

# ART-GDL

Artezio Guaranteed Delivery Layer



# What is ART-GDL?

**ART-GDL** (Artezio Guaranteed Delivery Layer) is a Java library working as a part of the framework for integrated applications development Apache Camel. It is designed for enhancing Apache Camel functionality in EIP Guaranteed Delivery realization.

Apache Camel supports the Guaranteed Delivery from the EIP patterns using JMS components but has limited set of parameters. For example, now if a developer wants to transport data in or within definite intervals or to identify the order of data transfer, it should be done manually instead of being controlled by the system itself.

ART-GDL extends the functionality of Apache Camel helping to decrease time required for data transfer and development in general. It is an open source and fully scalable solution so developers can make changes in the code and add new formats or roles of interaction between the systems. ART-GDL has Apache License 2.0.

# Why ART-GDL?

## Compact Realization

Compared to JMS-based solutions, ART-GDL is implemented in a more compact way. There's no need in complicated installing, maintaining, and monitoring of JMS instances.

## Higher Level of Monitoring

Solutions on Apache Camel, unlike JMS-based solutions, have a good level of monitoring which is achieved by Apache Camel itself and doesn't require code creation from a developer.

## Higher Level of Abstraction

ART-GDL delivers a ready-to-use solution for guaranteed delivery which is easy to be configured for a specific integration task.

# ART-GDL Features

## \ **Buffer Incoming Messages and Manage Load of the Receiver System**

ART-GDL offers an ability of messages buffering. If the receiver system is overloaded at the moment of data transfer, ART-GDL keeps the data in its database and as soon as the receiver system gets open, the data is delivered to the receiver system. You can also manage load of the receiver system by stating how many requests the system can process at the same time so that it runs smoothly and without delays.

## \ **Set up Schedule of Data Delivery Attempts**

The schedule defines intervals between data delivery attempts. For example, between attempts 1-3 the interval can be 1 minute, for attempts 4-7 – 15 minutes, after attempt 8 – 1 minute.

## \ **Define Delivery Intervals**

To deliver data you can state date and time when the message will be delivered to the receiver system. Also you can define date and time when the message will be considered as overdue.

# ART-GDL Features

## \ Set the Number of Delivery Attempts

ART-GDL provides an ability of identifying the number of delivery attempt after which it will be considered as overdue.

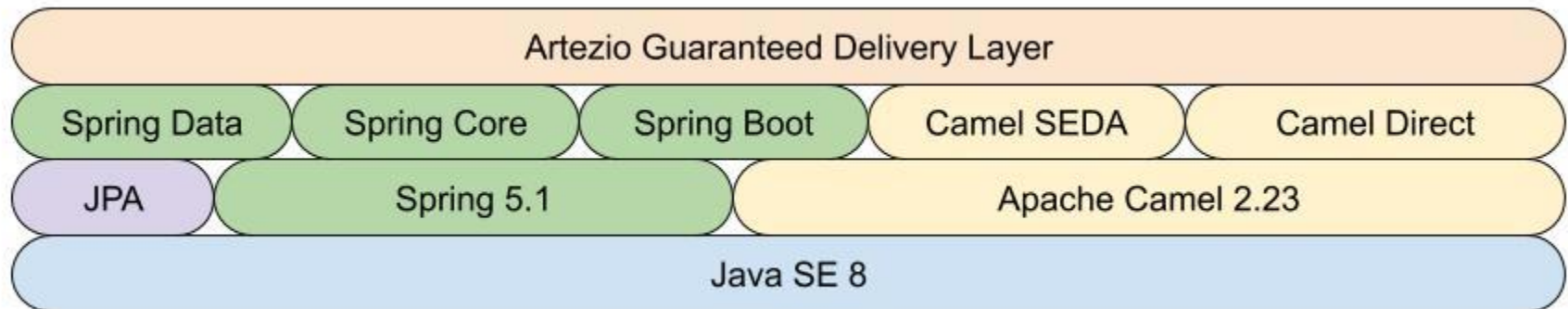
## \ Create Logical Layered Message Queues

Guaranteed delivery messages can be marked up with string identifiers of parent queues. Messages are processed according to FIFO method. If there's an item with a parent queue identifier, it's processed first. It lets create complex tree-structured sequences of messages.

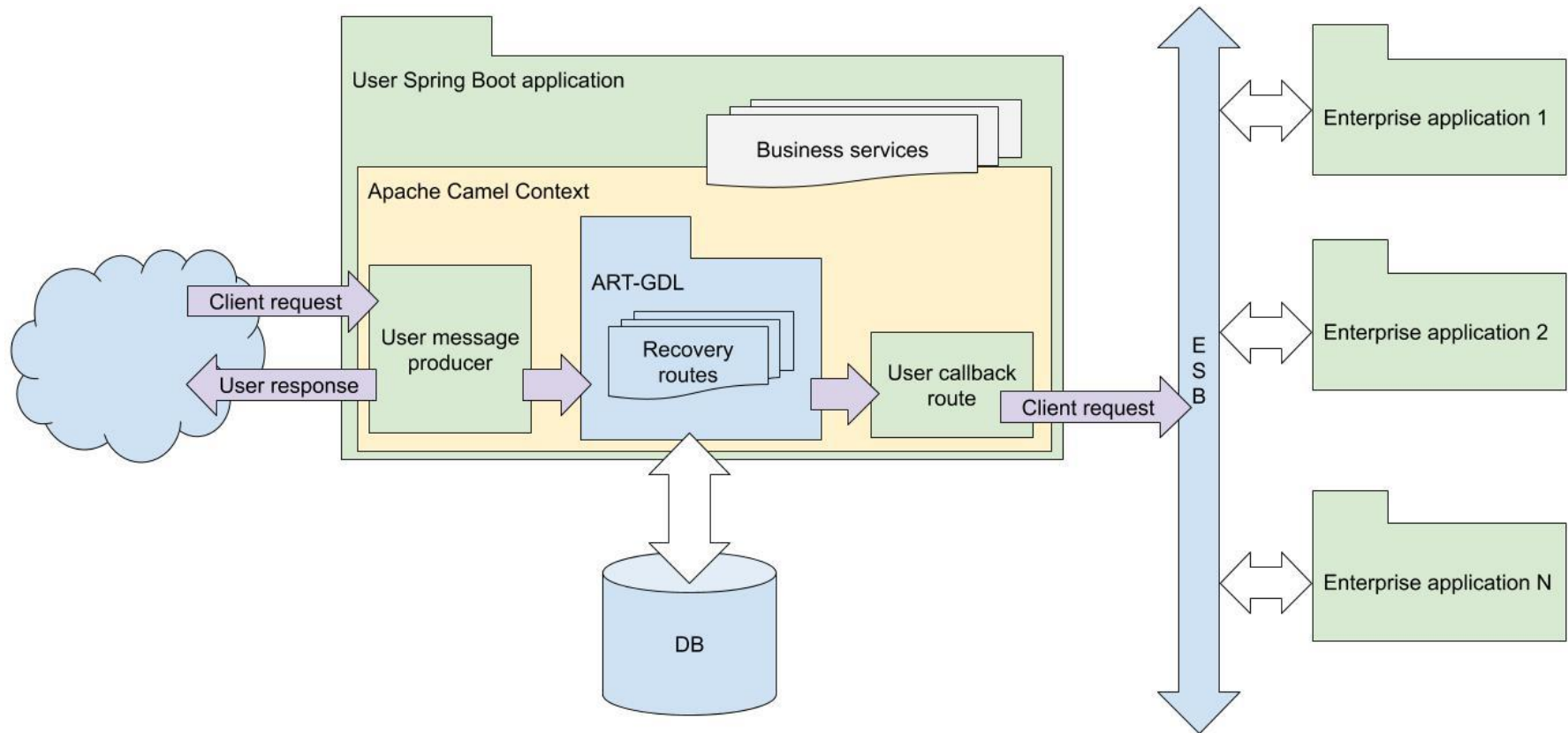
## \ Check Duplication

A guaranteed delivery message can be marked up with a unique incoming string identifier. Two messages with the same identifier can't be registered in the system. ART-GDL ensures duplication avoidance in cluster work.

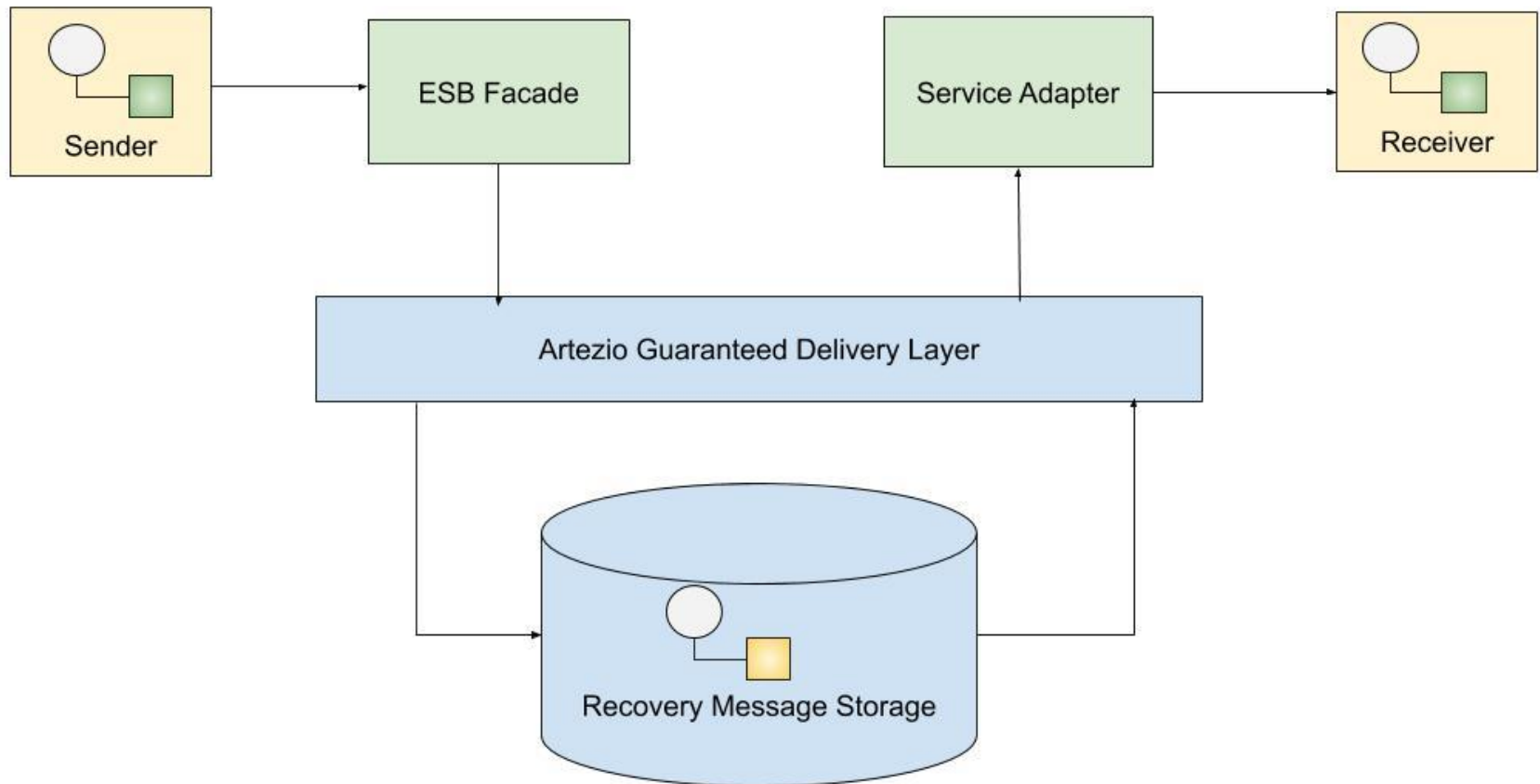
# ART-GDL Technology Stack



# ART-GDL Deployment Model



# ART-GDL Integration Pattern Scheme





# ART-GDL Contributors

ART-GDL was created by Java Developer Olesya Shulyaeva. The development of the solution was also sponsored by Artezio.

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[info@artezio.com](mailto:info@artezio.com)



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