

Apache Camel 3

The next generation of enterprise integration



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About

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About

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- Apache Camel tech lead
- Based in Italy
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Agenda

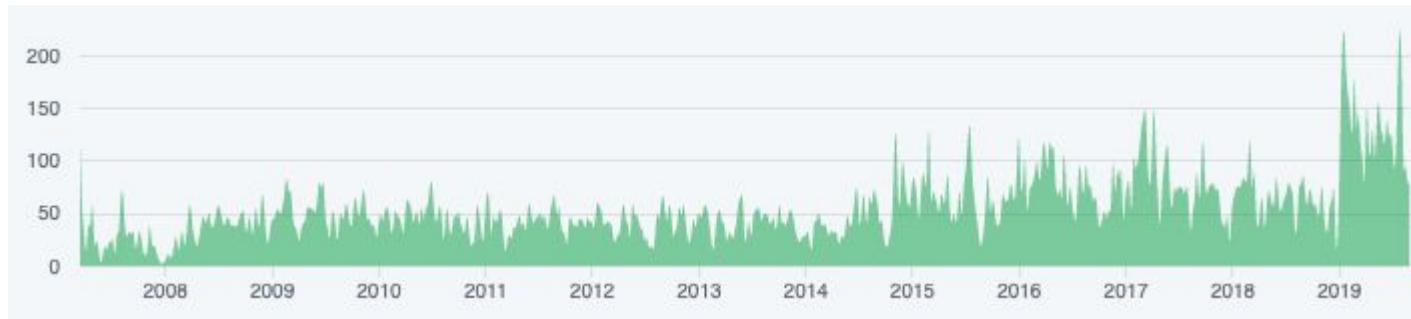
- What's Camel
- Camel 3
- Camel Releases
- Camel K
- Camel Quarkus
- Camel Kafka Connector
- Roadmap
- Q and A

What's Camel

What is Apache Camel



- The *swiss knife* of integration
- 10+ years of development and one of the most active Apache projects



What is Apache Camel



- Packed with functionality



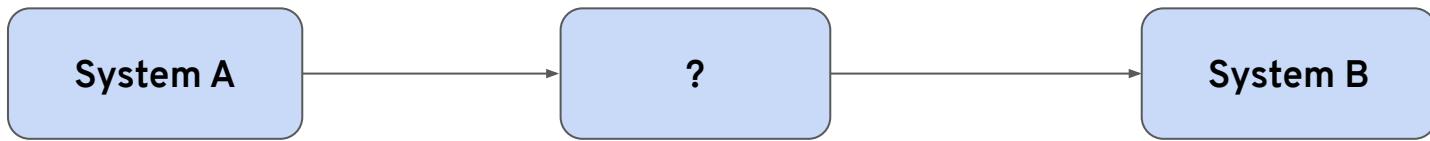
The giant Swiss knife 😊

What is Apache Camel

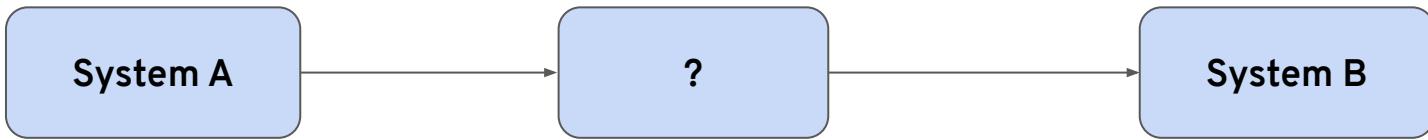


- Java based integration framework
- Runtime support: Spring Boot, Apache Karaf / OSGi, JEE / WAR, Microprofile, Quarkus, Standalone, and more ...
- Based on Enterprise Integration Patterns
- Comes with 300+ components (connectors)
- DSL (Java or XML) to describe integration flow (routes)
- Can integrate ~~everything~~ ... almost everything
- 10+ years of development - still one of the most active Apache projects

System Integration

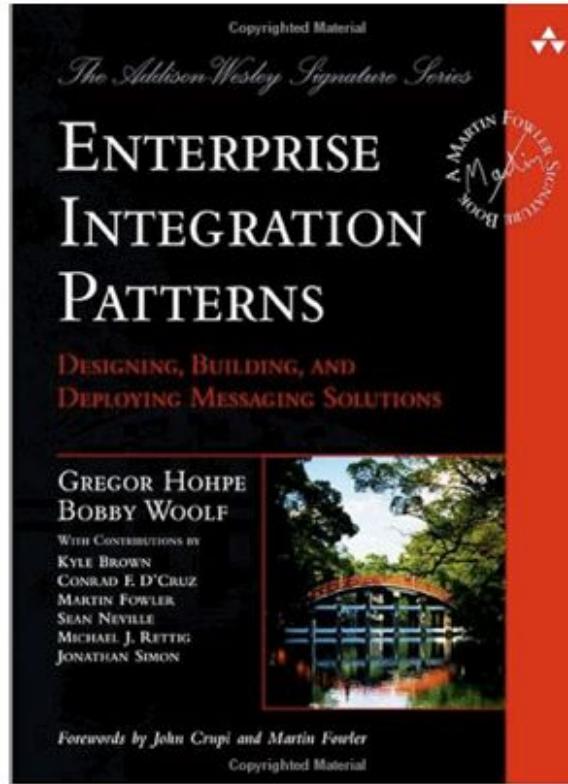


System Integration

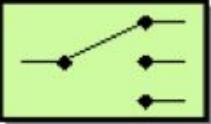
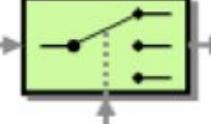
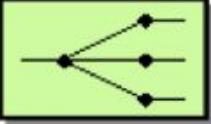
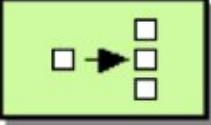
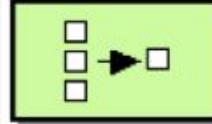
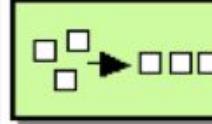
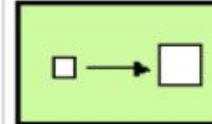
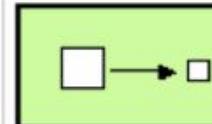
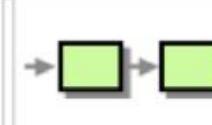


- Different Transports
- Different Data Model
- Asynchronous vs Synchronous
- Failures
- Observability
- ...

Enterprise Integration Patterns



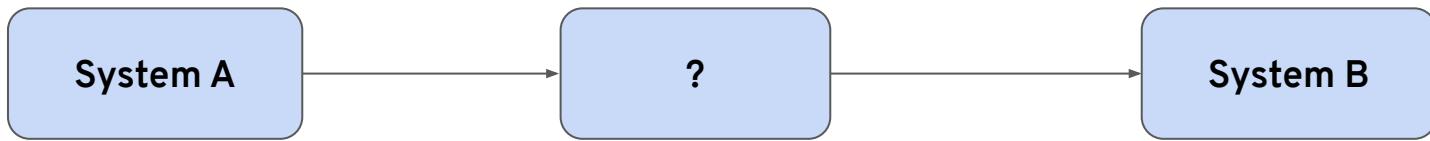
Enterprise Integration Patterns

	Content Based Router
	Message Filter
	Dynamic Router
	Recipient List
	Splitter
	Aggregator
	Resequencer
	Content Enricher
	Content Filter
	Pipes and Filters

Integration Framework



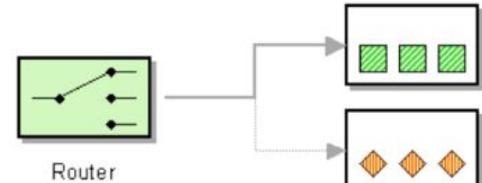
System Integration



System Integration



Camel Routes



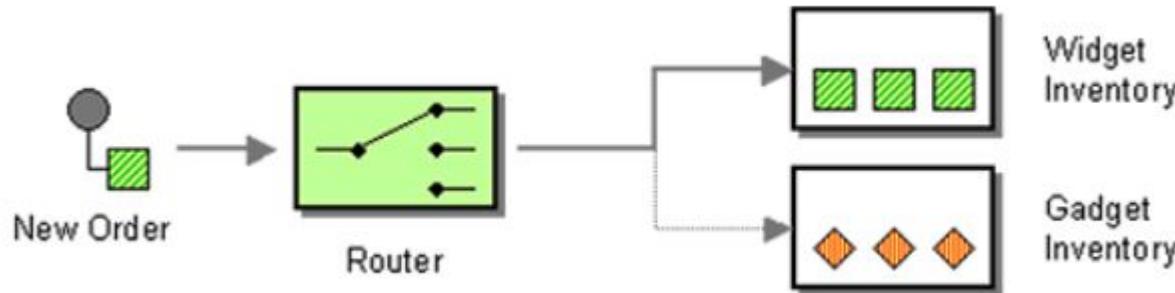
```
from("file:data/inbox")
    .to("jms:queue:order");
```

Java DSL

XML DSL

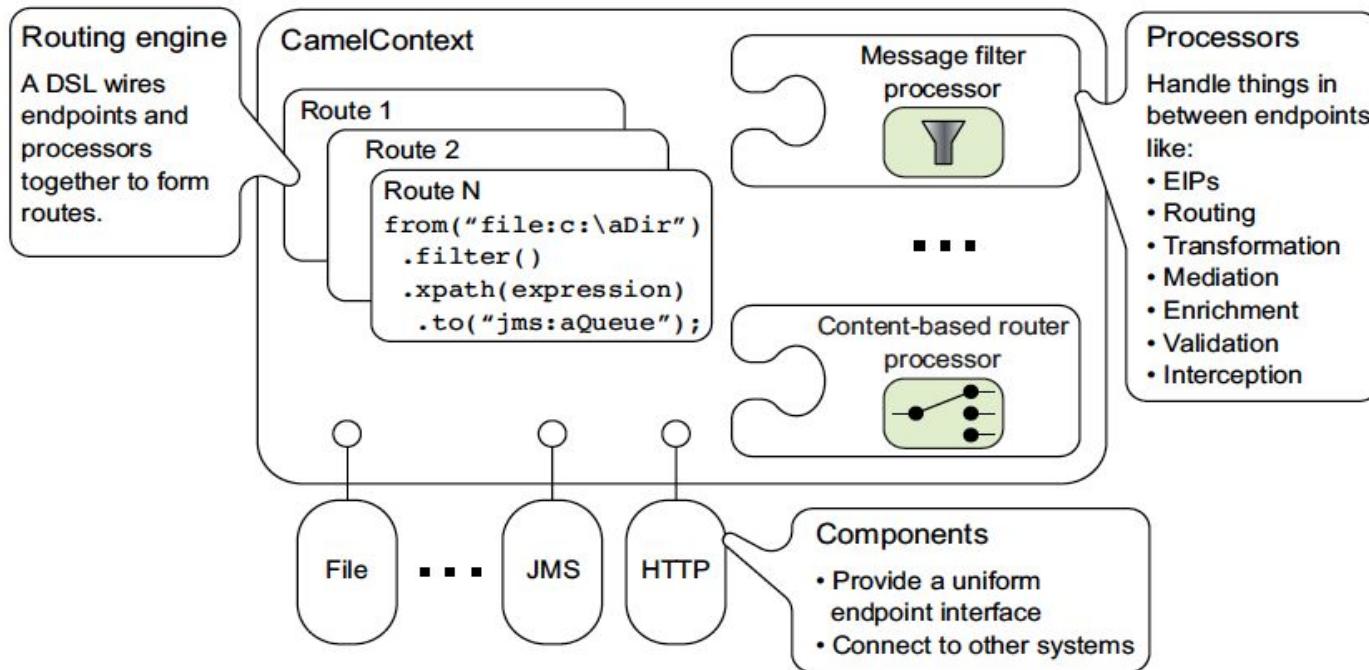
```
<route>
    <from uri="file:data/inbox"/>
    <to uri="jms:queue:order"/>
</route>
```

Camel Demo

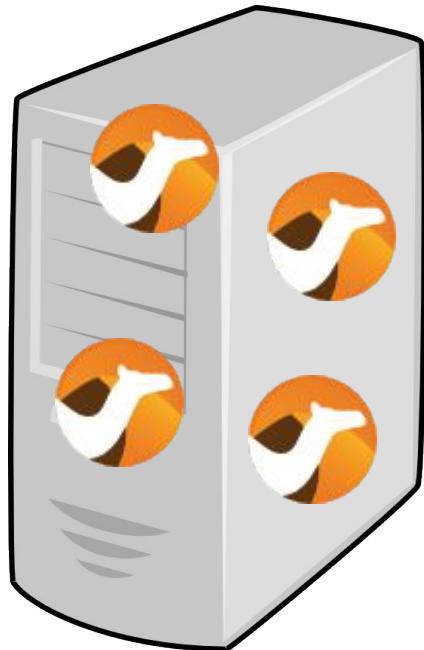


<https://github.com/apache/camel-examples/tree/master/examples/camel-example-artemis>

Camel Architecture



Camel runs everywhere



Application
Servers



Linux
Containers

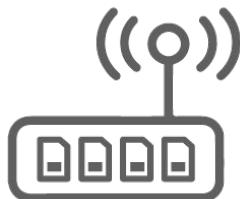
Runs on major Java Runtimes



Camel connects everything



**Enterprise
Systems**



IoT

- File
- FTP
- JMS
- AMQP
- JDBC
- SQL
- TCP/UDP
- Mail
- HDFS
- JPA
- MongoDB
- Kafka
- ...
- CoAP
- MQTT
- PubNub

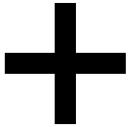
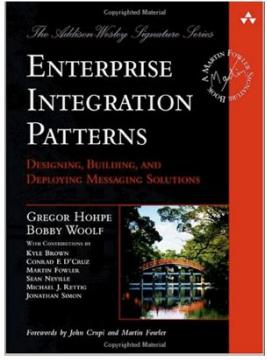


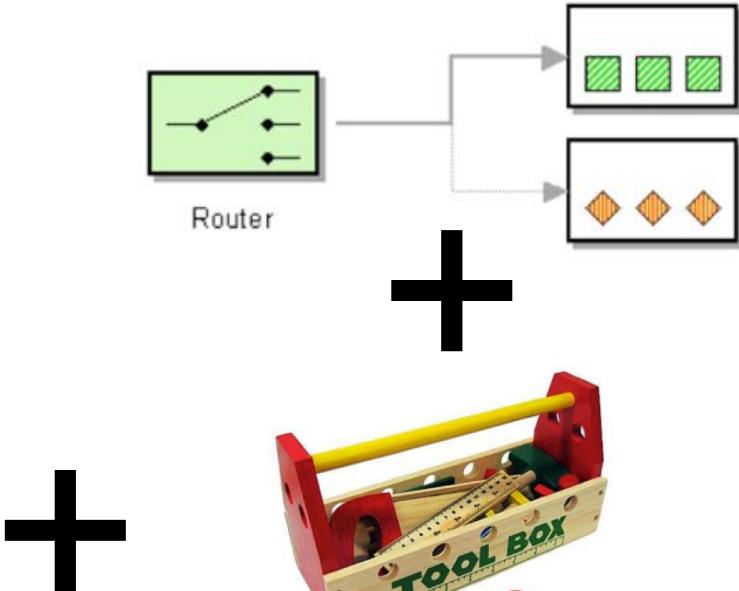
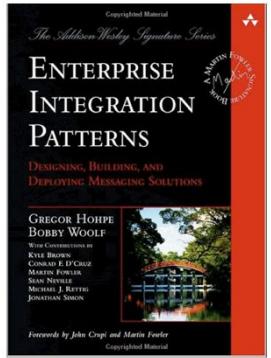
- AWS
 - S3
 - SQS
 - Kinesis
 - ...
- Google
 - BigQuery
 - PubSub
- Azure
 - Blob
 - Queue
- Box
- Dropbox
- Facebook
- Linkedin
- Salesforce
- SAP
- ServiceNow

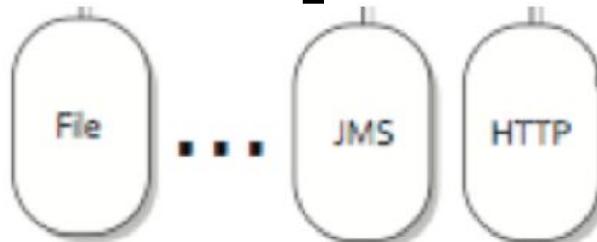
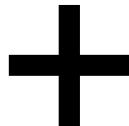
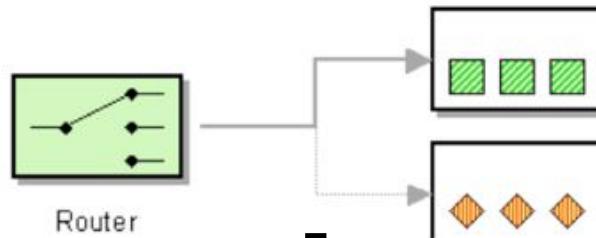
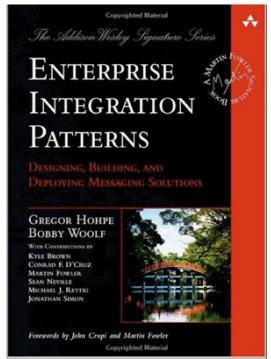
300+ Components

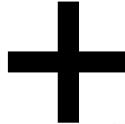
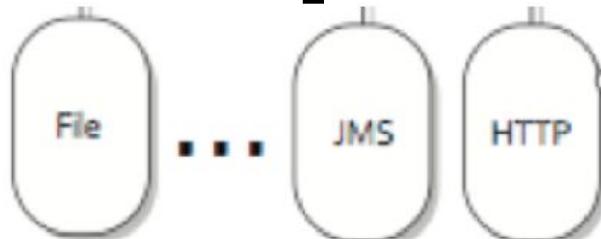
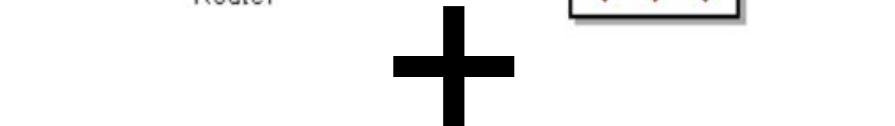
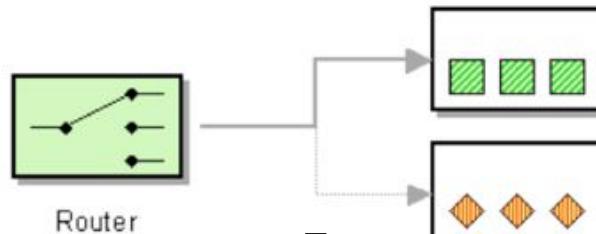
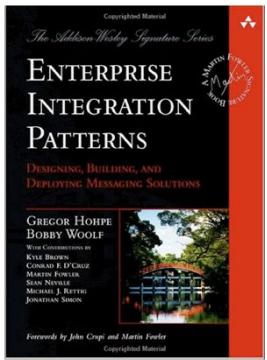
ahc ahc-ws amqp apns as2 asn1 asterisk atmos atmosphere-websocket atom atomix avro aws aws-xray azure bam barcode base64 beanio beanstalk bean-validator bindy blueprint bonita boon box braintree cache caffeine cassandraql castor cdi chronicle chunk cmis cm-sms soap cometd consul context corda core-osgi core-xml couchbase couchdb crypto crypto-cms csv cxf cxf-transport digitalocean disruptor dns docker dozer drill dropbox eclipse ehcache ejb elasticsearch elasticsearch5 elasticsearch-rest elsql etcd eventadmin exec facebook fastjson fhir flatpack flink fop freemarker ftp ganglia geocoder git github google-bigquery google-calendar google-drive google-mail google-pubsub google-sheets gora grape groovy groovy-dsl grpc gson guava-eventbus guice hawtdb hazelcast hbase hdfs hdfs2 headersmap hessian hipchat h17 http http4 http-common hystrix ibatis ical iec60870 ignite infinispan influxdb ipfs irc ironmq jackson jacksonxml jasypt javaspace jaxb jbpm jcache jclouds jcr jdbc jetty jetty9 jetty-common jgroups jibx jing jira jms jmx johnzon jolt josql jpa jsch jsonpath json-validator jt400 jue1 xpath kafka kestrel krati kubernetes kura ldap ldif leveldb linkedin lra lucene lumberjack lzf mail master metrics micrometer milo mina mina2 mllp mongodb mongodb3 mongodb-gridfs mqtt msv mustache mvel mybatis nagios nats netty netty4 netty4-http netty-http nsq ognl olingo2 olingo4 openshift openstack opentracing optaplanner paho paxlogging pdf pgevent printer protobuf pubnub quartz quartz2 quickfix rabbitmq reactive-streams reactor restlet rest-swagger ribbon rmi routebox rss ruby rx rxjava2 salesforce sap-netweaver saxon scala schematron scr script service servicenow servlet servletlistener shiro sip sjms sjms2 slack smpp snakeyaml snmp soap solr spark spark-rest splunk spring spring-batch spring-boot spring-cloud spring-cloud-consul spring-cloud-netflix spring-cloud-zookeeper spring-integration spring-javacfg spring-ldap spring-redis spring-security spring-ws sql ssh stomp stream stringtemplate swagger swagger-java syslog tagsoup tarfile telegram test test-blueprint test-cdi testcontainers testcontainers-spring test-karaf testng test-spring thrift tika twilio twitter undertow univocity-parsers urlrewrite velocity vertx weather web3j websocket wordpress xchange xmlbeans xmljson xmlrpc xmlsecurity xmpp xstream yammer yql zendesk zipfile zipkin zookeeper zookeeper-master











Apache Camel 3



Apache Camel 3 - Projects



Camel

Swiss knife of integration

Apache Camel 3 - Projects



Camel

Swiss knife of integration



Camel Spring Boot

*Camel on
Spring Boot*

Apache Camel 3 - Projects



Camel

Swiss knife of integration



Camel Karaf

*Camel on
Apache Karaf / OSGi*



Camel Spring Boot

*Camel on
Spring Boot*

Apache Camel 3 - Projects



Camel K



*Camel on
Kubernetes & Knative*



Camel

Swiss knife of integration



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Apache Camel 3 - Projects



Camel K

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Camel

Swiss knife of integration



Camel Quarkus

*Optimized JVM & Native
compiled Java (GraalVM)*



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Apache Camel 3 - Projects



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Camel Karaf

*Camel on
Apache Karaf / OSGi*



Camel Spring Boot

*Camel on
Spring Boot*



Camel Kafka Connector

Kafka Connector with Camel

Camel Releases

Camel - LTS vs Non-LTS Releases

Release	Date	LTS	LTS EOL	Java
2.25	Jan 2020	Yes	Jan 2021	8
3.0	Nov 2019	No		8,11
3.1	Feb 202	No		8,11
3.2	Apr 2020	No		8,11
3.3	May 2020	No		8,11
3.4	Jun 2020	Yes	Jun 2021	8,11
3.5	Aug 2020	No		11
3.6	Oct 2020	No		11
3.7	Dec 2020	Yes	Dec 2021	11,14?

Camel K

What is Apache Camel K ?

A lightweight integration platform, based on Apache Camel,
born on Kubernetes, with serverless superpowers.

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1.



Runs on “vanilla” Kubernetes (1) ...

What is Apache Camel K ?

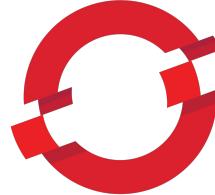
A lightweight integration platform, based on Apache Camel,
born on Kubernetes, with serverless superpowers.



1.



2.



Runs on “vanilla” Kubernetes (1), Openshift (2) ...

What is Apache Camel K ?

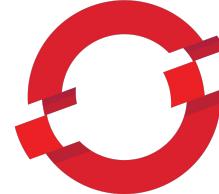
A lightweight integration platform, based on Apache Camel,
born on Kubernetes, with serverless superpowers.



1.



2.



OPENSIFT



3.



Runs on “vanilla” Kubernetes (1), Openshift (2) and gives its best on a Knative-powered cluster (3)!



How?

How?

Camel DSL, based on EIPs...

1. Create a integration file (Java, Groovy, Kotlin, JS, XML...)

```
from("telegram:bots/bot-id")
    .transform()...
    .to("kafka:topic");

from("kafka:topic")
    .to("http:my-host/api/path");
```



How?



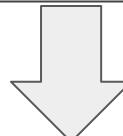
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```

2. Run it



```
$ kamel run integration.groovy
```

How?



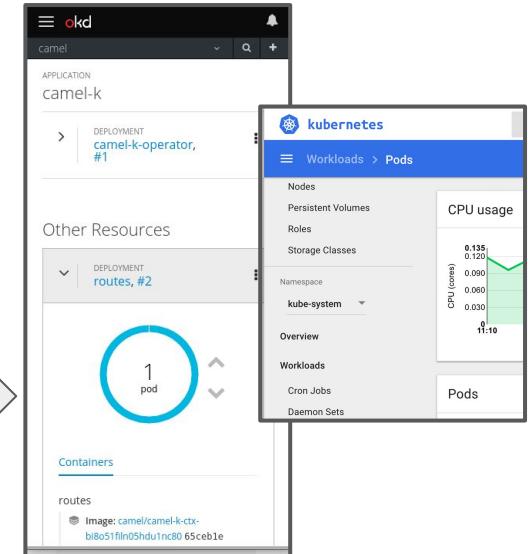
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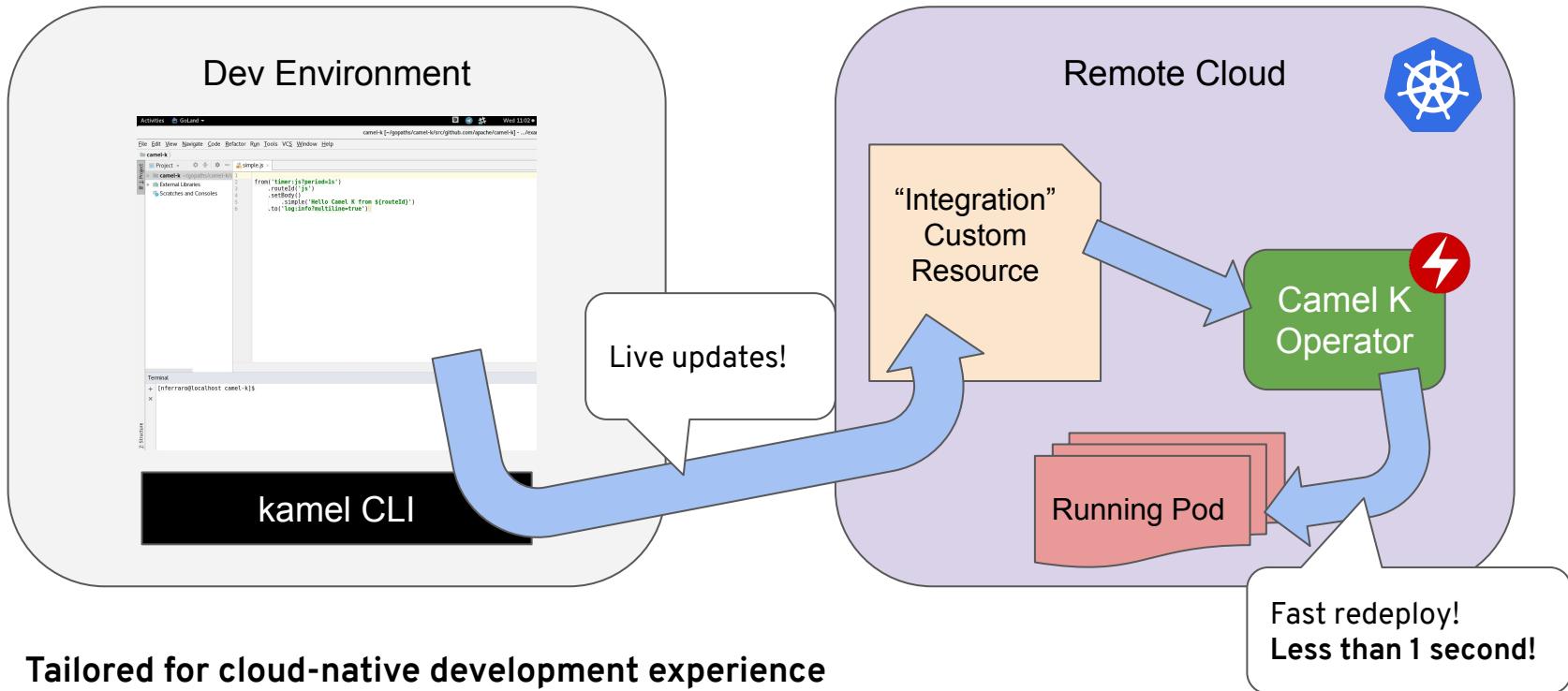
3. Runs on Openshift or Kubernetes



2. Run it

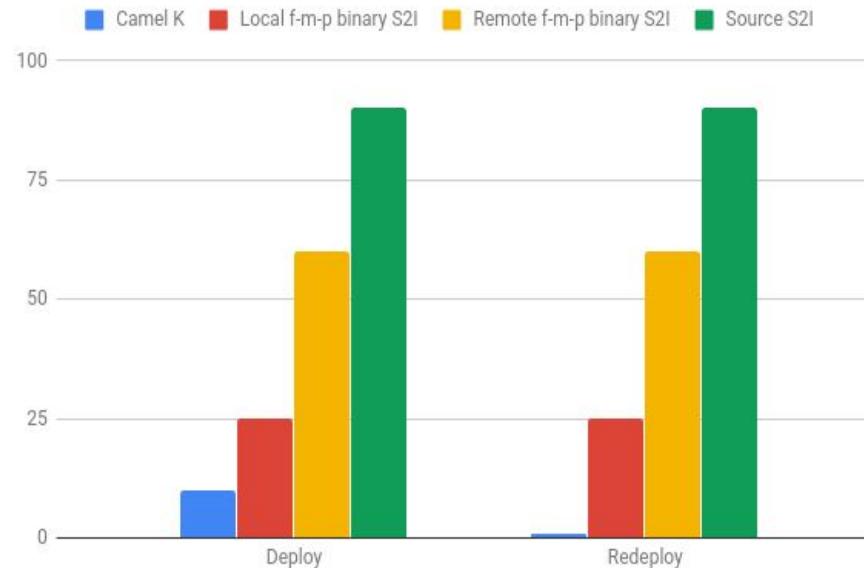
```
$ kamel run integration.groovy
```

Architecture of Camel K



Fast Deployment of Camel K

Time to run a integration using different strategies (in seconds)



Lower is better



F-m-p is the “fabric8-maven-plugin” (<http://maven.fabric8.io/>) deploying a average spring-boot based integration on Minishift vs. a remote OpenShift cluster (accounting time to upload the fat Jar). Source S2I build has been measured in Red Hat Fuse Online.

Camel K on OperatorHub

OperatorHub.io

Search OperatorHub...

Contribute ▾

<ul style="list-style-type: none"><input type="checkbox"/> Altinity (1)<input type="checkbox"/> Amazon Web Services (1)<input type="checkbox"/> Anchore (1)<input type="checkbox"/> Appsody (1)<input type="checkbox"/> Aqua Security (1) Show 53 more	An operator for managing the Apache Spark clusters and intelligent applications that	Deploys AppDdy based applications	The Aqua Security Operator runs within Kubernetes cluster and provides a means to	AtlasMap is a data mapping solution with an interactive web based user interface, t
CAPABILITY LEVEL				
<ul style="list-style-type: none"><input type="checkbox"/> Basic Install (38)<input type="checkbox"/> Seamless Upgrades (14)<input type="checkbox"/> Full Lifecycle (16)<input type="checkbox"/> Deep Insights (11)<input type="checkbox"/> Auto Pilot (1)	 AWS S3 Operator provided by Red Hat Manage the full lifecycle of installing, configuring and managing AWS S3 Provisioning.	 AWS Service Operator provided by Amazon Web Services, Inc. The AWS Service Operator allows you to manage AWS	 Banzai Cloud Kafka Operator provided by Banzai Cloud Installs and maintains Kafka	 Camel K Operator provided by The Apache Software Foundation Apache Camel K is a lightweight integration
	 Cassandra provided by Instaclustr Manage the full lifecycle of the Cassandra clusters.	 CockroachDB provided by Helm Community CockroachDB Operator based on the CockroachDB helm chart	 Community Jaeger Operator provided by CNCF Provides tracing, monitoring and troubleshooting microservices-based	 Crunchy PostgreSQL Enterprise provided by CrunchyData.com A Postgres Operator from Crunchydata.com
				

Quick Camel K Demo

The screenshot shows a developer's environment with multiple windows:

- Java Editor:** A code editor window titled "Sample.java" containing Camel K Java code. The code defines a route named "Sample" that triggers a log message "Hello Camel K!" every 10 seconds.
- Terminal:** A terminal window showing the directory structure of the "camel-k/examples" repository. It lists various Java files (e.g., AMQPBindToRegistry.java, CaffeineCacheSample.java, Master.java) and Groovy/Kotlin routes (e.g., dns.js, greetings-api.json, hello.xml, kafka, knative, routes-rest.js, routes.groovy, routes.js, routes.yaml, saga, polyglot, simple.groovy, simple.js, pulsar-groovy, tekton).
- Browser:** A browser window titled "Sample.java" showing the output of the Camel K route, which displays the message "Hello Camel K!".
- Minikube Cluster:** A terminal window titled "minikube/mykamel" running on a minikube cluster, showing the command "k get pods -w" being executed.

```
Sample.java x Sample.java
1/
18 import org.apache.camel.builder.RouteBuilder;
19
20 public class Sample extends RouteBuilder {
21     @Override
22     public void configure() throws Exception {
23         from("timer:tick")
24             .log("Bye Again Camel K!")
25     }
26 }
```

Line 24, Column 33; Saved – /workspace/camel-k/examples/Sample.java (UTF-8)

Spaces: 2

java

kamel (kamel)

```
FreeRatio=20 -XX:MaxHeapFreeRatio=40 -XX:+ExitOnOutOfMemoryError -cp ./resources:/etc/camel/conf:/etc/camel/resources:/etc/camel/sources/i-source-000:dependencies/com.sun.xml.bind.jaxb-core-2.3.0.1.jar:dependencies/com.sun.xml.bind.jaxb-impl-2.3.0.jar:dependencies/commons-io-commons-io-2.6.jar:dependencies/javax.xml.bind.jaxb-api-2.3.0.jar:dependencies/org.apache.camel.camel-api-3.0.0.jar:dependencies/org.apache.camel.camel-base-3.0.0.jar:dependencies/org.apache.camel.camel-core-engine-3.0.0.jar:dependencies/org.apache.camel.endpointdsl-3.0.0.jar:dependencies/org.apache.camel.camel-jaxp-3.0.0.jar:dependencies/org.apache.camel.camel-main-3.0.0.jar:dependencies/org.apache.camel.camel-management-api-3.0.0.jar:dependencies/org.apache.camel.camel-support-3.0.0.jar:dependencies/org.apache.camel.camel-timer-3.0.0.jar:dependencies/org.apache.camel.camel-util-3.0.0.jar:dependencies/org.apache.camel.camel-util-json-3.0.0.jar:dependencies/org.apache.camel.k.camel-k-loader-java-1.0.9.jar:dependencies/org.apache.camel.k.camel-k-runtime-core-1.0.9.jar:dependencies/org.apache.camel.k.camel-k-runtime-main-1.0.9.jar:dependencies/org.apache.camel.spi-annotations-3.0.0.jar:dependencies/org.apache.commons.commons-lang3-3.9.jar:dependencies/org.apache.logging.log4j.log4j-api-2.13.0.jar:dependencies/org.apache.logging.log4j.log4j-core-2.13.0.jar:dependencies/org.apache.logging.log4j.log4j-slf4j-impl-2.13.0.jar:dependencies/org.joq.joor-java-8-0.9.12.jar:dependencies/org.slf4j.slf4j-api-1.7.29.jar org.apache.camel.k.main.Application
```

[4] OpenJDK 64-Bit Server VM warning: If the number of processors is expected to increase from one, then you should configure the number of parallel GC threads appropriately using -XX:ParallelGCThreads=N

```
kernel/run Sample.java --dev
```

卷二十九

	0s		
sample-799696b6b-8plnb	1/1	Running	0
ls			
sample-6f7986c95d-ftcrp	1/1	Terminating	0
14s			
sample-6f7986c95d-ftcrp	0/1	Terminating	0
16s			
sample-6f7986c95d-ftcrp	0/1	Terminating	0
22s			
sample-6f7986c95d-ftcrp	0/1	Terminating	0
22s			
sample-74d64db866-flqjz	0/1	Pending	0
0s			
sample-74d64db866-flqjz	0/1	Pending	0
0s			
sample-74d64db866-flqjz	0/1	ContainerCreating	0
0s			
sample-74d64db866-flqjz	1/1	Running	0
ls			
sample-799696b6b-8plnb	1/1	Terminating	0
14s			

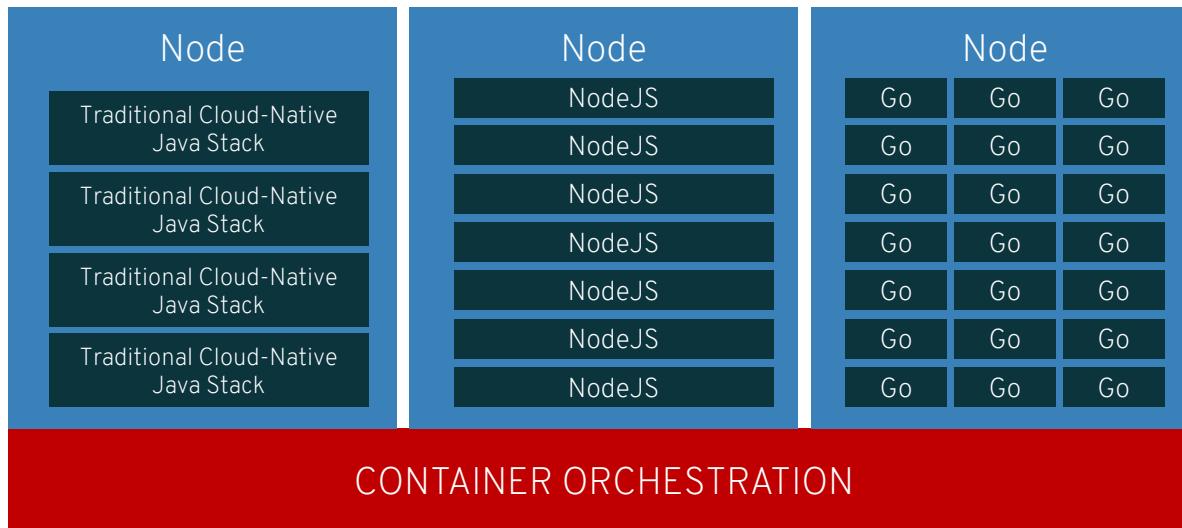
Camel Quarkus

SAY JAVA IS SLOW

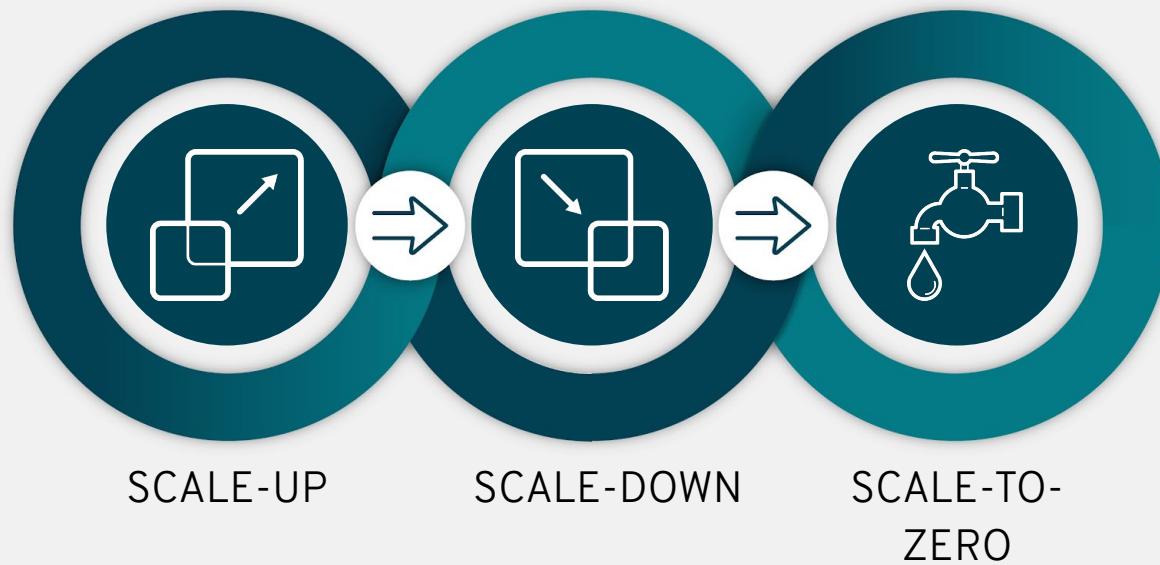
A meme image featuring Samuel L. Jackson as Jules Winnfield from Pulp Fiction. He is wearing a dark suit and tie, looking intensely at the camera with a serious expression. His right hand is pointing a revolver directly at the viewer. The background is a dimly lit room with some equipment visible.

ONE MORE TIME

Java Density Problem



Java Fast Scaling Problem





QUARKUS

What is Quarkus ?



QUARKUS

What is Quarkus ?

Supersonic Subatomic Java



QUARKUS

What is Quarkus ?

Supersonic Subatomic Java

A Kubernetes Native Java stack tailored for GraalVM &
OpenJDK HotSpot, crafted from the best of breed Java libraries
and standards

Minimal Footprint

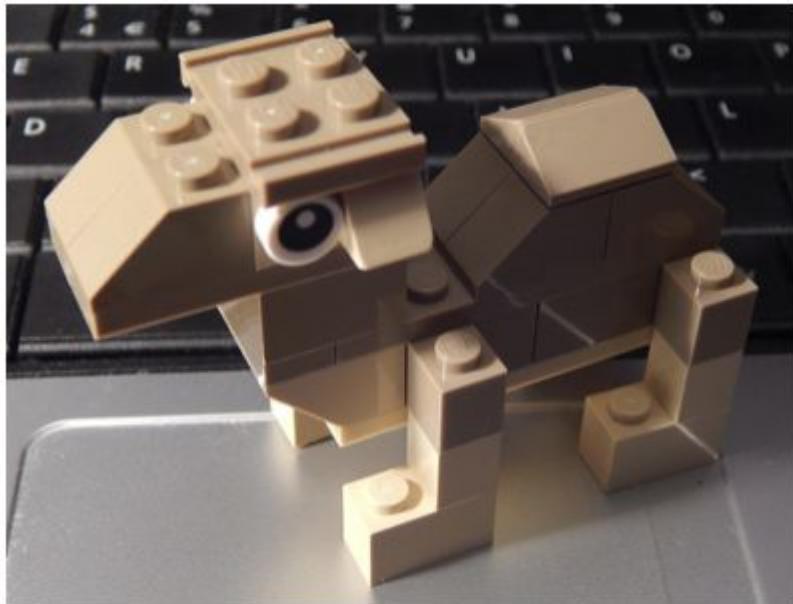


Apache Camel and Quarkus runs blazingly fast with native compiled binaries.

Startup is 13 msec, 68mb binary file, and 16mb RSS memory used.

```
> target/camel-quarkus-examples-timer-log-1.1.0-SNAPSHOT-runner
2020-02-24 20:31:52,929 INFO [org.apache.camel.main.BaseMainSupport] (main) Auto-configuration summary:
2020-02-24 20:31:52,930 INFO [org.apache.camel.main.BaseMainSupport] (main) camel.context.name=quarkus-camel-example-timer-log
2020-02-24 20:31:52,930 INFO [org.apache.camel.impl.AbstractCamelContext] (main) Apache Camel 3.1.0 (CamelContext: quarkus-camel-example-timer-log) is starting
2020-02-24 20:31:52,930 INFO [org.apache.camel.impl.DefaultManagementStrategy] (main) JMX is disabled
2020-02-24 20:31:52,931 INFO [org.apache.camel.impl.AbstractCamelContext] (main) StreamCaching is not in use. If using streams then its recommended to enable stream caching.
See more details at http://camel.apache.org/stream-caching.html
2020-02-24 20:31:52,932 INFO [org.apache.camel.impl.AbstractCamelContext] (main) Route: route1 started and consuming from: timer://foo
2020-02-24 20:31:52,932 INFO [org.apache.camel.impl.AbstractCamelContext] (main) Total 1 routes, of which 1 are started
2020-02-24 20:31:52,932 INFO [org.apache.camel.impl.AbstractCamelContext] (main) Apache Camel 3.1.0 (CamelContext: quarkus-camel-example-timer-log) started in 0.002 seconds
2020-02-24 20:31:52,932 INFO [io.quarkus] (main) camel-quarkus-examples-timer-log 1.1.0-SNAPSHOT (running on Quarkus 1.3.0.Alpha2) started in 0.013s.
2020-02-24 20:31:52,932 INFO [io.quarkus] (main) Profile prod activated.
2020-02-24 20:31:52,932 INFO [io.quarkus] (main) Installed features: [camel-core, camel-log, camel-support-common, camel-support-xml, camel-timer, camel-xml, cdi]
2020-02-24 20:31:53,935 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:54,940 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:55,940 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:56,942 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:57,948 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:58,951 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:31:59,955 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:00,956 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:01,958 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:02,963 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:03,968 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:04,973 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:05,976 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
2020-02-24 20:32:06,980 INFO [route1] (Camel (camel-1) thread #1 - timer://foo) Hello World
```

Camel Quarkus Demos



QUARKUS

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Explorer:** Shows the project structure under "OPEN EDITORS". The "src/main/java/org/acme/timer" package contains a file named "TimerRoute.java".
- Editor:** The main editor window displays the code for "TimerRoute.java". The code defines a Camel route that triggers a timer every 500ms, logs "Bye World", and then ends.
- Log:** The bottom half of the screen shows the log output from the Apache Camel Language Server. It lists numerous INFO-level messages from 2020-02-26 at 10:02:40 to 10:02:53, all containing the message "Bye World".
- Status Bar:** The bottom status bar indicates the file is "camel-master*", has 1 unsaved change, and shows the current position as Line 27, Column 22.

davsclaus@davsclaus-pro: ~/Downloads/rehg

361

X .._downloads/rehg (rehg-1.0.0-SNAPS)

```
from: platform-http://hello/camel
2020-02-26 11:20:55,606 INFO [org.apache.camel.core.FastCamelContext] (main) Total 1 routes, of which 1 are started
2020-02-26 11:20:55,606 INFO [org.apache.camel.core.FastCamelContext] (main) Apache Camel 3.0.0 (CamelContext: camel-1) started in 0.002 seconds
2020-02-26 11:20:55,606 INFO [io.quarkus] (main) regh 1.0.0-SNAPSHOT (running on Quarkus 1.1.1.Final) started in 0.020s. Listening on: http://0.0.0.0:8080
2020-02-26 11:20:55,606 INFO [io.quarkus] (main) Profile prod activated.
2020-02-26 11:20:55,606 INFO [io.quarkus] (main) Installed features: [camel-core, camel-microprofile-health, camel-microprofile-metrics, camel-platform-http, camel-support-common, cdi, resteasy, smallrye-health, smallrye-metrics, vertx, vertx-web]
^C2020-02-26 11:21:23,117 INFO [org.apache.camel.core.FastCamelContext] (main) Apache Camel 3.0.0 (CamelContext: camel-1) is shutting down
2020-02-26 11:21:23,117 INFO [org.apache.camel.main.MainLifecycleStrategy] (main) CamelContext: camel-1 has been shutdown, triggering shutdown of the JVM.
2020-02-26 11:21:23,117 INFO [org.apache.camel.core.FastCamelContext] (main) Apache Camel 3.0.0 (CamelContext: camel-1) uptime 27.513 seconds
2020-02-26 11:21:23,117 INFO [org.apache.camel.core.FastCamelContext] (main) Apache Camel 3.0.0 (CamelContext: camel-1) is shutdown in 0.000 seconds
2020-02-26 11:21:23,120 INFO [io.quarkus] (main) regh stopped in 0.003s
apple ~/Downloads/rehg > █ * INT × 28s
```

X .._downloads/rehg (zsh)

> ./print-sum.sh regh

198.492

> ./print-sum.sh regh

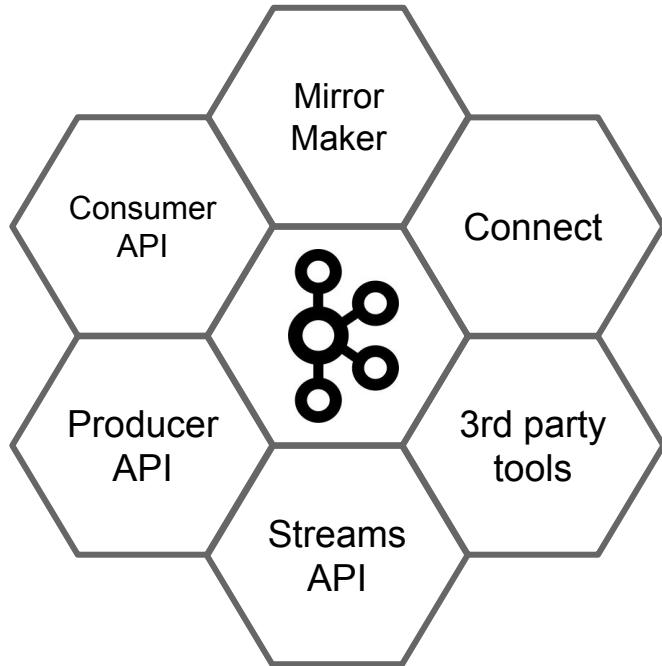
20.6406

apple ~/Downloads/rehg > █

Camel Kafka Connector

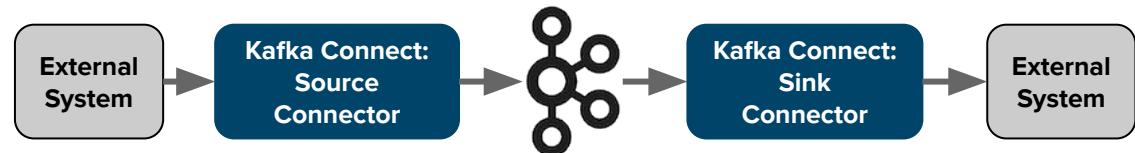
What is Apache Kafka?

- Kafka is known as
 - a **distributed streaming platform**
 - or a **pub/sub messaging broker**
- It's an ecosystem
 - Multiple components part of Apache Kafka
 - A lot of 3rd party integrations
 - One of them is **Kafka Connect**



What is Kafka Connect?

- It is a **framework** that helps you to integrate Kafka with other systems
 - A user can define **source** and **sink** connectors to stream data in/out of Kafka brokers
 - Connectors are **pluggable** - you can use one of the many connectors available or write your own
- **Distributed** and **scalable** by default
- Automatic **offset** management
- Simple transformations
- Streaming / batch integration



What is Camel Kafka Connector?



- A Kafka Connector built on top of Apache Camel
- Started as an internal proof-of-concept
 - A sub-project of the Apache Camel
 - Donated by Red Hat to the ASF on December 2019
- Reuses in a **simple way** most of the Camel components as Kafka sink and sources

Status

- Release 0.2.0 available from today (Camel 3.2.0)
- Release 0.3.0 on the way already (Camel 3.3.0)
- Connectors are packaged as single entity for sink and source (zip and tar.gz)
 - Runnable through plugin.path approach
 - Or through classpath exporting



Extensively tested Connectors



elasticsearch

Amazon AWS Kinesis	Cassandra CQL	JMS
Amazon AWS S3	ElasticSearch	Telegram
Amazon AWS SNS	File	Syslog
Amazon AWS SQS	HTTP	

- Fresh documentation: <https://camel.apache.org/camel-kafka-connector/latest/index.html>
- Full list of supported connectors:
<https://camel.apache.org/camel-kafka-connector/latest/connectors.html>



To run Kafka on
Kubernetes

Demo S3 to JMS

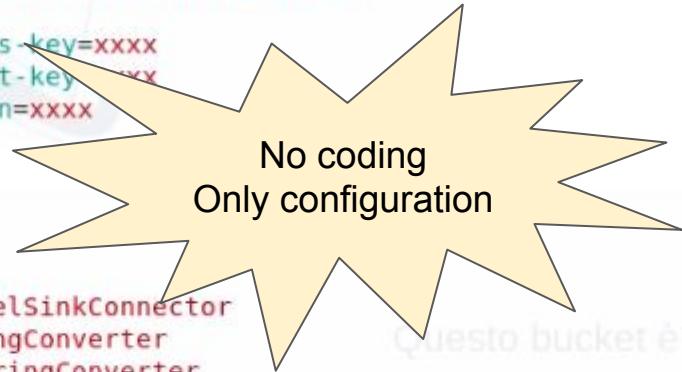
- <https://github.com/oscerd/camel-kafka-connector-demo>
- S3 Source connector (camel-aws-s3)
- JMS Sink connector (camel-sjms2)
- A file loaded on a bucket -> file content in a JMS Queue





```
name=CamelAWSS3SourceConnector  
connector.class=org.apache.camel.kafkaconnector.CamelSourceConnector  
key.converter=org.apache.kafka.connect.storage.StringConverter  
value.converter=com.github.oscerd.S3ObjectConverter  
#transforms=S3ObjectTransformer  
#transforms.S3ObjectTransformer.type=org.apache.camel.kafkaconnector.co  
camel.source.maxPollDuration=10000  
  
camel.source.kafka.topic=mytopic  
  
camel.source.url=aws-s3://camel-kafka-connector?autocloseBody=false  
  
camel.component.aws-s3.configuration.access-key=xxxx  
camel.component.aws-s3.configuration.secret-key=xxxx  
camel.component.aws-s3.configuration.region=xxxx
```

No coding
Only configuration



```
name=CamelJmsSinkConnector  
topics=mytopic  
tasks.max=1  
connector.class=org.apache.camel.kafkaconnector.CamelSinkConnector  
key.converter=org.apache.kafka.connect.storage.StringConverter  
value.converter=org.apache.kafka.connect.storage.StringConverter  
  
camel.sink.url=sjms2://queue:myqueue  
  
camel.component.sjms2.connection-factory=#class:org.apache.activemq.ActiveMQConnectionFactory  
camel.component.sjms2.connection-factory.brokerURL=tcp://localhost:61616
```

GitHub - oscerd/camel-kaf × Artemis × S3 Management Console × +

localhost:8161/console/artemis/addresses?tab=artemis&nid=root-org.apache.activemq.artemis~0.0.0.0

Lavoro Talks and conf Varie Can we packag... quarkus/writing... apache/camel... Home oc cluster up: E... Progress last m... Fuse 8 Roadma... Other bookmarks

ACTIVE MQ MANAGEMENT CONSOLE

Artemis Connect Dashboard JMX Runtime Threads

Connections Sessions Consumers Producers Addresses Queues Diagram Attributes Operations Chart

Filter Value Reset

manage	ID	Name	Address	Routing Type	Filter	Durable	Max Consumers	Purge On No Co...	Consumer Count	Rate	Message Count
attributes operati...	4	DLQ	DLQ	ANYCAST		true	-1	false	0	0.0	0
attributes operati...	8	ExpiryQueue	ExpiryQueue	ANYCAST		true	-1	false	0	0.0	0
attributes operati...	32	myqueue	myqueue	ANYCAST		true	-1	false	0	0.0	0

Total Items: 3

Page Size: 100 | 1 71

Waiting for localhost...

Roadmap

Camel 3 - Roadmap

- **Camel 3.4 (1st LTS release)**
 - Spring Boot 2.3
 - Endpoint DSL fixes & improvements
 - Supervising Route Controller
(restart failing routes on startup with backoff)
 - Easier configuration of health checks
 - Hardening and bug fixes
 - Polish website

Camel K - Roadmap

- Support for **Camel 3.4 LTS**
 - Lightweight modules to reduce footprint
 - **Webhook** meta-component (more components that can scale down to 0)
- **Quarkus** as integration runtime
 - Reduced footprint and cold start-up time
 - Native image build in parallel swapped with JVM image during auto-scaling once ready
- Knative 1.0 → Camel K 1.0 GA
- Support the **Broker / Trigger** model
- Support **Tekton** builds
- Push-based endpoints
- Fully integrated with Syndesis
- Better IDE support
- Better integration with CI tools
- BDD testing (YAKS)
- Operator Capability Level 4+

Camel Quarkus - Roadmap

- Port more Camel components as Extensions
(about 200 done out of 300)
- More build time optimisations
- Reduce startup overhead
- Quarkus 1.5
- Camel Quarkus 1.0 GA
- Better IDE support

Camel Kafka Connector - Roadmap

- Camel-Kafka-connector 0.2.0
 - Connector auto-generation
 - Autogenerated docs
 - Supporting Camel 3.2.0
- Camel-Kafka-connector 0.3.0 on the way
 - Based on Camel 3.3.0
 - Bug fixes
 - Aligned with last components
- Camel-Kafka-connector 0.4.0
 - Based on Camel 3.4.0 LTS

More Material

More Material

- Quick 2 min Camel K demo
<https://www.youtube.com/watch?v=l-q2xt-Qcb8>
- 10 min video - Run 100 Camels quickly with Came, Quarkus and GraalVM
<https://www.youtube.com/watch?v=4IXSf8DBQkQ>
- Camel Kafka Connector blog and 25 min video
<https://developers.redhat.com/blog/2020/05/19/extending-kafka-connectivity-with-apache-camel-kafka-connectors>
- Camel Examples
<https://github.com/apache/camel-examples>

Any Questions ?



<https://github.com/apache/camel>

A star on github is appreciated

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