Knative

An introduction to serving and eventing

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Knative Components

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Components

- Knative has three different components:
  - Build
  - Serving
  - Eventing
- Knative Build is the build framework for building container images on Kubernetes, we're not going to talk about it in this presentation since there are under our opinion better alternatives out there, like Tekton CI.
- Knative Serving is the serverless framework used to deploy services into our Kubernetes cluster and provide serverless capabilities to them.
- Knative Eventing is the framework used to enable late-binding event sources and event consumers.

Demo 1

Create a Serverless service

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Demo 2

Configure traffic splitting to the serverless service

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Knative Serving

Serving

- Three main features:
  - Rapid deployment of serverless containers.
    - You get a Service, Route and Revision automatically.
  - Automatic scaling up and down to zero.
  - Revisions snapshots.
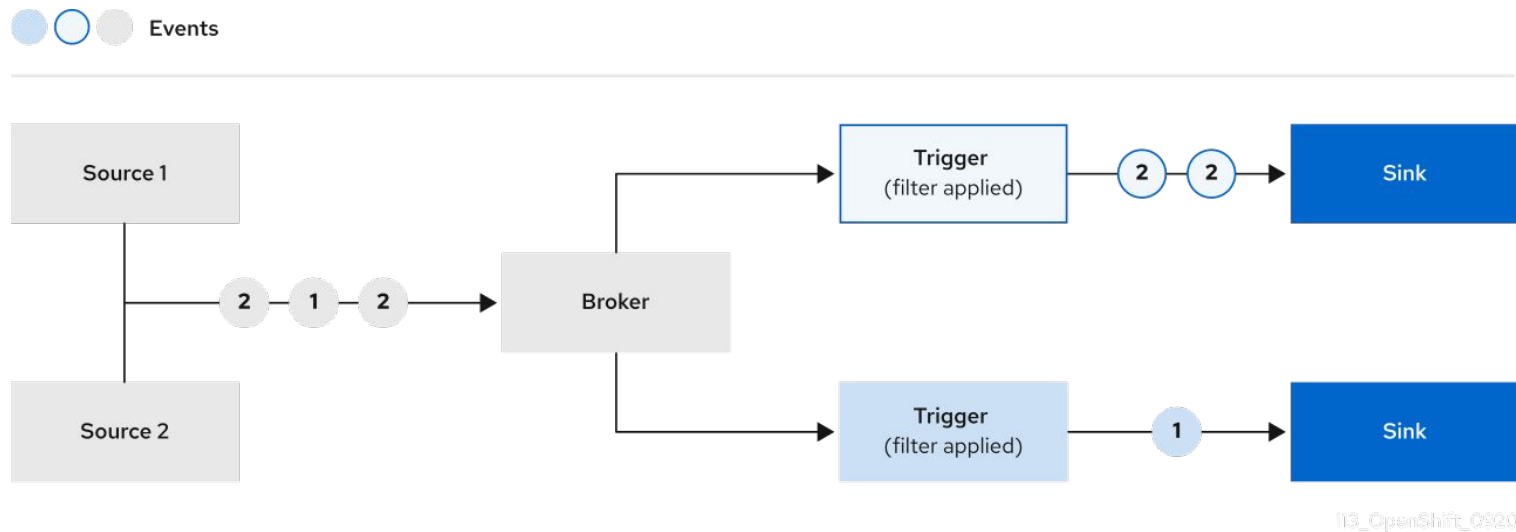   - Allows to configure traffic splitting between revisions.

Knative Eventing

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Eventing

- Event producers and consumers are independent:
  - Producers can generate events even if there are no consumers.
  - Consumers can listen to events even it there are no producers.
- Events can be modified and forwarded to multiple consumers.
- There are several event sources one can use, you can check the whole list <u>here</u>.

Demo 3

Custom eventing app

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Demo 4

Consuming events from the ApiServer

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Resources

- https://github.com/RHsyseng/telco-operations/blob/main/knative/README.md

- https://knative.dev/docs/getting-started/

- https://knative.dev/docs/eventing

- https://knative.dev/docs/serving/

- https://knative.dev/docs/eventing/sources/apiserversource/getting-started/#creating-an-apiserversource-object

- https://knative.tips/

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