

# Adopting CDEvents and Embracing Interoperability

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Session: [sched.co/1aBN2](https://sched.co/1aBN2)



# Andrea Frittoli

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- › Open Source Advocate @ IBM
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- › Chair of CDF Technical Oversight Committee Governing Board





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CDEvents

What's New

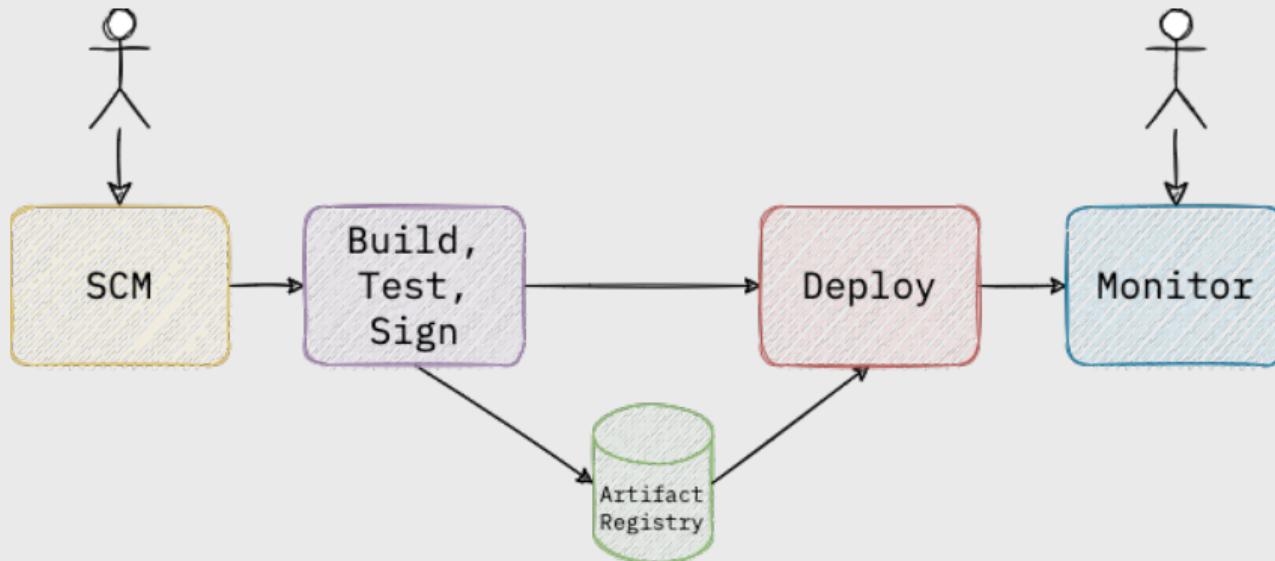
Tools Adoption

Roadmap

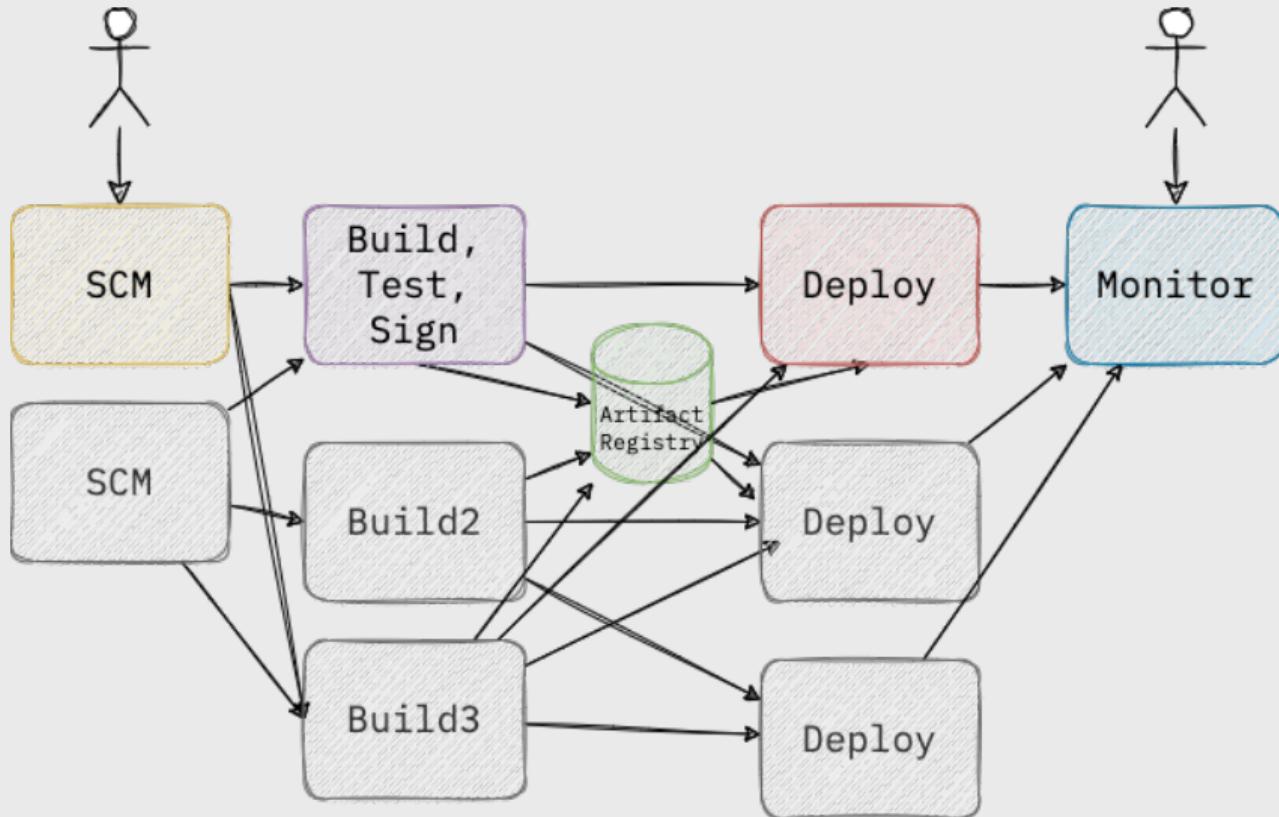
Thank You



# Continuous Delivery Pipeline



# Integrations



## Orchestration



## Choreography

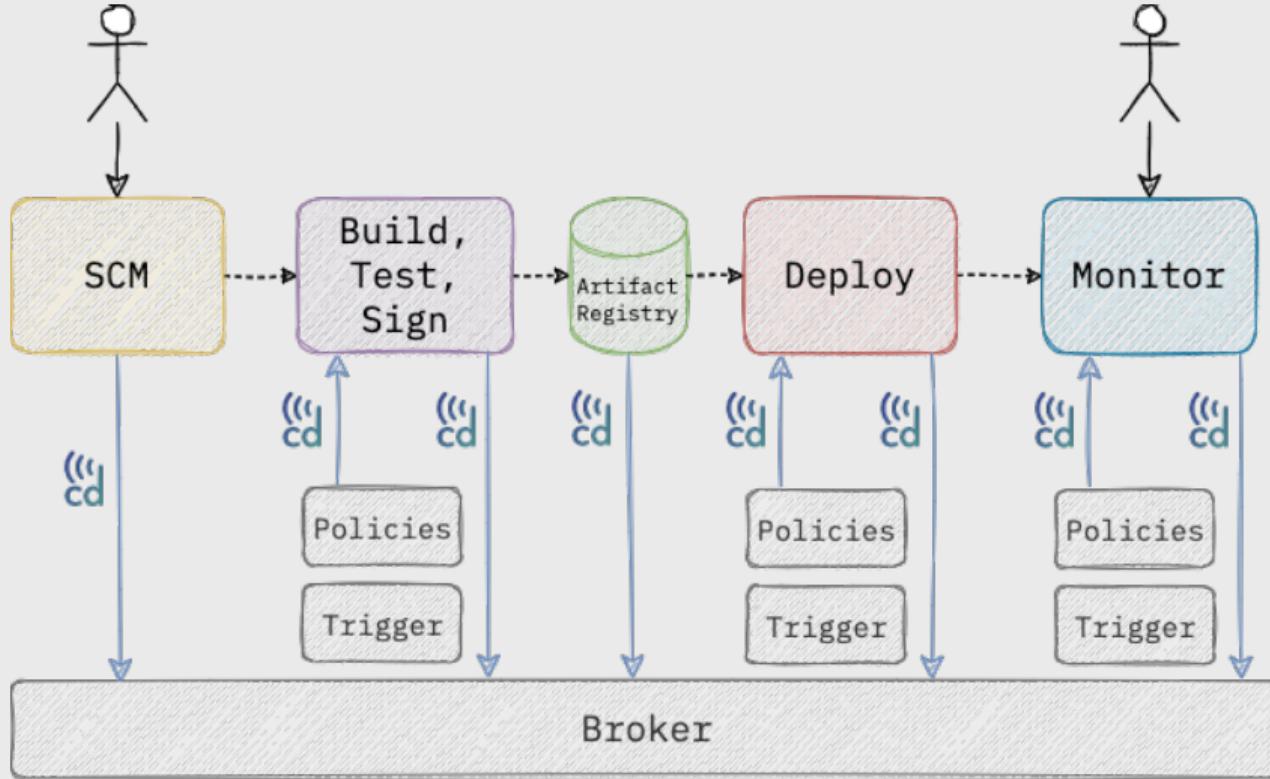




A common specification  
for Continuous Delivery  
events



# Interoperability

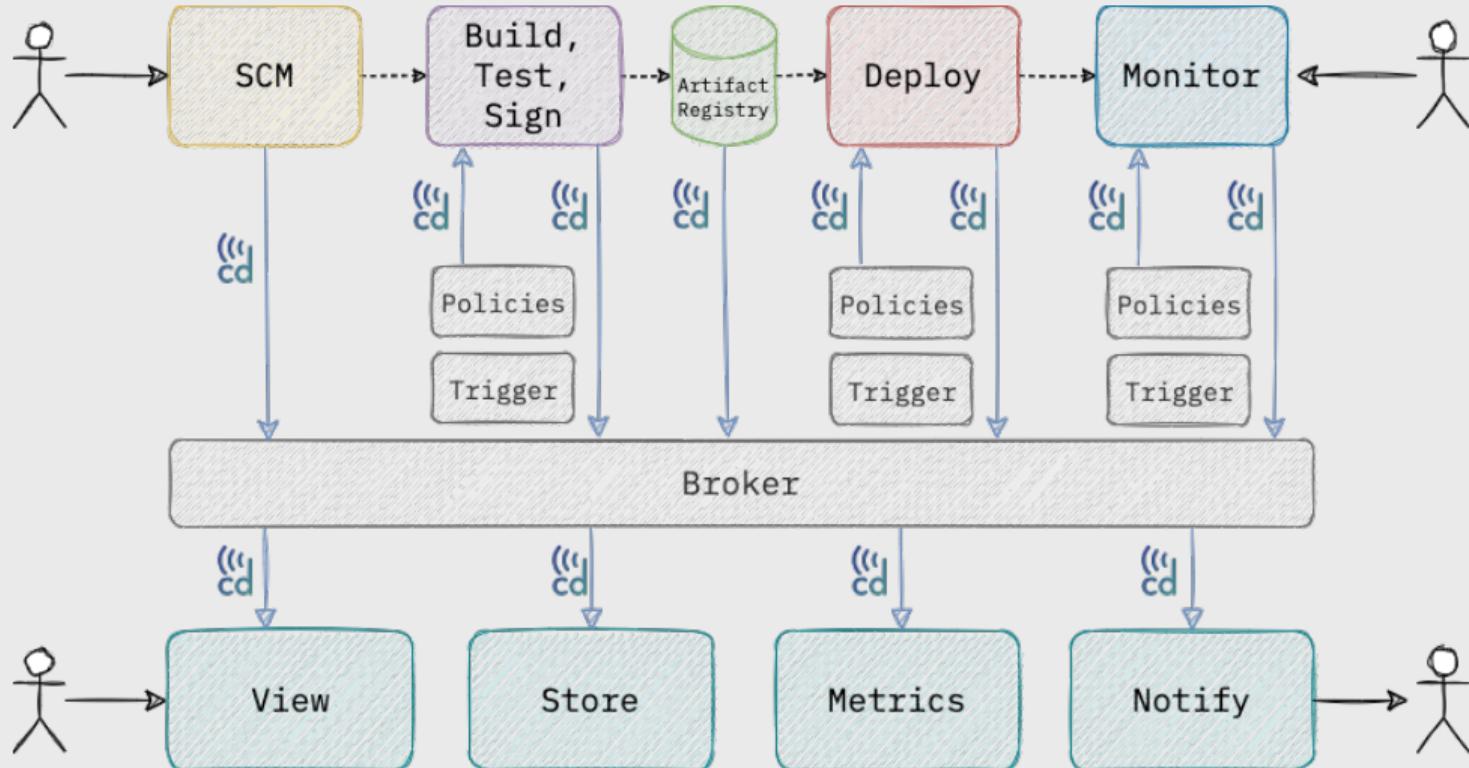


# Observability

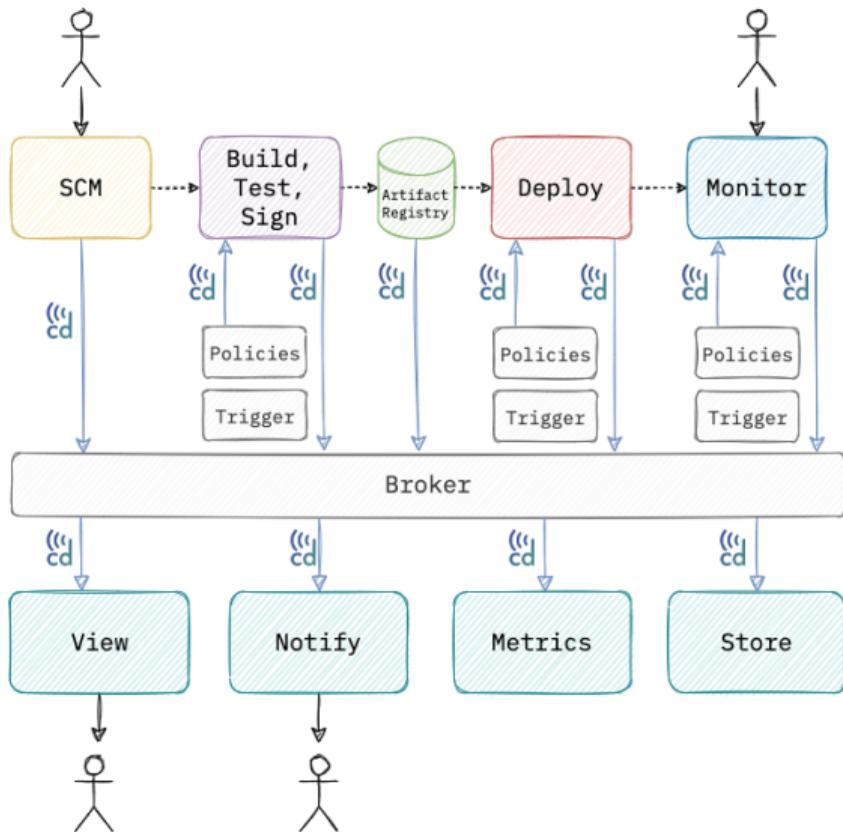
- › What's running right now?
- › What steps were executed?
- › Where did things go wrong?
- › How long did it take?



# Interoperability & Observability



# Why CDEvents



- Event driven workflows
  - Scalable, Decoupled
  - Flexible
  - Policy Driven
- Observability
  - Metrics
  - Notifications
  - Single View

**Interoperability!**



# History of CDEvents

- › Interoperability and Events Special Interest Groups
- › First Commit Oct 2021
- › Incubated at the CDF since 2022
  
- › Release v0.1 announced at the CDSummit in Detroit
  - Orchestration
  - Software Configuration Management
  - Continuous Integration & Deployment
  - CloudEvents Binding
  - Golang SDK
  - DevOps Metrics



# What's New



Photo by [Josh Sorenson](#), CCO



# ((c)) cdevents 0.3

## Incident Events:

- › Continuous Operations
- › Modeled after DORA
- › Remediation Automation

## Test Events:

- › Notifications
- › Test Driven Automation
- › Metrics

## Software Supply Chain Security

- › Artifact Signed event
- › Build & Deployment Automation

## Quality of life improvements

- › Improved readability
- › Examples for each event
- › Refreshed web site



# SDKs

## Features:

- JSONSchema Validation
- SDK Generated from schemas (Golang)
- Improved testing

## Releases:

- Golang SDK v0.3 released
- Java SDK v0.1 (draft) available on maven central
- Python SDK v0.1 soon to be on PyPi





# Tools Adoption

Photo by Clay Banks, CC0



# Overview

## Available:

- Jenkins (plugin published)
- Tekton (experimental)

## CNCF Projects:

- Argo
- Flux
- Harbour

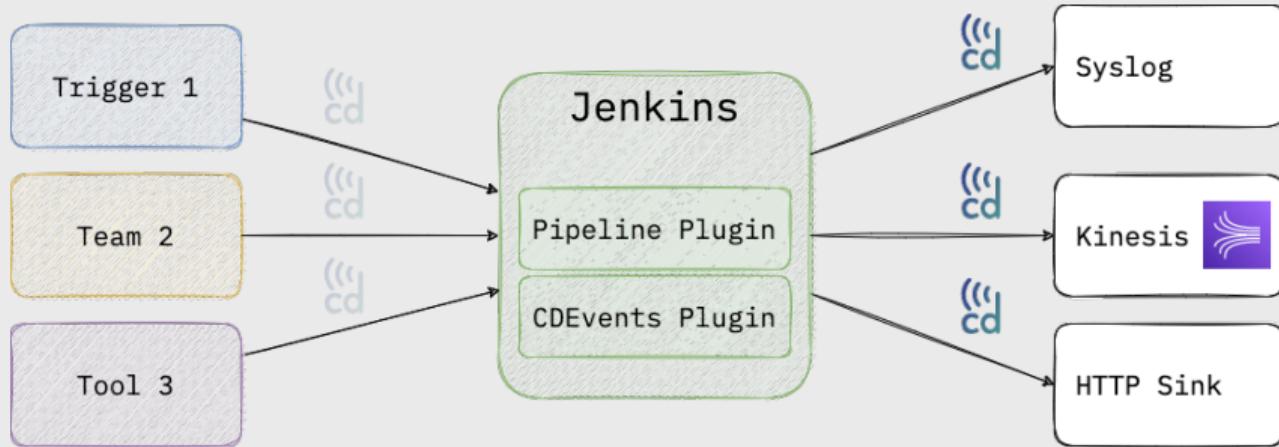
## Work in Progress:

- Spinnaker (RFC approved)
- Testkube

## Other Projects:

- Tracetest
- JReleaser
- Shipwright
- Jenkins-X





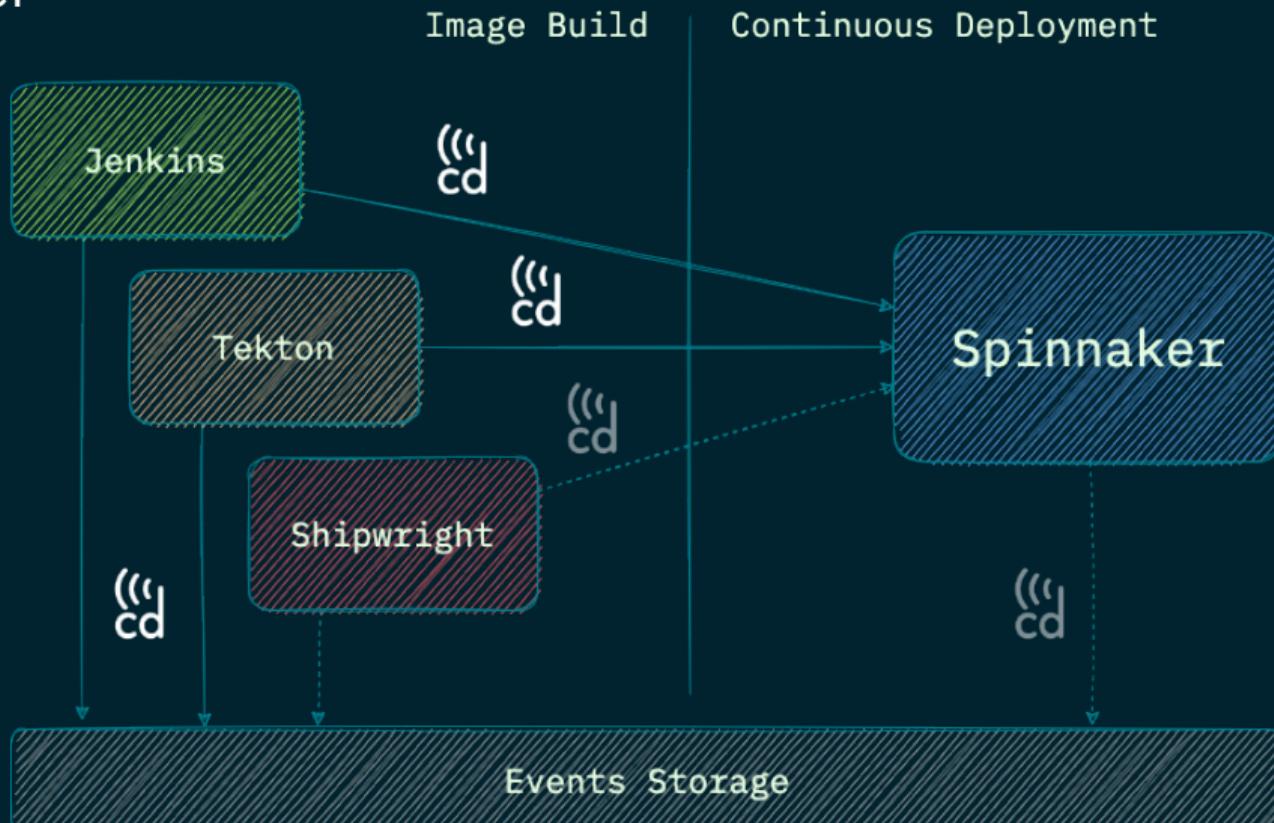
## Next Steps

Support CDEvents as triggers as well.

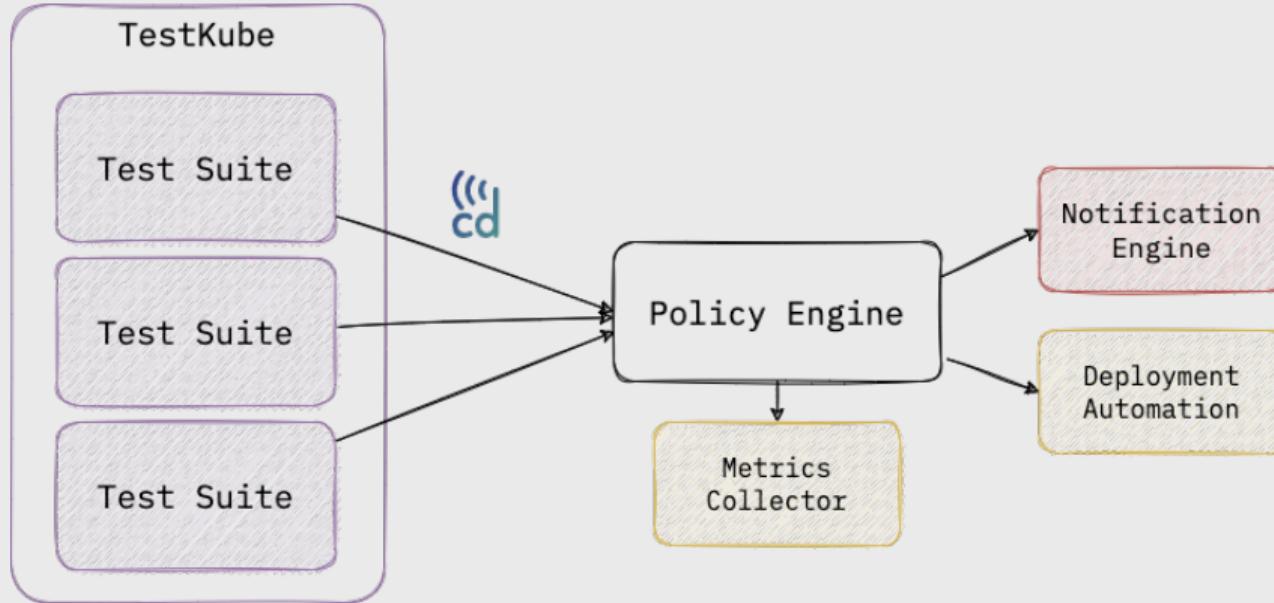
## CDEvents Core Events

**PipelineRun** Queued, Started, Finished  
**TaskRun** Started, Finished

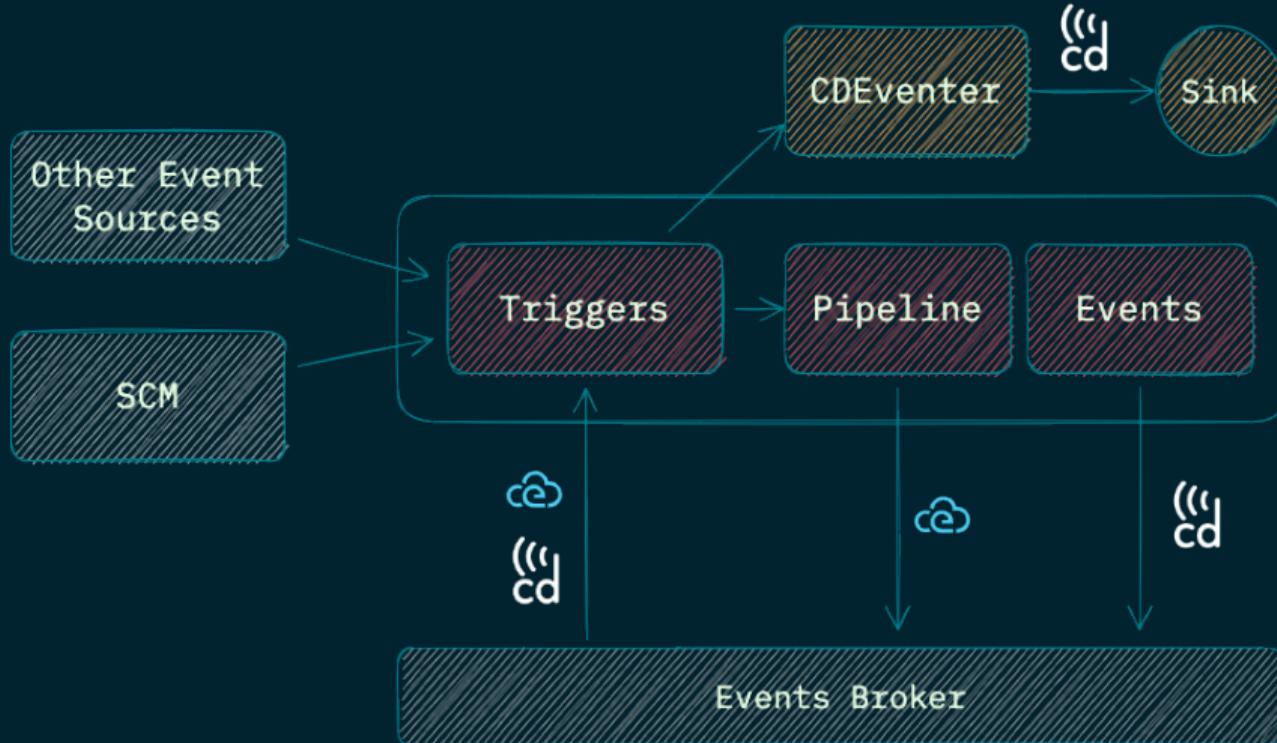
# Spinnaker



# Testkube



# Tekton



# Lessons Learnt

## Adoption:

- › Reference Architecture
- › Event Broker
- › Responding to events
- › Incremental adoption
- › Community

## SDKs:

- › Generate SDKs from schema
- › SDK documentation
- › SDK validation
- › JS, Rust

## Specification:

- › Examples events
- › Example implementations
- › Generate docs from schema

## Community:

- › CDF, Special Interest Groups
- › End Users use events today
- › Collaboration with tool communities
- › Collaboration with other foundations



# Roadmap



# CDEvents Roadmap

## v0.4 and beyond

### Supply Chain Security

- SBOM,
- Provenance
- Signed Events

### New features

- Links,
- Workflow IDs
- Compositions
- Releases

### Software & Architecture

- SDKs (JS, Rust)
- Adapters
- Proof of concept
- Broker, Policy

### Documentation:

- Reference Architecture
- Example events
- Example implementations





# Collaborations

- CDF, SIG Best Practices: Reference Architecture
- CNCF TAG App Delivery
- Value Stream Management Interoperability (VSMI) TC
- CDF, Workshop working group

# Community

## CDF

- SIG Interop
- SIG Supply Chain
- SIG Best Practices

## Tools communities

- Tekton
- Spinnaker
- Shipwright
- Jenkins
- Jenkins X
- Flux, Argo

## Companies

- Ericsson
- IBM / RedHat
- Apple
- VMWare
- Fidelity
- SAS

## Get Involved!!

- Specification
- SDKs (Rust, JS, Ruby, C#)
- Tools
- Proof-of-concepts
- End users



# Thank You!



# References

- › [cdevents.dev](https://cdevents.dev), [github.com/cdevents](https://github.com/cdevents)
- › [github.com/cdevents/spec/blob/main/CDEvents\\_Whitepaper.pdf](https://github.com/cdevents/spec/blob/main/CDEvents_Whitepaper.pdf)
- › [github.com/jenkinsci/cdevents-plugin](https://github.com/jenkinsci/cdevents-plugin)
- › [github.com/spinnaker/governance/blob/master/rfc/cdevents-spinnaker.md](https://github.com/spinnaker/governance/blob/master/rfc/cdevents-spinnaker.md)
- › [github.com/afrittoli/cdeventer](https://github.com/afrittoli/cdeventer)
- › [github.com/cncf/tag-app-delivery](https://github.com/cncf/tag-app-delivery)
- › VSMI TC @ [www.oasis-open.org/committees](http://www.oasis-open.org/committees)

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