom are two buttons: 'CANCEL' and 'CREATE TOPIC'.

The Create New Topic page allows users to define and set up new topics. Users must specify the topic name, select the package under which it will be created, and choose the connection it will be associated with. Additionally, the page features a comprehensive tree form interface for designing the schema of the topic, ensuring that the topic is structured according to the user's requirements. This page simplifies the process of topic creation while maintaining flexibility and precision.

Topic Detail



The Topic Detail page provides a comprehensive overview of a selected topic. Users can view the topic's schema and gain insights into its activity, such as the number of published and consumed messages. If Prometheus is integrated, the page also displays graphs of published and consumed messages over time. Additionally, the page includes a durable list, showing any interfaces associated with the topic, offering a clear picture of its usage and connections.

Publishing Message to a Topic

The screenshot shows the Messaging HUB interface. At the top, there's a breadcrumb trail: Home > Topics > KafkaTopic. Below this, a 'Back' link is visible. The main heading is 'KafkaTopic'. A modal window titled 'Publish message to topic' is open in the center. This modal contains a form with the following fields: 'KafkaTopic' (with a folder icon), 'key' (with a 'Tr' icon), 'value' (with a 'Tr' icon), 'header' (with a folder icon), and 'timestamp' (with a 'Tr' icon). At the bottom right of the modal are two buttons: 'BACK' and 'CONFIRM'. Below the modal, a table titled 'DURABLES' is partially visible, showing columns for 'Durable name', 'Type', 'Selector', 'Processing', 'Retrieval', and 'Actions'. The table currently displays 'No results found.' and a pagination bar at the bottom indicates 'Rows per page: 10' and '1-0 of 0 results'.

The Publishing Message to Topic feature allows users to send a message directly to a specific topic. From the Topic Detail page, you can click the "Publish Message" button, which opens a form pre-populated with the topic's schema. Users can fill in the required inputs according to the schema, and the message will be sent to the configured JMS provider seamlessly.

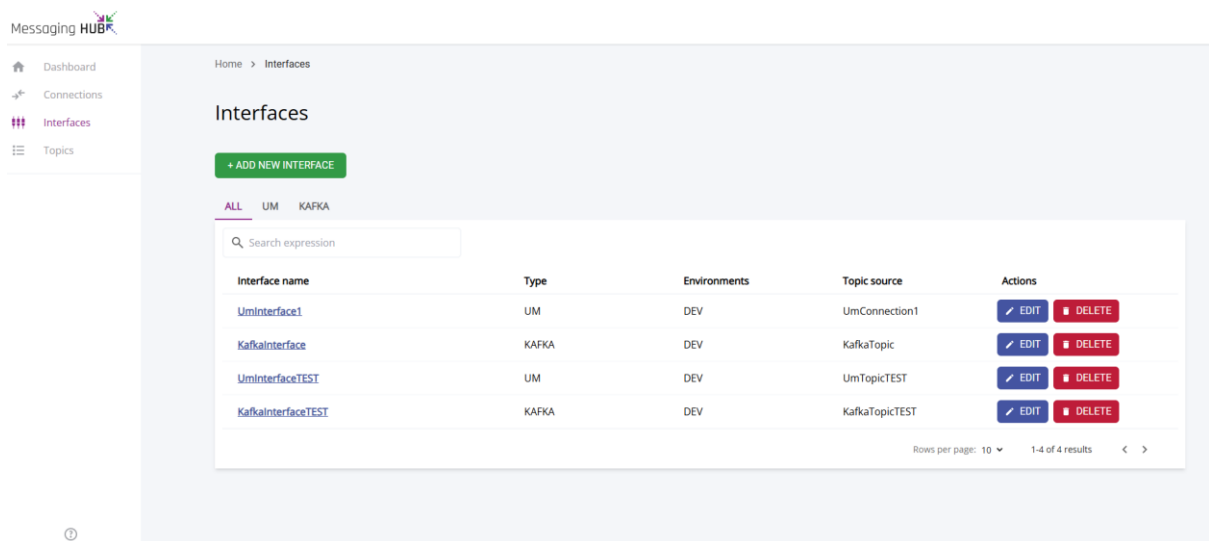
Deleting a Topic

By deleting a Topic from Messaging Hub, it will be also deleted from Integration Server and JMS providers. Keep in mind that interfaces will remain referencing the name of deleted Topic.

Interfaces

Create and manage automated triggers to forward messages from topics to endpoints. Interfaces handle the message flow and ensure proper delivery to configured systems.

Viewing Existing Interfaces



The screenshot shows the 'Messaging HUBX' interface. On the left is a sidebar with navigation links: 'Dashboard', 'Connections', 'Interfaces' (highlighted), and 'Topics'. The main content area is titled 'Interfaces' and includes a breadcrumb 'Home > Interfaces'. Below the title is a green button labeled '+ ADD NEW INTERFACE'. There are three tabs: 'ALL', 'UM', and 'KAFKA', with 'ALL' selected. A search bar with the placeholder 'Search expression' is present. Below the search bar is a table with the following data:

Interface name	Type	Environments	Topic source	Actions
UmInterface1	UM	DEV	UmConnection1	EDIT DELETE
KafkaInterface	KAFKA	DEV	KafkaTopic	EDIT DELETE
UmInterfaceTEST	UM	DEV	UmTopicTEST	EDIT DELETE
KafkaInterfaceTEST	KAFKA	DEV	KafkaTopicTEST	EDIT DELETE

At the bottom right of the table, it says 'Rows per page: 10' and '1-4 of 4 results'.

The Interfaces page displays a list of all interfaces, showing important details such as the interface type, environment, and the source topic. By clicking on a specific interface, you can access its detail page for more information. Additionally, the page provides options to edit or delete interfaces via the available buttons.

Creating a New Interface

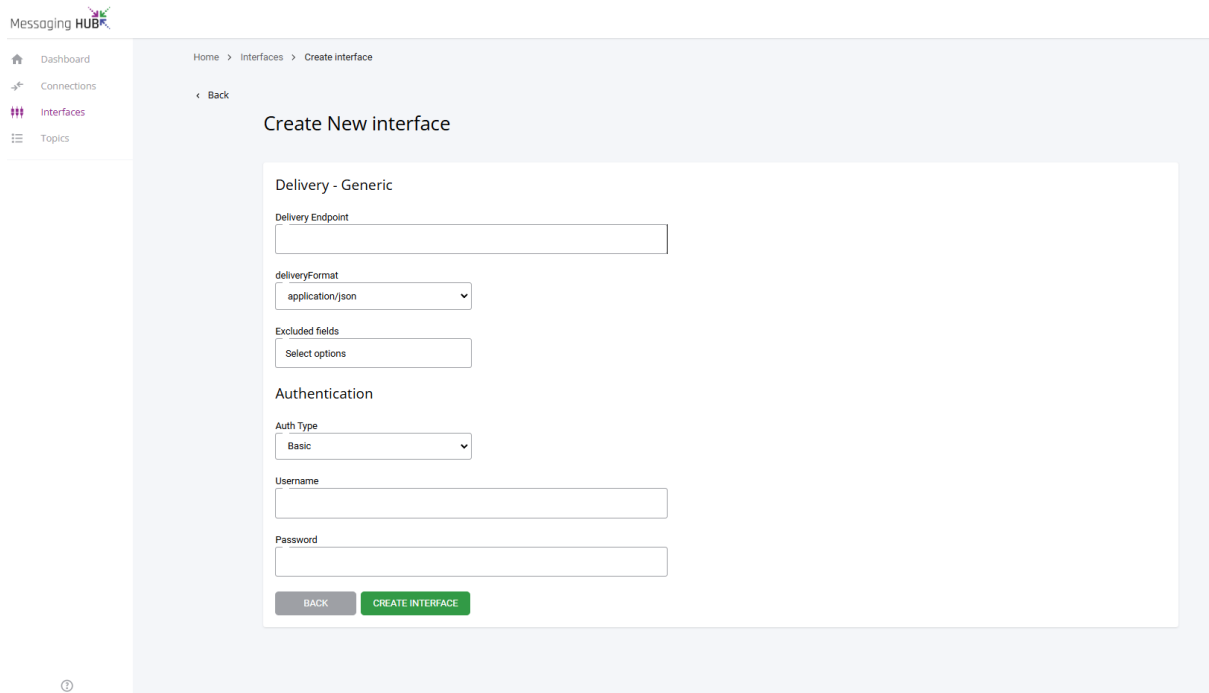
Step 1

The screenshot shows the 'Create New interface' form in the Messaging HUB application. The form is titled 'Create New interface' and is located under the 'Interfaces' section. The form contains the following fields and controls:

- Enable after interface is created:** A toggle switch that is currently turned on.
- Interface name:** A text input field.
- Connection Type:** A dropdown menu with 'UM' selected.
- Source Topic:** A dropdown menu with 'UmConnection1' selected.
- UM Connection:** A text input field containing 'messaging-hub-um2'.
- Global Prefix:** A text input field containing 'um_connection2'.
- Environment:** A dropdown menu with 'DEV' selected.
- Package name:** A dropdown menu with 'Default' selected.
- Trigger execution user:** A text input field.
- Message filter:** A text input field.
- deliveryMethod:** A dropdown menu with 'Generic' selected.
- Messaging hub forwarding:** A toggle switch that is currently turned on.
- Buttons:** 'CANCEL' and 'NEXT' buttons at the bottom.

Creating a New Interface consists of two steps. In Step 1, you start by selecting whether the interface will be enabled after creation, followed by entering the interface name, type, and source topic. Once the source topic is selected, the connection and prefix are automatically populated. You will also specify the environment name, the package where the interface will be created, the execution user, message filter, and delivery method. The delivery method can be either generic or custom. With generic, a default service will automatically send the message to the endpoint, while with custom, you can specify your own service to be called after the message is published.

Step 2



The screenshot shows the 'Create New interface' page in the Messaging HUB application. The left sidebar contains navigation links: Dashboard, Connections, Interfaces (selected), and Topics. The main content area has a breadcrumb trail: Home > Interfaces > Create interface, and a '< Back' link. The form is titled 'Delivery - Generic' and includes the following fields:

- Delivery Endpoint:** A text input field.
- deliveryFormat:** A dropdown menu with 'application/json' selected.
- Excluded fields:** A text input field with a 'Select options' button.
- Authentication:**
 - Auth Type:** A dropdown menu with 'Basic' selected.
 - Username:** A text input field.
 - Password:** A text input field.

At the bottom of the form are two buttons: 'BACK' and 'CREATE INTERFACE'.

In Step 2 of creating a new interface, you need to specify the delivery endpoint, which is the URL where the message will be sent. You will also choose the delivery format, either application/json or application/xml, depending on your needs. Additionally, you can exclude specific fields from the topic that you do not want to be included in the message sent to the endpoint. Finally, you will set up authentication for the endpoint, allowing you to specify authentication details like user credentials or tokens needed for secure communication.

Editing Interface Settings

Same information as per creation of Interface but we can change the inputs and update the definition of Interface, for example change of endpoint.

Deleting an Interface

By deleting an Interface from Messaging Hub, the triggers connecting to JMS providers will be deleted.