FUSE Mediation Router

The Open Source Solution for Routing and Mediation

Organizations need to integrate applications quickly, and many developers would like to take a code-first approach without having to work with domain-specific or platform-specific deployment details. With the FUSE Mediation Router, a Java developer can quickly develop integration patterns by using a simple API directly within a Java program. These integration patterns, or integration components, can also be deployed in a number of deployment platforms, including the FUSE ESB, providing a seamless migration path to a more formal SOA infrastructure.

FUSE Mediation Router, IONA's distribution of Apache Camel, is a powerful rule-based routing and process mediation engine that combines the ease of basic POJO development with the clarity of the standard Enterprise Integration Patterns. It can be deployed inside any container or be used stand-alone, and works directly with any kind of transport or messaging model to rapidly integrate existing services and applications.

FUSE: A Family of Open Source SOA Components

FUSE Mediation Router is one component in a family of components that include FUSE HQ, FUSE ESB, the FUSE Services Framework, and the FUSE Message Broker. The FUSE components are tested together, certified, and supported to combine the speed and innovation of open source software with the reliability and expertise of commercially provided enterprise services.

About IONA Technologies, Inc.

IONA's commitment to open source software is part of its 15-year heritage of solving the most complex integration problems by applying open, standards-based solutions. An industry leader in integration and SOA, IONA has the proven expertise to design a highly flexible, distributed SOA infrastructure for Global 2000 customers including Raymond James & Associates, Nokia, Zurich Insurance, Ericsson and Credit Suisse using standardized components.

Why Routing?

Ease of Use

FUSE Mediation Router uses a Java Domain Specific Language (DSL) in addition to Spring XML for configuring routing rules to create powerful and concise code and support type-safe smart completion, minimizing the need to work with large numbers of XML configuration files.

Rapid Prototyping

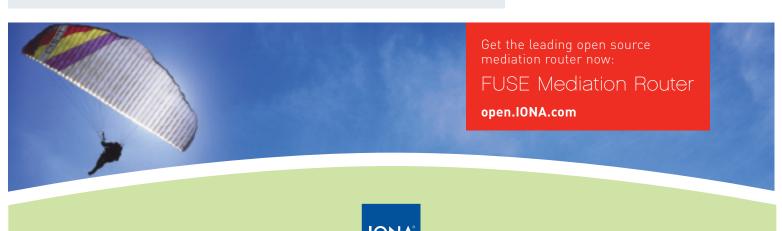
Developers do not need to know deployment or container configuration details. The FUSE Mediation Router provides a layer of abstraction to mask the details of JMS, JBI, and JAX-WS, and provides a Maven archetype so organizations can quickly use Enterprise Integration Patterns to integrate complex systems.

Interoperability

FUSE Mediation Router uses generics, annotations and Uniform Resource Identifiers (URIs) to easily work directly with any kind of transport or messaging model including HTTP, JMS, JBI, SCA, MINA or CXF Bus API without mandating a normalized message API, which can often lead to leaky abstractions.

Distributed

Like all FUSE components, the Mediation Router is a lightweight, small-footprint solution that can be easily embedded at endpoints, allowing distributed systems to intelligently interact without mandating a centralized server.



Messaging Systems

Message Channel

How one application communicates with another using messaging



Message

How two applications connected by a message channel exchange a piece of information



Pipes and Filters

How to perform complex processing on a message while maintaining independence and flexibility



Message Router

How to decouple individual processing steps so that messages can be passed to different filters depending on a set of conditions



Message Translator

How systems using different data formats communicate with each other using messaging



Message Endpoint

How an application connects to a messaging channel to send and receive messages



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Messaging Channels

Point to Point Channel

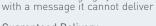
How the caller is sure that exactly one receiver will receive the document or perform the call



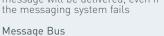


How the sender broadcasts an event to all interested receivers





Guaranteed Delivery How the sender makes sure that a message will be delivered, even if



An architecture that enables separate applications to work together, but in a de-coupled fashion such that applications can be easily added or removed without affecting the others

Message Routing

Content Based Router

How to handle a situation where the implementation of a single logical function is spread across multiple physical systems



How a component avoids receiving uninteresting messages



How to route a message to a list of dynamically specified recipients



How to process a message if it contains multiple elements, each of which may have to be processed in



How to get a stream of related but out-of-sequence messages back into the correct order

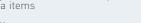


Content Enricher

How to communicate with another system if the message originator does not have all the required data items available



How to simplify dealing with a large message, when interested only in a few data items



How to process messages that are semantically equivalent, but arrive in a different format

Messaging Endpoints

Messaging Mapper

How to move data between domain objects and the messaging infrastructure while keeping the two independent of each other

Event Driven Consumer

How an application automatically consumes messages as they become



How an application consumes a message when the application is ready



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Competing Consumers

How a messaging client processes multiple messages concurrently



Message Dispatcher

How multiple consumers on a single channel coordinate their message processing



Selective Consumer

How a message consumer selects which messages it wishes to receive



Durable Subscriber

How a subscriber avoids missing messages while not listening for them



Idempotent Consumer

How a message receiver deals with duplicate messages

Transactional Client

How a client controls its transactions with the messaging system



Messaging Gateway

How to encapsulate access to the messaging system from the rest of the application



Service Activator

How an application designs a service invoked both via various messaging technologies and via non-messaging



System Management

Wire Tap

How to inspect messages that travel on a point-to-point channel



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