



# Monitoring and Logging: Pivotal Container Service

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Fall 2018



# Kubernetes is a Runtime for Containerized Workloads

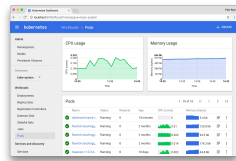


App User



Dev / Apps

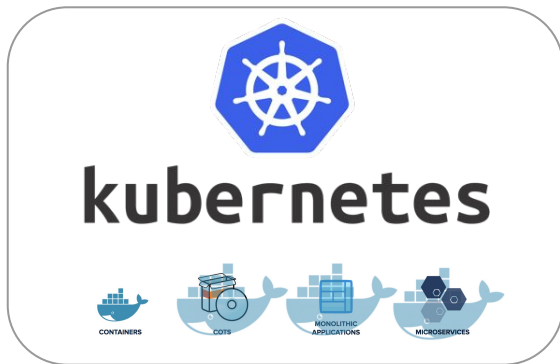
```
> kubectl
```



Kubernetes Dashboard



IT / Ops

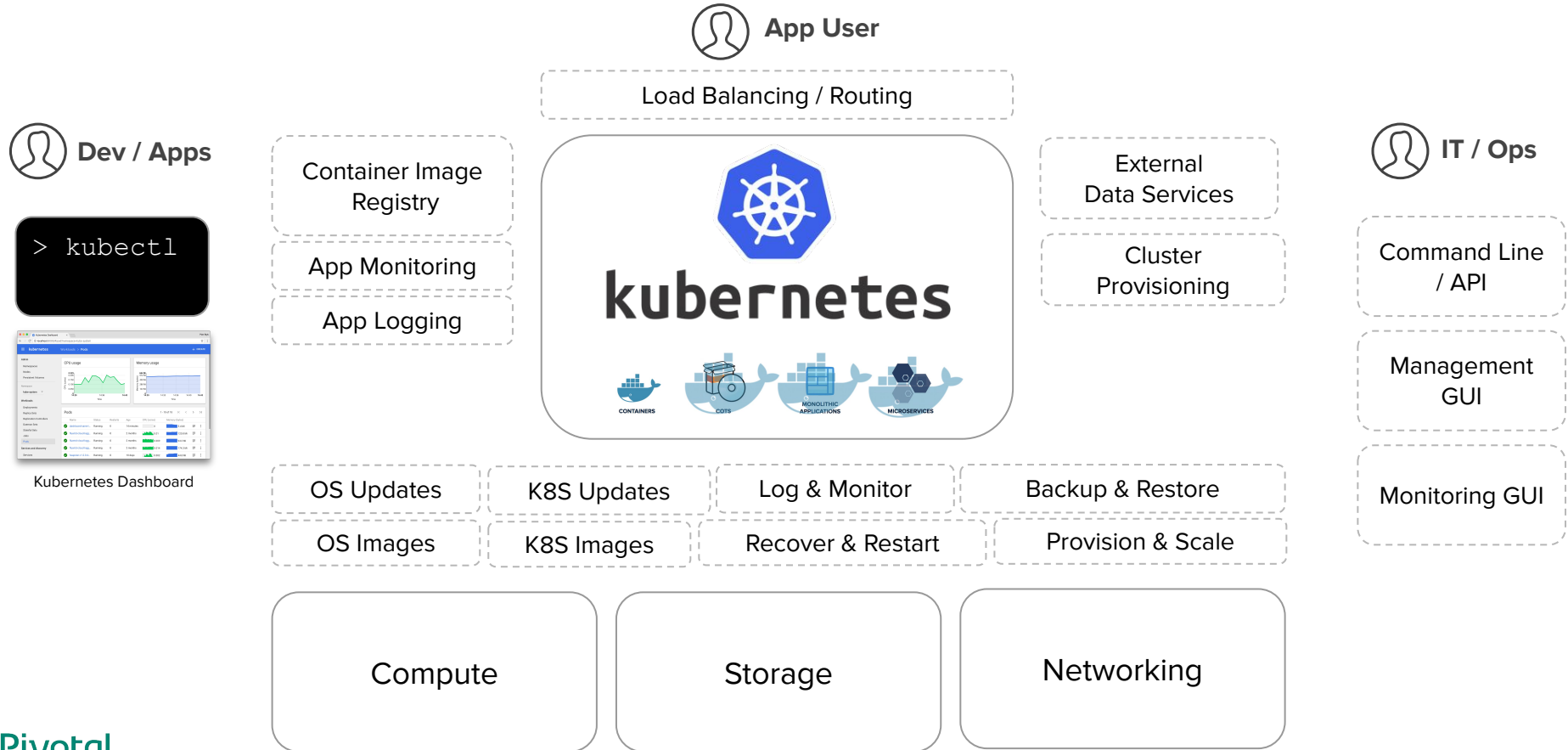


Compute

Storage

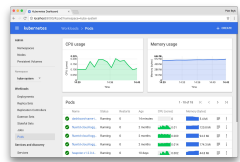
Networking

# ...but Kubernetes alone is not enough for enterprises



 **Dev / Apps**

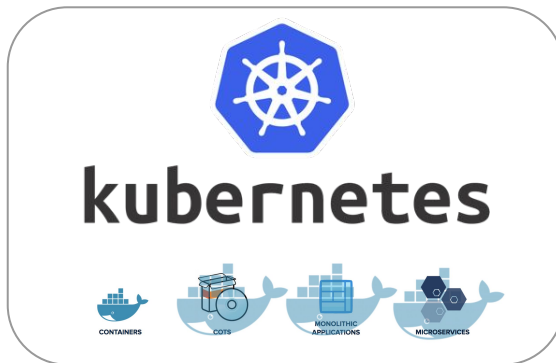
```
> kubectl
```



Kubernetes Dashboard

 **App User**

Load Balancing / Routing



Container Image Registry

App Monitoring

App Logging

External Data Services

Cluster Provisioning

 **IT / Ops**

Command Line / API

Management GUI

Monitoring GUI

OS Updates

K8S Updates

Log & Monitor

Backup & Restore

OS Images

K8S Images

Recover & Restart

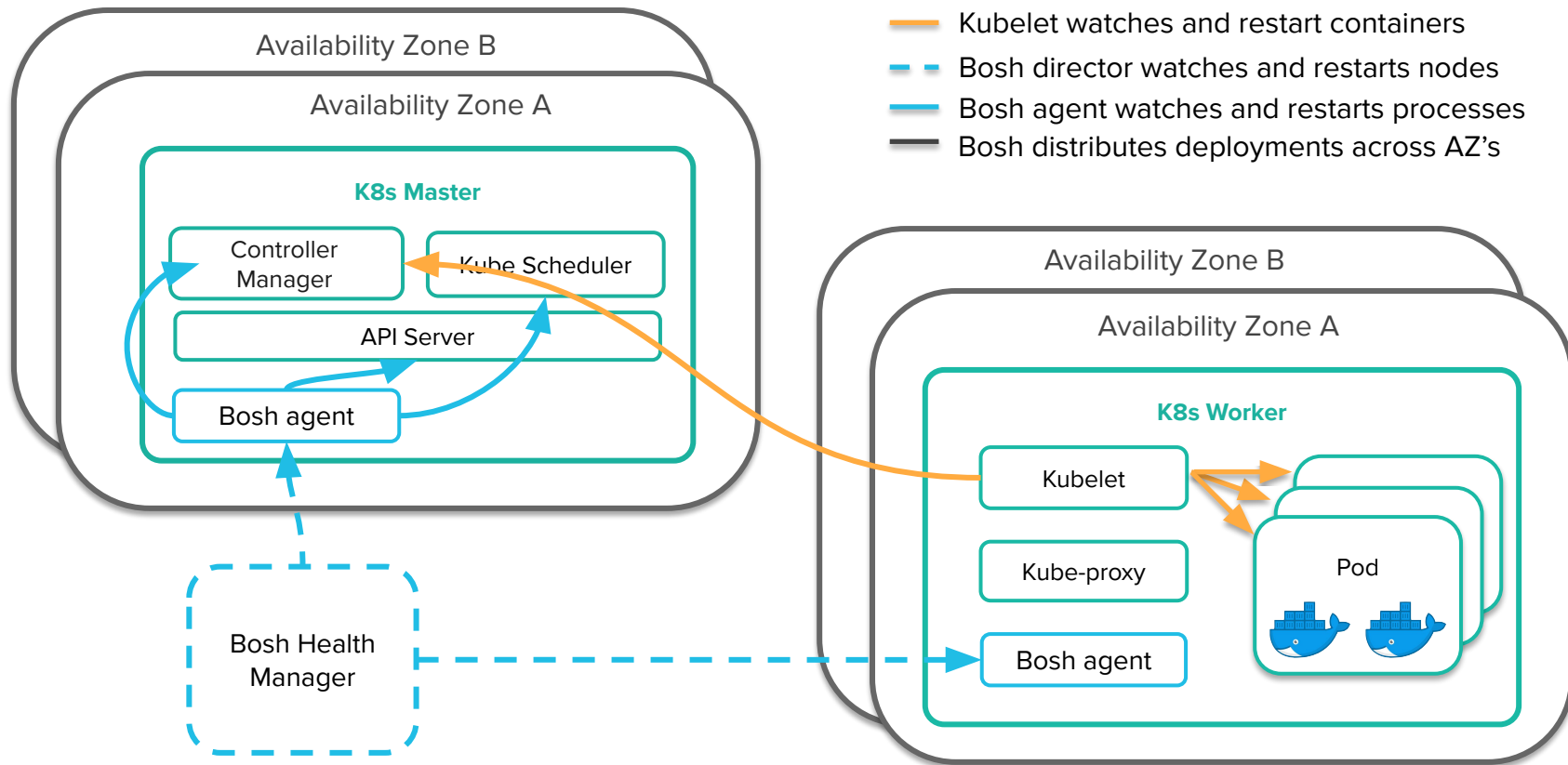
Provision & Scale

Compute

Storage

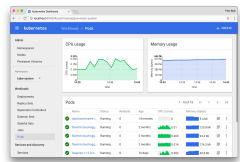
Networking

# PKS Health Management



 **Dev / Apps**

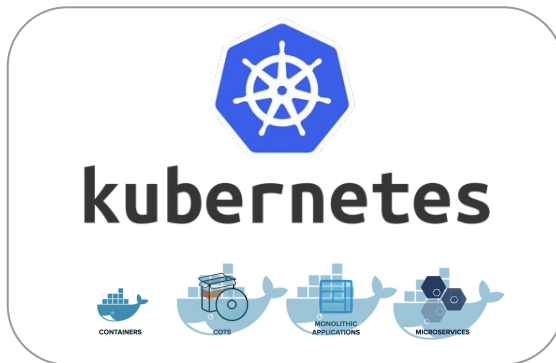
```
> kubectl
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Kubernetes Dashboard

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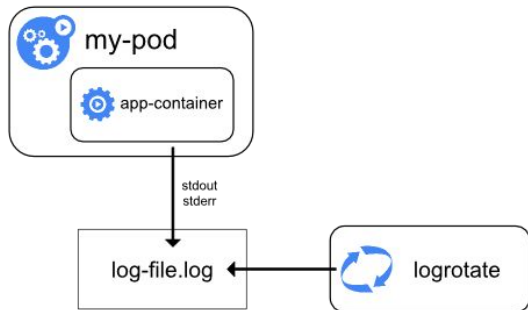
Compute

Storage

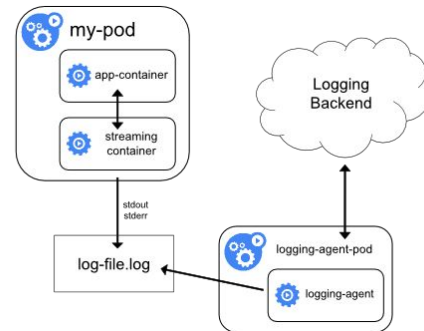
Networking

# Kubernetes Logging Architectures

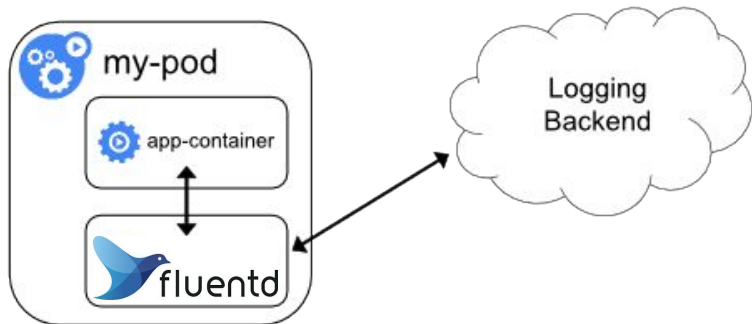
Node Level Logging



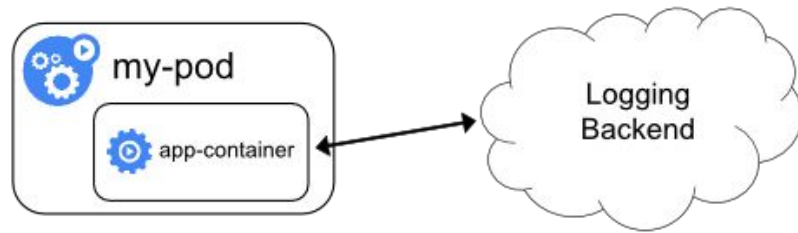
Cluster Level Node Logging Agent



Cluster Level  
Sidecar Container with Logging Agent



Cluster/Namespace Level  
Exposing Logs Directly



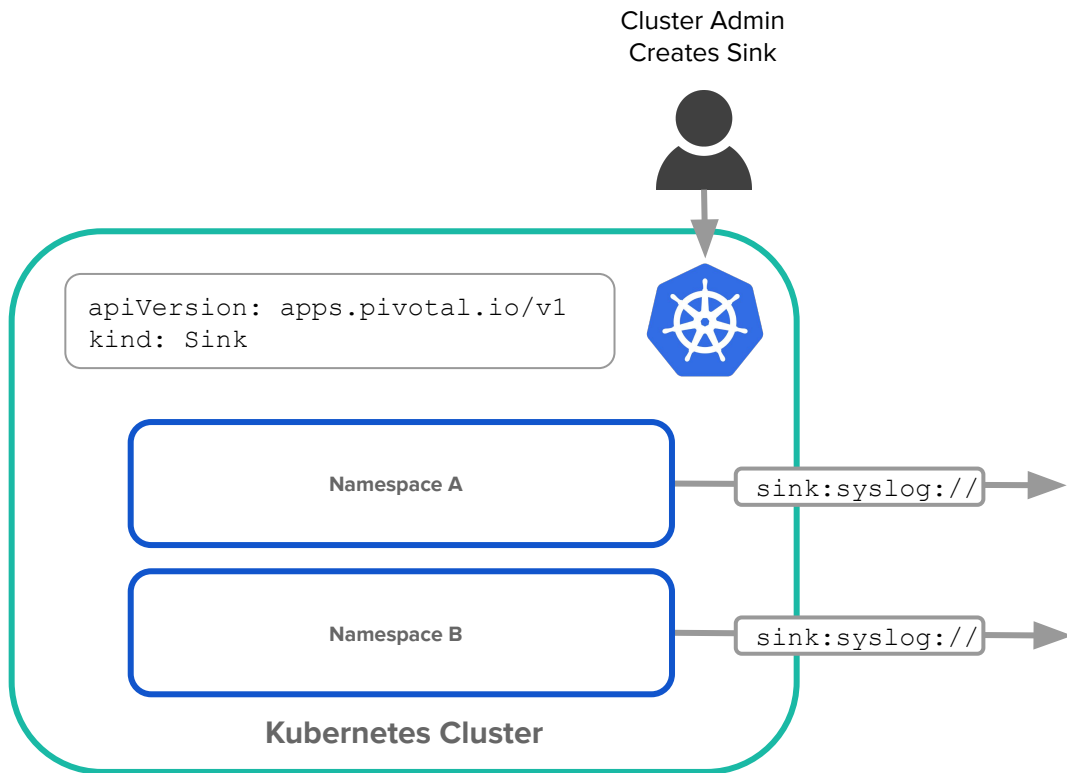
# Namespace or Cluster Sinks

## Apply to namespace

```
>_ kubectl apply -f sink.yml
```

### sink.yml

```
apiVersion: apps.pivotal.io/v1beta1
kind: Sink
metadata:
  name: YOUR-SINK
  namespace: YOUR-NAMESPACE
spec:
  type: syslog
  host: YOUR-LOG-DESTINATION
  port: YOUR-LOG-DESTINATION-PORT
  enable_tls: true
```

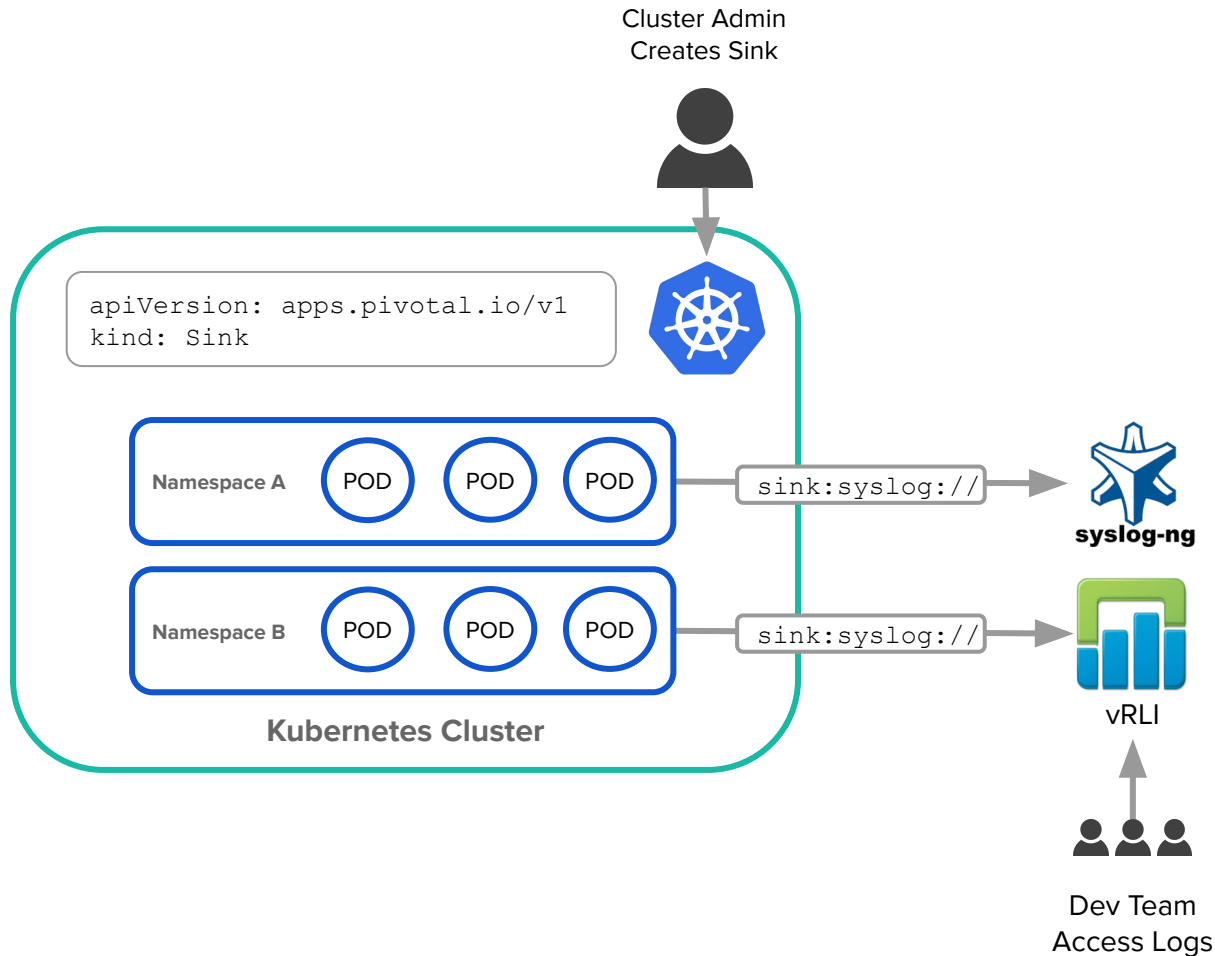




# LogInsight by VMware Integration

Application Logging End To End

Pivotal



# Log Types

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Other logging considerations

- BOSH Syslogs
- PKS API Server Logs
- K8s Node Logs
- NSX-T Logs
- ESXi Logs

VREALIZE IS AWESOME AND CAN GRAB ALL THOSE!



# Pivotal Container Service (PKS)

Production-Grade Kubernetes