Storage in Kubernetes

Ardalan Kangarlou
NetApp
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Introduction

https://github.com/netapp

http://netapp.io/

https://www.linkedin.com/in/kangarlou

https://github.com/kangarlou/kubernetes-storage

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Modern Apps and Storage

https://12factor.net

The Twelve-Factor App

IV. Backing services

Treat backing services as attached resources

VI. Processes

Execute the app as one or more stateless processes

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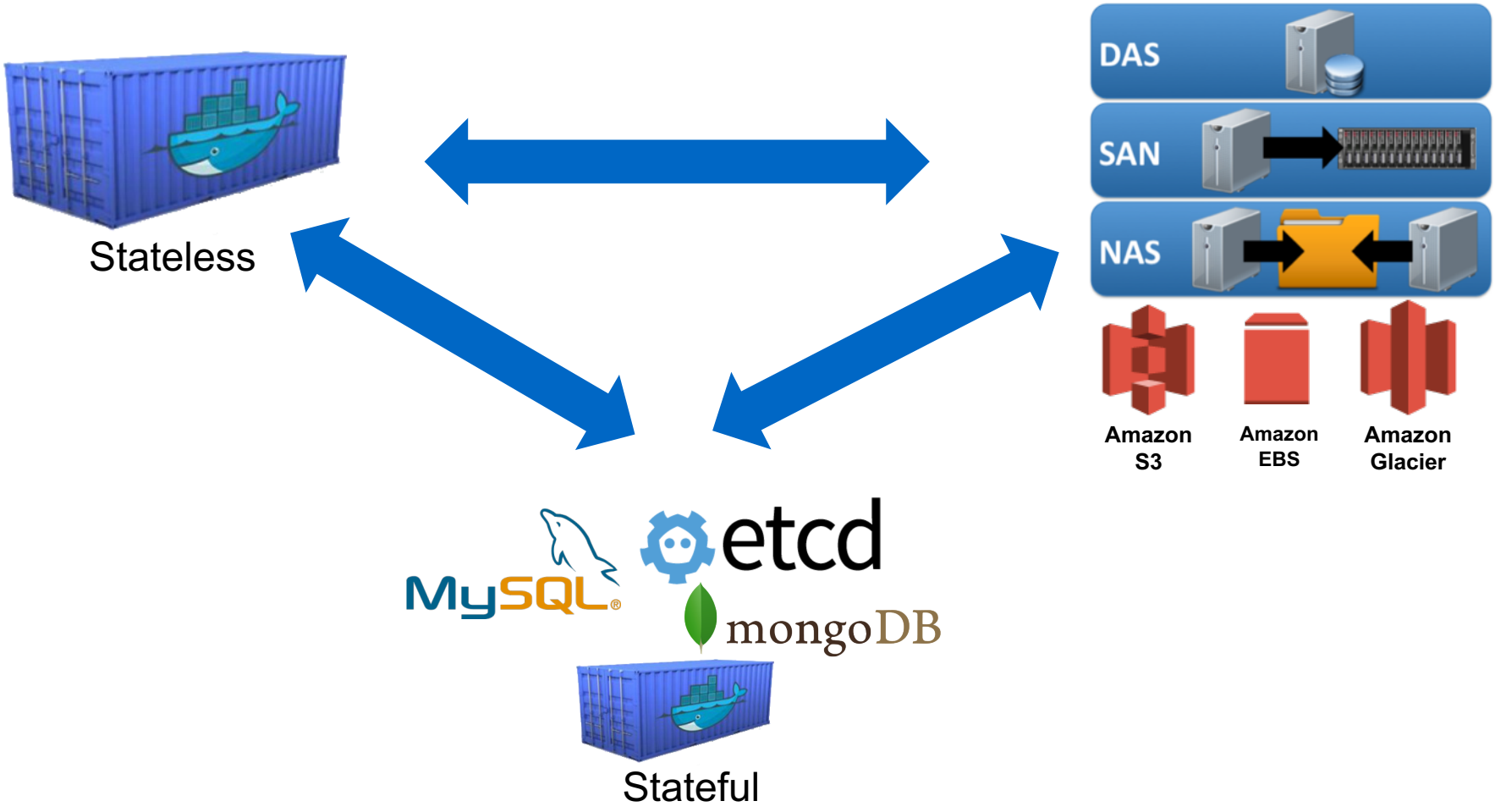
Persistence for Containers



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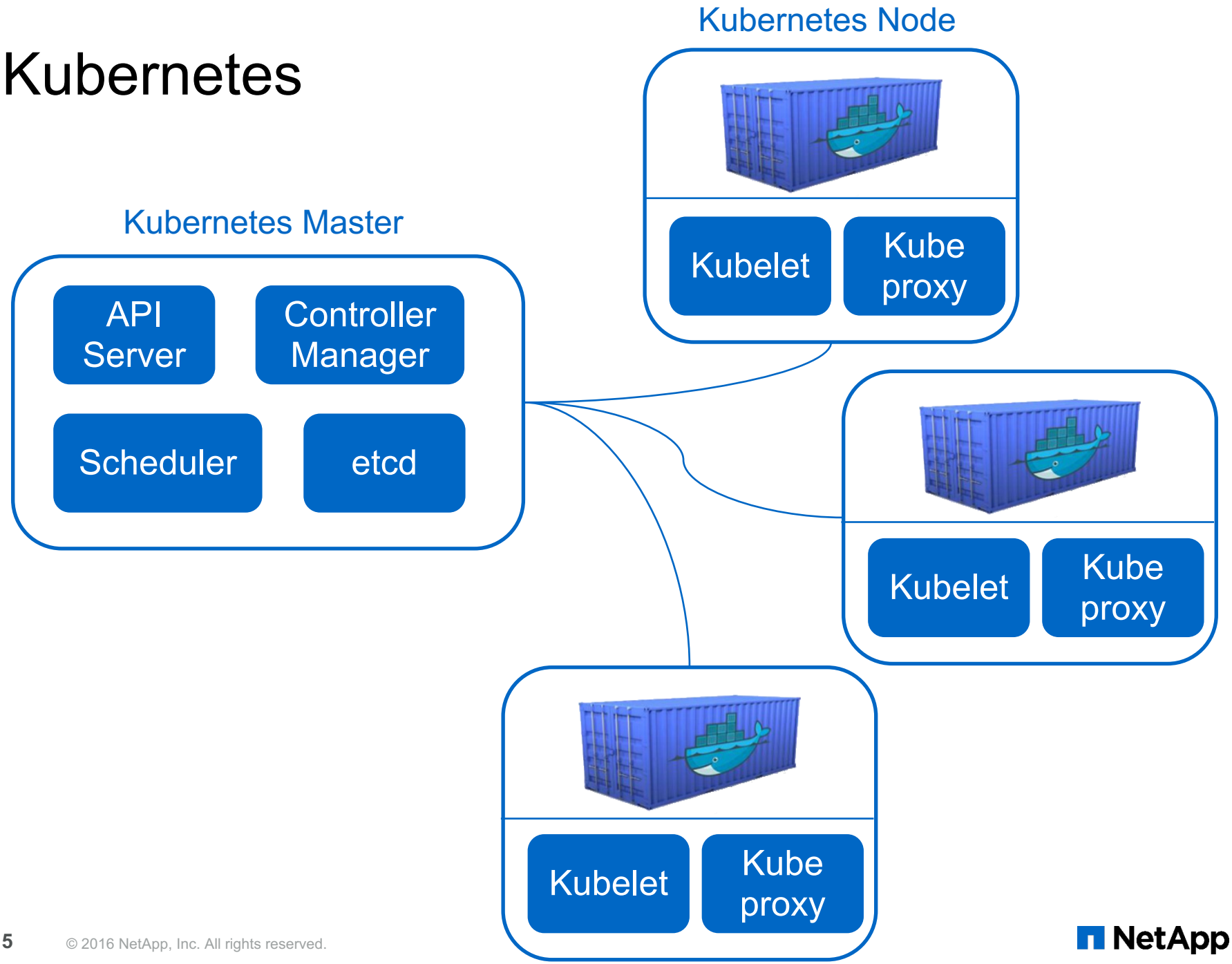
Kubernetes



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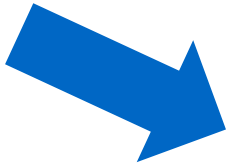
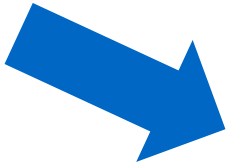
Evolution of Storage in Kubernetes

Volume Plugins



PersistentVolume Framework

Flex Plugin



Dynamic Storage Provisioning

Storage Classes

New in k8s 1.4

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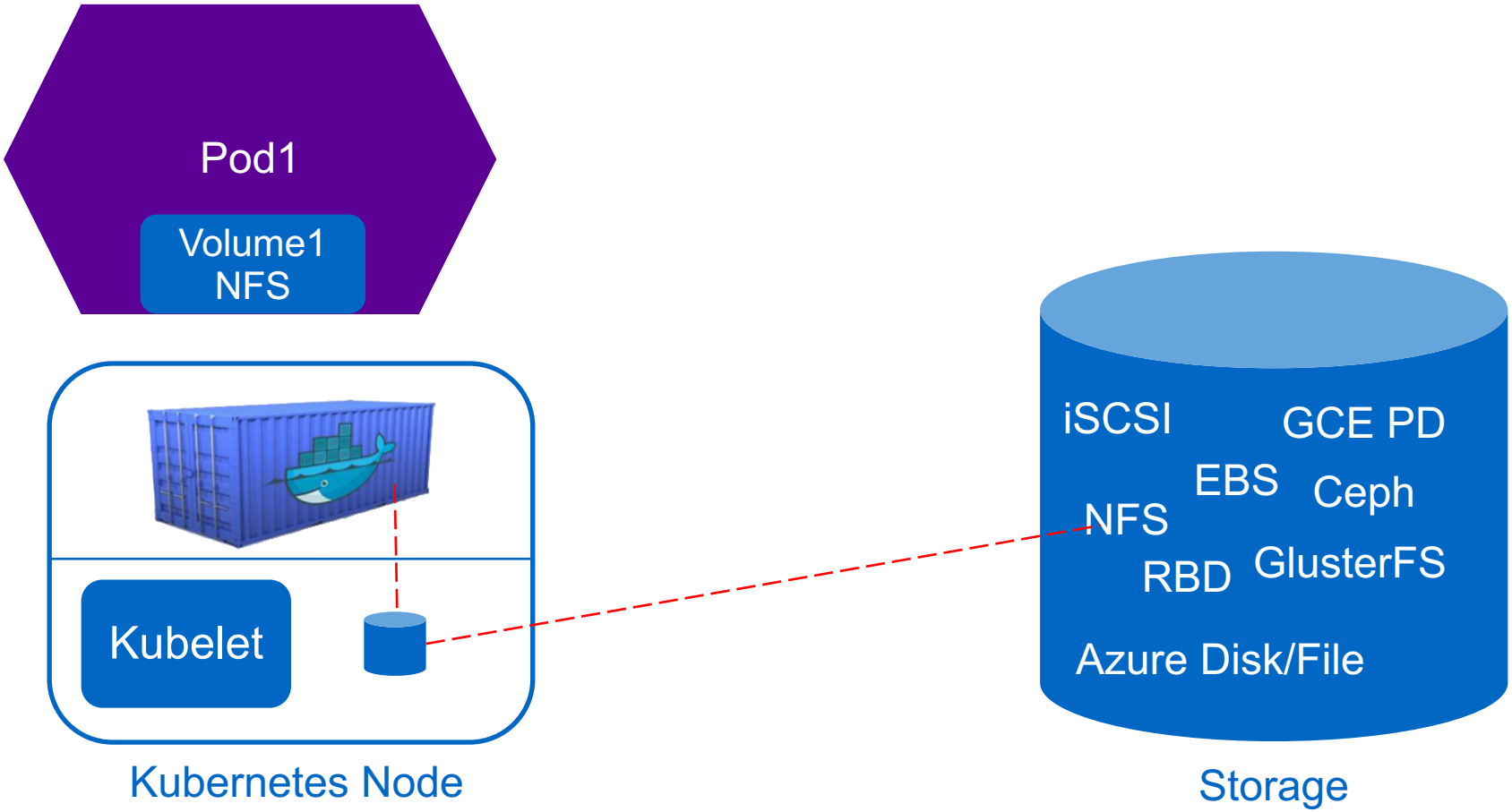
Volumes and Volume Plugins



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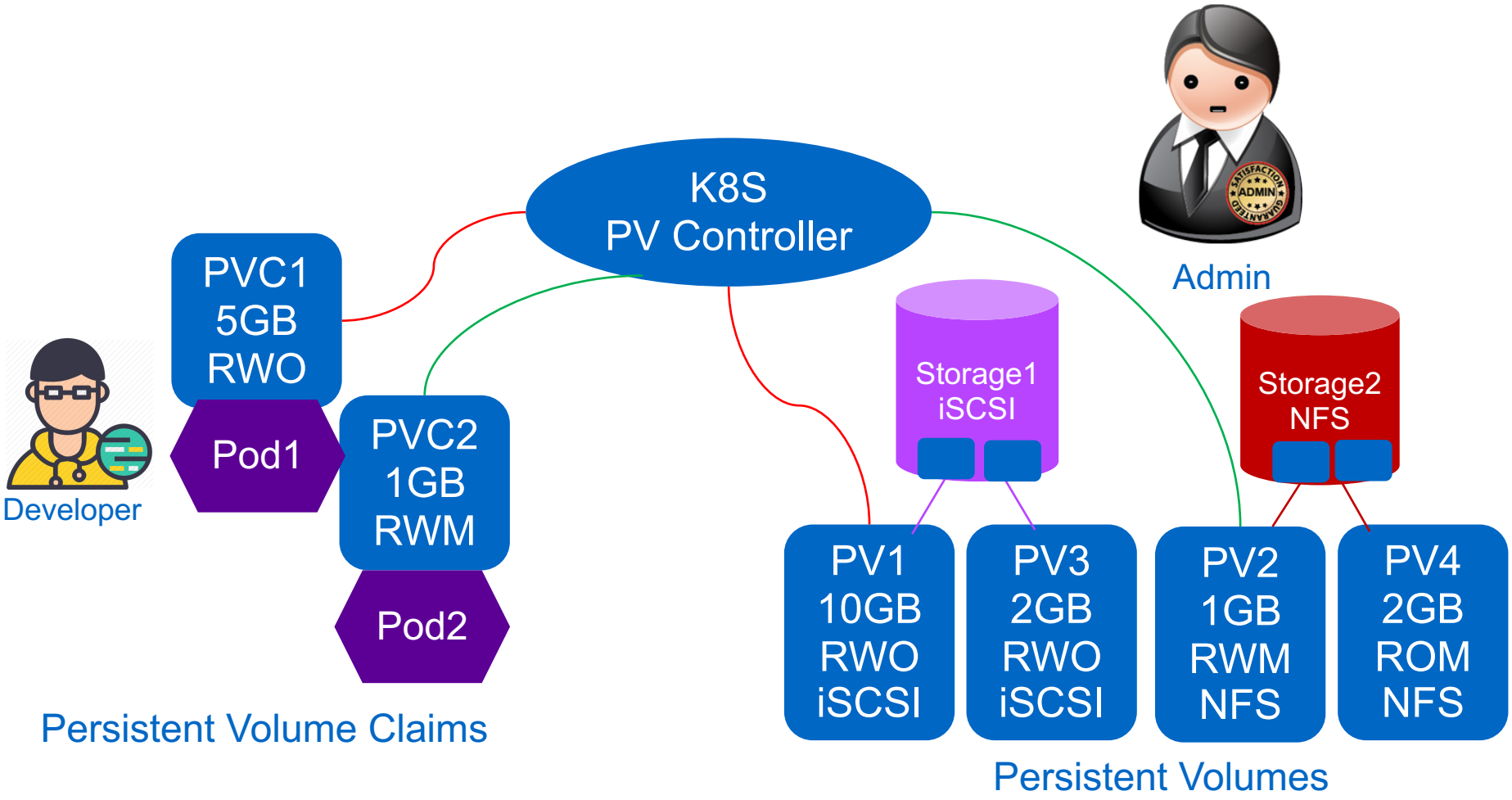
Persistent Volume Framework



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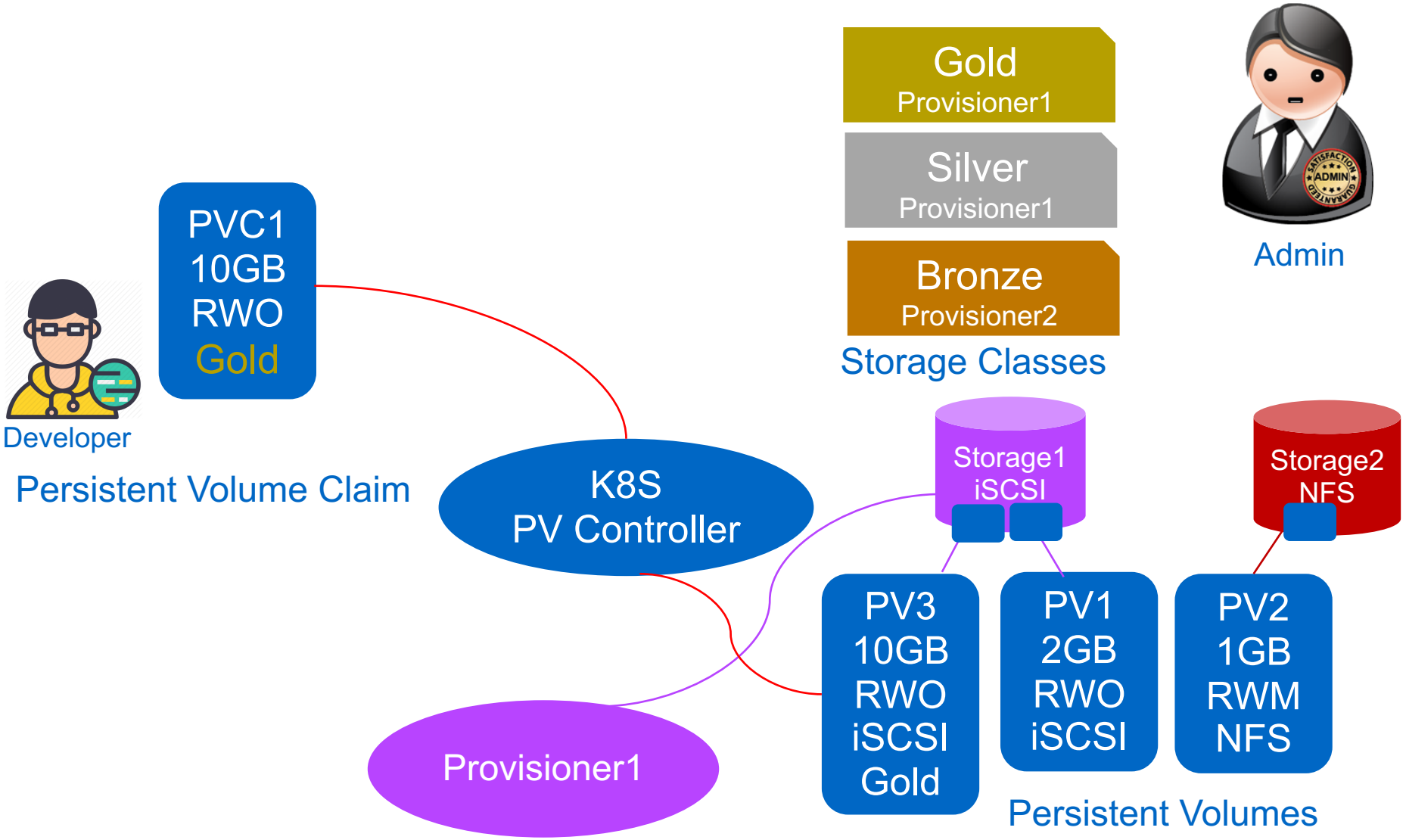
Dynamic Storage Provisioning & Storage Classes



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Helpful Links

- Volumes
  - http://kubernetes.io/docs/user-guide/volumes/
  - https://github.com/kangarlou/kubernetes-storage/volumes
- Persistent Volumes
  - http://kubernetes.io/docs/user-guide/persistent-volumes/
  - https://github.com/kangarlou/kubernetes-storage/persistent-volumes
- FlexVolume
  - https://github.com/kubernetes/kubernetes/tree/master/examples/volumes/flexvolume
- Dynamic Porvisioning
  - http://blog.kubernetes.io/2016/10/dynamic-provisioning-and-storage-in-kubernetes.html
  - https://github.com/kubernetes/kubernetes/tree/master/examples/experimental/persistent-volume-provisioning

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NetApp Resources

- NetApp Docker Volume Plugin:
  - https://github.com/NetApp/netappdvp/
- Kubevoltracker:
  - https://github.com/NetApp/kubevoltracker
- OpenStack drivers:
  - https://github.com/NetApp/cinder
  - https://github.com/NetApp/manila

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