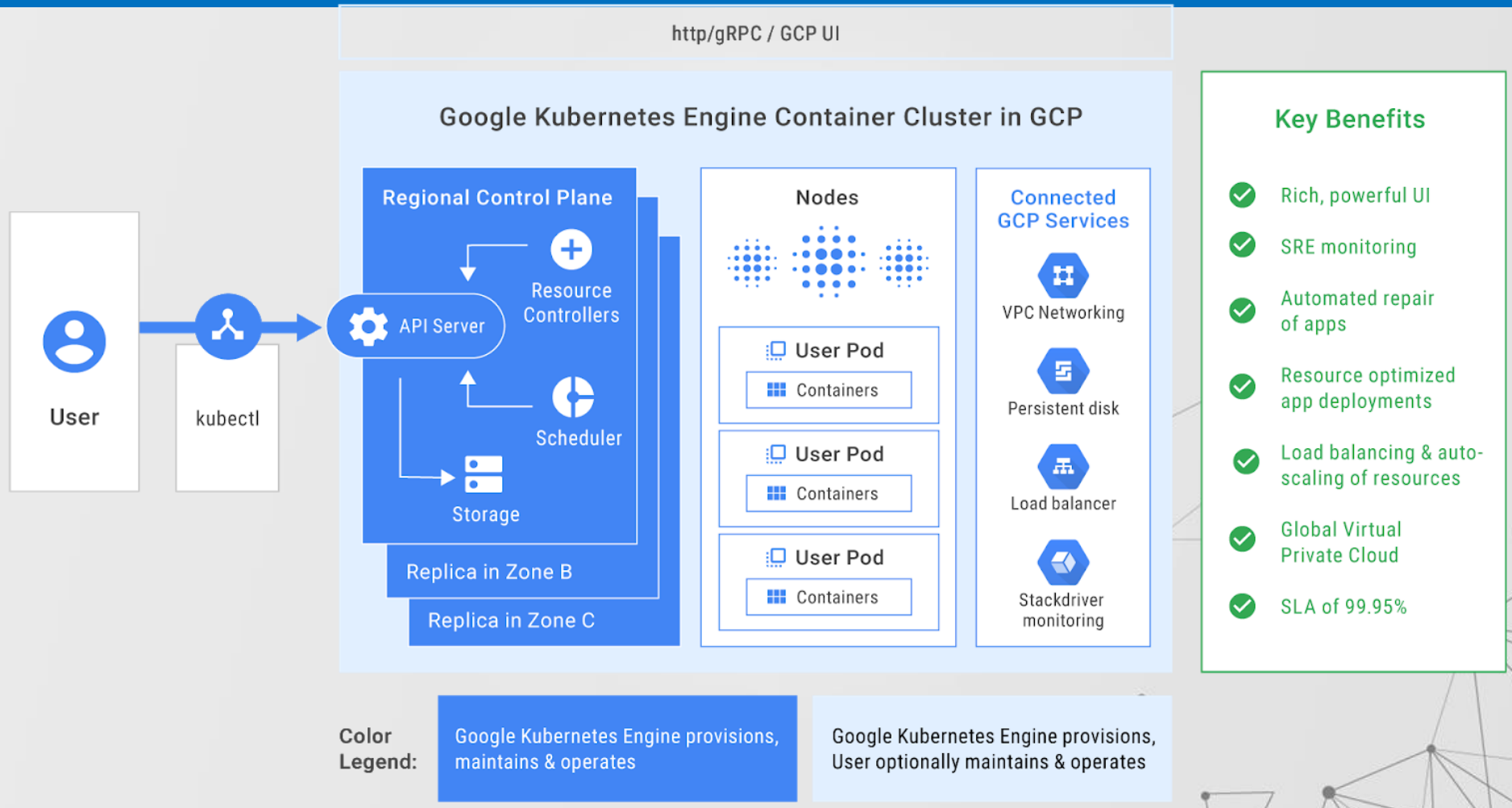
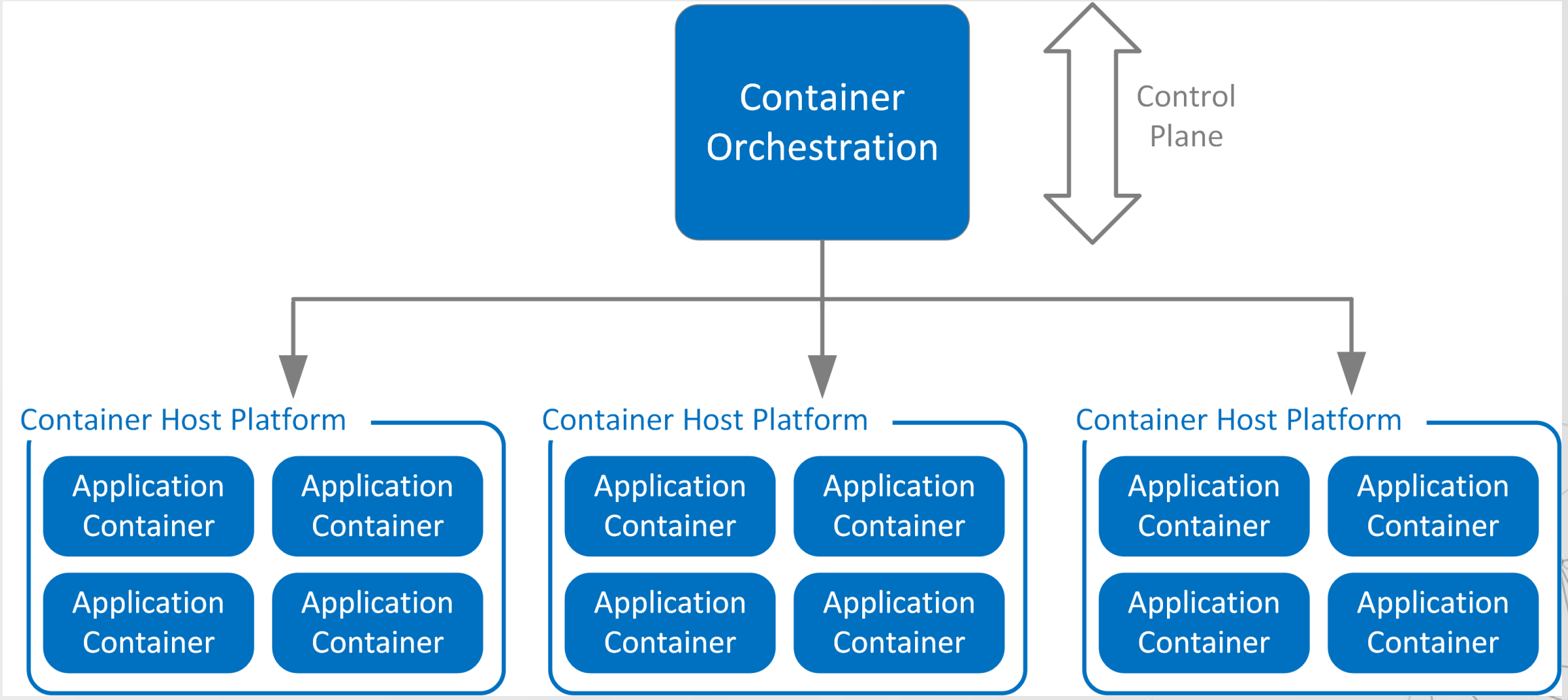
Google Kubernetes Engine (GKE)

"GKE is a Google-managed implementation of the Kubernetes open source containe

-Google Cloud Documentation



Source: https://www.techtalkthai.com/wp-content/uploads/2018/05/google_kubernetes_engine_architecture.png


Container Orchestration
Control Plane
Container Host Platform
Application Container
Application Container
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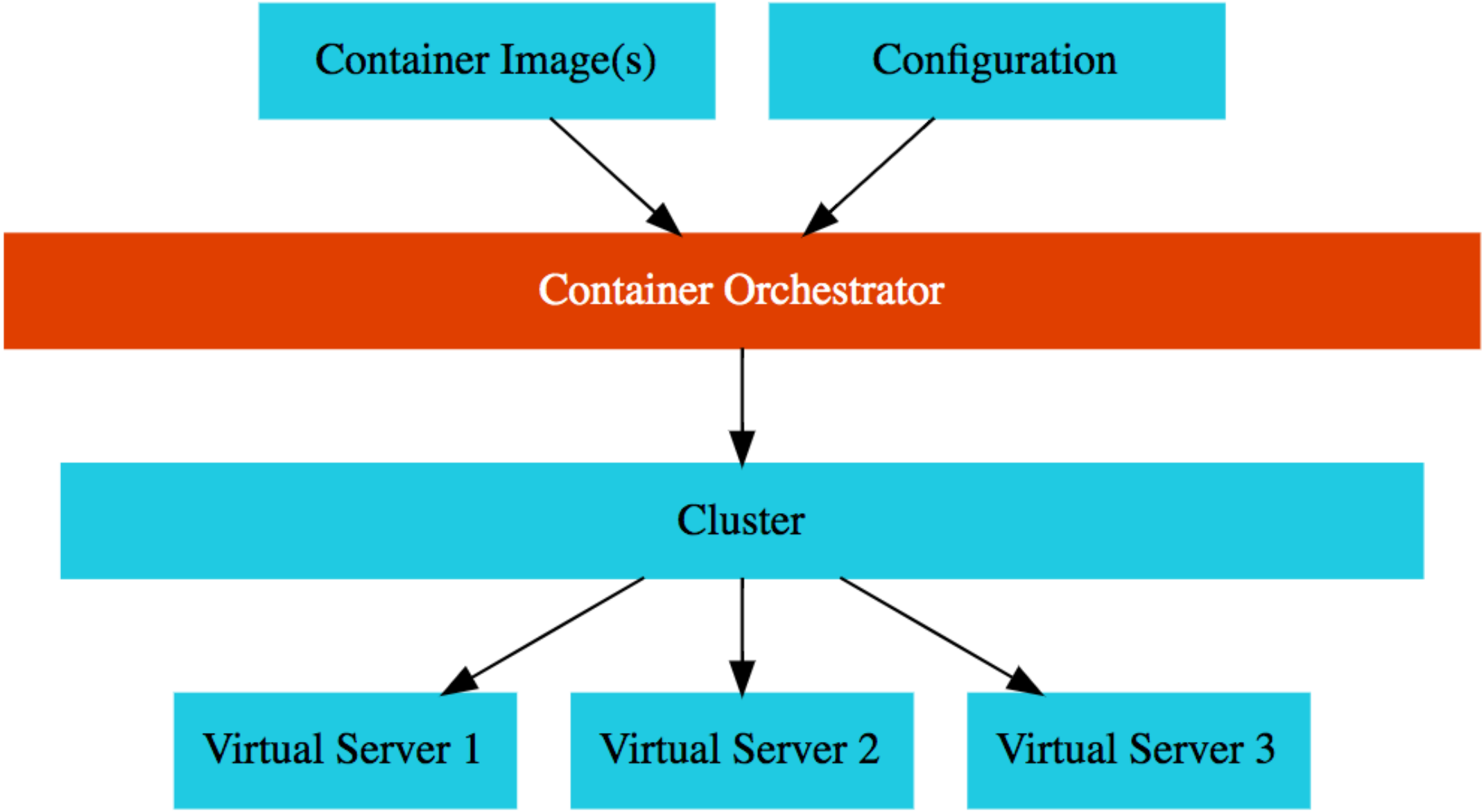
Container Image(s)
Configuration
Container Orchestrator
Cluster
Virtual Server 1
Virtual Server 2
Virtual Server 3

Containers

Containers are lightweight, standalone executable software packages that encapsulate all the components an application needs to run: code, runtime, system libraries, and system settings.
Containers are isolated from each other and from the host system
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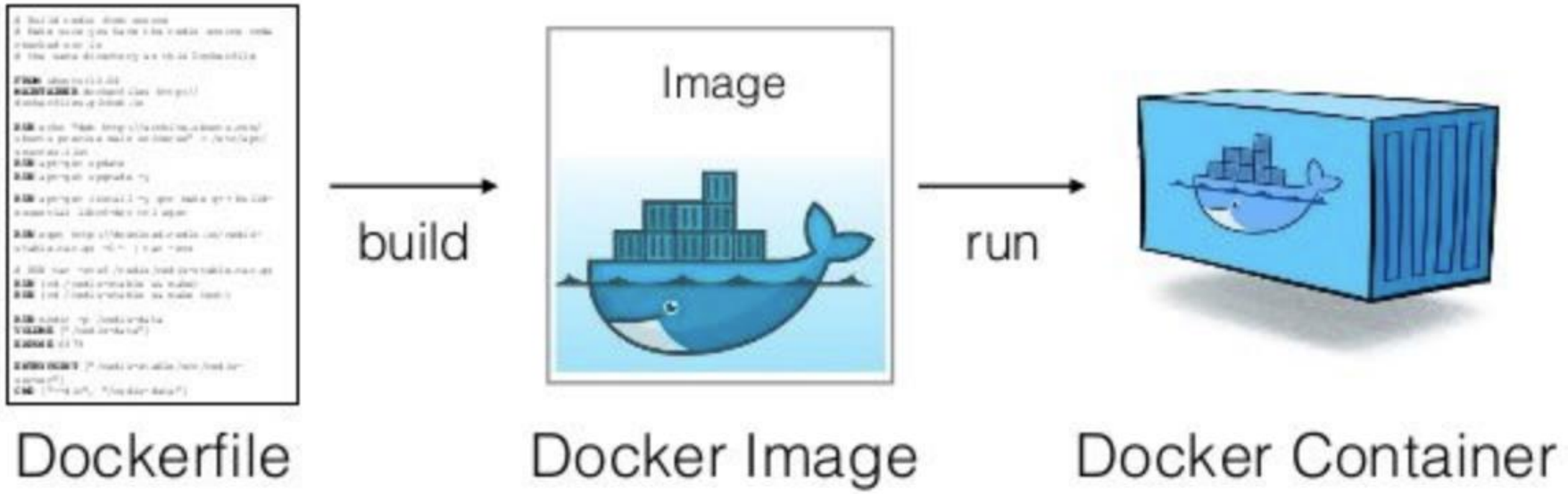
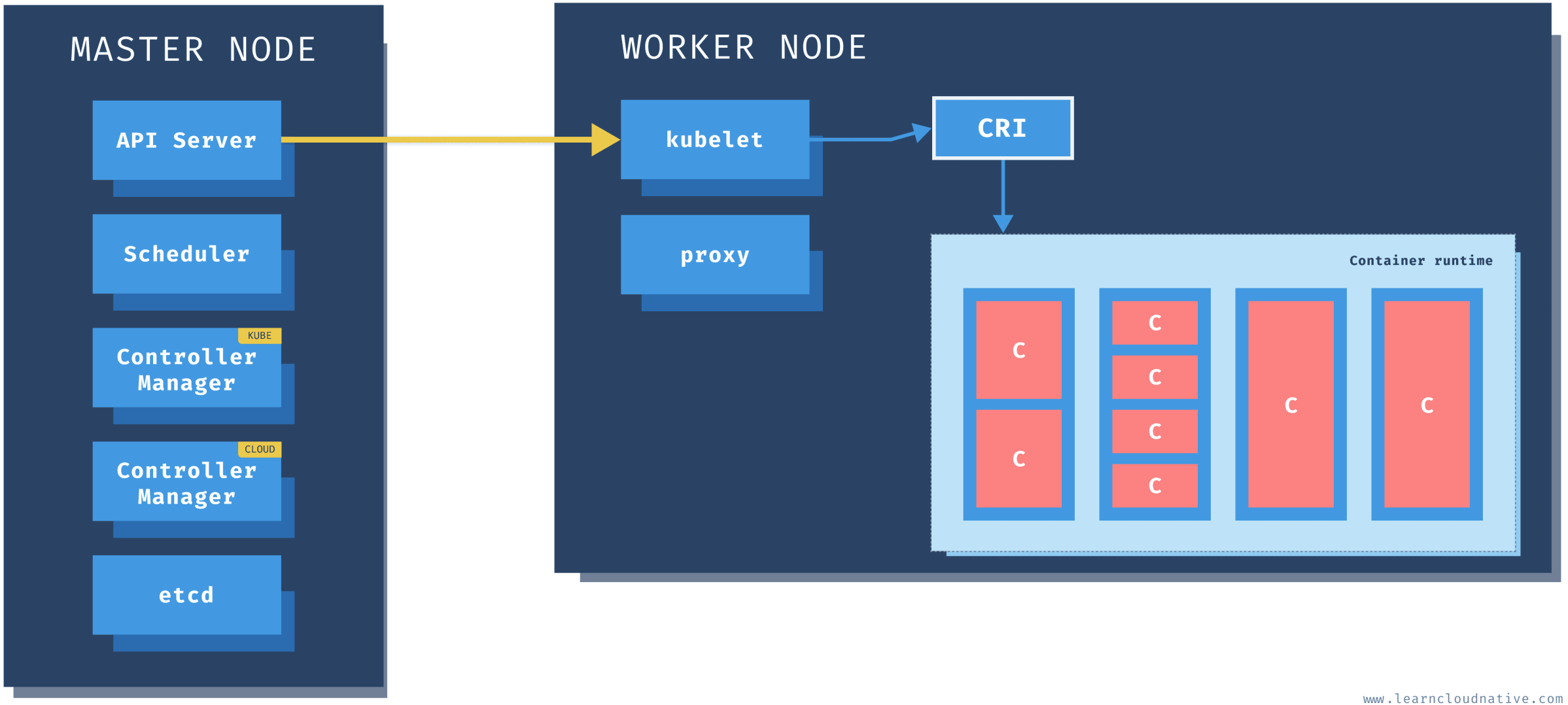


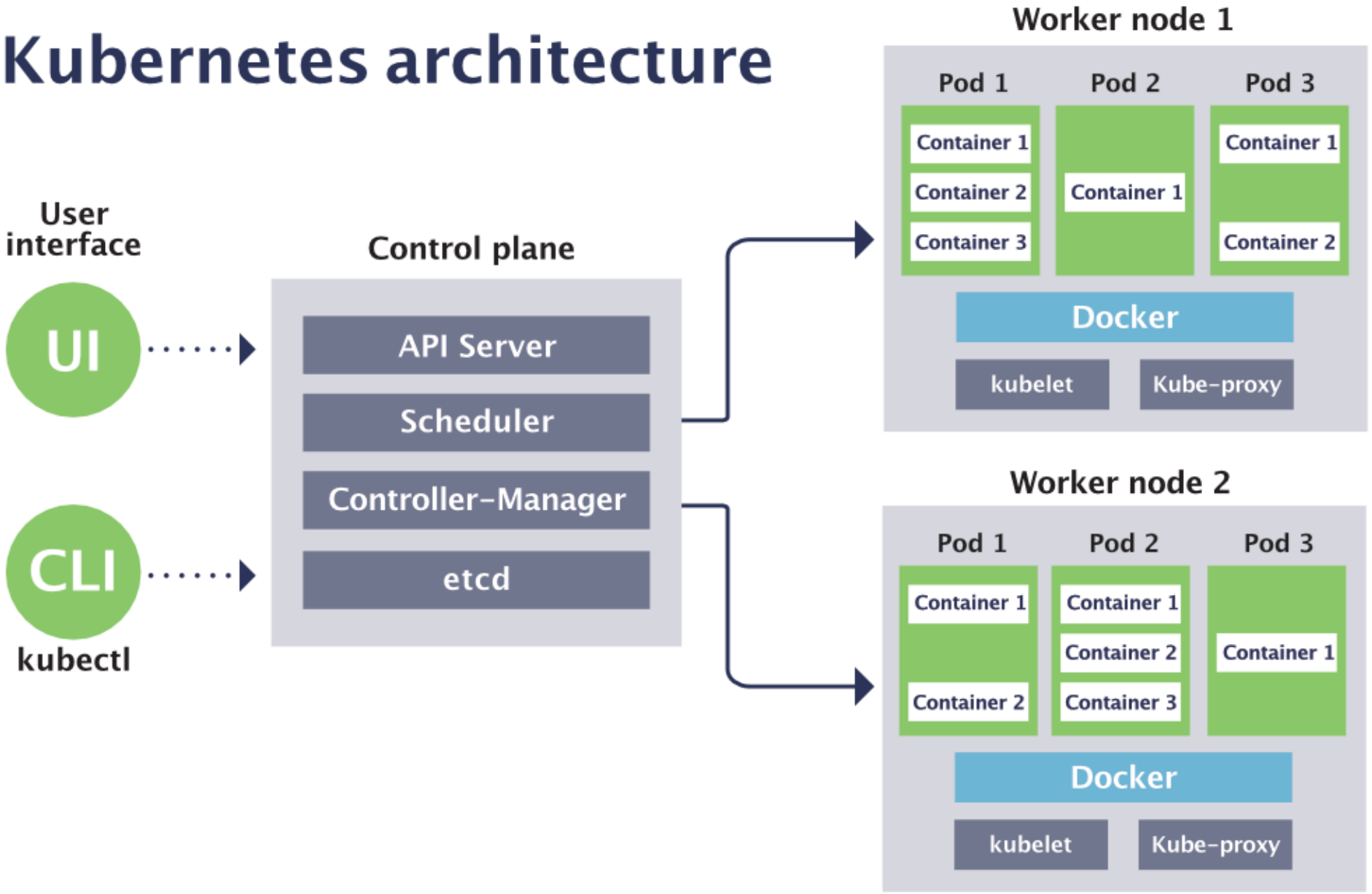
Use Cases for GKE

- ✓ Robotics
- ✓ Financial services
- ✓ Gaming
- ✓ Retail
- ✓ Healthcare
- ✓ Education

How GKE Works



Kubernetes architecture



Autopilot Clusters

- GCP takes care of managing and scaling the control plane, including the master nodes, etcd storage, and cluster upgrades.
- Cluster scaling, node upgrades, and health monitoring, reducing the operational overhead for the user.
- The cluster automatically provisions and scales nodes.
- [illegible] nodes based on workload demand.

Simplified, fully managed experience with automatic scaling and upgrades

Standard Clusters

- More flexibility and control over the Kubernetes infrastructure.
- More control over the management of the control plane, including upgrades, patching, and customization options.
- Allocate specific resources or isolate workloads.
- Provide more advanced features, such as node auto-scaling, node auto-upgrades, and custom machine types.
- [illegible] including monitoring, scaling, and

More control and customization over their Kubernetes infrastructure