

Hassle-Free Kubernetes on AWS



Special OFFERS



Free Containers Assessment
for all eligible attendees.



Hassle-Free Kubernetes on AWS

PRESENTERS



JT Giri

CEO & Co-Founder



Nirav Shah

Senior Solutions
Architect



Prasanth

Ramachandran

Director, Solutions
Delivery & Architecture



Carlos Rodriguez

Senior DevOps
Engineer





Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 175 fully featured services from data centers globally.

Millions of customers—including the fastest-growing startups, largest enterprises, and leading government agencies—are using AWS to lower costs, become more agile, and innovate faster.



nClouds is a credentialed, award-winning provider of AWS and DevOps consulting and implementation services. We are an integrated team of skilled engineers, architects, developers, project managers, and sales & marketing professionals who are passionate about client success, software excellence, and innovation. We enable our clients to deliver better products faster and create awesome customer experiences.



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Hassle-Free Kubernetes on AWS

OBJECTIVES



Container Offerings on AWS

Microservices & Containers,
AWS Container Landscape,
Amazon EKS Services



Amazon EKS on AWS Fargate

AWS Fargate Benefits,
Considerations &
Limitations



nCodeLibrary & Amazon EKS on AWS Fargate

Manual Provisioning,
Infrastructure as Code



Container Offerings on AWS



Nirav Shah
Senior Solutions Architect



Intro to Amazon EKS on AWS Fargate



Prasanth Ramachandran

Director, Solutions Delivery &
Architecture



AWS & Kubernetes



- DIY Kubernetes & Self-Managed Nodes
- Elastic Kubernetes Service
 - Certified Kubernetes conformant
 - Managed control plane
 - Managed updates
 - etcd management
 - Managed nodegroups

AWS Fargate



- Fully-managed Compute platform for your containers
- Introduced in 2017 for ECS
- Scale up and down seamlessly
- Pay for only what you use
- Integrated with AWS ecosystem



Amazon EKS for AWS Fargate

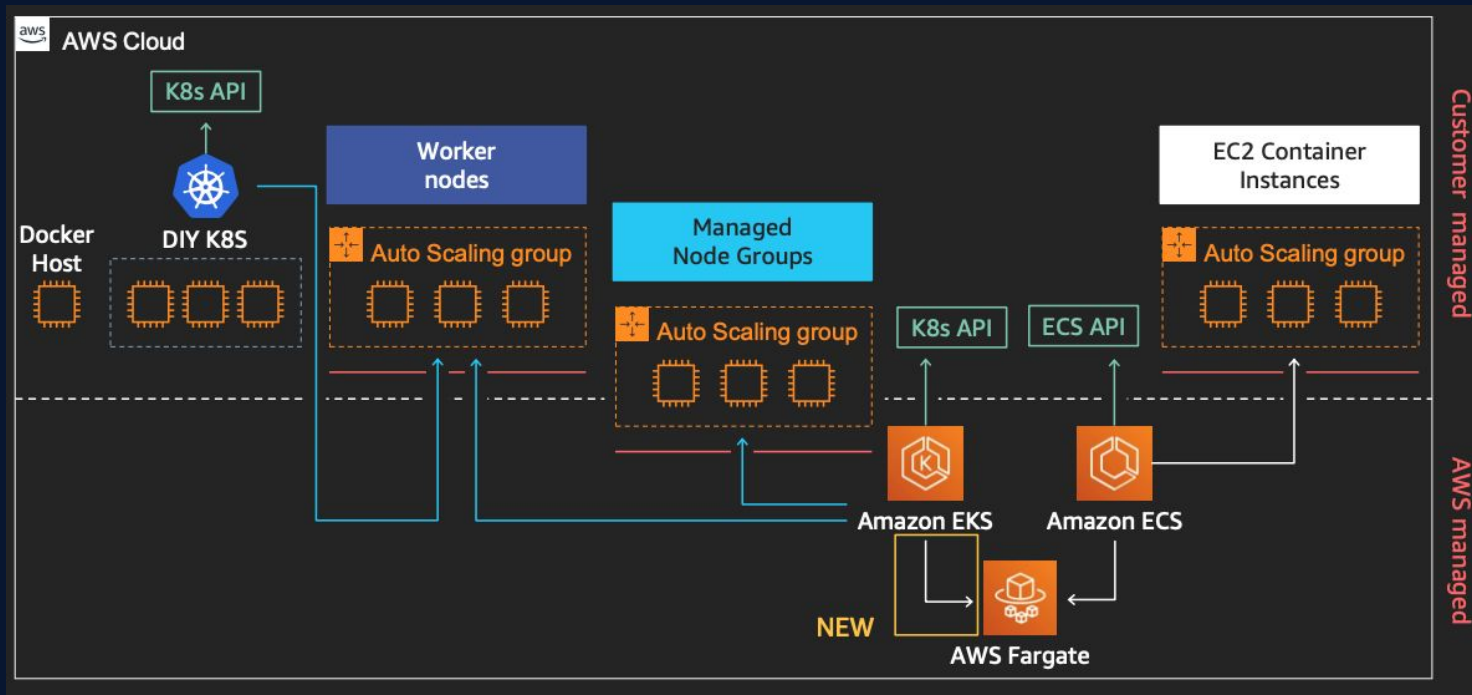


Image Courtesy: AWS Reinvent 2019, CON326

AWS Fargate

BENEFITS



- Kubernetes functionalities without need to manage Control Plane or Data Plane
- Bring existing Pods with no change
- No need to manage Cluster autoscaling
- Persistent storage options (EFS) available



AWS Fargate **CONSIDERATIONS**



- Pod capacity
- Networking
- Security Groups
- Load Balancers
- Profiles



AWS Fargate

LIMITATIONS

- Soft limit of 500 pods per region
- No HostPort or HostNetwork
- No Daemonsets
- Service-type Load Balancer (ELB/NLB)
- Running privileged containers
- GPUs not available



nCodeLibrary and Amazon EKS on AWS Fargate



Carlos Rodriguez
Senior DevOps Engineer



How do we build **CONSISTENT INFRASTRUCTURE**



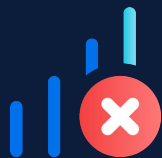
Manually create
resources?



Infrastructure
as Code (IaC)

...

Manual PROVISIONING



Inconsistent



Hard to
replicate
environments



Prone to
errors



Who made
this?

Infrastructure as Code IaC



Consistent



Easy to
replicate



Parameter-
izable

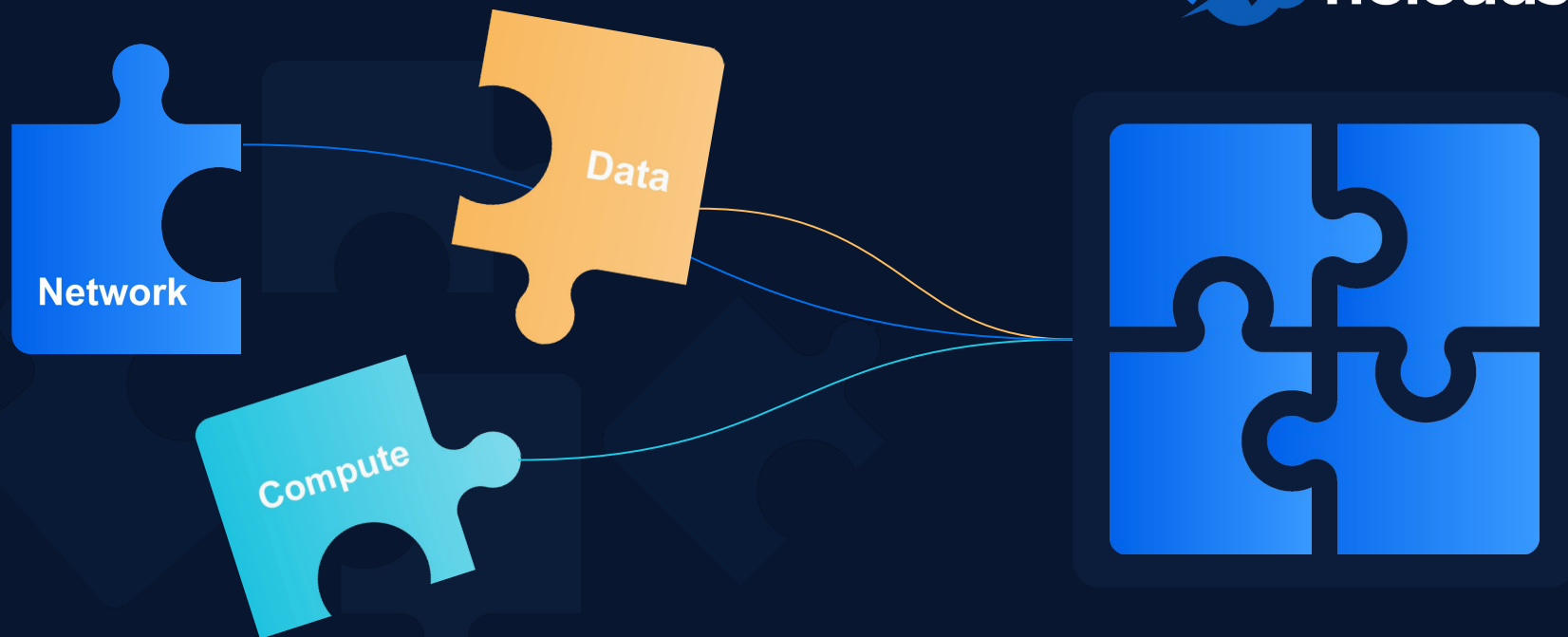


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nCodeLibrary

nClouds Infrastructure as Code



Building Blocks

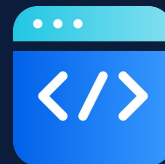
Bundles



Test
Cases



Scale



Code
Standards



Simple integration into current pipelines



Demo



Q&A

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