

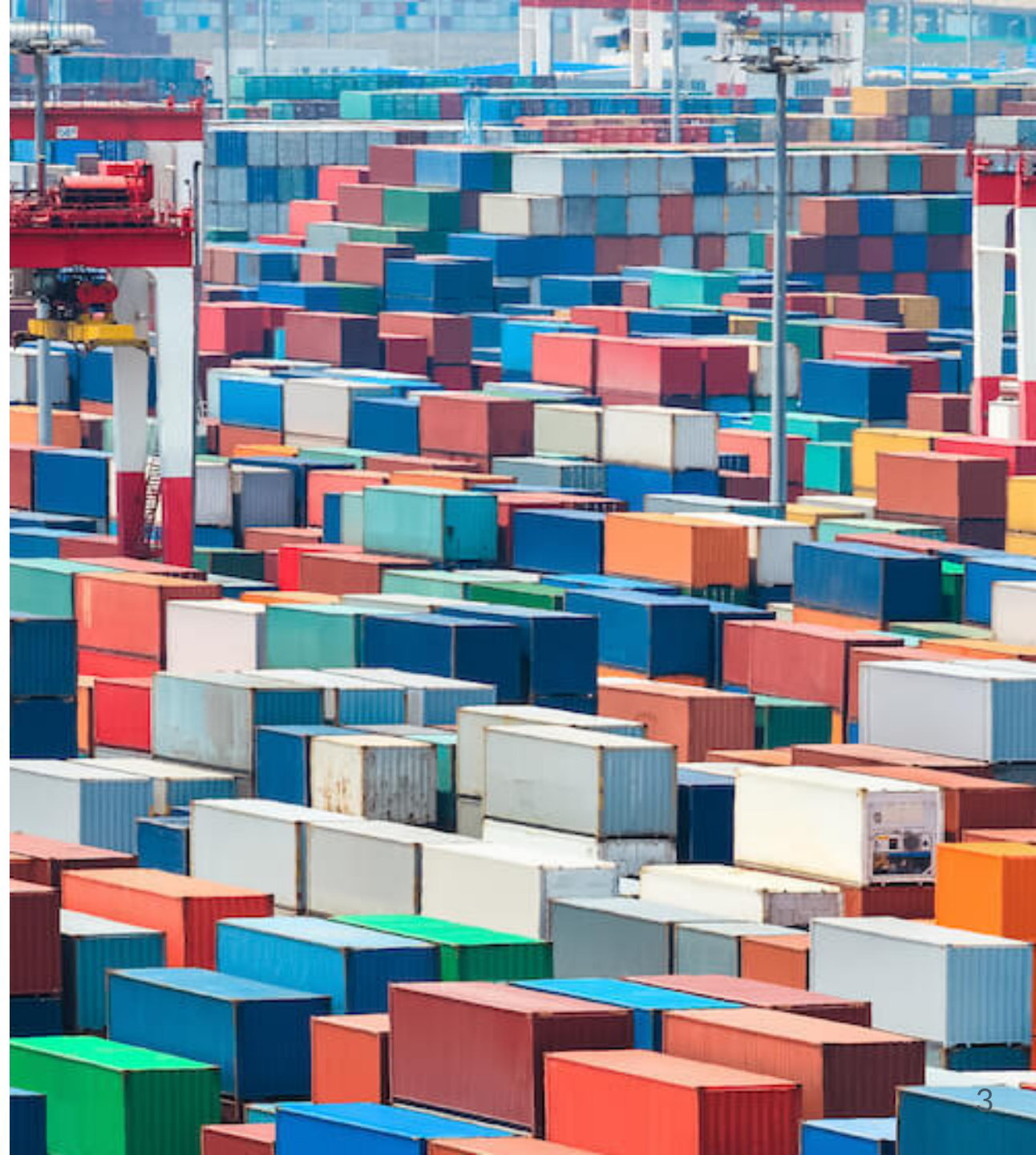
Kubernetes Storage 101

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What is Kubernetes?

- Kubernetes is an open source **container orchestration engine** for automating deployment, scaling, and management of containerized applications. The open source project is hosted by the Cloud Native Computing Foundation



Kubernetes Volumes vs Persistent Volume

- There are currently two types of storage abstracts available with Kubernetes: `Volumes` and `Persistent Volumes`.
- A Kubernetes volume exists only while the containing pod exists. Once the pod is deleted, the associated volume is also deleted.
- Kubernetes persistent volumes are used in situations where the data needs to be retained regardless of the pod lifecycle. Kubernetes volumes are used for storing temporary data

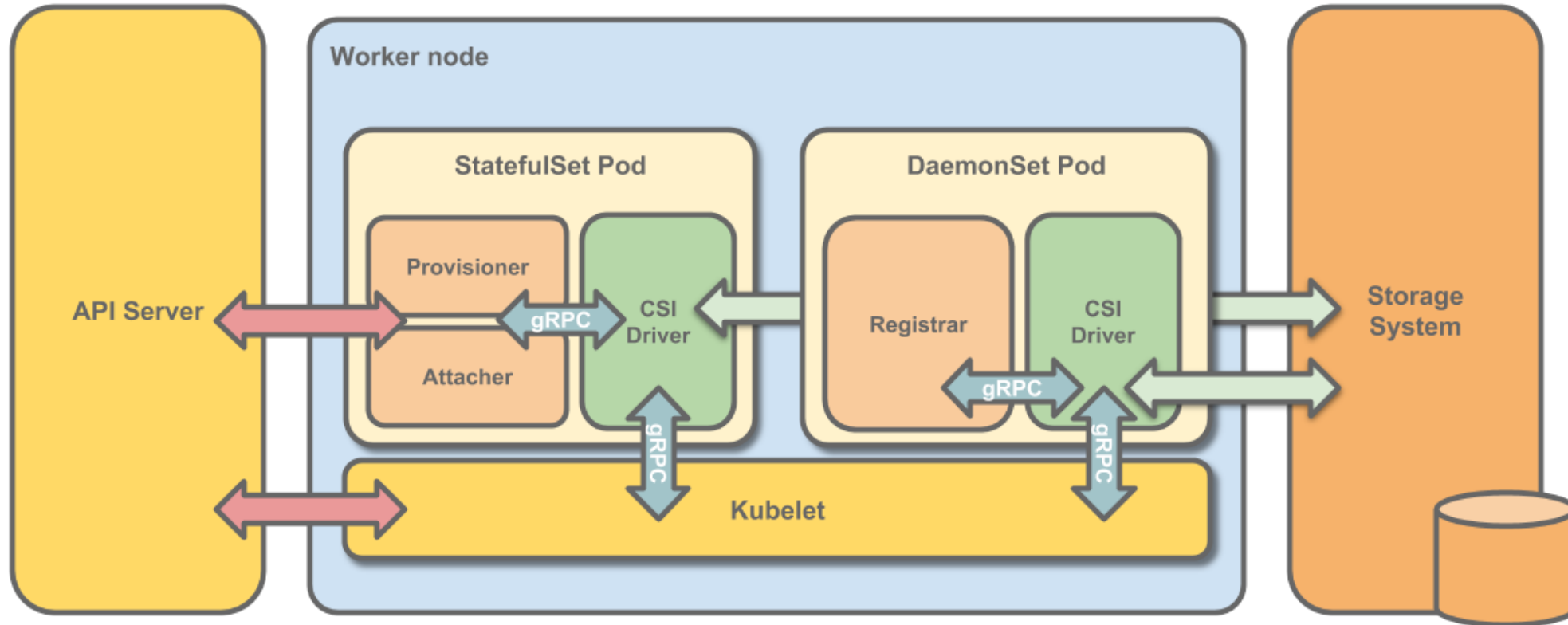
Volume Plugins (aka Types of Volumes)

- <https://kubernetes.io/docs/concepts/storage/volumes/#types-of-volumes>

Dynamic Volume Provisioning

Container Storage Interface (CSI)

- CSI is a community-driven effort to standardize how file and block storage are exposed to and accessed by container orchestrators, such as Cloud Foundry, Kubernetes, and Mesos.
- Kubernetes and CSI

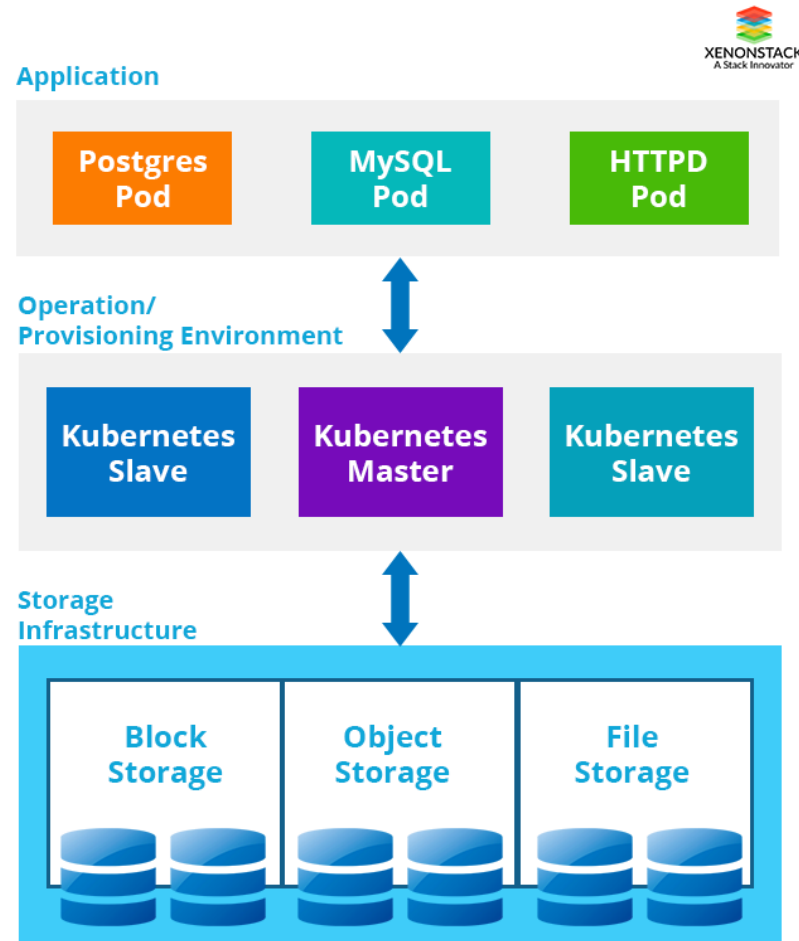


- Kubernetes CSI Drivers
 - <https://kubernetes-csi.github.io/docs/drivers.html>

Kubernetes Storage

Storage Activity	Kubernetes storage primitive
Provisioning	Persistent Volume
Configuring	Storage Class
Attaching	Persistent Volume Claim

Persistent Storage Strategies for Kubernetes



<https://www.xenonstack.com/blog/persistent-storage/>

Cloud Native Storage

<https://landscape.cncf.io/category=cloud-native-storage&format=card-mode&grouping=category>

Related Projects

- Rook
- GlusterFs

참고

- <https://kubernetes.io/>
- <https://kubernetes-csi.github.io/>

Image Credits

- <https://blogs.vmware.com/cloudnative/2019/04/18/supercharging-kubernetes-storage-with-csi/>

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