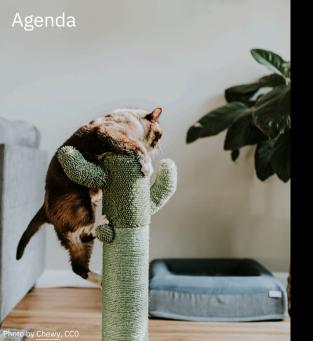# Scaling Pipelines with Tekton

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Scaling Continuous Delivery (Virtual)

Agenda

Introduction

Authoring

Running

Bottlenecks

Q&A

Introduction

What is Tekton

– A brief into to Tekton

A bit of history

– Knative, Tekton and the CDF

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?

Brecon Beacons, Walse, Photo by Carl Jorgensen, CC0

References

Slides: github.com/afrittoli/scaling_pipelines_with_tekton
Tekton: tekton.dev
Tekton on GitHub: github.com/tektoncd