Developing a CD pipeline with Knative

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Andrea Frittoli
Developer Advocate
andrea.frittoli@uk.ibm.com
@blackchip76

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DevOps Meetup Singapore

IBM **Cloud**

A Bit of History

Knative

- Beginning of 2018...
- Knative:
  - Build
  - Eventing
  - Serving

- Contributors:
  - Google
  - Pivotal
  - IBM
  - RedHat
  - Cloudbees
  - ...and others

Latest news!

- Focus on CI/CD
- Deploy "anywhere"
- Compatible with Knative Build

- *tektoncd/pipeline*
  - New logo
  - @CD Foundation
  - Roadmap WIP
  - Alpha APIs

Community

- *Valid for Knative. Tekton TBD.*
- Steering Commitee (SC)
- Technical Oversight Commitee (TOC)
- Various Contribution profiles
- Design, issues: on GitHub
- Communication:
    - Weekly video meetings, recorded, Build WG
    - Asynch: Knative Users / Developers ML
    - Sync: slack.knative.dev
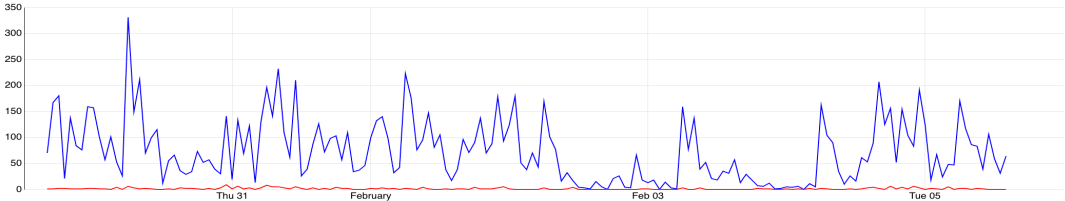
Tekton Pipelines

Cloud Native Pipelines

OpenStack Health is a dashboard for visualizing test results of OpenStack CI jobs.

Total Jobs

Search for project with regex

Job Failure Rate

Search for project with regex

Inputs, Outputs & DAG

Under the Hood

Custom Resources

Pods, Entrypoints & Volumes

Source to Image to Deploy

IBM Cloud

CD Pipeline as code

Using Kaniko

Cluster resource and secrets

Tekton and Knative

Pipelines and Knative Build

CI for OpenStack Health

CI with Tekton Pipelines

Asynchronous Pipelines

Triggering and Knative Eventing

Tekton and Development

Conclusions

Shall I use Tekton Pipelines?

Roadmap

References

Q&A