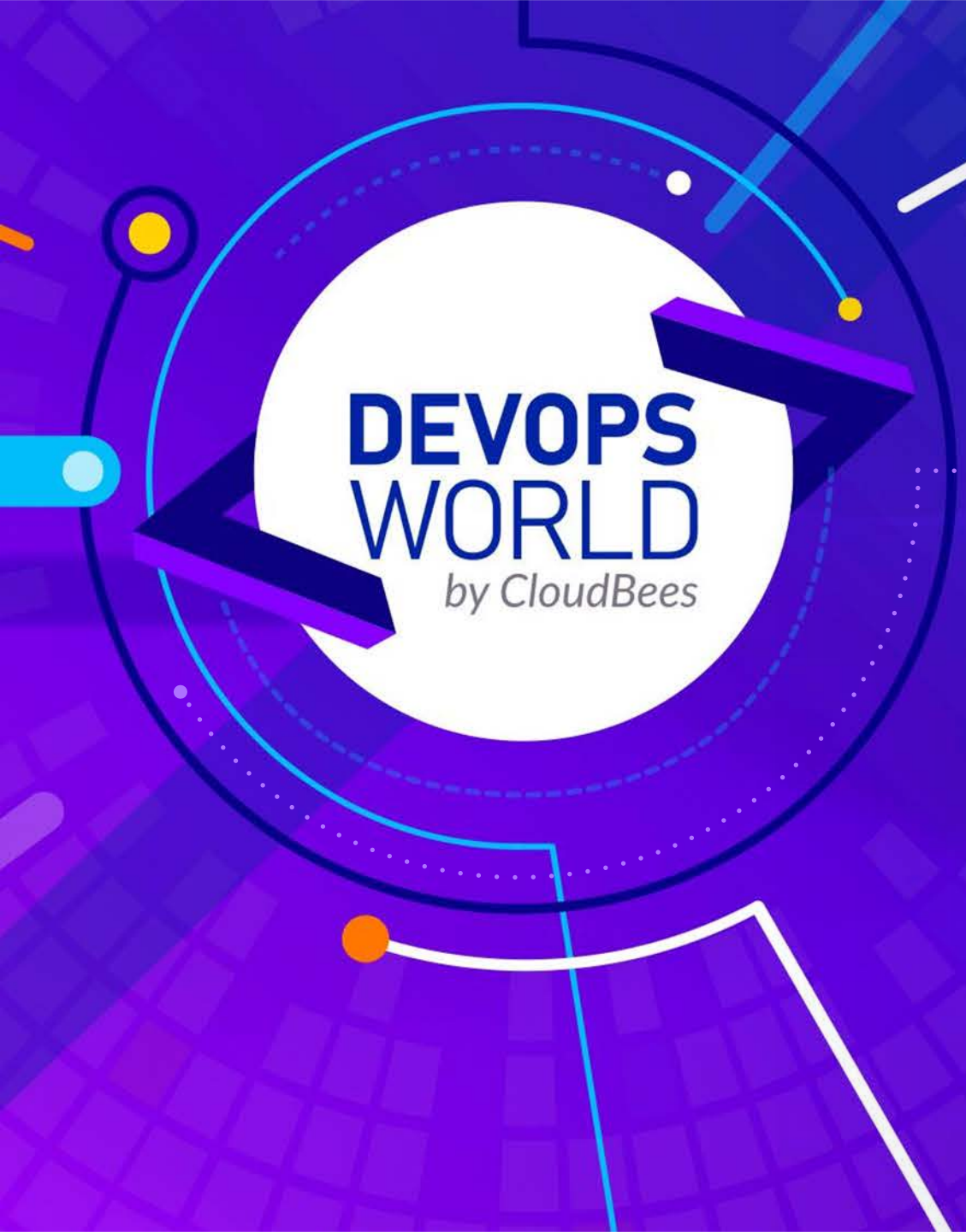

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Advanced Canary Deployments with Spinnaker

Sagayaraj David

DevOps Architect @ OpsMx

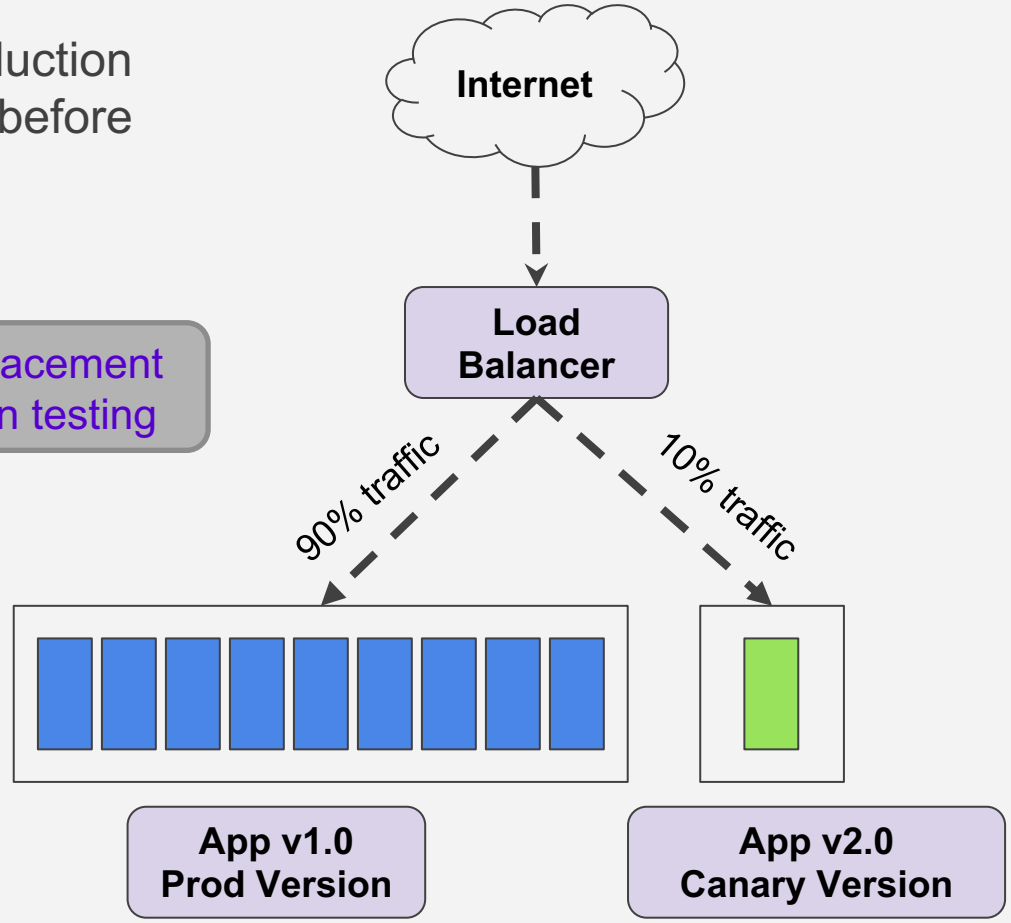
What is Canary Deployment?

A deployment technique to introduce software changes in production by slowly rolling out code change(s) to a small subset of users before making it available to all users

Canary Deployment in Simple Stages

- Deploy a new version to a small set of servers
- Minimal live traffic to new instances
- Pause & Monitor
- Good? Continue to repeat until End
- Bad? Revert and Exit

It is not a replacement for Application testing

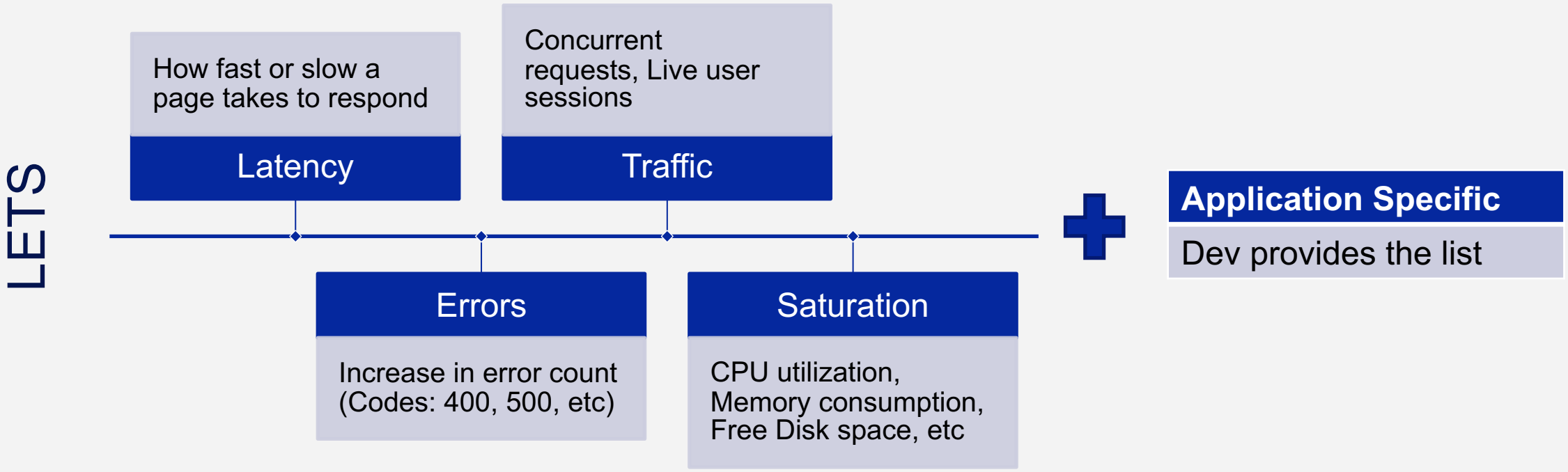


Advantages of Automated Canary Deployment

- Enable live upgrade safely and frequently with confidence
- Confidence to experiment new features
- Catches errors and exits early
- Saves Engineers' time
- Easy rollback with minimal impact to Production
- Reduced cost

Metrics for Canary Analysis

What makes your application healthy?



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Canary Deployment using Spinnaker

DEVOPSWORLD by CloudBees

Spinnaker and Kayenta

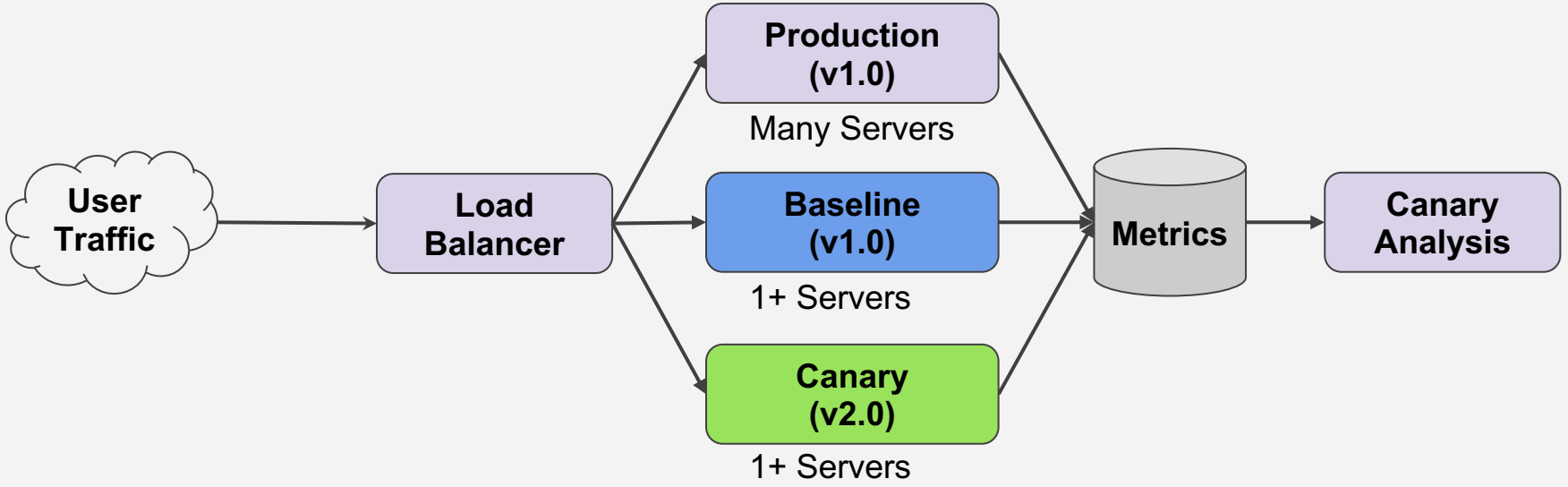
Spinnaker is a powerful open-source continuous delivery platform with flexible pipeline management system capable of deploying to the major cloud providers

Kayenta

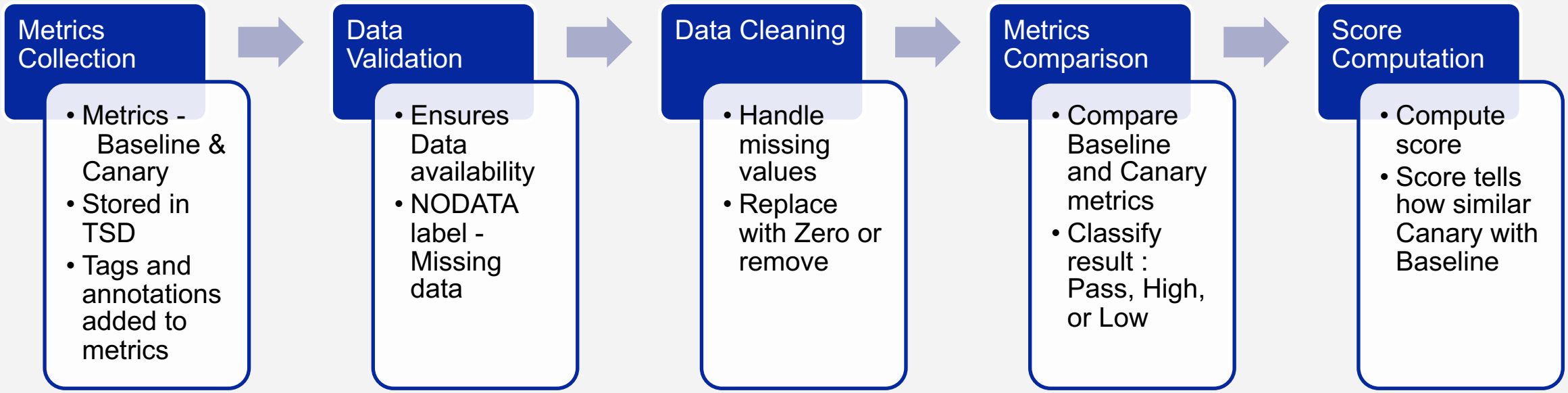
Automated Canary Analysis (ACA) Platform

- Retrieves metrics from metrics store (Prometheus, DataDog, SignalFx, Stackdriver, etc)
- Performs AB style statistical testing
- Judges if Canary is good

Spinnaker - Canary Deployment



How does Canary Analysis work?



Prepare Infra for Canary Deployment

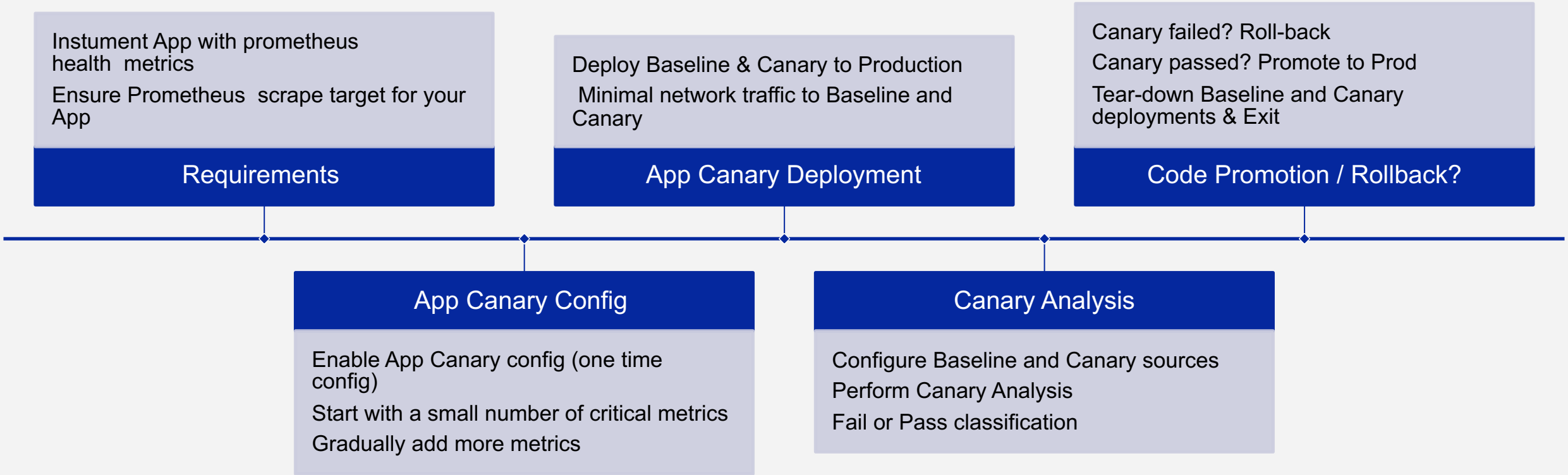
Prometheus

- Ensure Prometheus is available
- Ensure Prometheus can scrape metrics from App namespace(s)

Spinnaker

- Enable Canary feature in Spinnaker
- Integrate Prometheus metrics source
- Configure storage for canary configs and metrics report

Canary Deployment – Guided Path



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Demo - Canary Deployment

Thank you!

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