The Hidden Costs of Kubernetes

Bridget Lane
Marcelo Mandolesi
Previous:
$800/Day

Now:
$400/Day

Cost

Previous:
2 Hours

Now:
15 Minutes

Deployment Time

Previous:
3-4 Hours

Now:
10 Minutes

Failover

Previous: Dependent on Platform team

Now: Totally self dependent

Developer Time

@bridgetnomnom @mand0
Deploys + CI

From:
- Custom API for deploys
- Totally different CI per team

To:
- Helm
- CI as a service
- Shared DSLs

@bridgetnomnom @mand0
Monitoring + Logging

From:
- Manual creation of monitoring
- Logs only in cluster

To:
- Terraform
- Sumo Logic

@bridgetnomnom @mand0
Secrets + Configs

From:
• K8 secrets
• K8 configmaps

To:
• Hashicorp Vault
• Hashicorp Consul

@bridgetnomnom @mand0
Maintenance

From:
• Unclear SLA’s and responsibilities
• Volatile upgrades

To:
• Cluster operations team
• Smoother upgrades

@bridgetnomnom @mand0
Billback + Showback

- Cost tracking
- Scalr (CMP) per-team allocation
- Shared GKE labels and namespaces
Right sizing

- VM to containers 1-1 match
- Load testing
- Hidden bottlenecks
- Over provisioning VS rearchitecting
- Architecture Council

@bridgetnomnom @mand0
Documentation

• Pre-planning
• Defining standards
• Strategy

Adoption rate

@bridgetnomnom @mand0
Employee Happiness

- Re-tasking employees
- Job changes
- Ripple effect
- Shared, cross-team problem
- Migrating culture

$ Employee morale
Employee burnout

@bridgetnomnom @mand0
Cost of Not Migrating?