



Kubernetes Operator for Massively Parallel Postgres



Goutam Tadi (@goutamtadi)

Senior Software Engineer, Pivotal Software Inc

Email: gp-kubernetes@pivotal.io

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Agenda

- **Intro to Greenplum**
- **Kubernetes 101**
- **Greenplum for Kubernetes**
 - **Components**
 - **Greenplum Operator**
 - **Greenplum Cluster**
- **Demo**

Greenplum

Massively Parallel Postgres

Run your analytics anywhere you need it



Infrastructure Agnostic

Bare-Metal



Private Cloud



Public Cloud



Microsoft Azure



Kubernetes



Pivotal
Cloud Foundry®

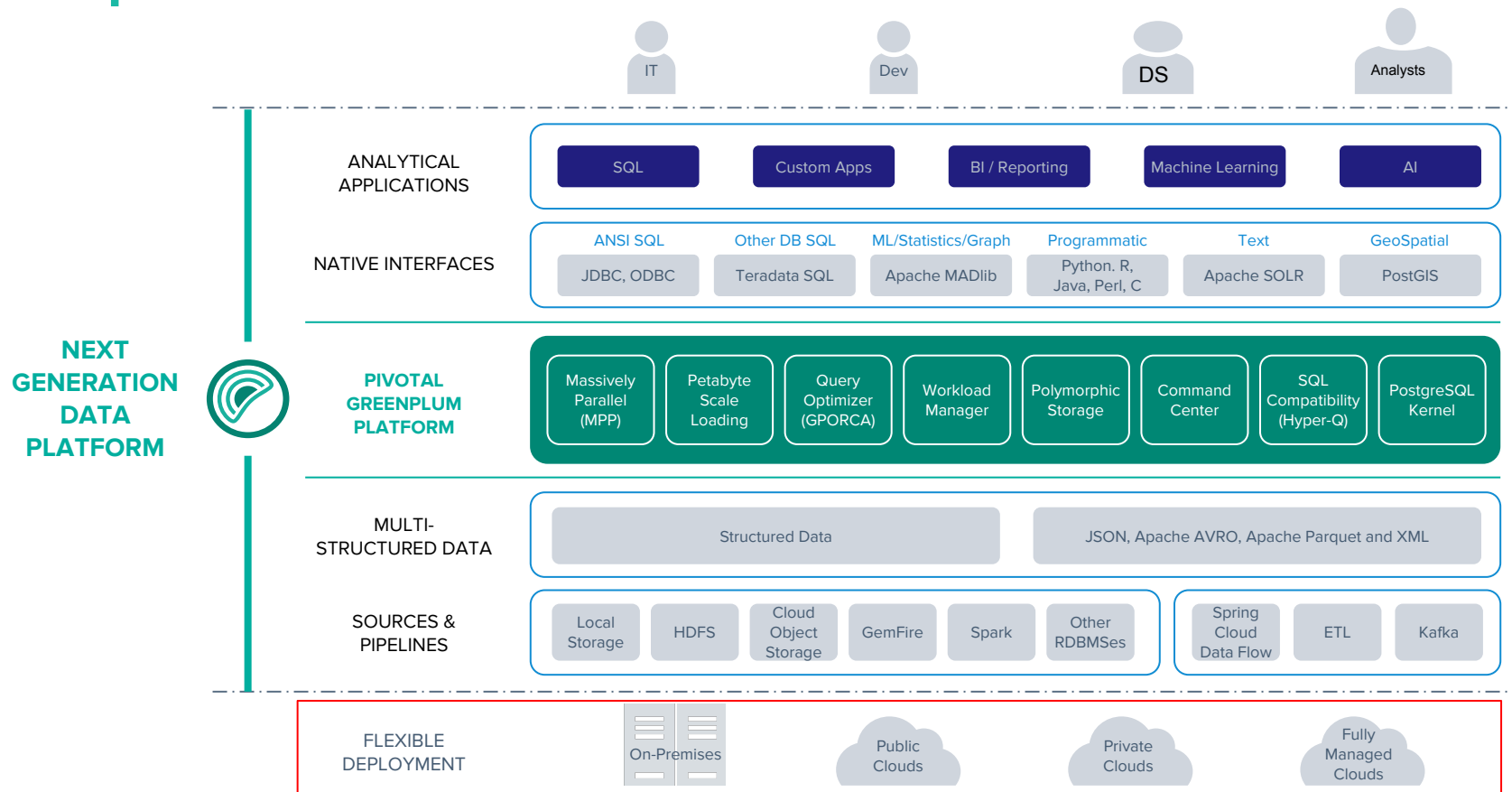


Other Kubernetes
(on VMs or not)



Open Source - 100% portable software solution

Greenplum Data Platform



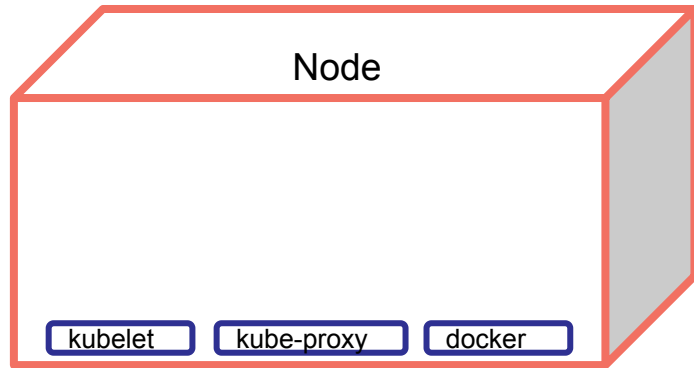
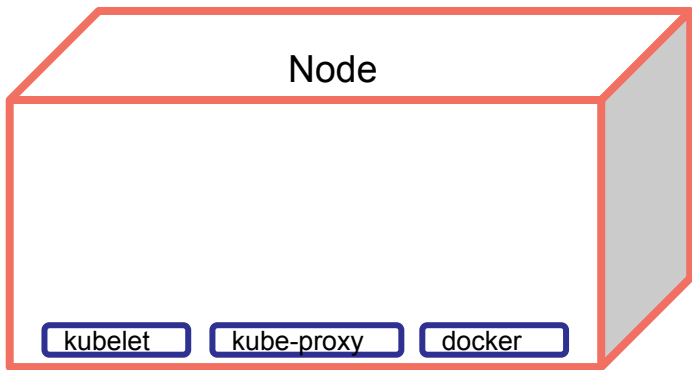
Kubernetes

Container Orchestration System

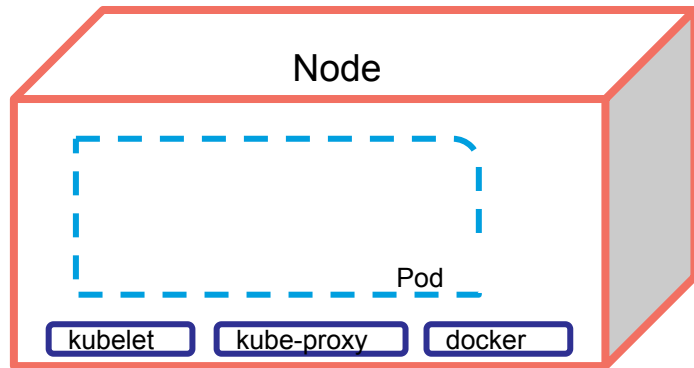
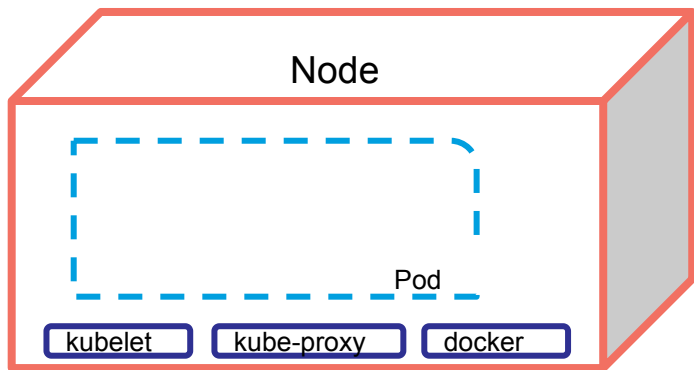
Greenplum on Kubernetes 101



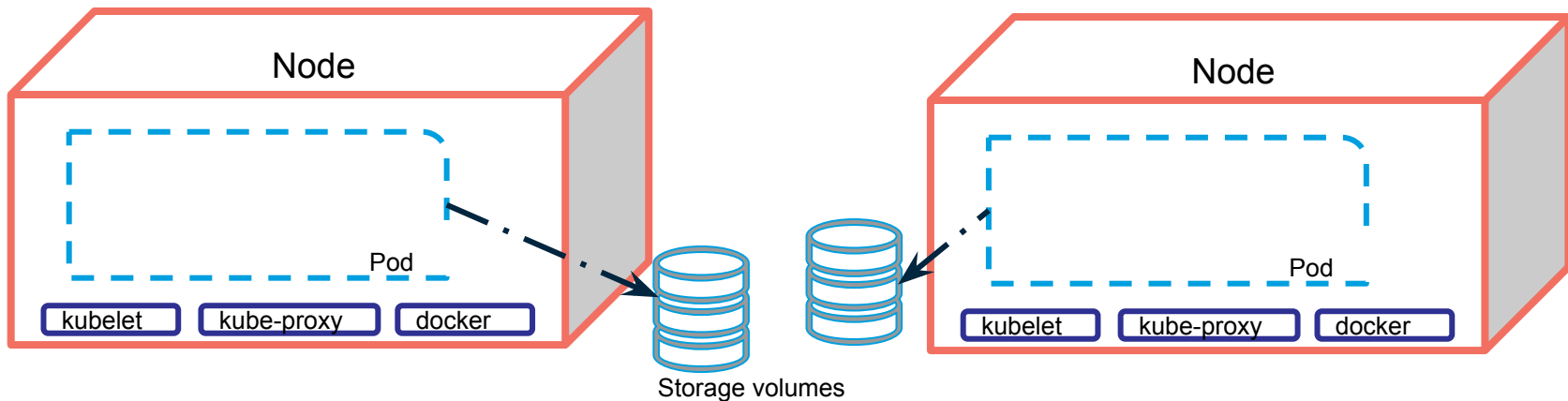
Greenplum on Kubernetes 101



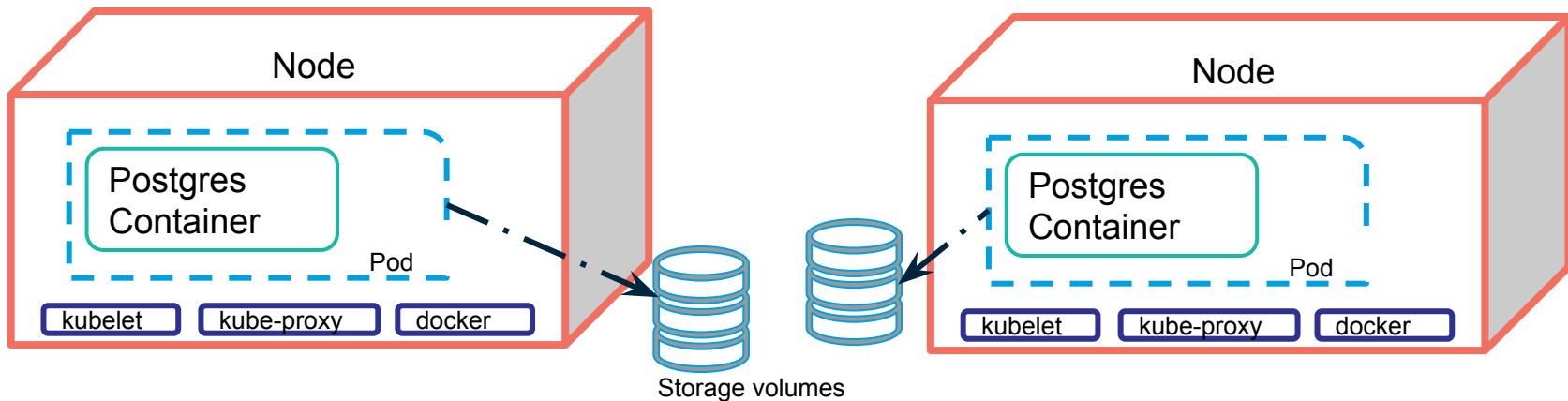
Greenplum on Kubernetes 101



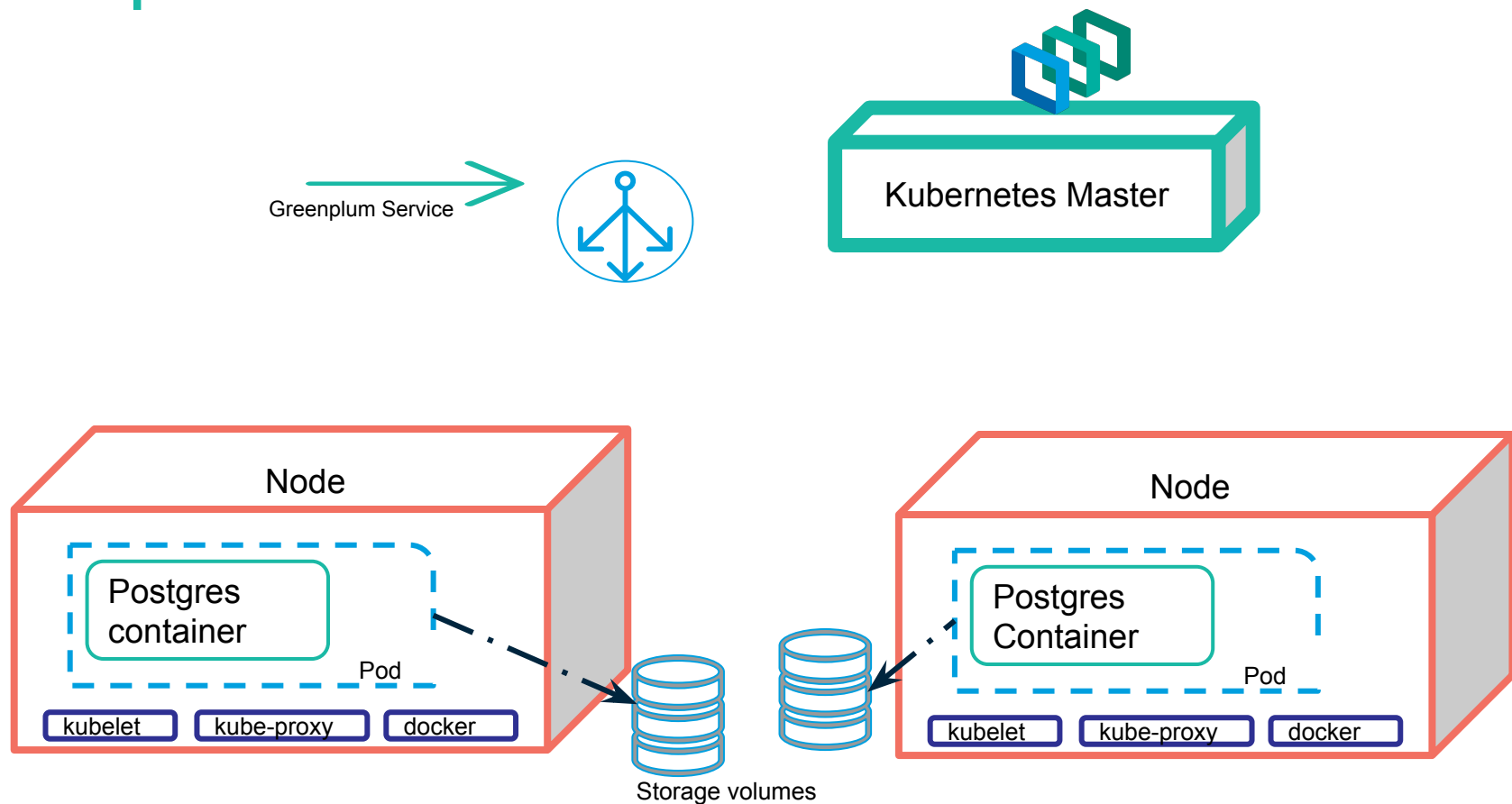
Greenplum on Kubernetes 101



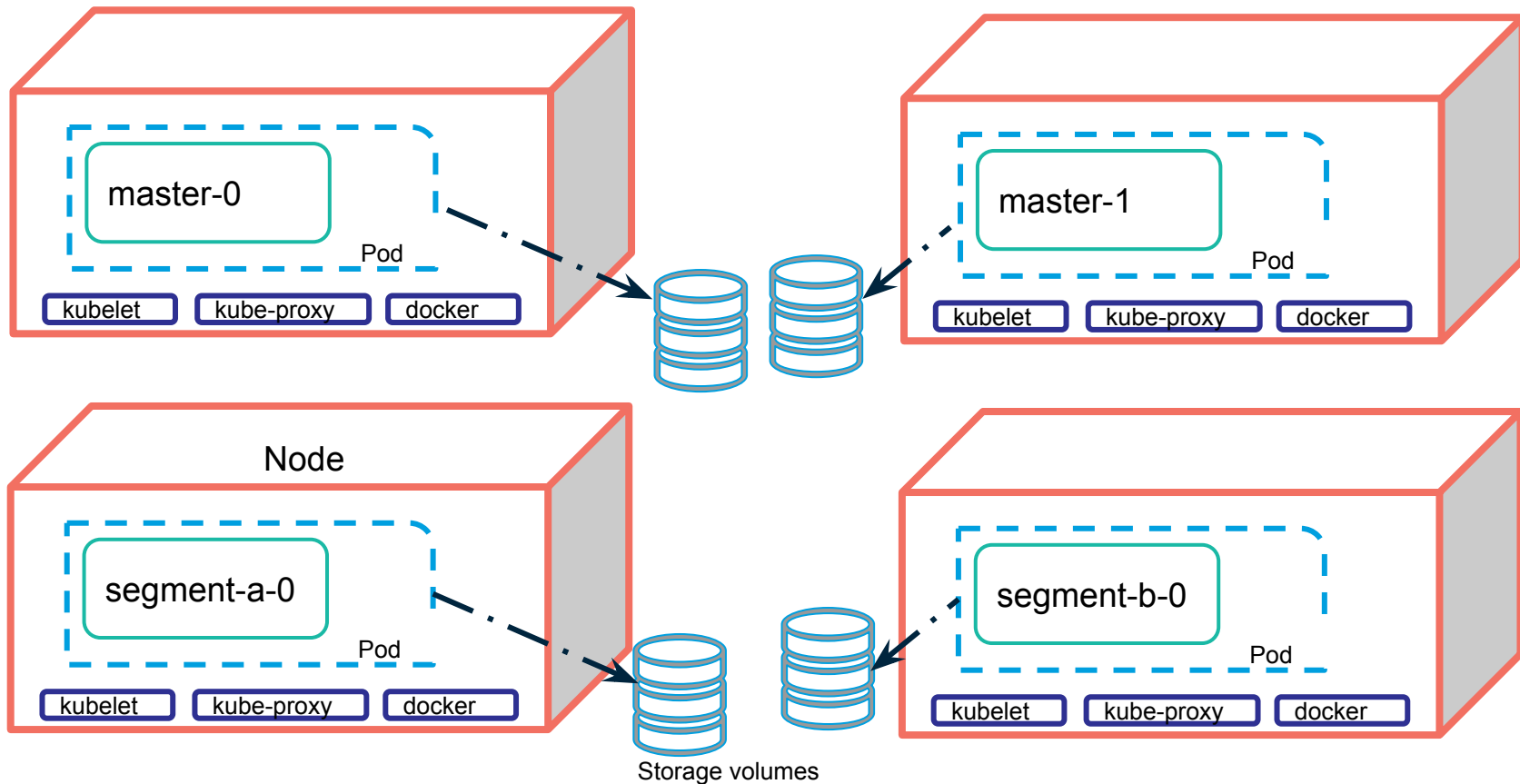
Greenplum on Kubernetes 101



Greenplum on Kubernetes 101



Greenplum on Kubernetes



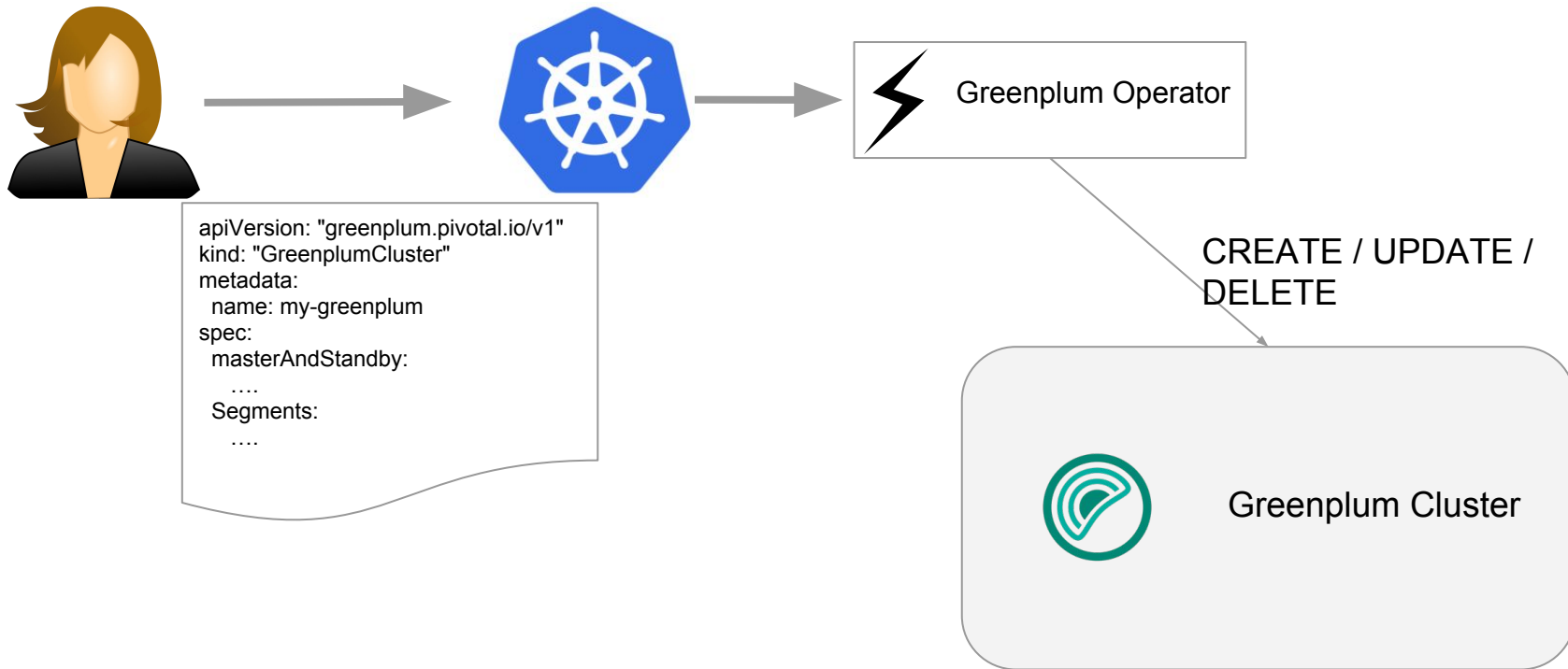
Greenplum for Kubernetes

Massively Parallel Postgres on Kubernetes

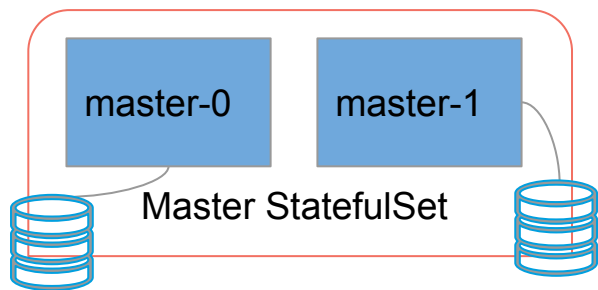
Components

- Greenplum Operator
- Greenplum Cluster

Greenplum Operator

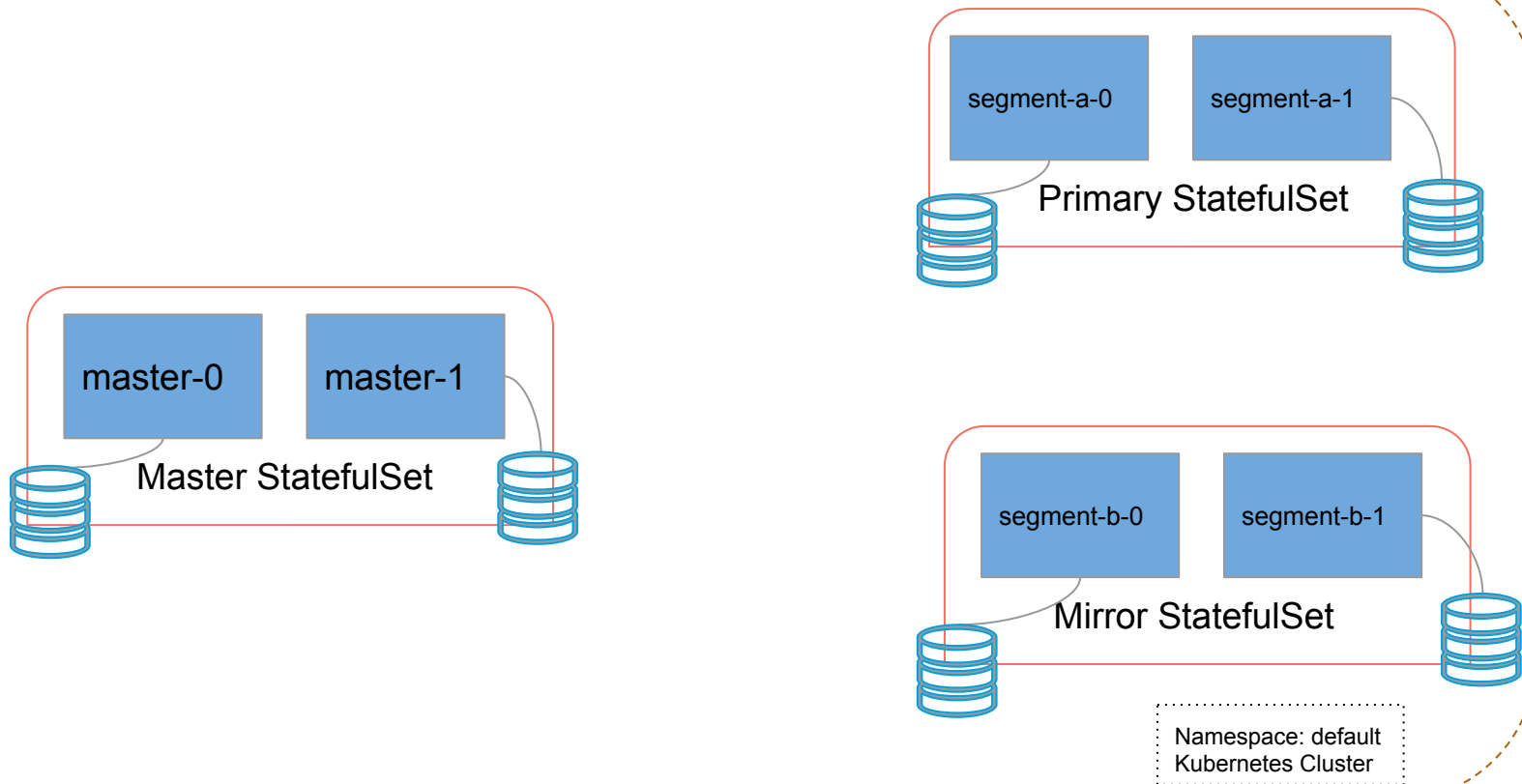


Greenplum Cluster

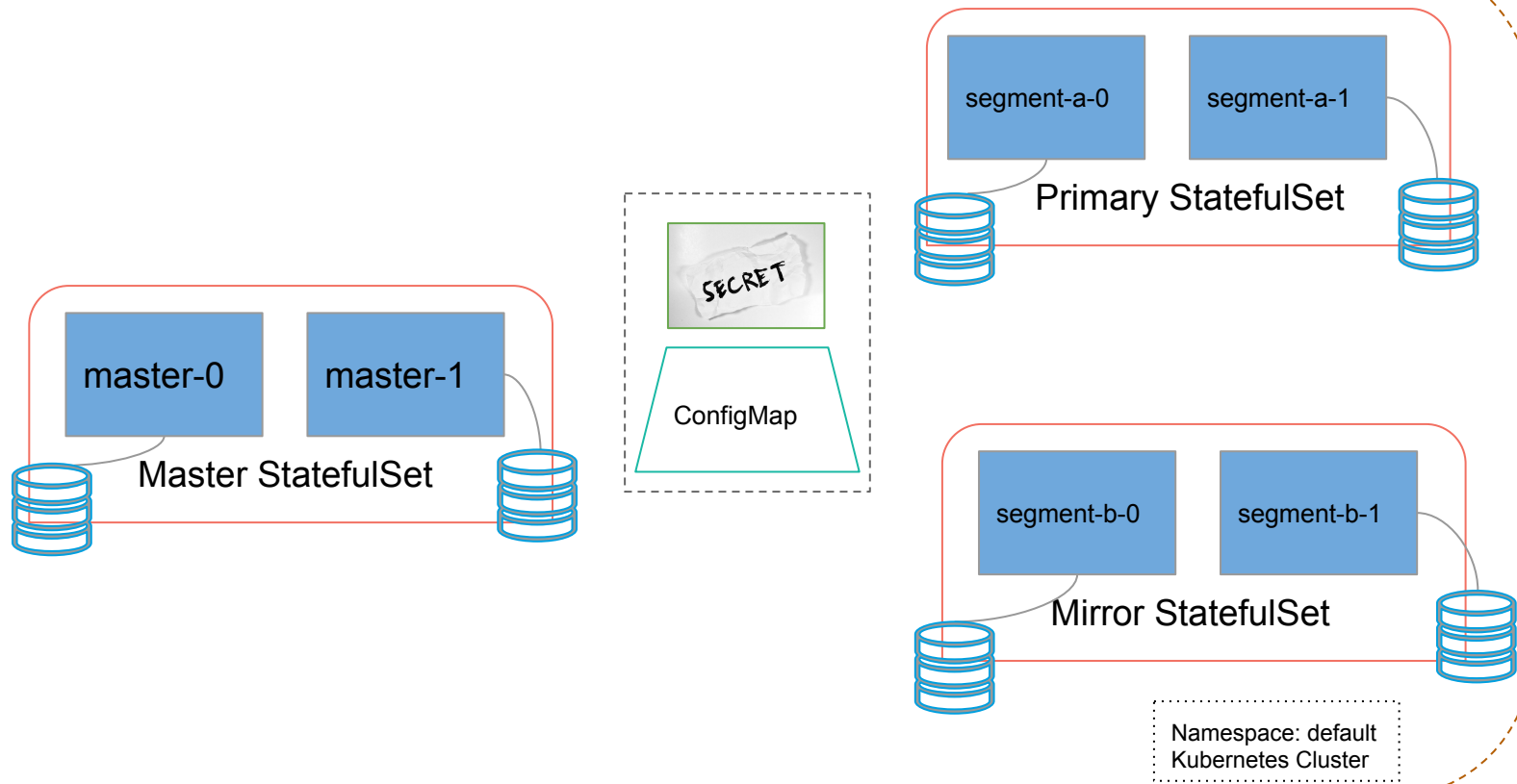


Namespace: default
Kubernetes Cluster

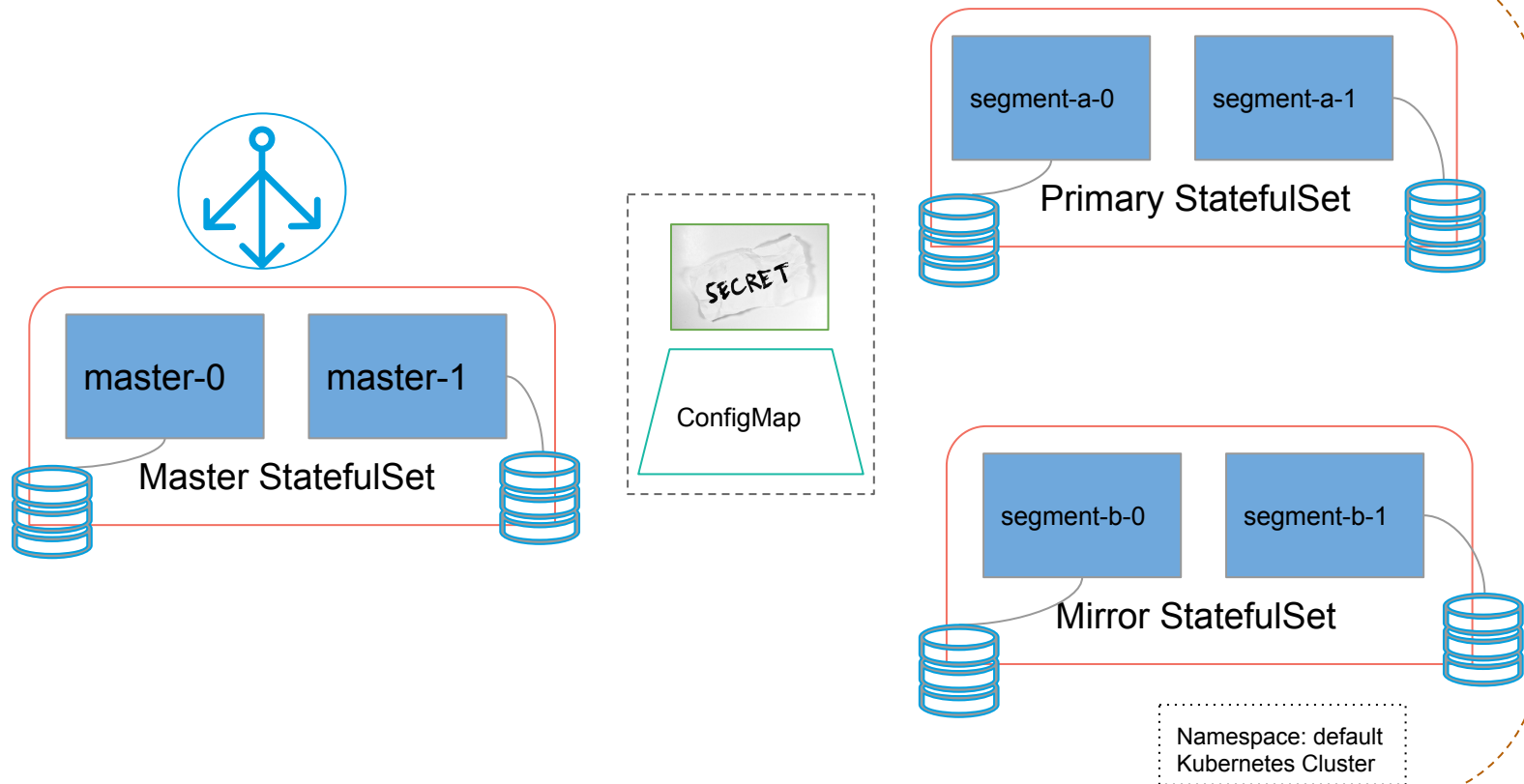
Greenplum Cluster



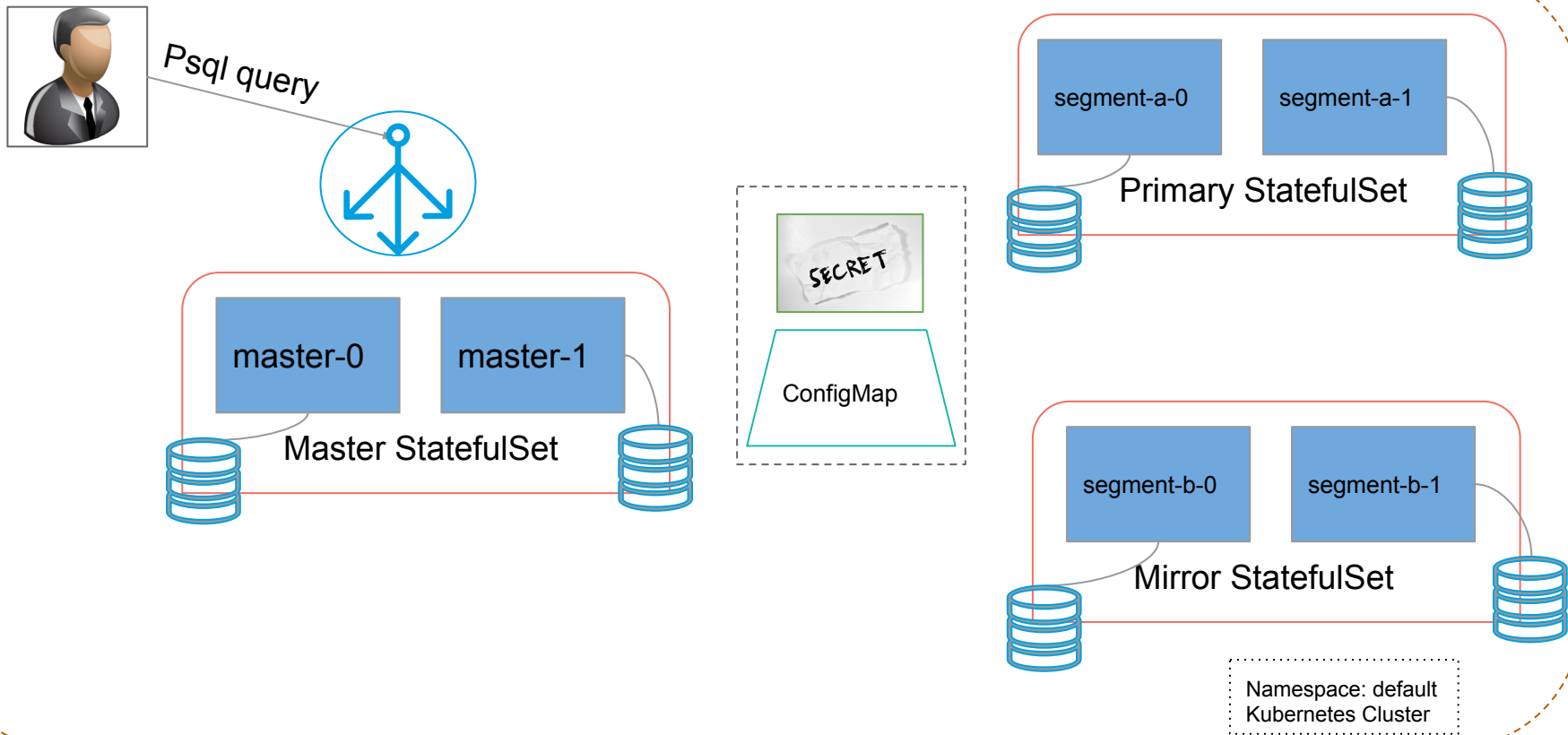
Greenplum Cluster



Greenplum Cluster



Greenplum Cluster



Benefits

- Declarative style deployments
- Auto cluster initialization
- Quick and fast deployments
- Easy to expand
- Delete the compute and retain storage for later use

Demo

<https://youtu.be/d8X2BXSg07Q>

Install Greenplum Operator
Install Greenplum Cluster
Failover Scenarios
Expand Greenplum Cluster

Future

Auto Failover
Auto Cluster Rejoin
PVC Snapshot
Pod Affinity

The background of the slide is a teal-colored image of the Golden Gate Bridge, viewed from a low angle looking up at the tower and cables.

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Resources

<http://greenplum-kubernetes.docs.pivotal.io>

<https://network.pivotal.io>