Kubernetes

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LEAN ON LEARNING

Container : Packages software to standardized units for development, shipment and deployment.

Remove Problems :

- Consistent Enviroment.
- Repeatable Deployment.

Containers are not sufficient alone :

- Scheduling
- Affinity/ Anti - Affinity
- Health Monitoring
- Failover
- Scaling
- Networking
- Service Discovery
- Coordinated app Upgrades

Why to Choose Kubernetes

- Community Adoption and innovation
- Support wide variety of workload like batch, stateless, stateful, 12 factor
- offered as service by all cloud provider
- Declarative , efficient scheduling, extensible and stable API

Platform Means different things to different people

Three type of platform

- Offering / Service Provider
- Digital business platform
- Foundation Technology platform

Key principles for building a successful platform

- Creates a path of least resistance
- Reduces cognitive loads of developer
- Enable feature development teams to deliver work with self service capabilities
- Make the right thing the easiest thing to do

Three building blocks for platform

- Toolbox
- Magnet
- Matchmaker

Thinking about platform as a product

- Reliable
- Fit for purpose

Platform Metrics

- Product Metrics
- User satisfaction Survey
- Adoption and engagement metrics
- Reliablity metrics

Approach

- DEfine platform principles
- Identify kubernetes distribution
- Pick essential components
- Consider infrastructure and operational concerns

Important consideration

- Cluster setup
- workload distribution
- infrastructure concerns