



Modern CI/CD with Tekton and Prow automated with Jenkins X

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@jdrawlings

Jenkins



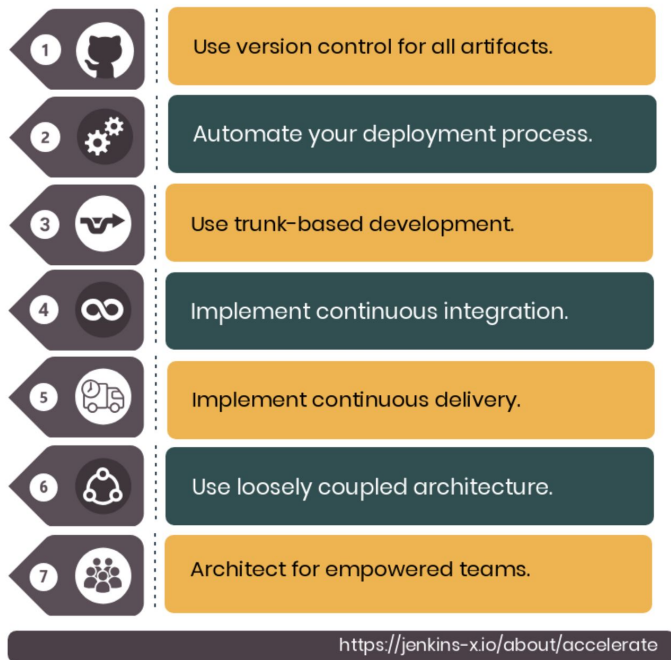
- History
 - Jenkins Server created in the form of Hudson in 2004
 - Almost 200,000 Jenkins Servers running *
 - 15,000,000 Jenkins users
- Present day challenges
 - Single Point of Failure
 - Large JVM requiring lots of memory and always running even if no builds required
 - Scaling jobs leads to issues as Pipelines are executed on the Jenkins Server



* Source <https://stats.jenkins.io>

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Jenkins X

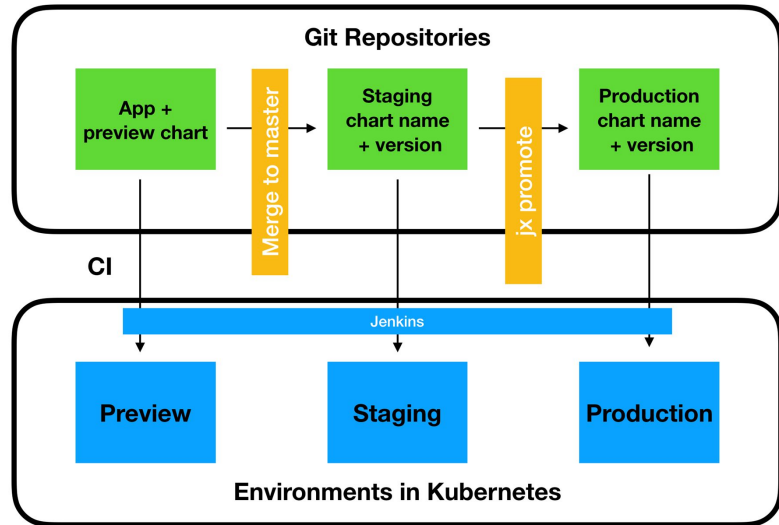


- Developer experience for Kubernetes
- Build traditional and modern cloud native workloads
- Create new or import existing applications onto Kubernetes
- Automated CI/CD
- Where possible use capabilities recommended from Accelerate
- ...



Jenkins X

- ...
- Environments
- GitOps for environment promotion
- New extensibility model based on modern architectures
- Pluggable pipeline execution engines

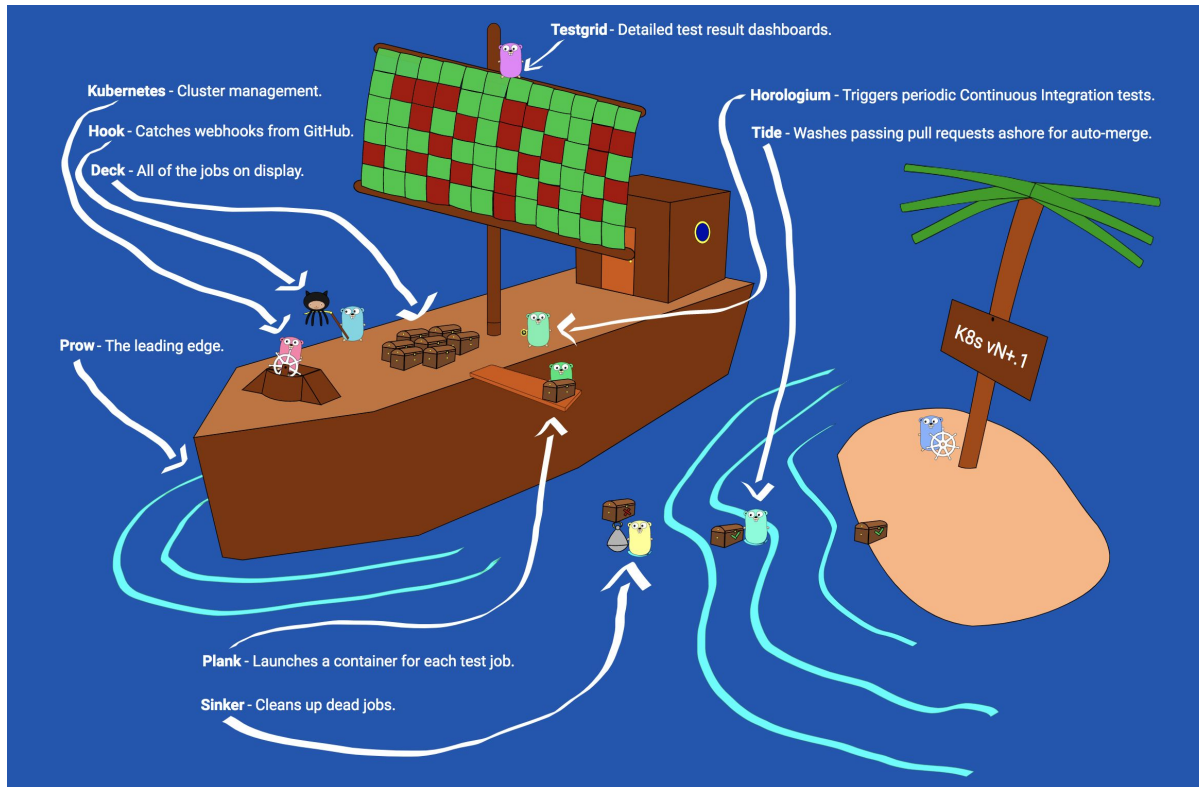


Tekton

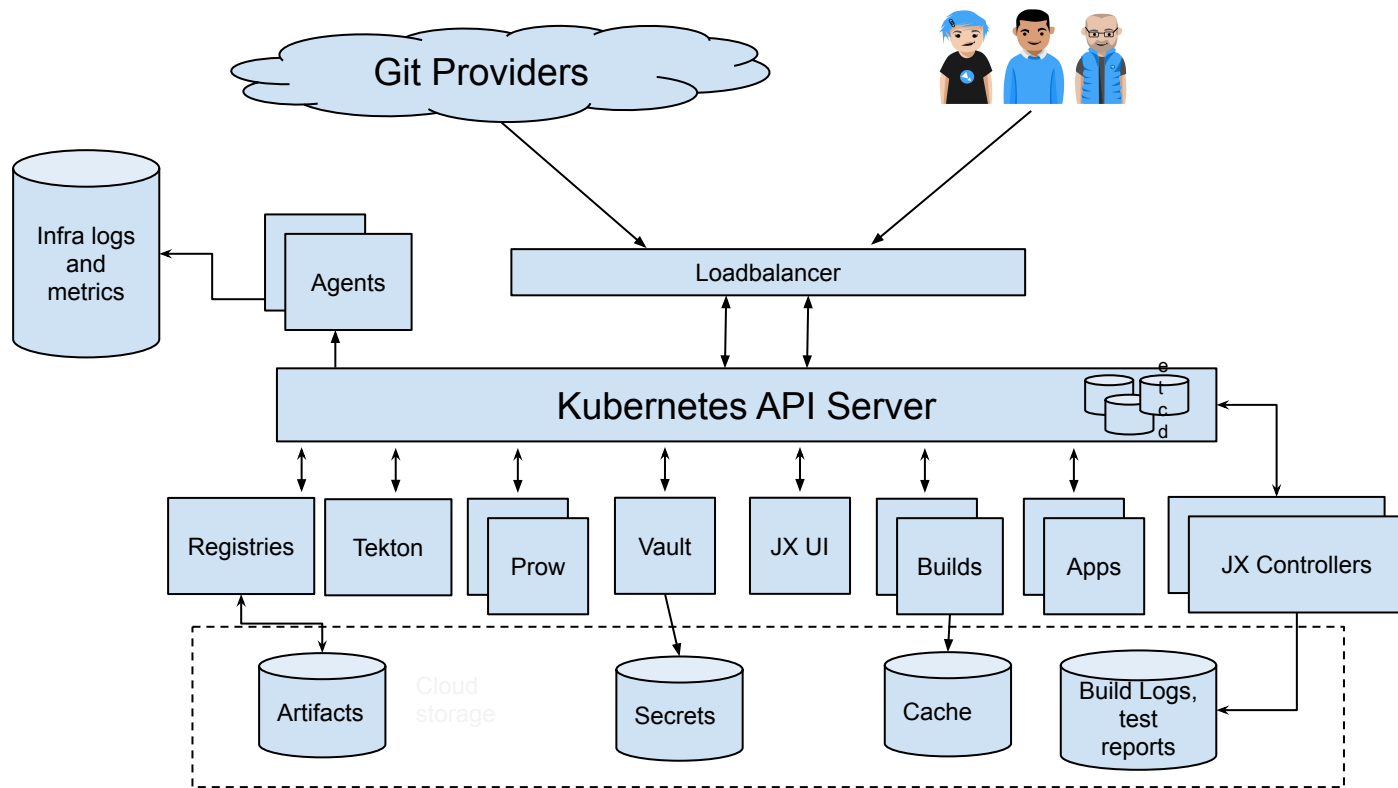
- Portability: a CI/CD shared API spec
- Custom Resource Definitions:
 - Extending kubernetes with custom types
 - Controllers act on Resources
- Declarative API
- Decoupled:
 - Run a Pipeline with your own resources
 - Run pieces of a Pipeline (Tasks) on their own
- Containers run as Steps in a Task orchestrated by a Pipeline
- No JVM



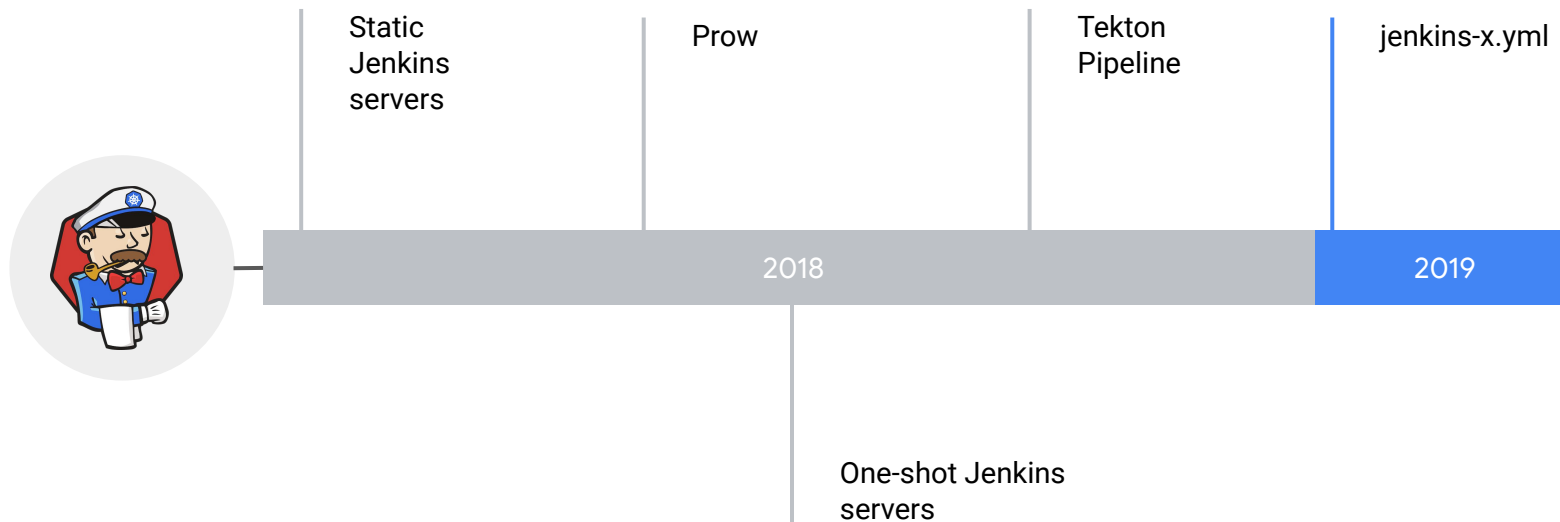
prow



High level Architecture



The Jenkins X Story



Demo



Continuous Delivery Foundation

Launched by CloudBees
and the Linux Foundation
on March 13, 2019



CD.FOUNDATION

Goal of the CDF

To serve as the vendor-neutral home of many of the fastest-growing projects for continuous delivery, including Jenkins and Jenkins X.

The CDF fosters collaboration between the industry's top developers, end users and vendors.

Initial Projects:



<https://cd.foundation/projects>

Try it out and get involved!

- Continuous Delivery Foundation:
 - <https://cd.foundation>
- Jenkins X:
 - Quickstart: jenkins-x.io/getting-started/next-gen-pipeline/
 - Contribute: jenkins-x.io/contribute/
- Tekton:
 - Get involved, propose projects: github.com/tektoncd/community
- Tekton Pipelines:
 - Quickstart: github.com/tektoncd/pipeline/blob/master/docs/tutorial.md
 - Contributing guide: github.com/tektoncd/pipeline/blob/master/CONTRIBUTING.md



Thank you

