

How to get stuck on your container journey to the promised land



Agenda

Introduction

- Speaker
- Disclaimer

Goal of this talk

An EKS case study

- Knowledge
- Security controls
- Fake cloud agnosticism
- DevOps vs Platform Engineering
- Over-engineering

Introduction

Speaker

- Sidney Borrego y Diaz
- Cloud Consultant at Oblivion, part of Xebia
- AWS Certification no-lifer
- Casual gamer & mediocre retail trader
- Last public talk dates back to the Puppet era
- Experience with EKS



DISCLAIMER

Goal Of This Talk

- Go over some of the commonly forgotten implications of adopting EKS
- Identify risks introduced by Medium.com architects & technology enthusiasts
- Provide you with food for thought
- I'm not going to provide you with a solution
- Slightly enterprise focused

Knowledge

An EKS Case Study

- Migration to AWS
- Adopting a new way of working
- Scarcity of capable people
- EKS is a platform on its own
- It's not just Kubernetes:
 - Fluentd
 - AWS Load Balancer Controller
 - External DNS
 - CNI
 - Certmanager
 - Cluster Autoscaler
 - Istio
 - Prometheus
 - Open Policy Agent



Security Controls

An EKS Case Study

- Enterprises are often subject to regulatory compliance requirements
- Enterprise architecture requirements
- Multiple implementations of the same controls
- Access control
 - AWS IAM roles
 - ClusterRoleBinding
- Continuous compliance
 - AWS Config
 - Open Policy Agent
- This dynamic changes depending on cluster management model
 - Dedicated cluster per development team
 - Shared clusters



DevOps vs Platform Engineering

An EKS Case Study

- “We want to embrace DevOps”
- Tightly coupled with knowledge
- Not able / willing to train entire workforce
- Expert team
- “You build it, you run it” turns into “You build it, you run it and I’ll use it”
- Security controls
- Micro-segmentation

Fake Cloud Agnosticism

An EKS Case Study

- So-called exit strategy
- Previously mentioned tools usually have cloud-specific implementations
 - Logging
 - Storage
 - Networking
- This transition can be smoothed by preparing a cluster baseline module ready for teams to use
- Maintaining costs time, effort and money
- All to ensure we don't have to write new YAML

“Don't get locked up into avoiding lock-in”

- Gregor Hohpe

Xebia

Over-engineering

An EKS Case Study

- This is the domain of technology enthusiasts
- Résumé-driven architecture
- Over-engineering can be seen in 2 dimensions
 - The workload
 - The platform
- The workload
 - Commercial off-the-shelf
 - The use of shiny toys
- The platform
 - Opinionated configuration
 - A Ferrari in a residential area

Thanks for listening!

Questions?