CNCF Serverless WG: CloudEvents & Serverless Workflow Updates

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Agenda

- Serverless WG / CloudEvents Update
- Workflow Specification Intro & Update

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- **Serverless WG / CloudEvents Update**
- **Workflow Specification Intro & Update**

CloudEvents - Status

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Status & Deliverables

- **CloudEvents specification v1.0**
- Transport Bindings (HTTP, AMQP, MQTT, NATS, Kafka)
- Encoding Formats (JSON, AVRO)
- Primer
- SDKs (CSharp, Go, Java, Javascript, PHP, Python, Ruby, Rust)

What's next?

- Customer feedback...
- Additional community pain points...

What's Next?

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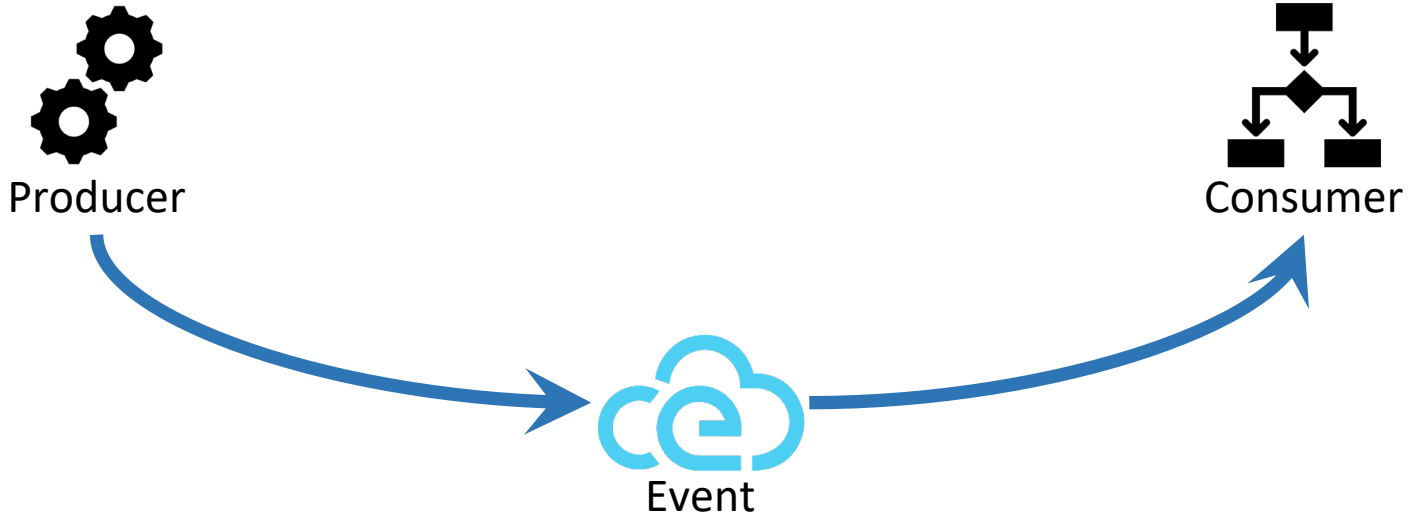
cloudevents

What's Next?

Delivery of CloudEvents is the last step

cloudevents

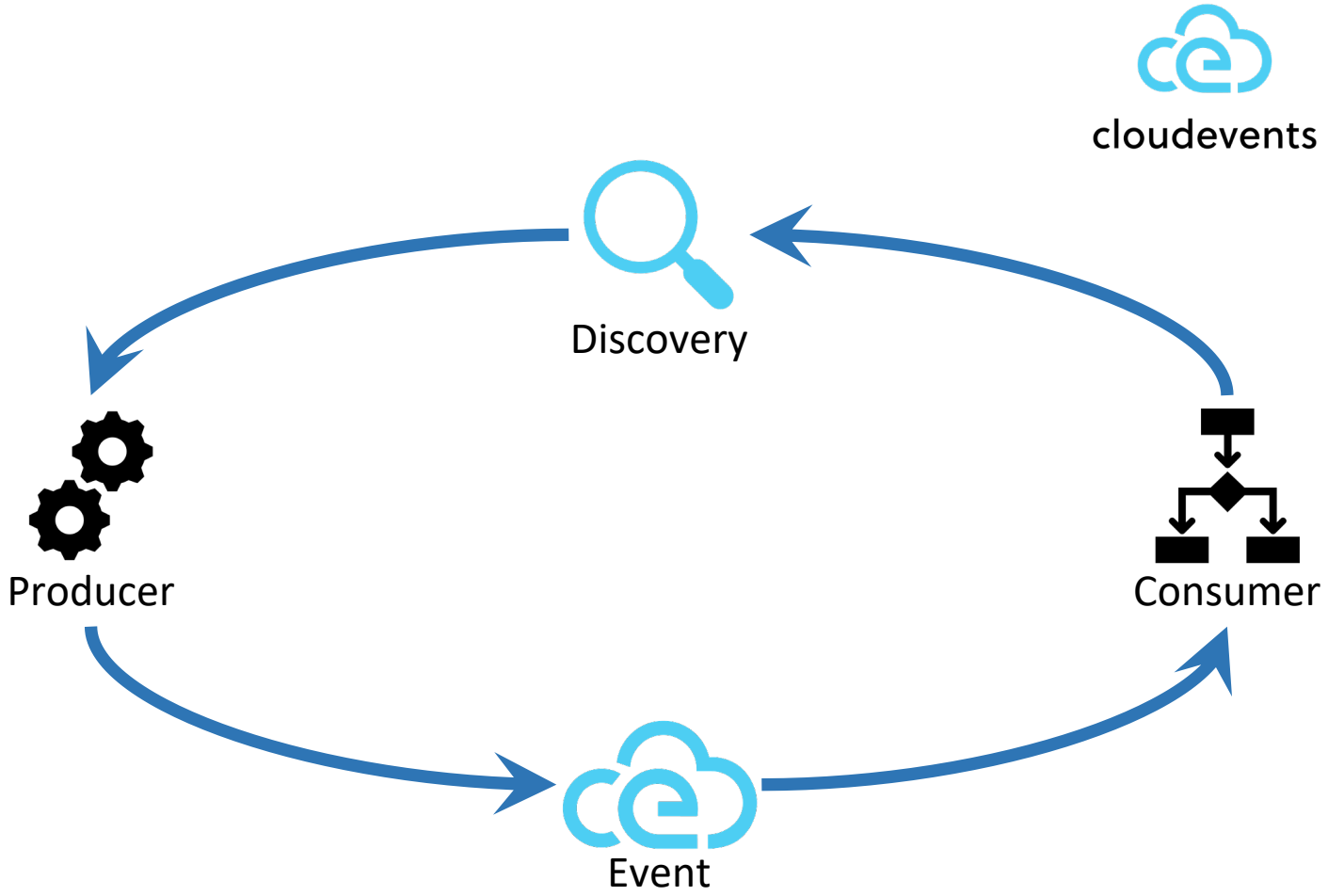


What's Next?

Delivery of CloudEvents is the last step

Discovery API Spec

- Who produces the events of interest?
- Which events are produced?
- What subscription options are available?
- How to subscribe?



What's Next?

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Discovery API Spec

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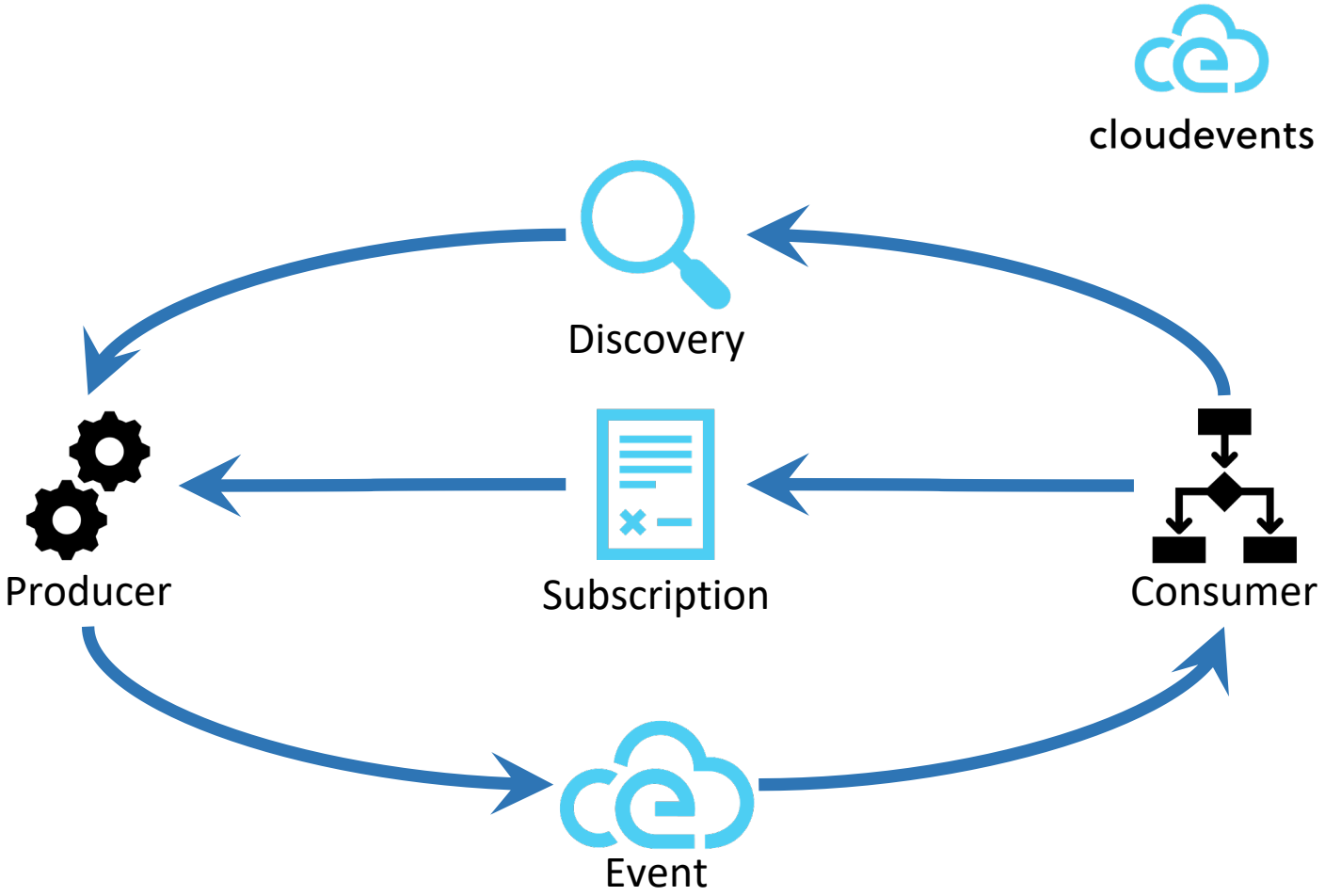
Subscription API Spec

- Which events to deliver?
- How/where to deliver the events?
- Format of the messages?
- How to manage the subscription?



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Subscription API Spec

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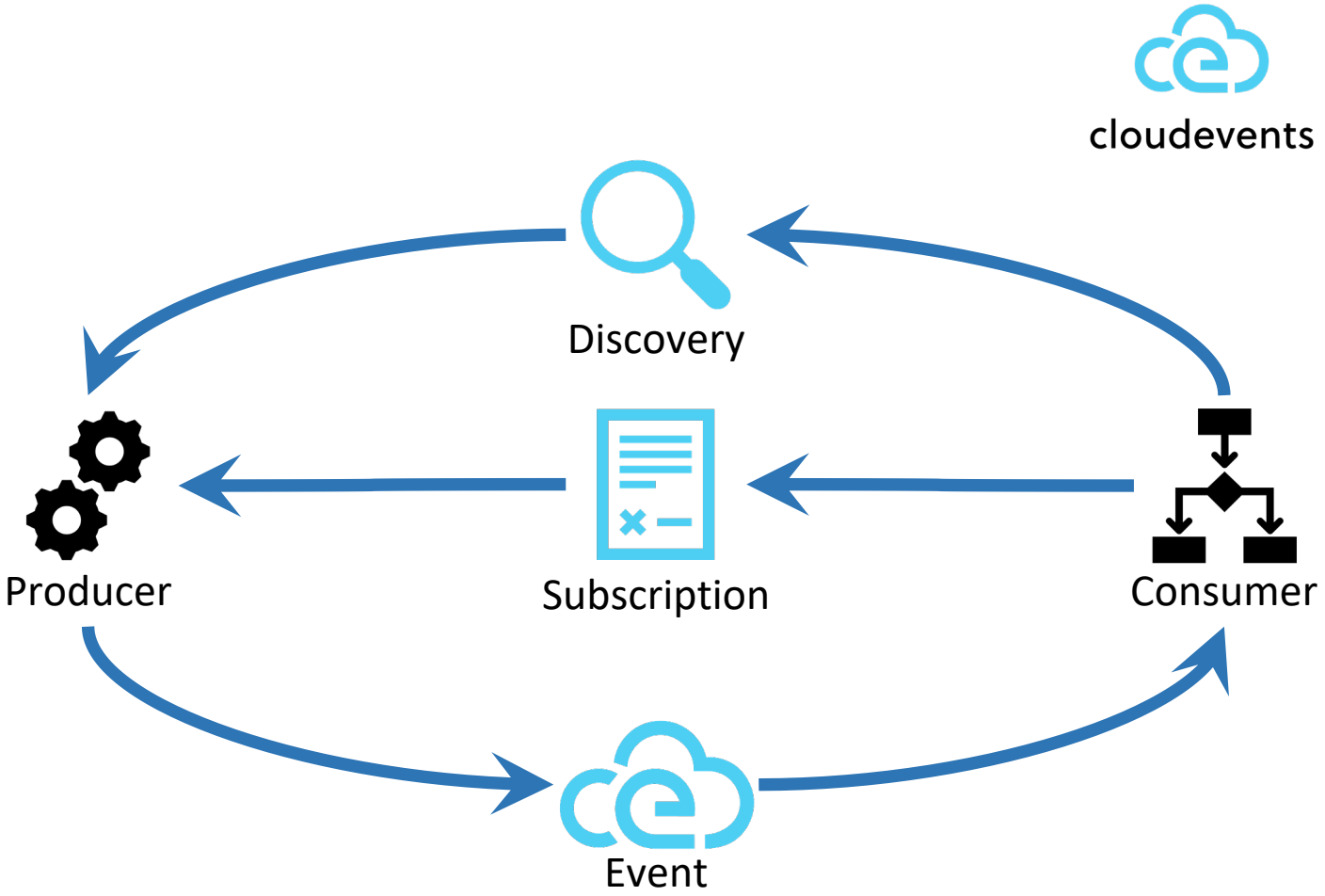
Delivery - CloudEvents Spec

- Push vs Pull
- Transport
- Format



Agenda

- Serverless WG & CloudEvents Update
- **Workflow Specification Intro & Update**

Serverless Workflow

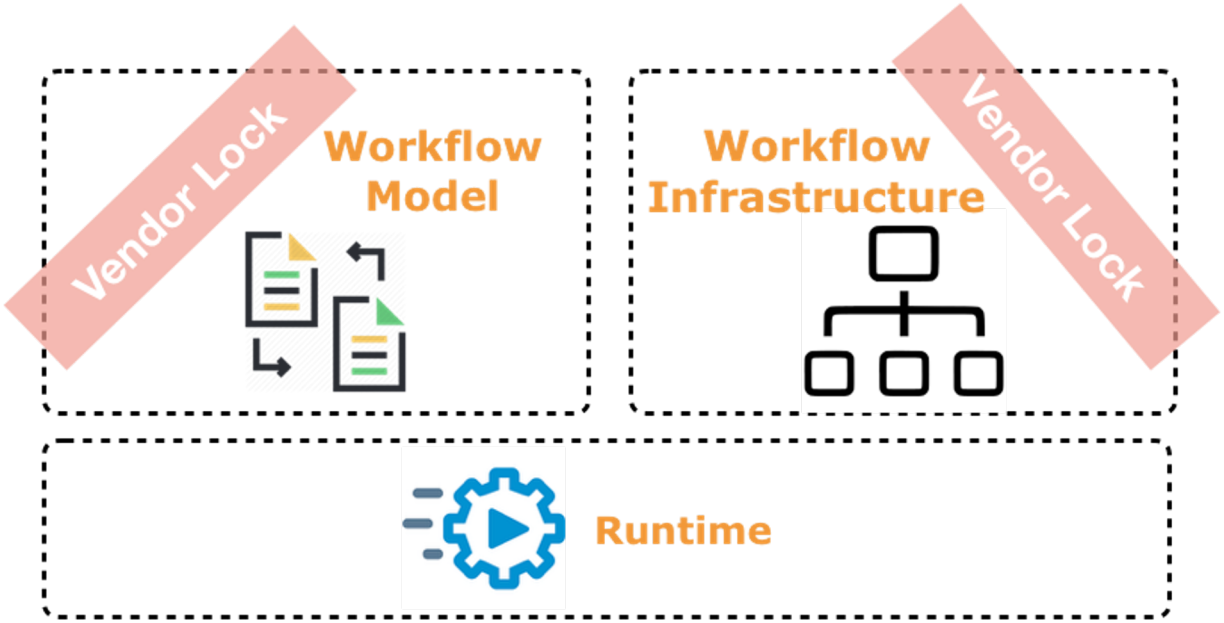
- **Specification** for defining **declarative workflow models** that orchestrate **event-driven**, **serverless** applications.

- CNCF Cloud Native Sandbox level project

Serverless Workflow

- Why a **workflow spec** is needed (1)

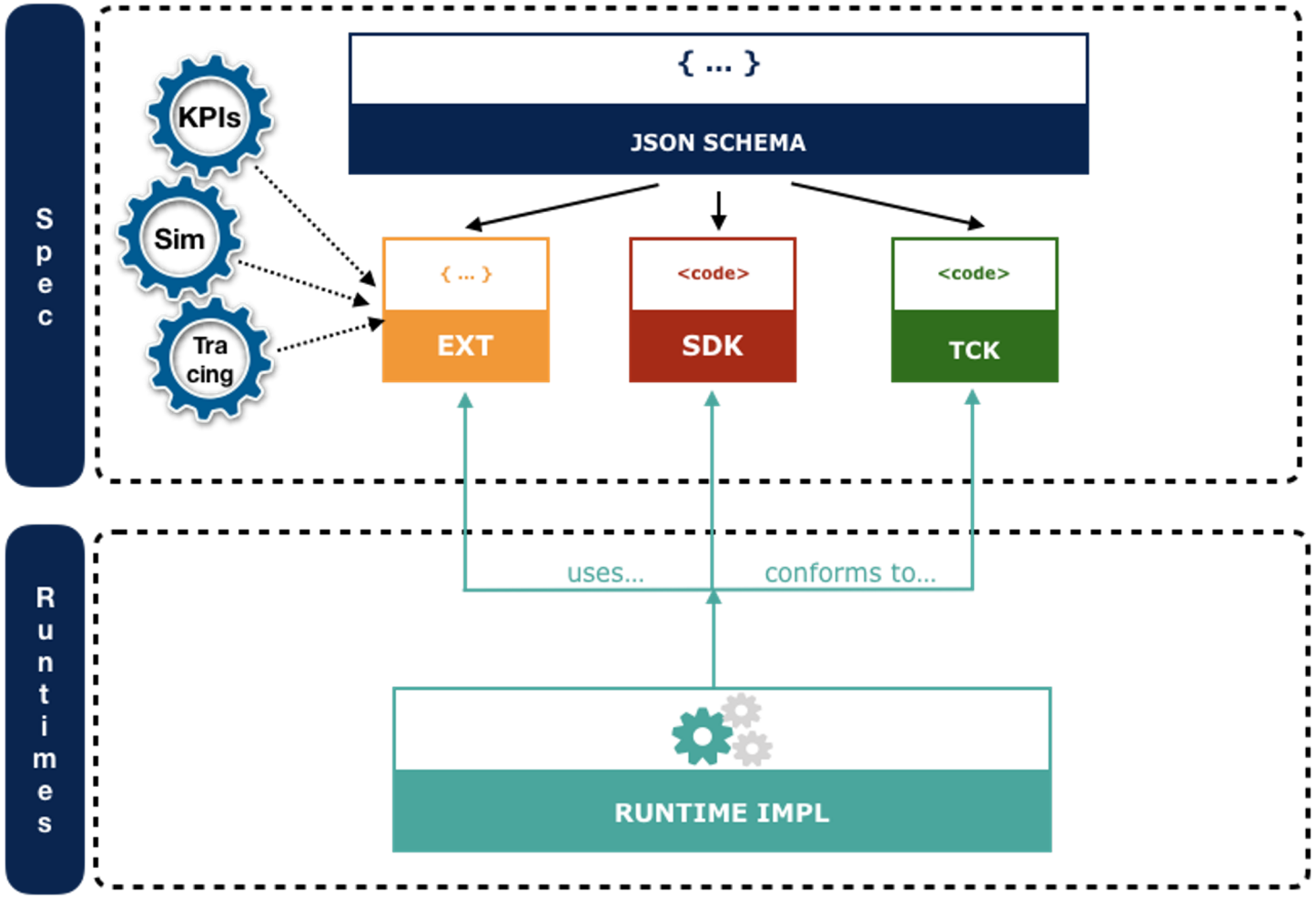
- Why a **workflow spec** is needed (2)



We need a portable and vendor-neutral workflow specification!

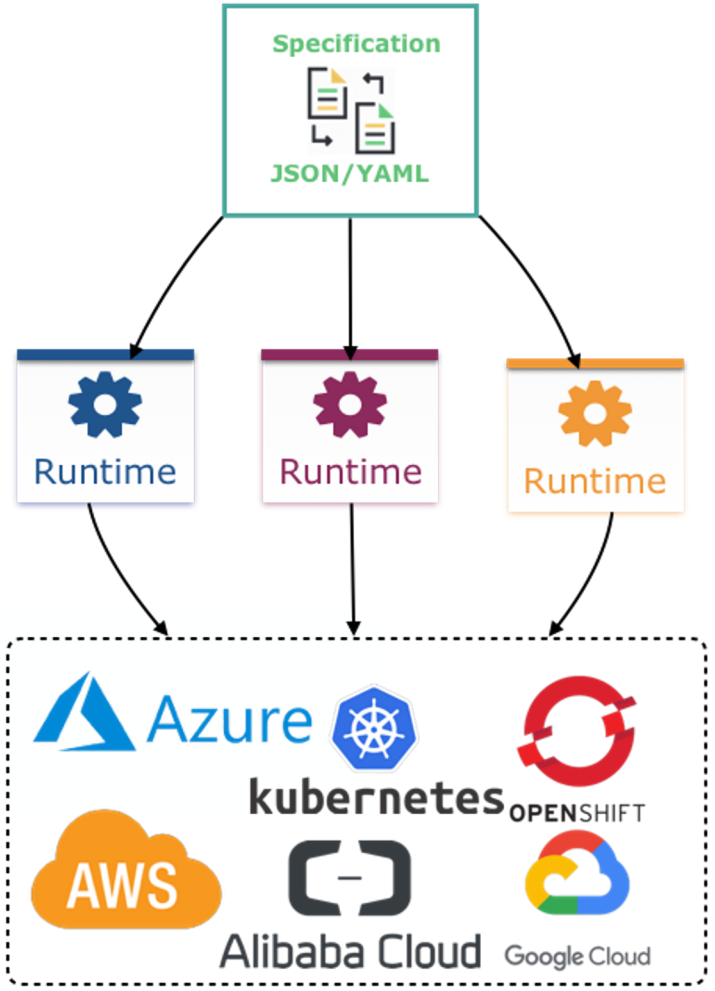
Serverless Workflow

- Specification **Overview**

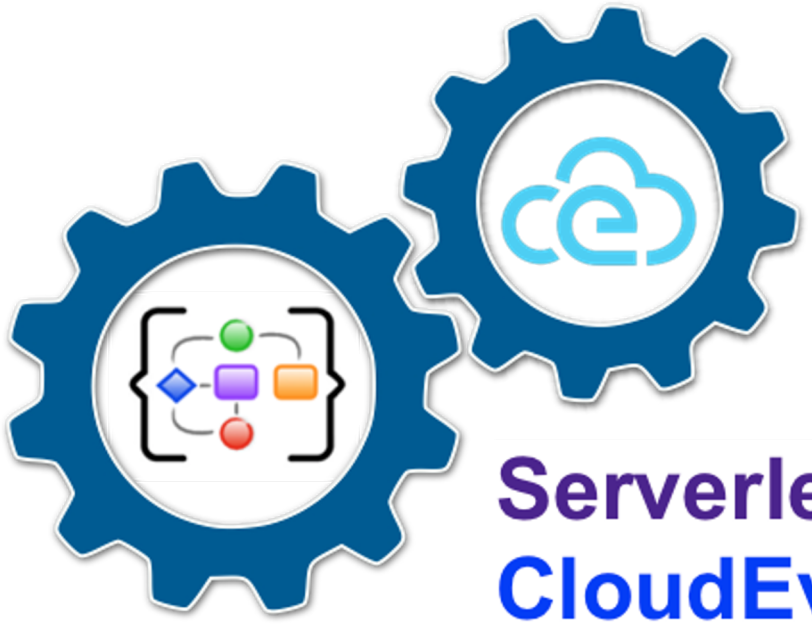


Serverless Workflow

- Specification **Goals**



Serverless Workflow + CE



Serverless Workflow uses **CloudEvents** for:

- All event definitions (produced / consumed)
- Workflow exec event triggers
- Function/Services exec triggers / results
- Event-based decisions
- Event correlation

Serverless Workflow - Status

Status & Deliverables

- **Serverless Workflow specification v0.2**
- SDKs (Go, Java)
- Extensions (KPIs)

What's next?

- Model improvements
- Simulation and Tracing Extensions

Serverless Workflow

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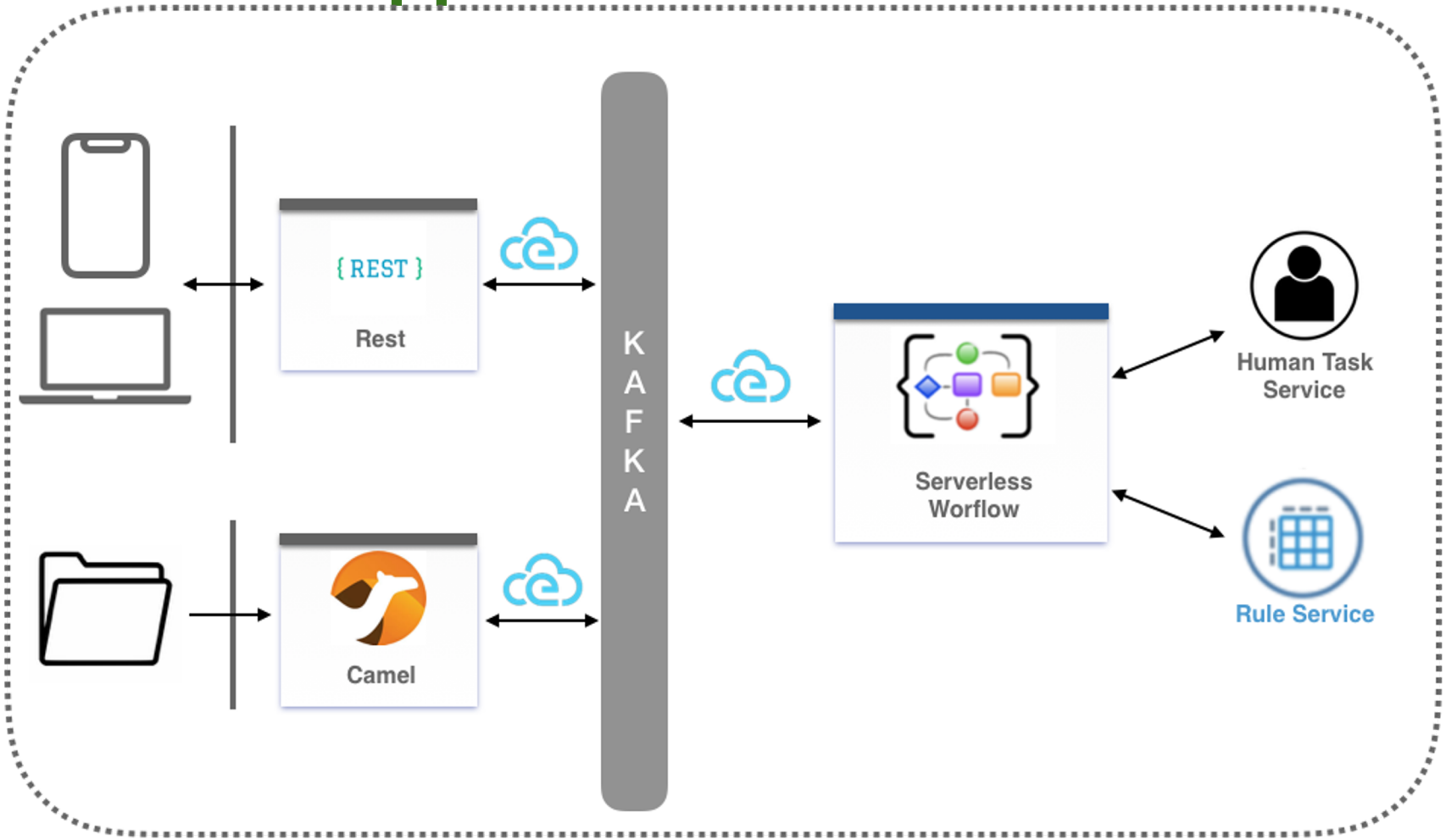
- Demo - **Orders Approval**



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Q&A - Thank You!

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More information

- CloudEvents: https://cloudevents.io
  - Specifications repo: https://github.com/cloudevents/spec
  - Weekly calls - Thursdays at 12pm ET (see repo for dial-in info and slack coordinates)

- Serverless Workflow: https://serverlessworkflow.io
  - Specifications repo: https://github.com/serverlessworkflow/specification
  - Biweekly meetings, every second Monday at 1PM ET (see repo for dial-in info and slack coordinates)

Need more?

- Tihomir Surdilovic - tsurdilo at redhat.com
- Doug Davis - dug at us.ibm.com

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