

Webinar:

Event-Driven Cloud Native Workflows Use Cases, Patterns and Technologies

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Co-Founder, Chief Product Officer
TriggerMesh*


Presenter



Sebastien Goasguen
Co-Founder
Chief Product Officer

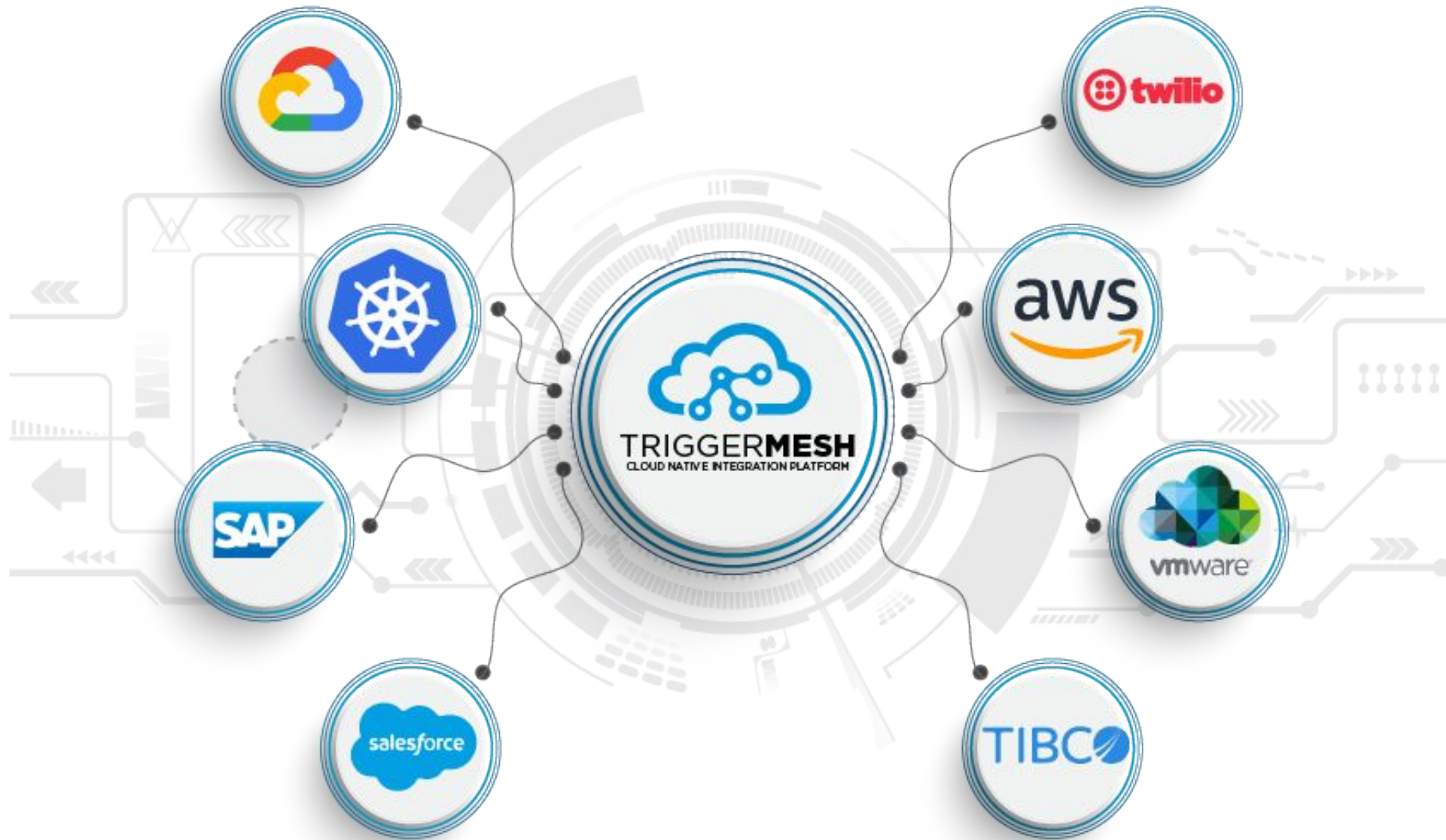
Twitter: [@sebgoa](https://twitter.com/sebgoa)

- Founder Skippbox - Kubernetes orchestration, (acquired by Bitnami),
- Cloud Architect, Bitnami
- Developer of popular open source [Kubeless Serverless Framework](#)
- VP, Apache CloudStack
- Citrix, Cloud Architect
- Author - O'Reilly - [Docker in the Cloud](#), [Kubernetes Cookbook](#), [Docker Cookbook](#)
- Prototyped CERN cloud in 2010
- Technical Editor - The New Stack - [Serverless Technologies, Guide](#)



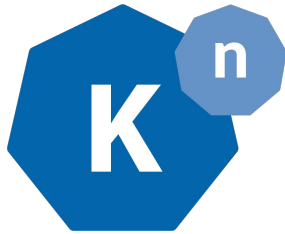
“Future Cloud-native applications will be a **mesh of functions and services** from **multiple cloud providers** and **on premises**. We believe this architecture is the best way for agile businesses to deliver effortless **digital experiences** quickly.”

TriggerMesh Cloud Native Integration











TriggerMesh Open Source

We believe, use, and participate in many open source projects including Kubernetes and Knative as well as host our own projects on Github.



TriggerMesh is a top contributor to Knative open source project.

Rank	Company
1	 Google
2	 Red Hat
3	 vmware
4	 IBM
5	 Pivotal
6	 TRIGGERMESH
7	 Dropbox
8	 SAP



TriggerMesh is very active in our own Github repository and has a number of cloud native related projects.

TRIGGERMESH KLR 
KNATIVE LAMBDA RUNTIME

TRIGGERMESH SAWS 
SOURCES FROM AMAZON WEB SERVICES

TRIGGERMESH AKTION 
CONTINUOUS DEPLOYMENT FOR DEVOPS

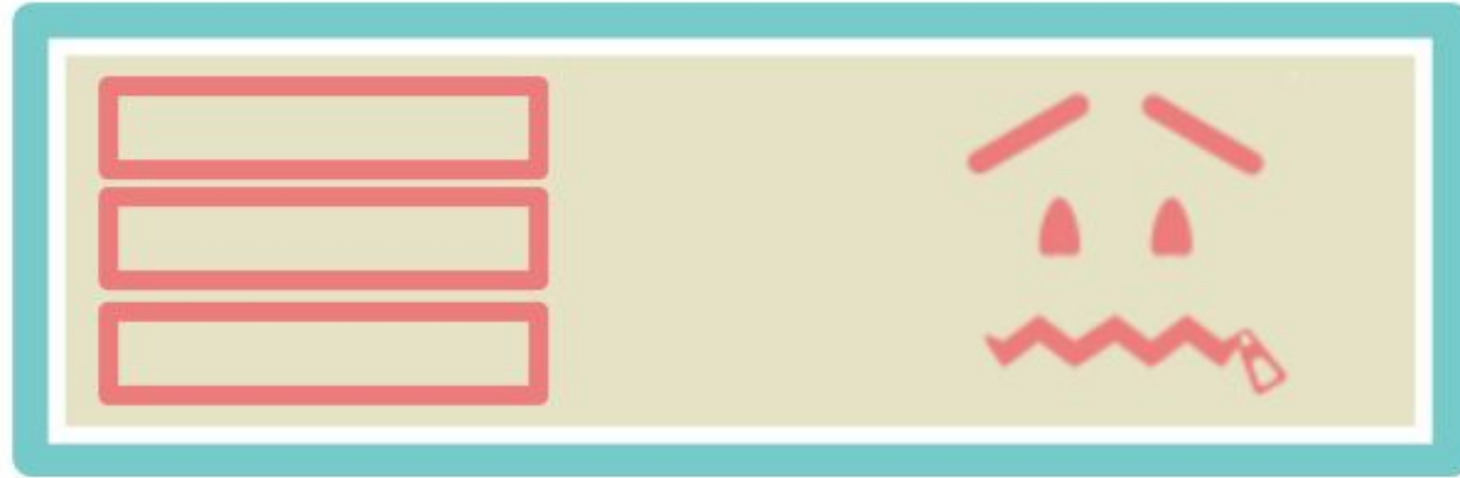
<https://github.com/triggermesh/aws-event-sources>

Outline

- Serverless 101
- Patterns
- Argo and Knative live demo

Serverless 101 or 001

Serverless or Servicefull



There is no 'serverless'
it's just someone else's fully managed
execution environment that I only pay a fraction
of a cent for whenever my function is run

AWS Lambda the poster child



Products ▾

Solutions

Pricing

Software

Support

More ▾

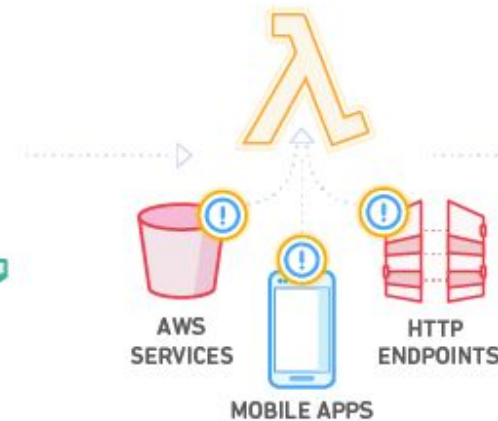
English ▾

My Account ▾

How It Works



Upload your code to AWS Lambda



Set up your code to trigger from other AWS services, HTTP endpoints, or in-app activity

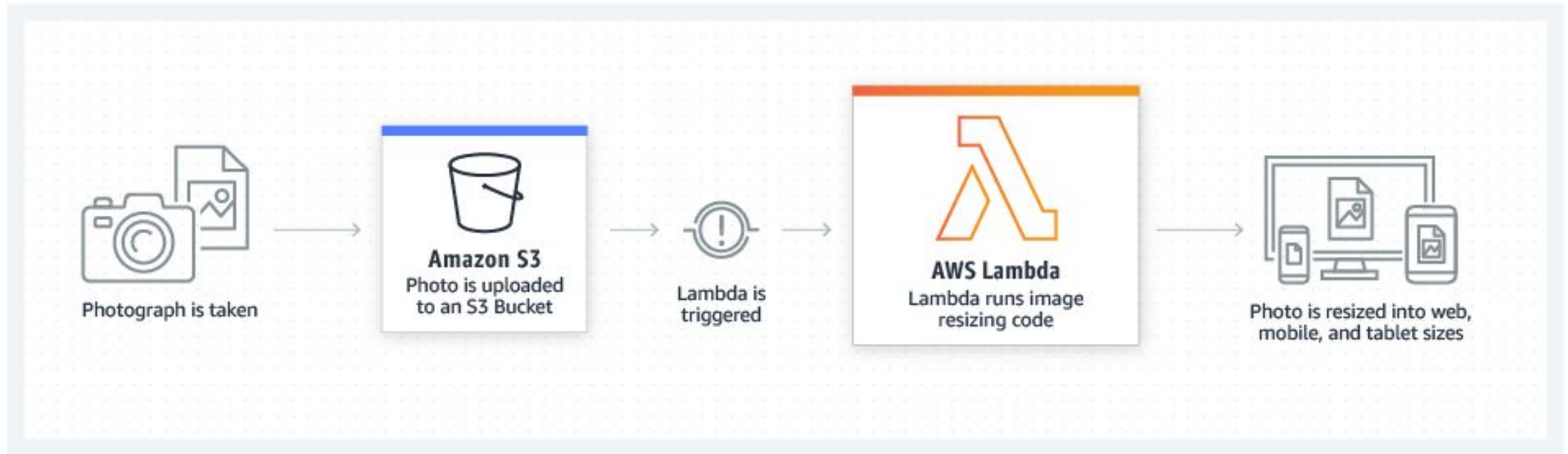


Lambda runs your code only when triggered, using only the compute resources needed

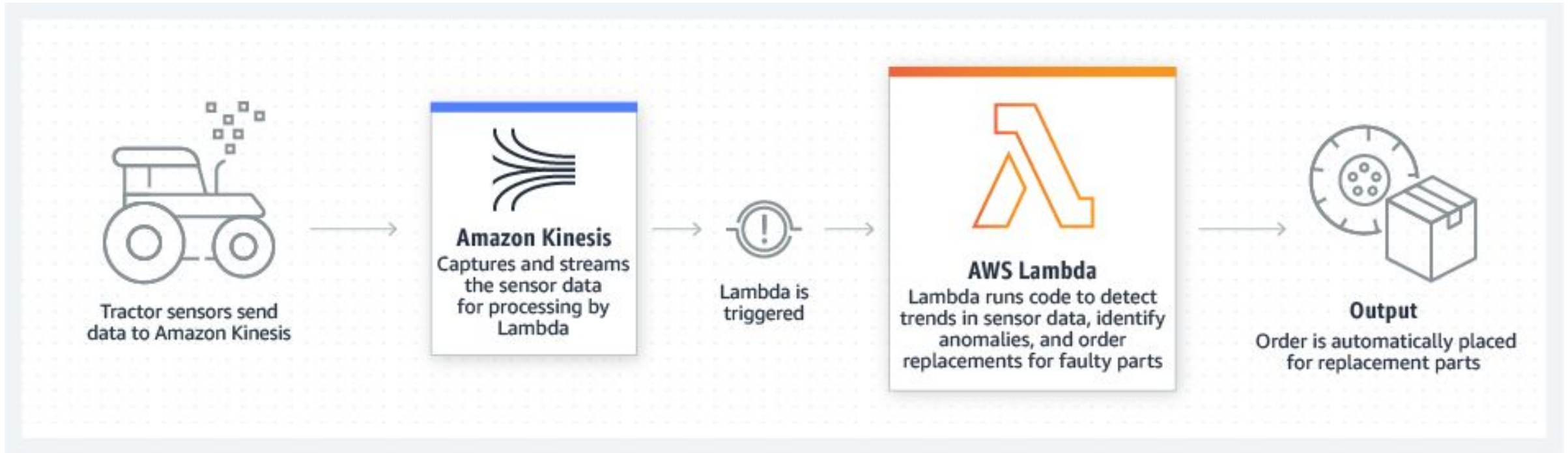


Pay just for the compute time you use

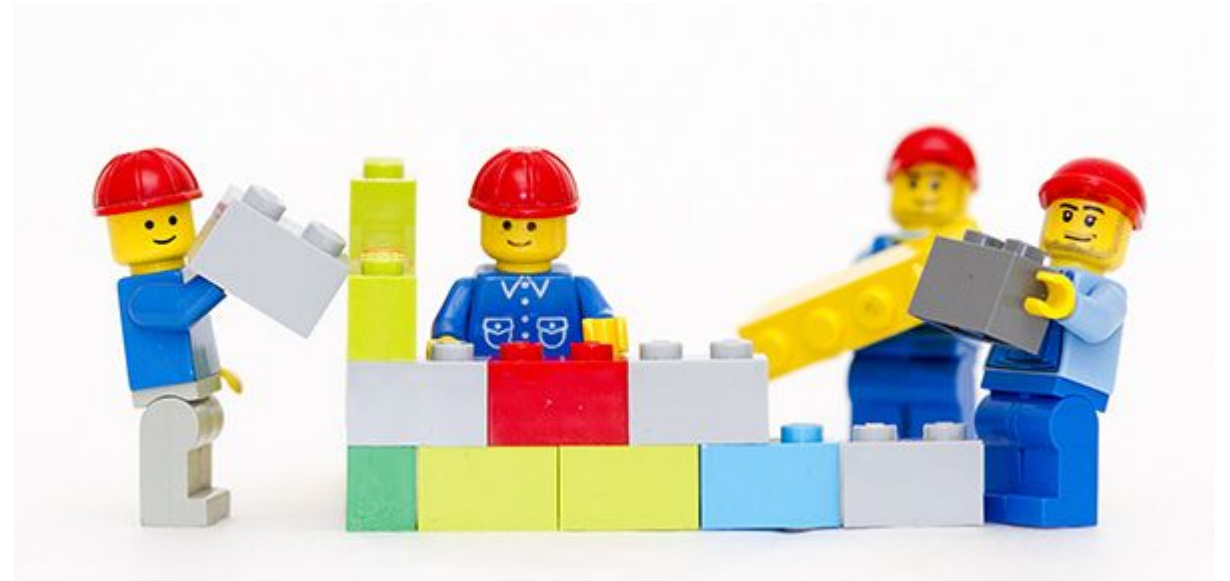
What type of applications? #1



What type of applications ? #2



Knitting or doing Legos ?



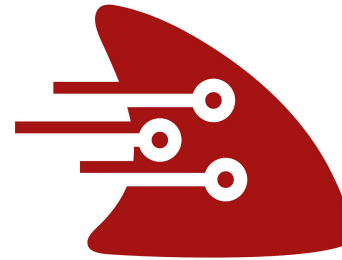
Concepts

- Functions
- Triggers
- Events
- Services

Kubernetes is the perfect platform to implement/use those concepts and orchestrate “serverless” applications...or better “event-driven” applications.



Doing it in Open Source



fn



cloudevents

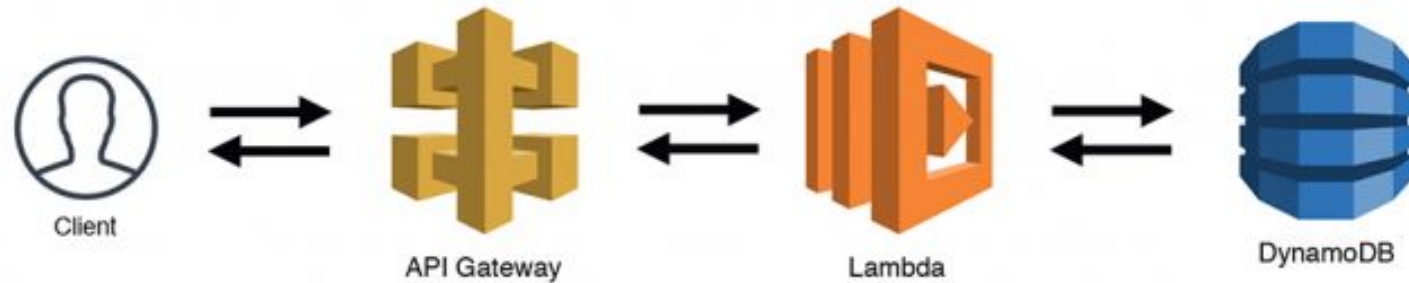


argo

“Patterns”

Patterns

The Web Service:



the Internal API:



off-by-one

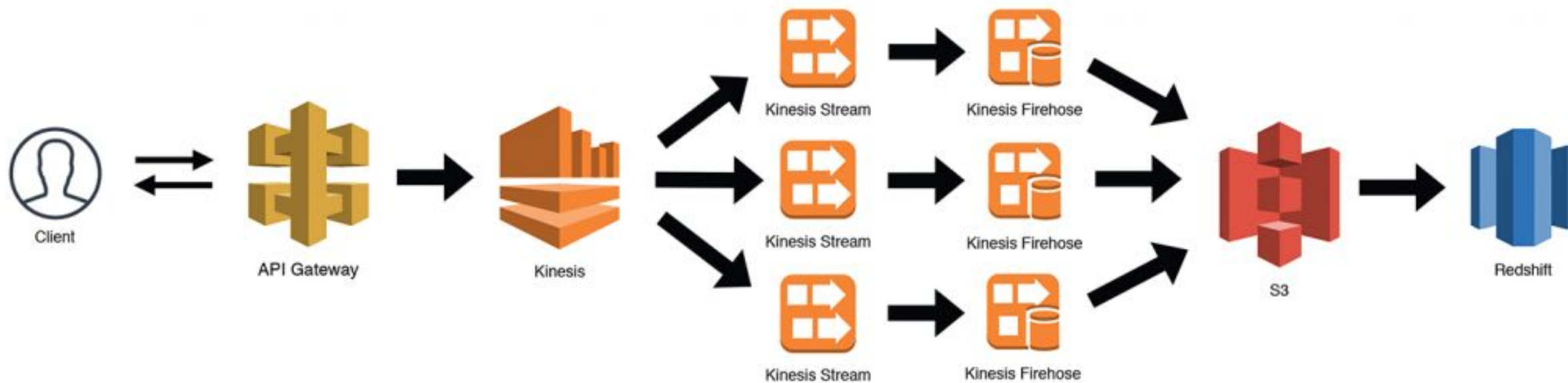
A Weekly Newsletter
by Jeremy Daly

Patterns

The Streamer:

off-by-one

A Weekly Newsletter
by Jeremy Daly

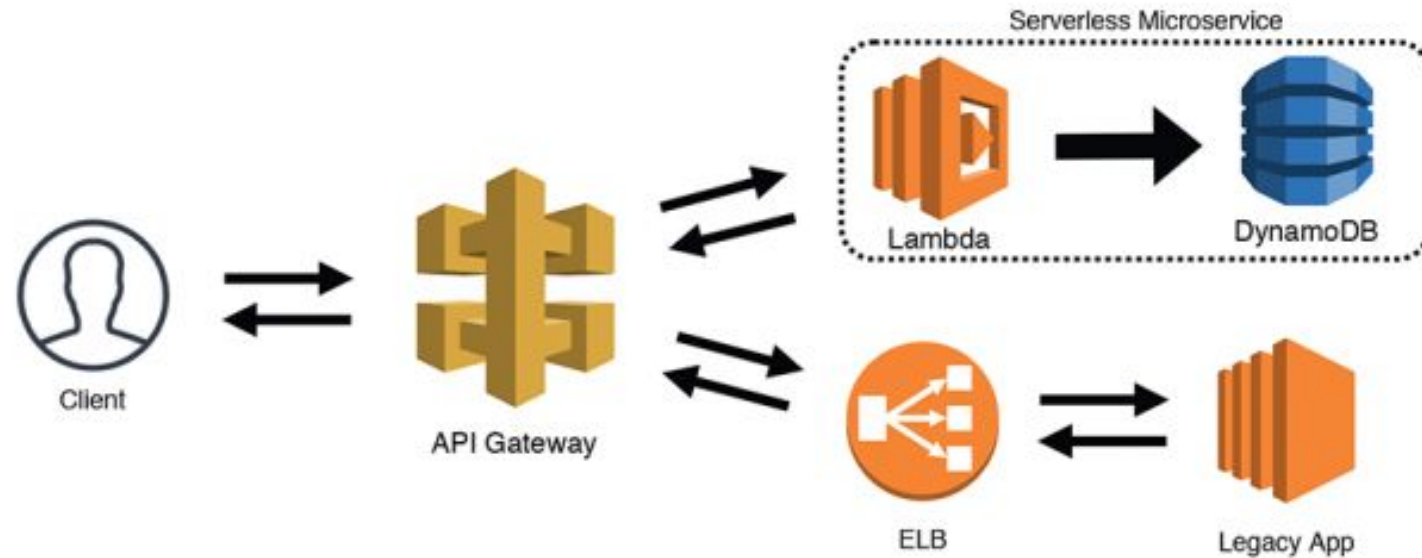


Patterns

The Strangler:

off-by-one

A Weekly Newsletter
by Jeremy Daly

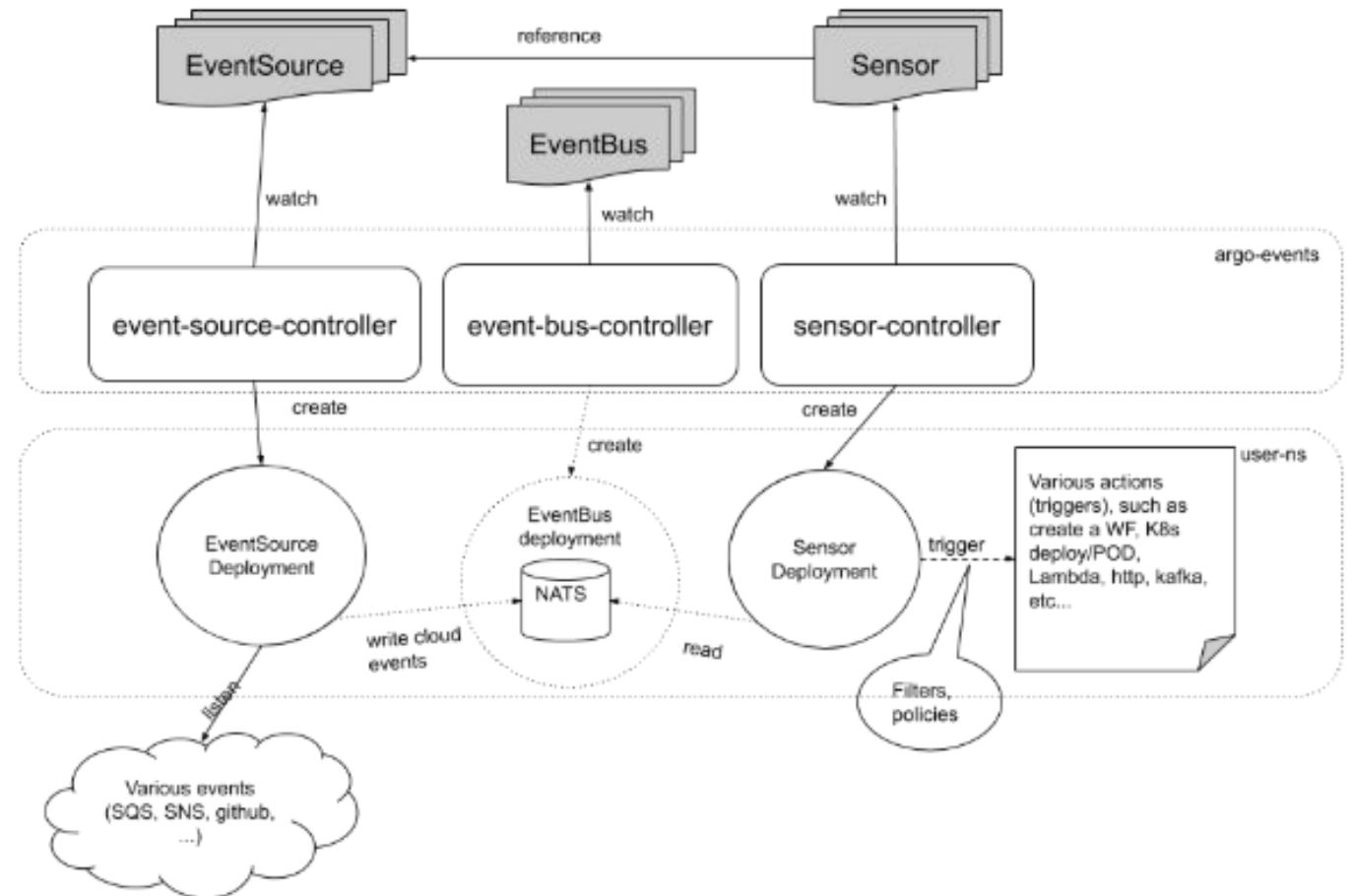


<https://www.jeremydaly.com/serverless-microservice-patterns-for-aws/>

Argo “Patterns”

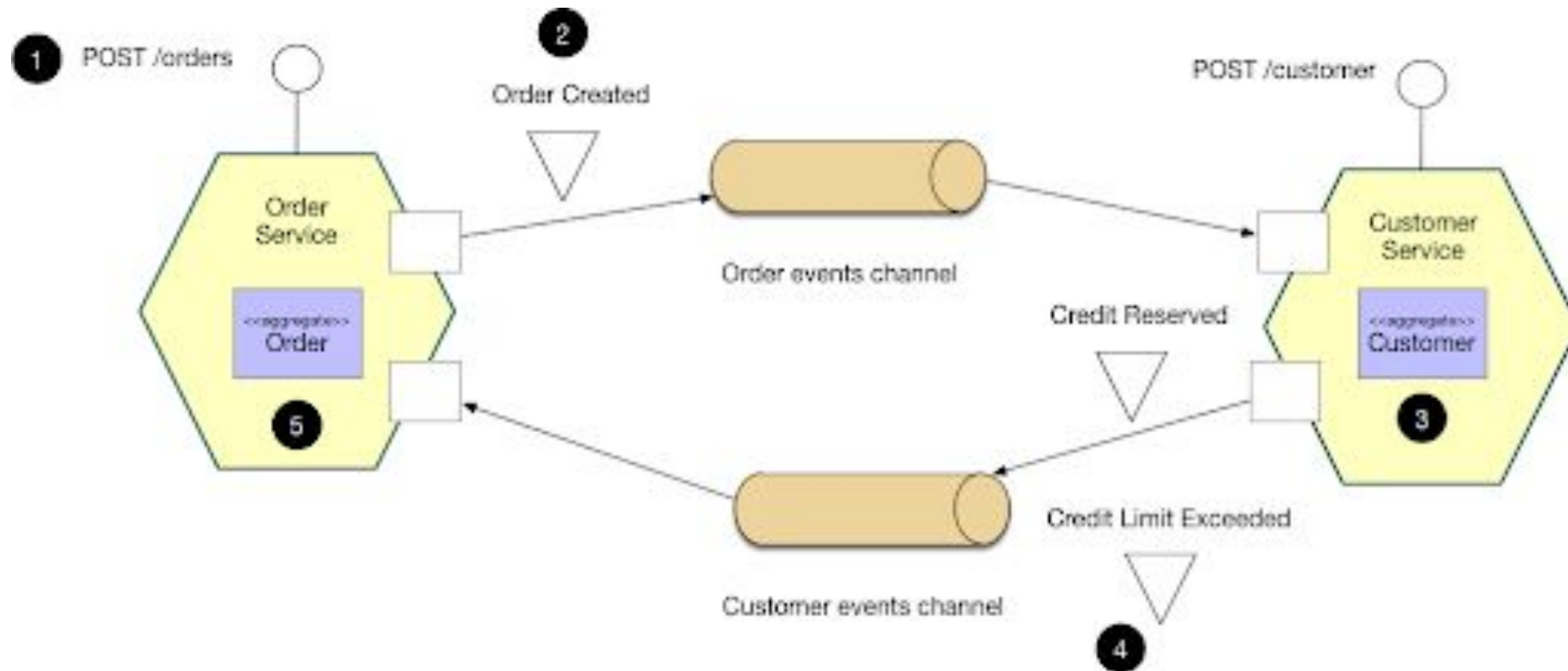
EventSource -> Sensor

Sensor -> Triggers



SAGA Pattern

“Let us use the term saga to refer to a LLT that can be broken up into a collection of subtransactions that can be interleaved in any way with other transactions “ - [1987 Molina](#)



TriggerMesh

Bridge =
Source + Broker
+ Trigger + Target

Dashboard

EVENTS

Bridges

Catalog

Sources

Brokers

Triggers

FUNCTIONS

Services

Repositories

ACTIONS

Build Triggers

Tasks

Task Runs

Resources

Secrets

Bridge Editor > github-eventbridge

Status: Ready

REFRESH

SUBMIT BRIDGE

EDITOR

YAML

SOURCE

github-eb

BROKER

gh-eb

TRIGGER

gh-eb

TARGET

gh-eb

FAQ

What is a Source?

An Event Source represents the origin of events flowing through an application.

Event Sources provide a mechanism for registering interest in a class of events from a particular software system. They are implemented as Kubernetes custom resources.


Events emitted by a source follow the CloudEvent specification.


What is a Broker?

What is a Trigger?

What is a Target?

What is Serverless?

 **TRIGGERMESH**
CLOUD NATIVE INTEGRATION PLATFORM



Bridges as Application Flows

Build an Application Flow using our Catalog of Bridges

Select from a list of Bridges catalog to get started or create a new one



Create a new Bridge

Use our Wizard or Yaml editor to design your custom Bridge



Your first Bridge

Use this Bridge to say Hello on a schedule

USE TEMPLATE



GitHub event display Bridge

Use this Bridge to receive events from a GitHub repository

USE TEMPLATE



Execute a Tekton Task/Pipeline on a Schedule

Use this Bridge to launch the execution of a Tekton Task/Pipeline when you want

USE TEMPLATE



GitLab to AWS Lambda

Invoke an AWS Lambda function when an event happens in your GitLab repository

USE TEMPLATE



Zendesk Ticket Analysis

Use this Bridge to perform a sentiment analysis of newly created Zendesk Tickets.

USE TEMPLATE



Azure Activity Logs to Splunk

Use this Bridge to forward Azure Activity Logs to Splunk.

USE TEMPLATE



Slack to Confluent

Forward Slack API events to Confluent.

USE TEMPLATE



Benefits

- Minimal coupling
- Independent scalability
- Independent development
- Best of breed
- Autonomy

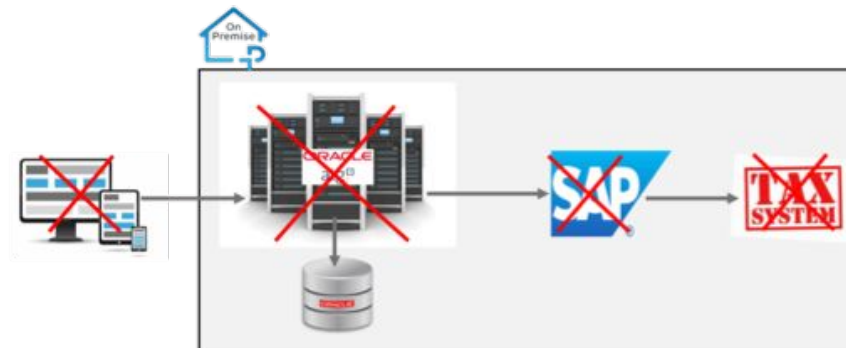
<https://martinfowler.com/articles/201701-event-driven.html>

Use Cases

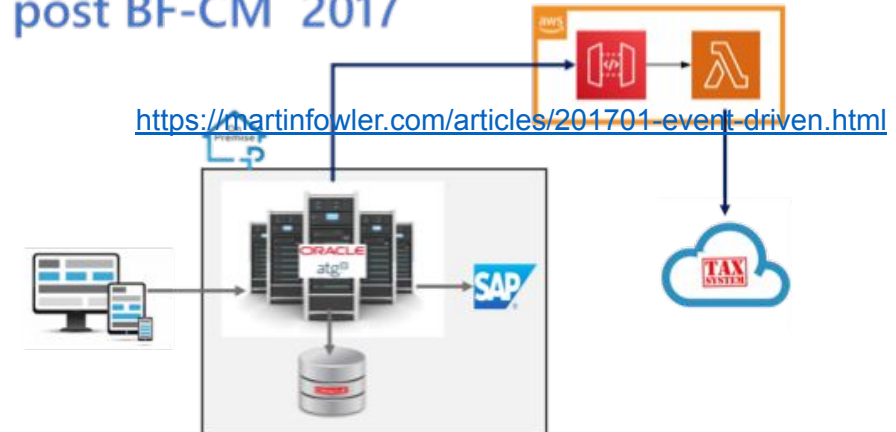


- HSBC
- Lego
- Vanguard
- Nordstrom
-

BF-CM 2017



post BF-CM 2017



Live Demo

Q&A



TRIGGERMESH

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