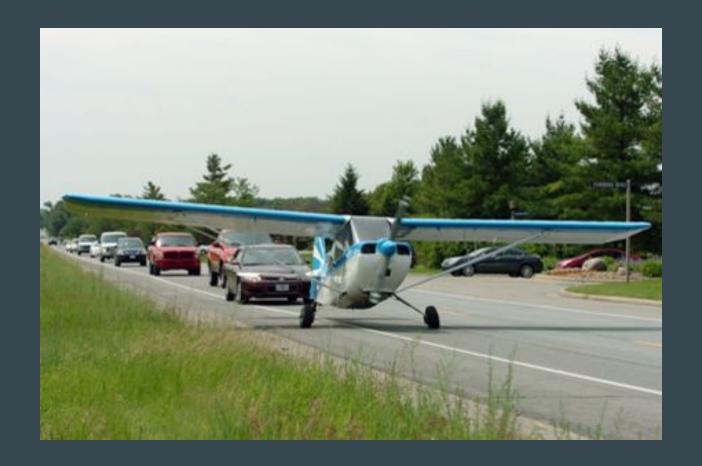
Kubernetes IRL

•••

In Real Life.





@containersoluti



Outline

- What is (Container) Orchestration?
- Cloud Native Maturity
- Kubernetes in the Wild
 - Where to run?
 - Handling environments and security
 - Configuring your applications
 - Monitoring
- Wrap up

This talk is not...

- An argument for Orchestration
- Promotion of Kubernetes
- Kubernetes 101



produce a desired effect, especially surreptitiously" MAGIC

"The planning or coordination of the **elements** of a situation to









"Tools will not solve your people issues."

CLOUD NATIVE MATURITY

	i			i	i
CULTURE What is the culture of the Organization?	Individualist	Predictive	Iterative	Collaborative	Experimental
PROD/SERVICE DESIGN What drives design decisions?	Arbitrary	Feature driven	Functional	Market driven	Data driven, strategic
TEAM How is the team organised?	No organization, single contributor	Hierarchy	Cross functional teams	DevOps	Multi-disciplinary, de-centralized
PROCESS What is the collaboration process like?	Random	Waterfall	Scrum/Kanban	Holocracy	Distributed, self-organized
ARCHITECTURE What is the application architecture?	Spaghetti code	Tightly coupled monolith	Client server	Microservices	Functions
MAINTENANCE How is the app monitored and maintained?	Users calling to complain	Manual patches	Alerting	Comprehensive monitoring	Self healing
DELIVERY How are the software and updates delivered?	Manual installation	Monthly releases	Continuous Integration	Continuous Delivery	Continuous Deployment
INFRASTRUCTURE What is the infrastructure the app is running on?	Single server	Scripts	Puppet/Chef /Ansible	Hybrid cloud, orchestration, Kubernetes, Mesos	Unikernels, serverless
Time/Evolution	60'-70'	80'-00'	00'-10'	10'-20'	20'+



PHASE 1 PHASE 2 PHASE 3

Kubernetes



Profit



The stories you are about to hear are true. Only the names have been changed to protect the innocent.



or



disruptiveStartUp.io



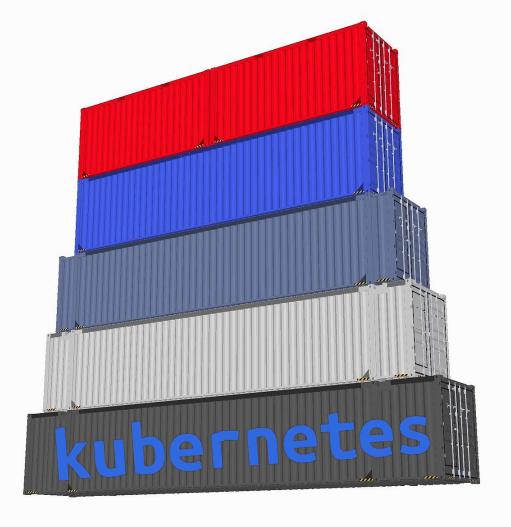
secretForeignGovtDept.xx

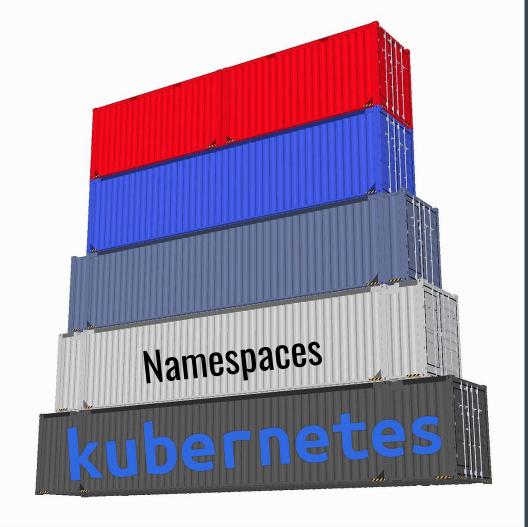


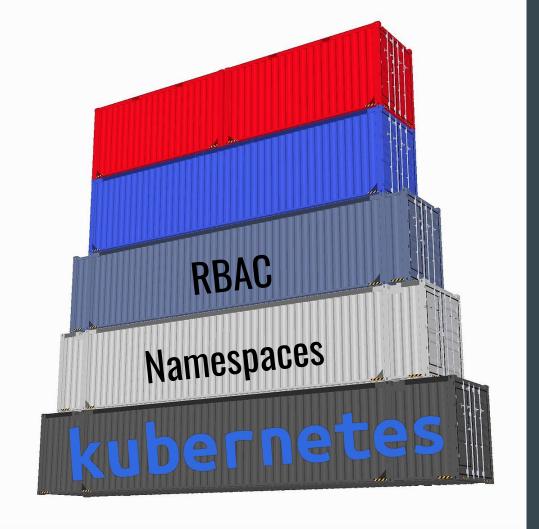


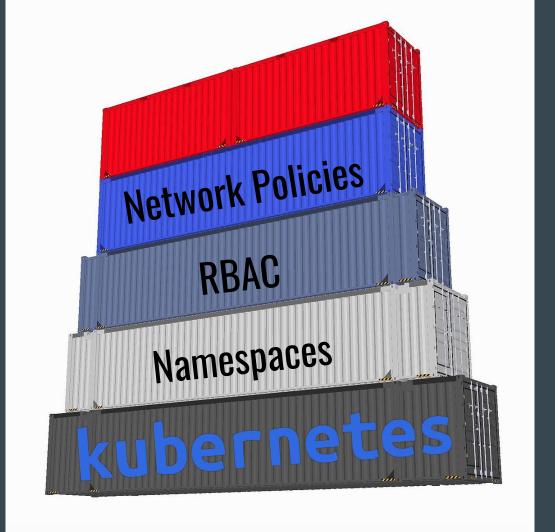
genericWeatherService.com

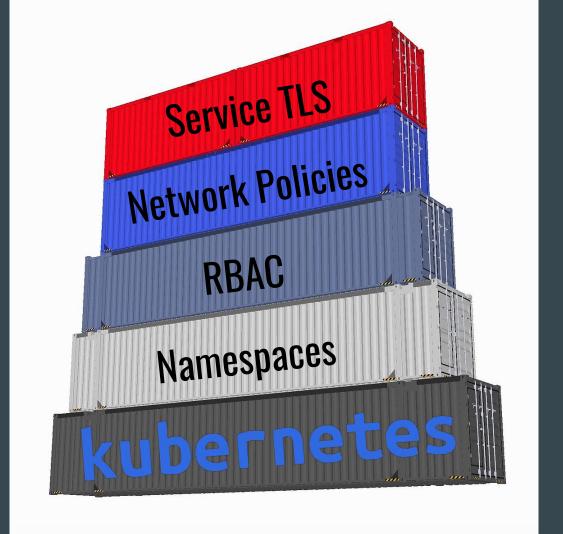












Deploying your applications



\$ kubectl run this-app --image=my-app

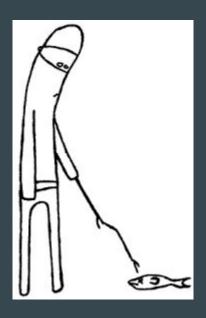
governmentBranchService.org

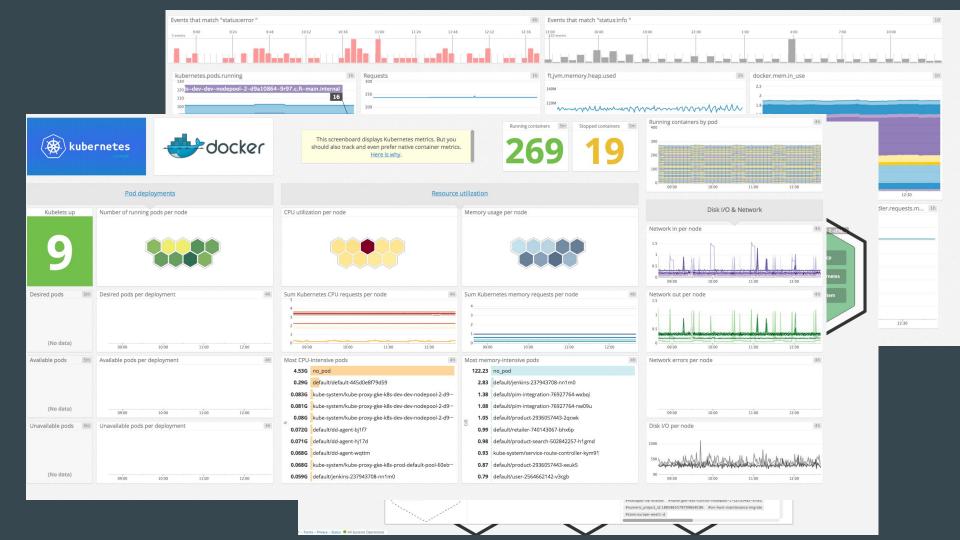


Quality of Service (QoS)

- Guaranteed
- Burstable
- Best Effort

Monitoring





Takeaways

- Orchestration is the future (for most of us)
- Don't put the cart before the horse
- Cloud Native is not just about the tools
- Leverage the technology

Thanks

Ian Crosby @iandcrosby

