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The bridge to possible

Building a Cloud-Native Environment from the Ground Up

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BRKCLD-1002



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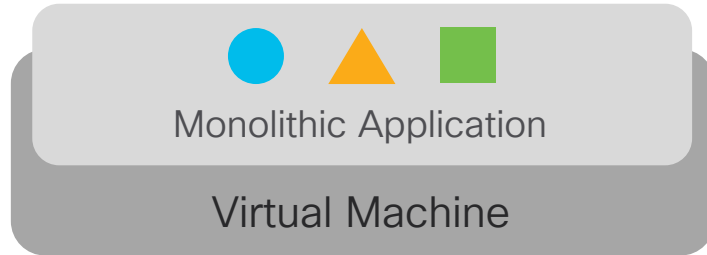
Agenda

- Understanding Cloud-Native
- Building Kubernetes clusters
- Secure connectivity across clusters
- Deploying applications
- Monitoring & Security

What is Cloud-Native?

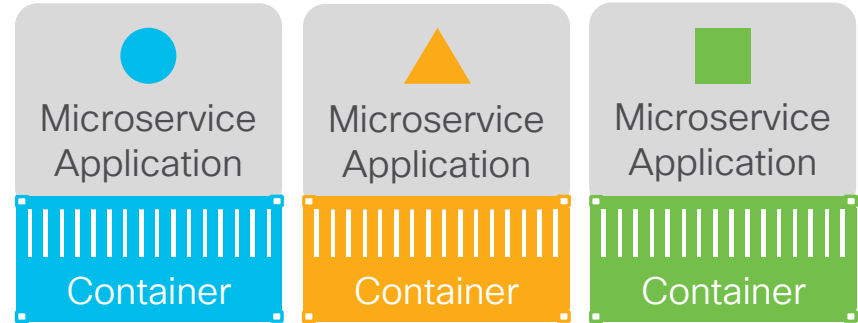
Cloud-Native is a collection of patterns, not a clearly defined standard

Traditional



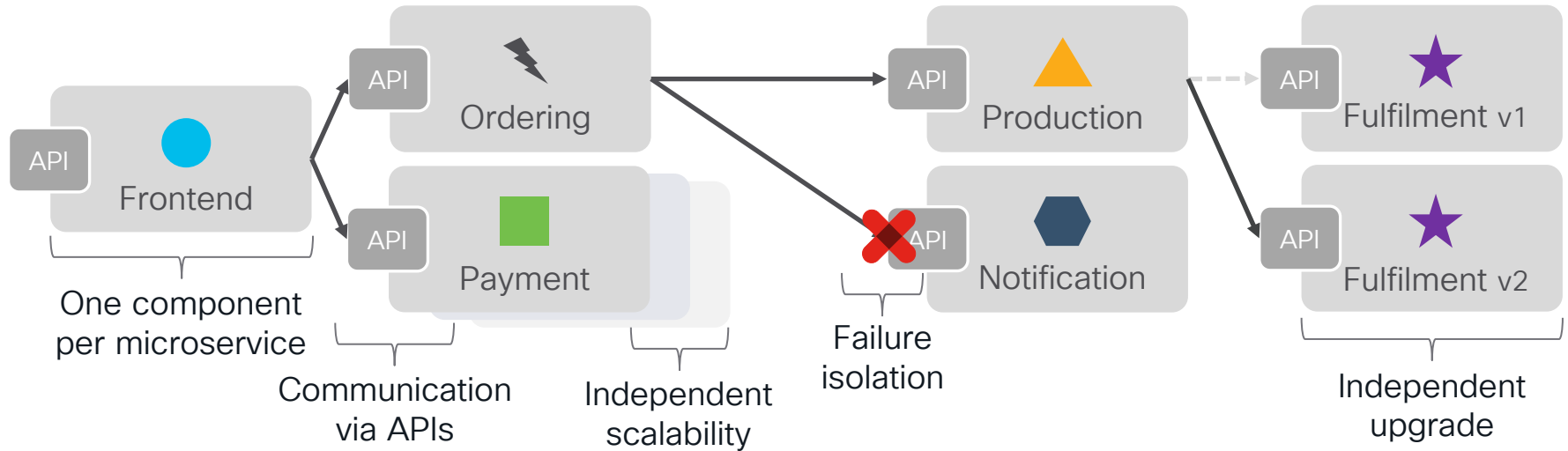
Infrequent releases due to interdependent components

Cloud-Native

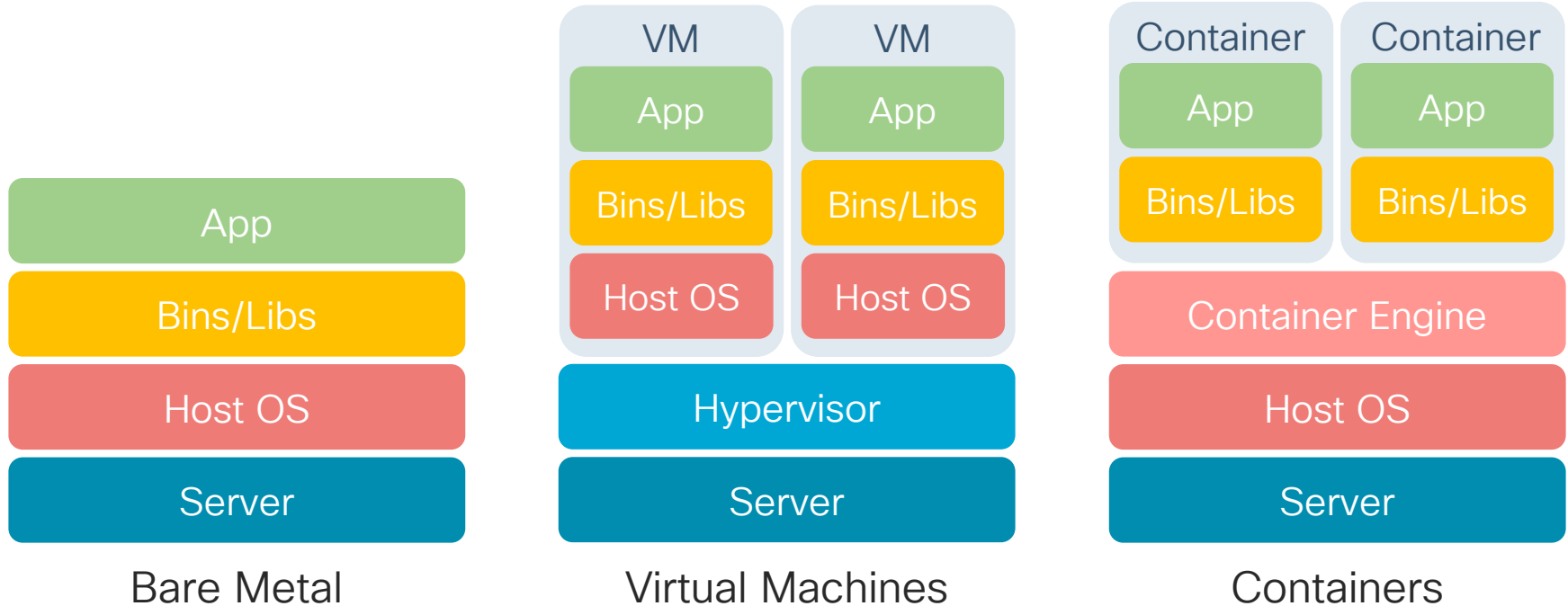


Independent releases with high frequency through CI/CD
(Continuous Integration / Delivery)

What are Microservices?



Containers – What Is This all About?

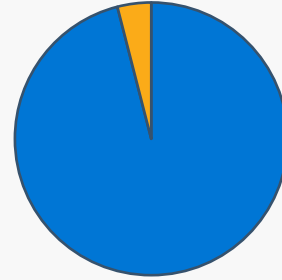
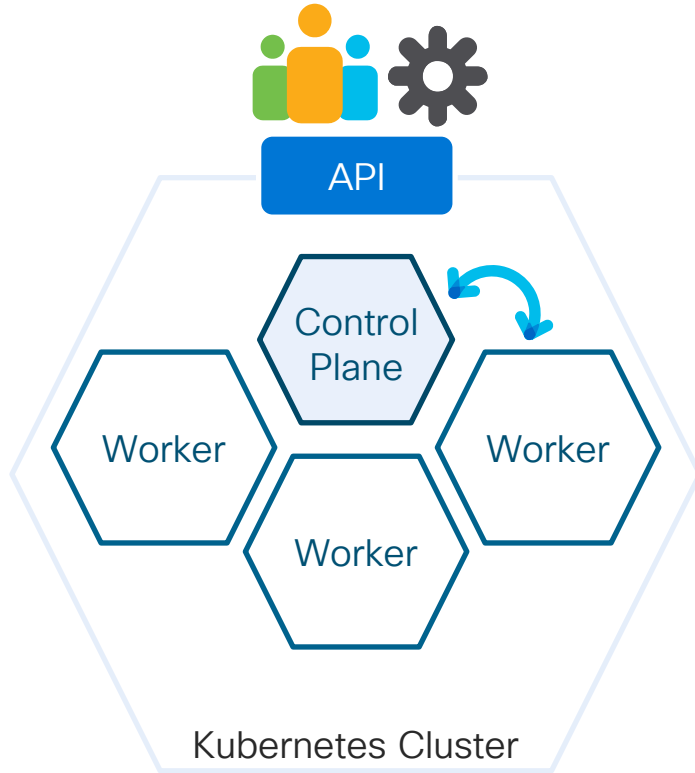


The Need for Container Orchestration



Container engines are not multi-host aware

What is Kubernetes?



Kubernetes is the
#1 choice for
container orchestration

Source: Sysdig usage report 2022

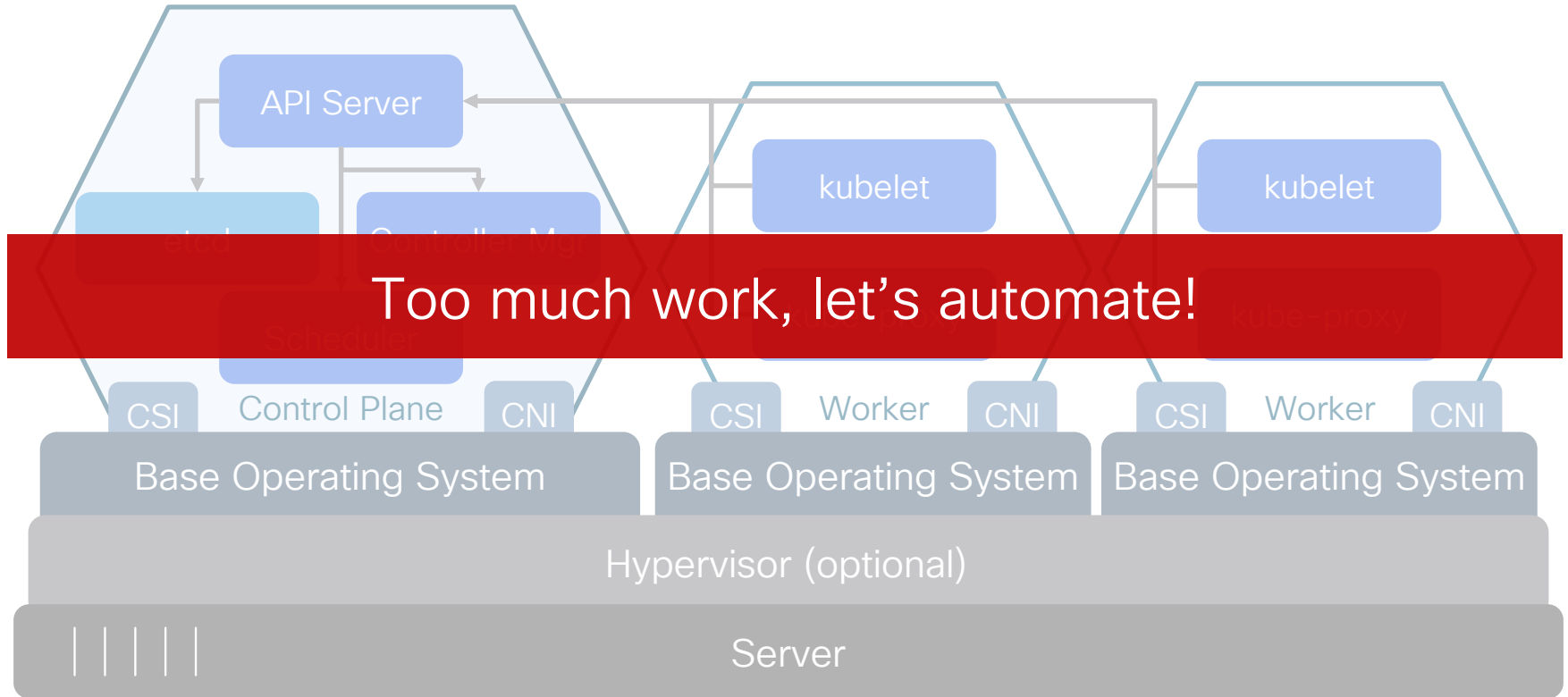
Control Plane

Manages the
Worker Nodes

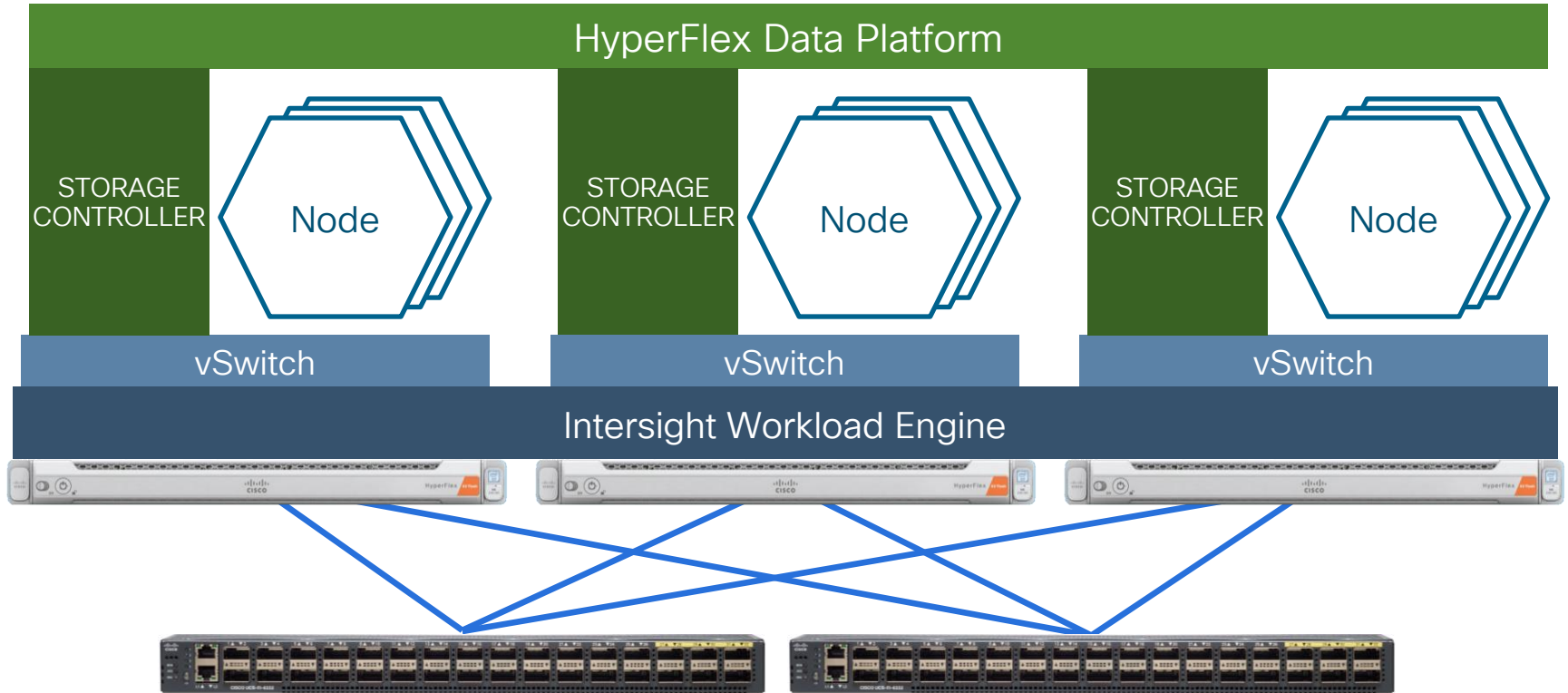
Worker

Runs app containers

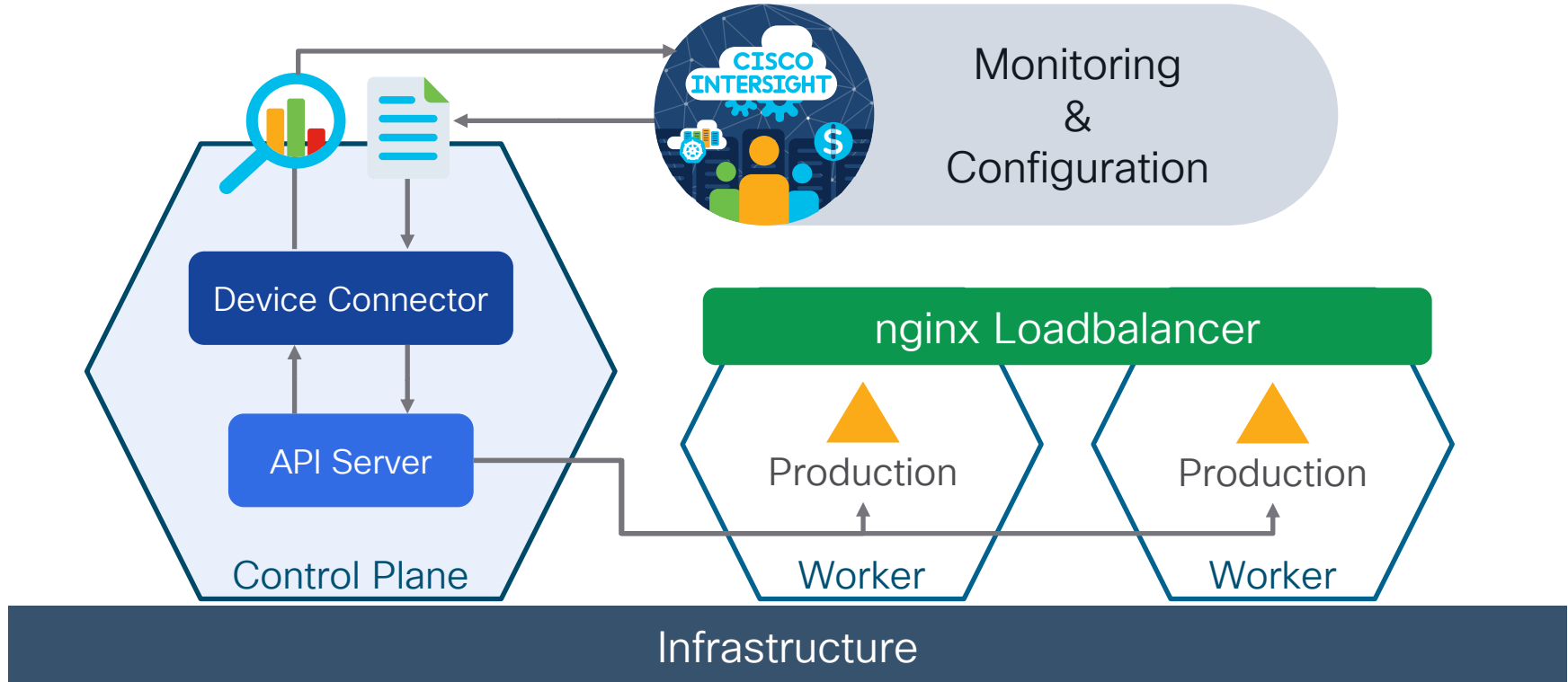
The Complexity of Kubernetes



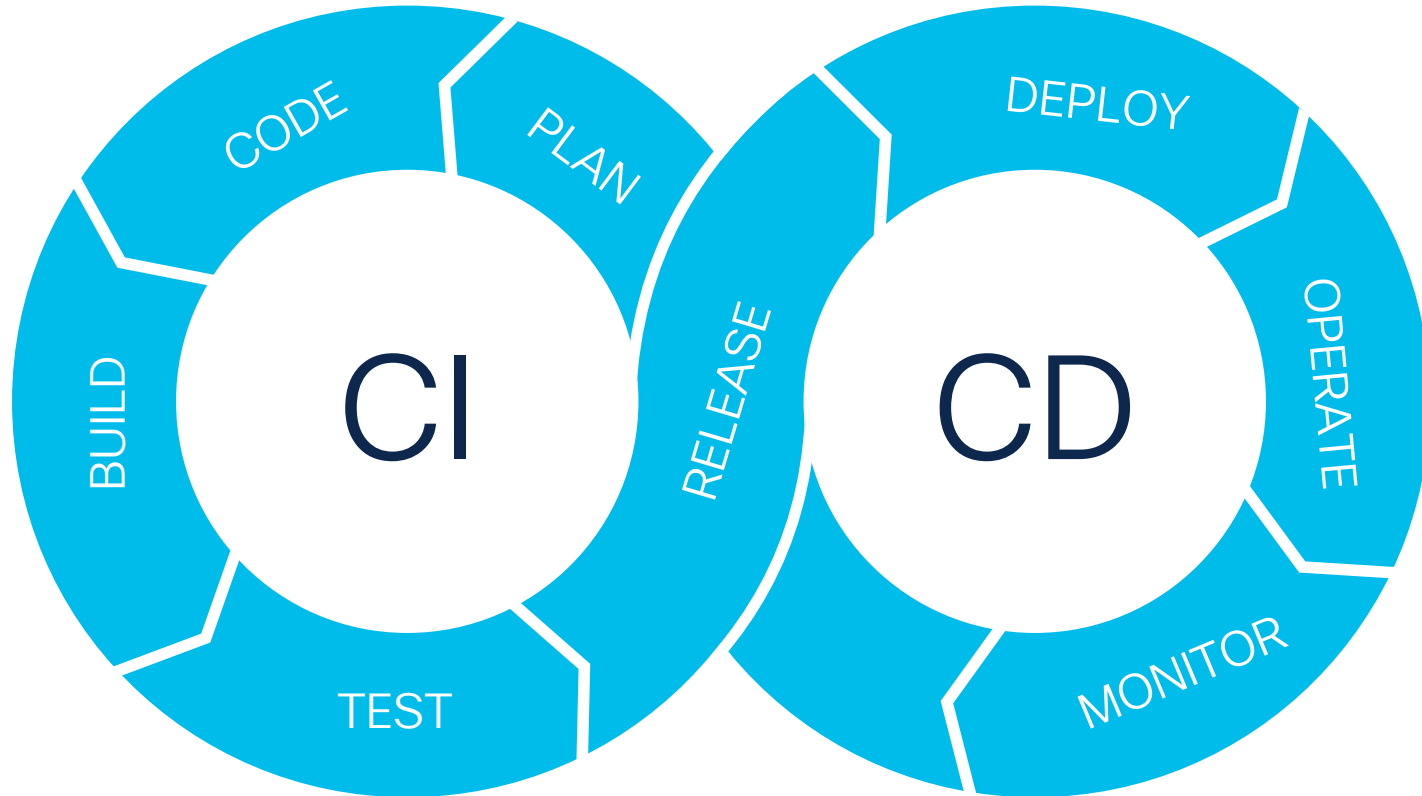
Provisioning a Kubernetes-ready Stack



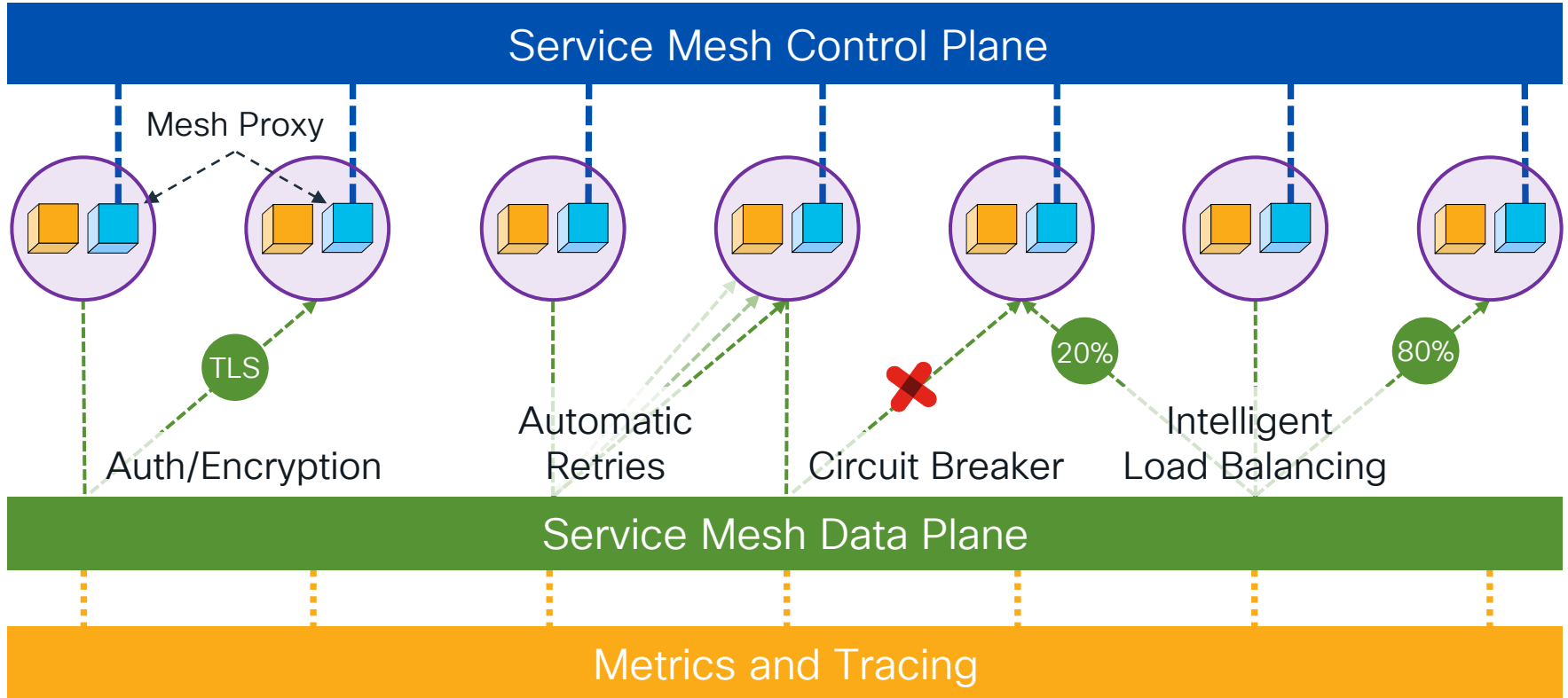
Deploying a Kubernetes Cluster



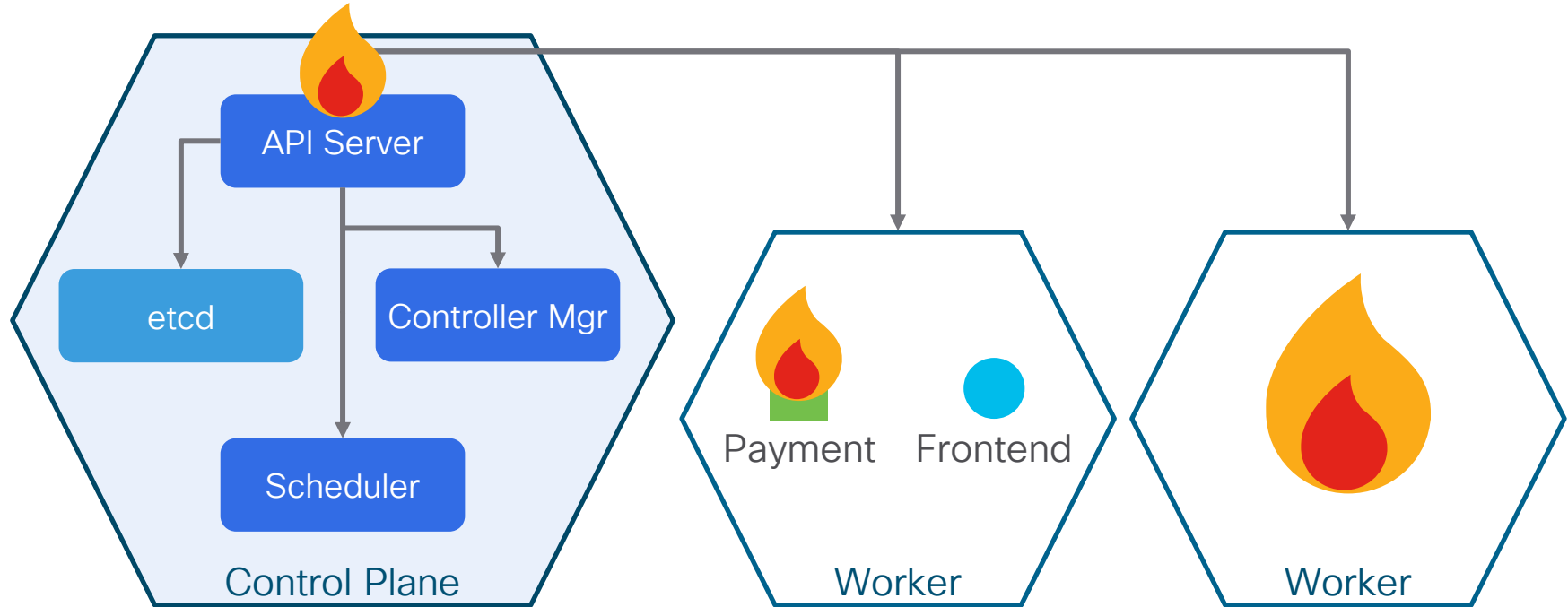
Continuous Integration / Continuous Delivery



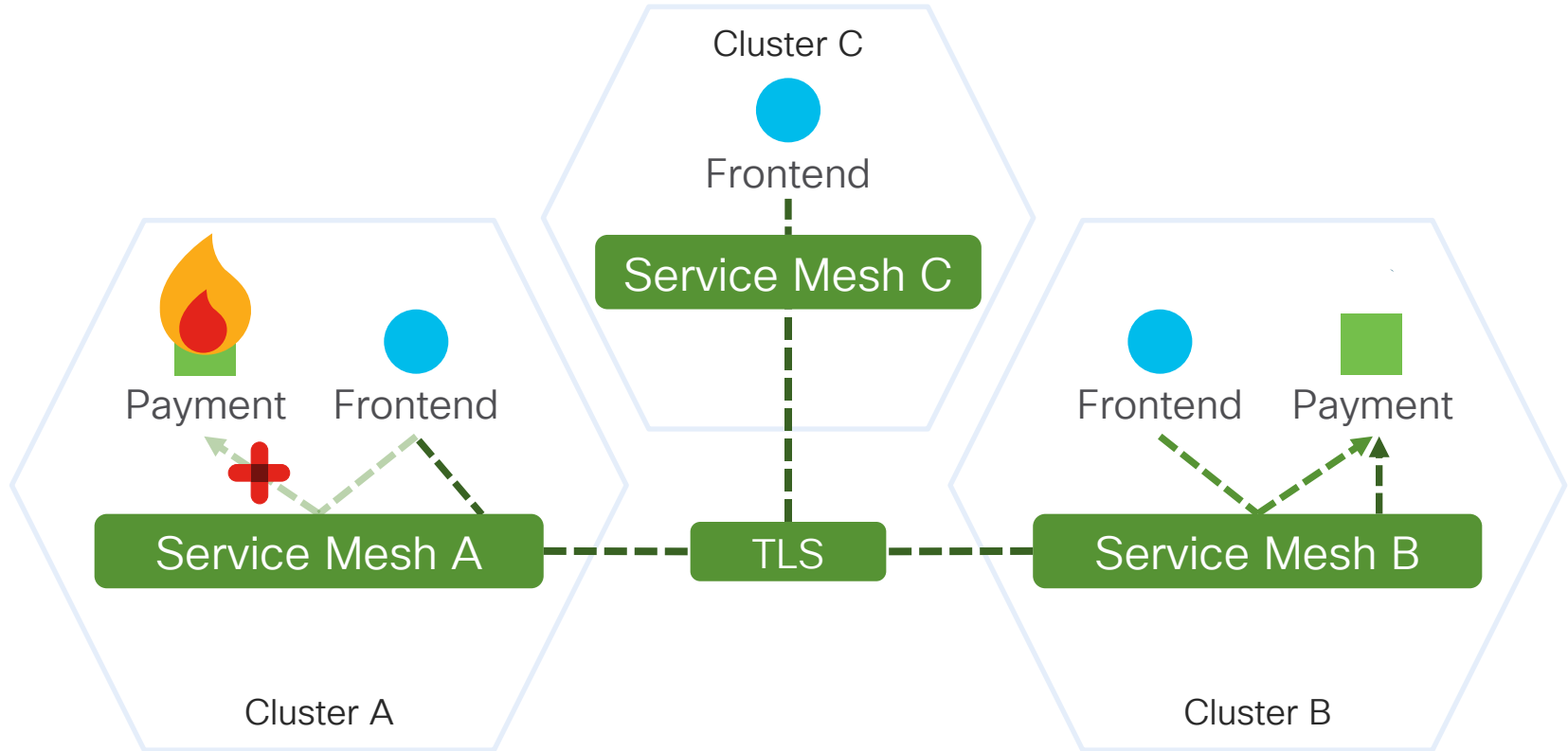
Service Mesh to Improve Microservices



Single Cluster = Single Failure Domain



Building a Multicluster Environment



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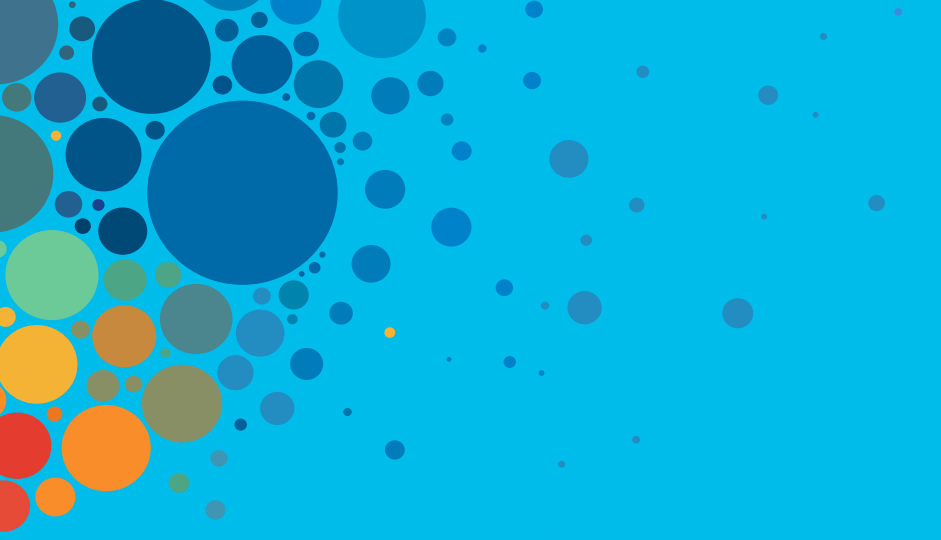
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Thank you

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