Scaling Pipelines with Tekton

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Introduction

What is Tekton

– A brief into to Tekton

A bit of history

- Knative, Tekton and the CDF

Authoring

Steps, Tasks and Teams

- – units of reuse
- – Steps for small scripts of OTS images
- – we don't want large shell scripts embedded in YAML
- – Tasks == pods, cheap I/O
- – Tasks do one thing well, stable interface
- – Tasks are re-usable, produced by "experts"

Catalog and Hub

- – Sharing Tasks and discovery
- – Hub and API
- – Tekton Bundles

The Pipeline

- – Ever growing pipeline
- – Multiple teams add to it

Running

Pipelines & Triggers

- Intro to triggers
- Running pipelines through triggers

Events

- – Receiving and sending events
- – Further spread responsibility, break the pipeline
- – Interop and event SIG

Bottlenecks

Growing pipelines

– Large pipelines
– Story about DAG issue

Under pressure

- – Many pipelines in parallel / bursts
- – Informers, LeaderElection
- – Large execution history

Data

- – Unit of re-use and data
- – Tasks vs pipelines
- – pod overhead
- – data across nodes

Thank You!
Questions?

References

References:

    Slides: github.com/afrittoli/scaling_pipelines_with_tekton

    Tekton: tekton.dev

    Tekton on GitHub: github.com/tektoncd