# TektonCD at eBay

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# Tess.io: Kubernetes at eBay

tess.IO

# Tess.io: Kubernetes is the Platform for eBay's Next Gen Cloud

- Tess.io is the internal project name for eBay's core cloud platform and offers managed Kubernetes to the end users

- Built using great OSS software stacks such as Kubernetes, containerd, Golang, Promethues and many others

- 85+ clusters; 50,000+ servers

- Leverages standard K8s API servers with no changes to the API signatures

- Runs a variety of workloads including stateful (databases), stateless, infra services

- Hierarchical federation with multi-cluster operators

- VM/Kata support and running Tess on top of Tess.

- SDN (ovn) support, storage, etc

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# ECD: Enterprise Continuous Delivery

- A revamp of an internal project started in 2014

- A pure orchestrator allowing users to create pipelines with "phases" that call Jenkins jobs, internal app deployment infra, and/or other services

- A survey of existing OSS tools showed tools not mature enough or difficult to adopt to existing eBay ALM

- 2016: CD team formed and took on the task of re-writing ECD and creating MyStage for automated Feature Pools

- 2017: ECD and MyStage become fully supported and monitored products with CD Team providing workshops to onboard many teams at eBay

- 2019: With the move to Tess.io (Kubernetes) search began to look for a K8s-native solution for CD orchestration… Enter TektonCD!

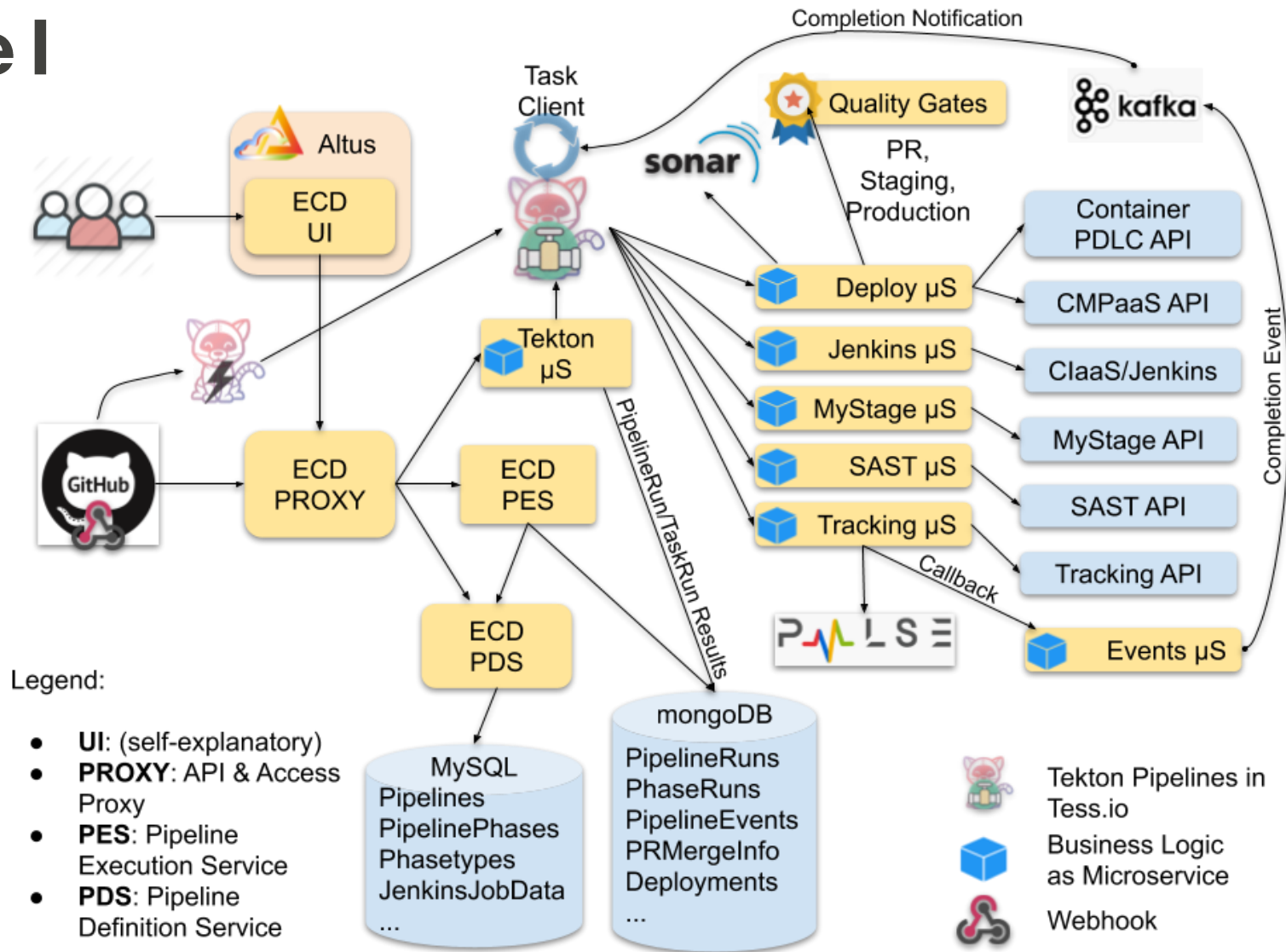# ECD: Existing Architecture
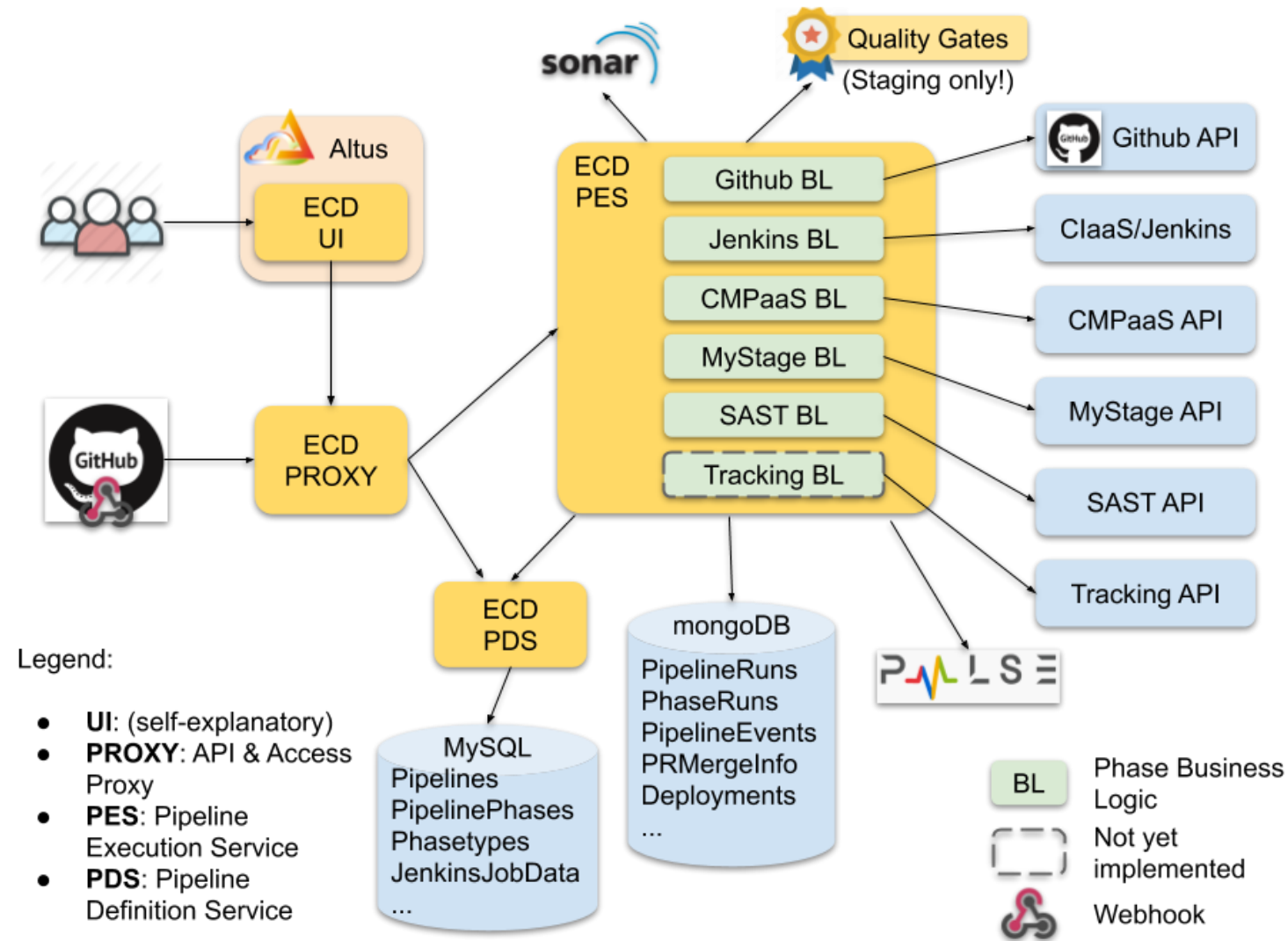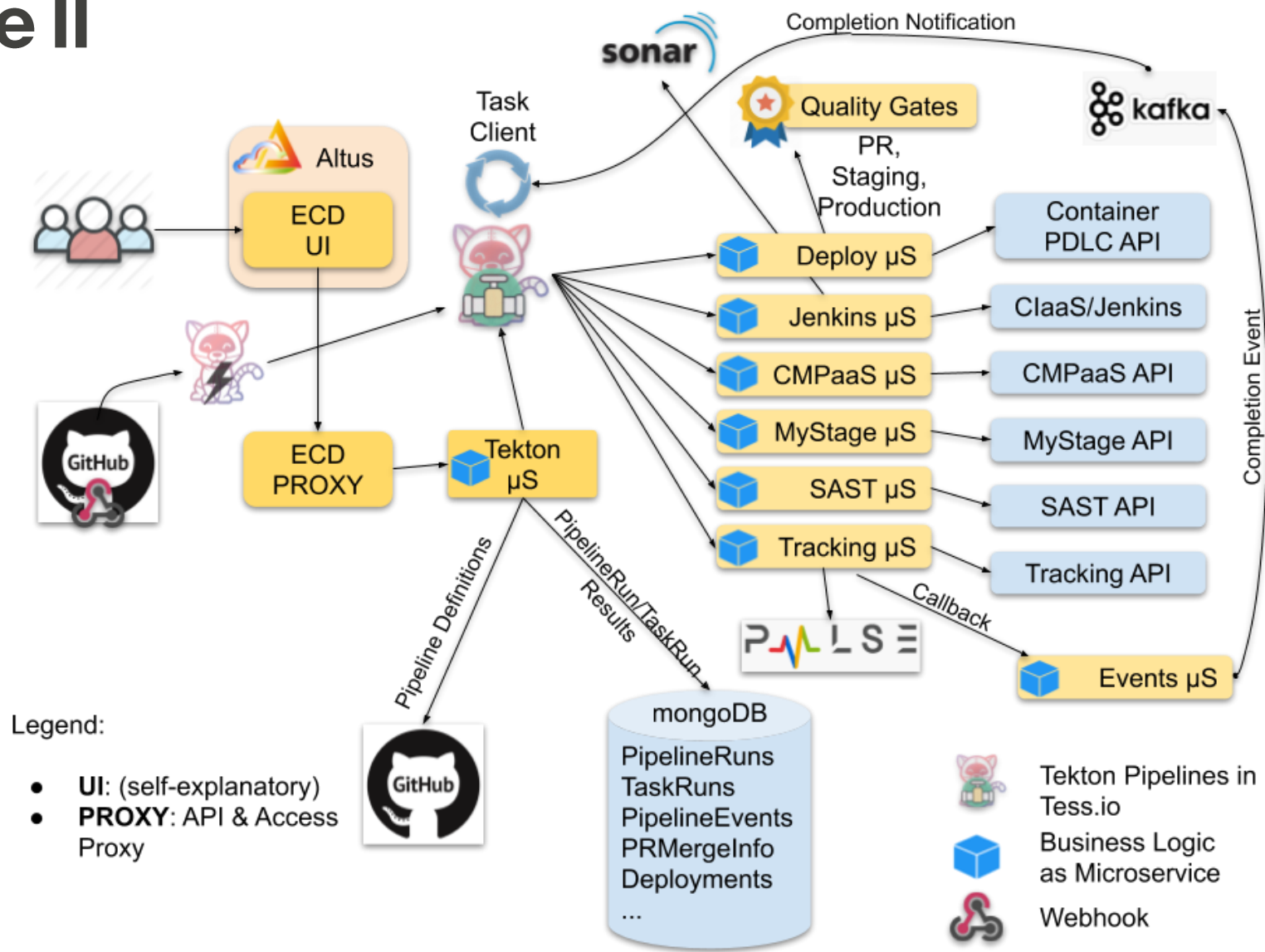
# Enter: TektonCD! ECD Orchestrated By Tekton Pipelines

# ECD: Future Architecture Phase I
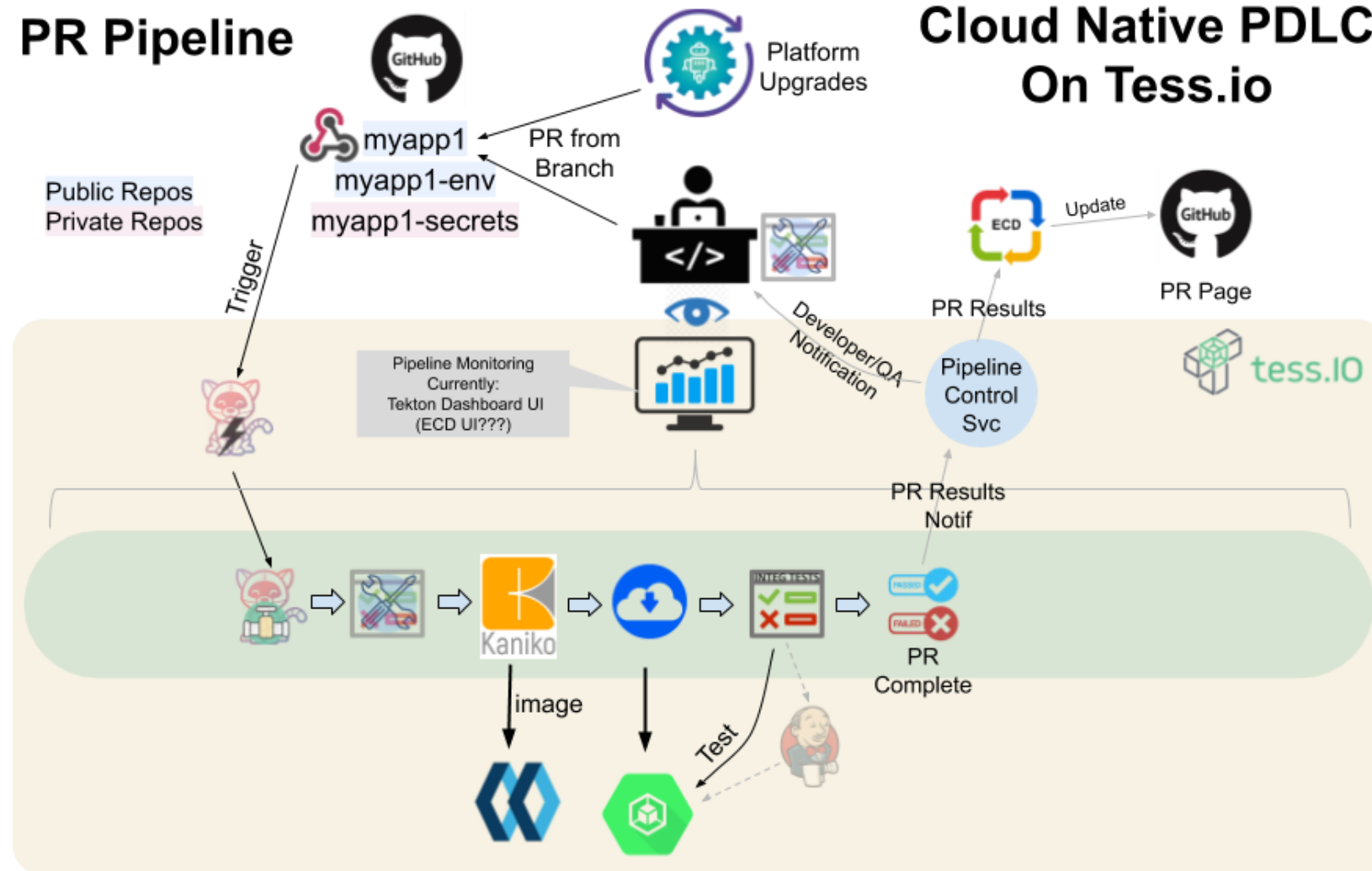
# ECD: Future Architecture Phase II

# PR Pipeline

# Cloud Native PDLC On Tess.io

Platform Upgrades

GitHub

myapp1
myapp1-env
myapp1-secrets

PR from Branch

Public Repos
Private Repos

Trigger

Developer/QA Notification

Update

GitHub

PR Page

PR Results

Pipeline Monitoring Currently:
Tekton Dashboard UI
(ECD UI???)

Pipeline Control Svc

tess.IO

PR Results Notif

image

Kaniko

Test

PR Complete

Icon Legend:

Build & Unit Test

Tekton Trigger

Tekton PR Pipeline

Container Image Build

Deployment Attempt

Integration Tests

ECR

DEV Preview Pod
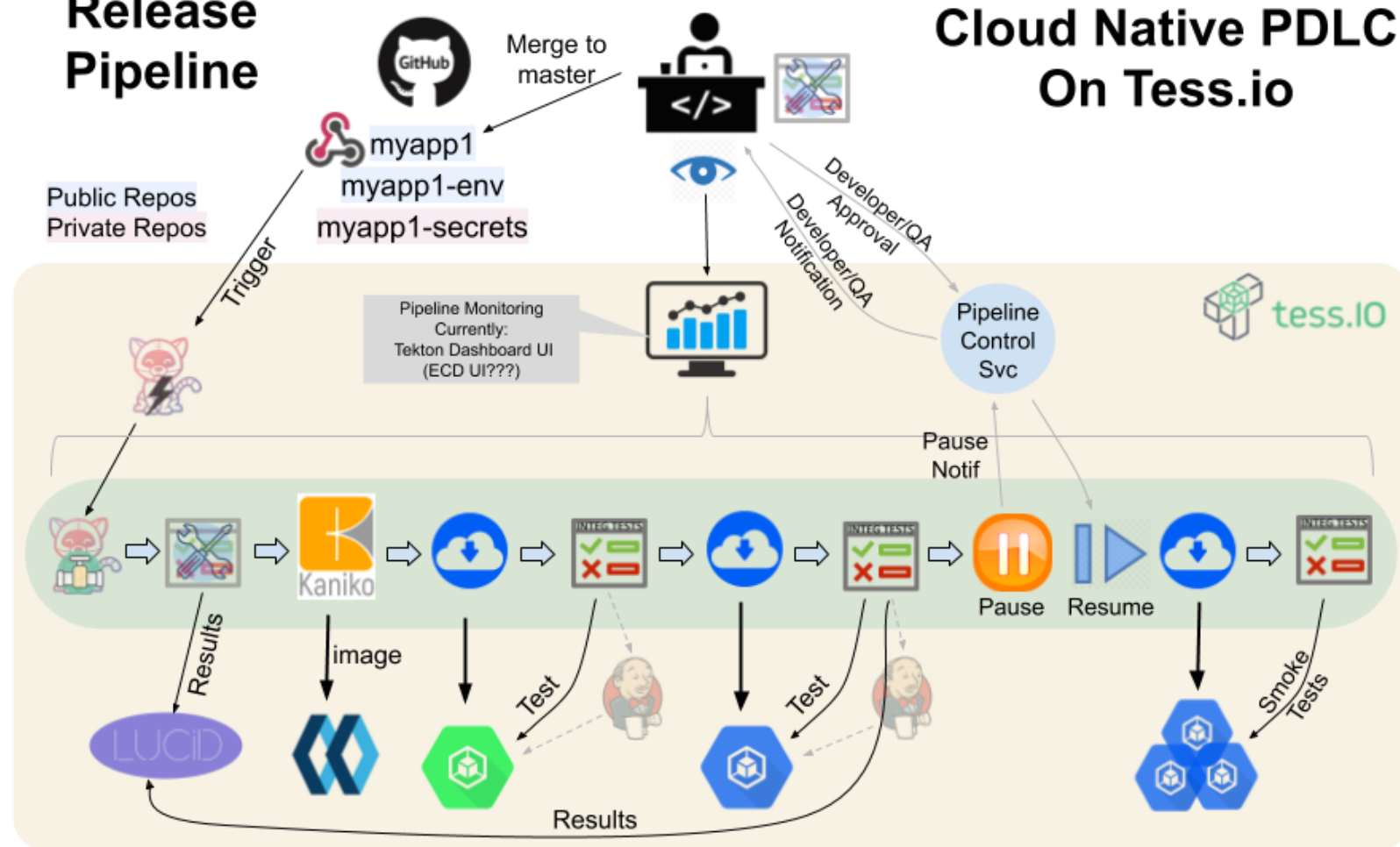
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Release Pipeline

Cloud Native PDLC On Tess.io

Merge to master

GitHub
myapp1
myapp1-env
myapp1-secrets

Public Repos
Private Repos

Developer/QA Approval
Developer/QA Notification

Trigger

Pipeline Monitoring
Currently:
Tekton Dashboard UI
(ECD UI???)

tess.IO

Pipeline Control Svc

Pause Notif

Results

image

Kaniko

Test

Test

Pause    Resume

Smoke Tests

LUCiD

Results

**Icon Legend:**

Build & Unit Test | Tekton Trigger | Tekton CD Pipeline | Container Image Build | Deployment Attempt | Integration Tests | ECR | DEV Preview Pod | Staging Cluster | TFD PROD Clusters

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The End!

Q&A

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