
Containers
on Azure

Speakers

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Twitter : @zig_max

Open Source Contributor (VSCode / ...).

Disclaimer

“*This opinions express in this presentation are our own and not necessary those of our employers or customers.*“

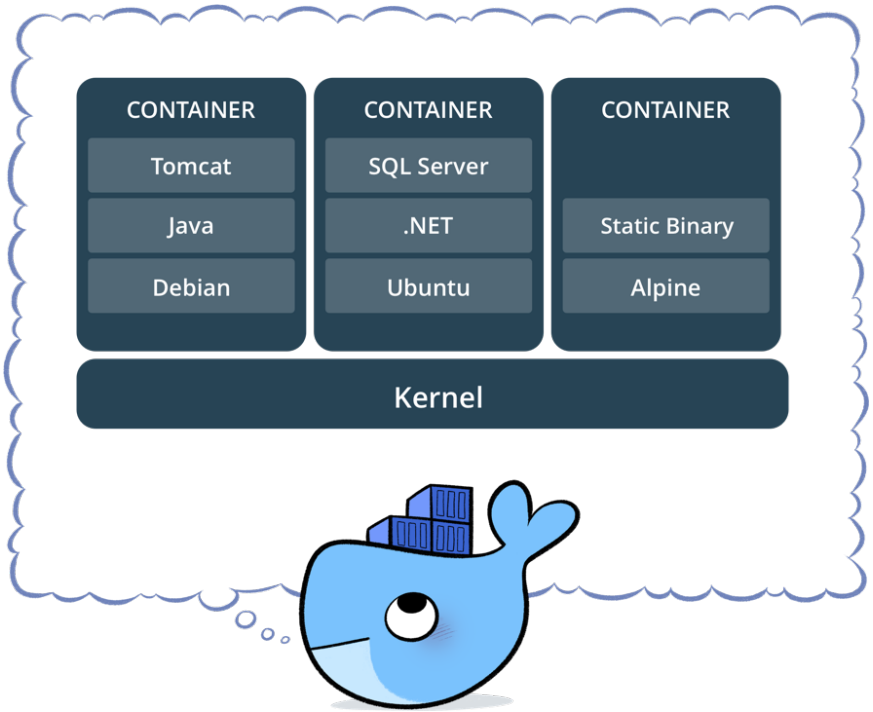
Agenda

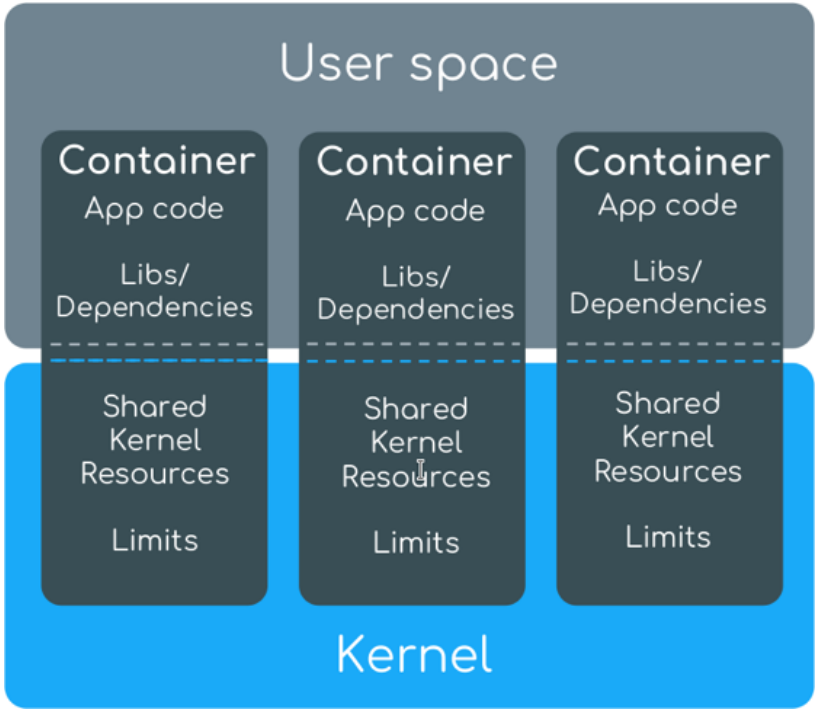
- Overview on containers
- Container is only half the business
- Unmanaged Docker cluster with Swarm
- Managed cluster with Azure Container Service (managed Kubernetes)

Overview on container

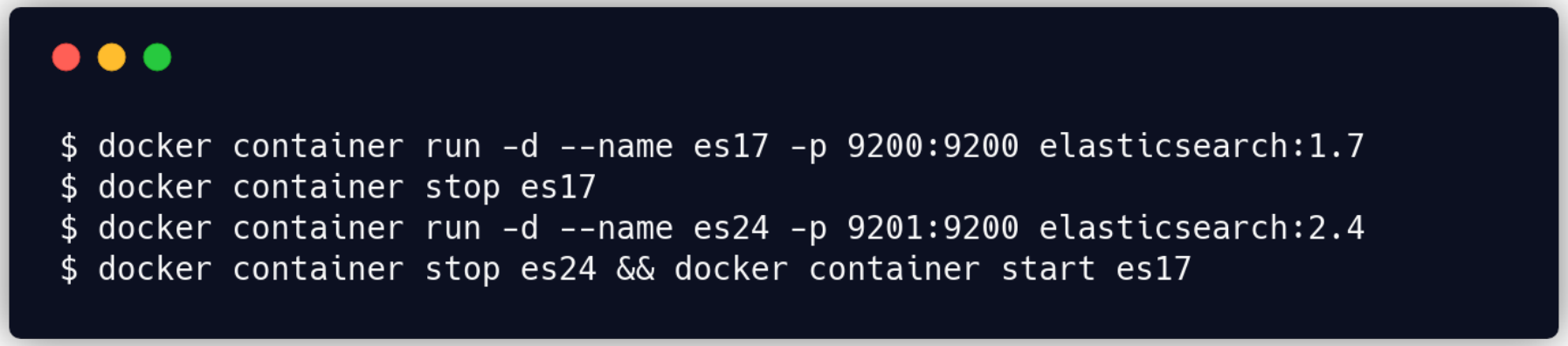
What and why?

What is a container?





Why should I use containers?



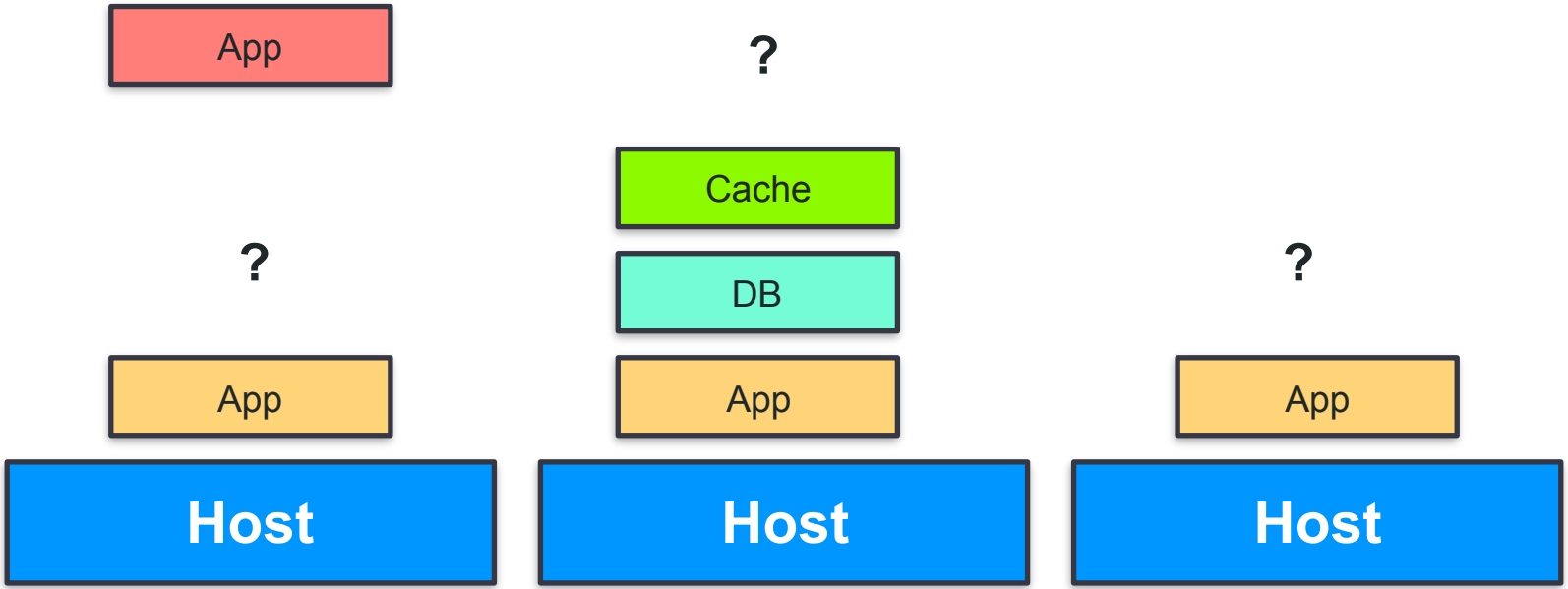
Why should I use containers?

- Simple
- Dependency management
- Portable

- Moving faster
- Optimize infrastructure ressources

Container is only half of business

How to handle it at scale

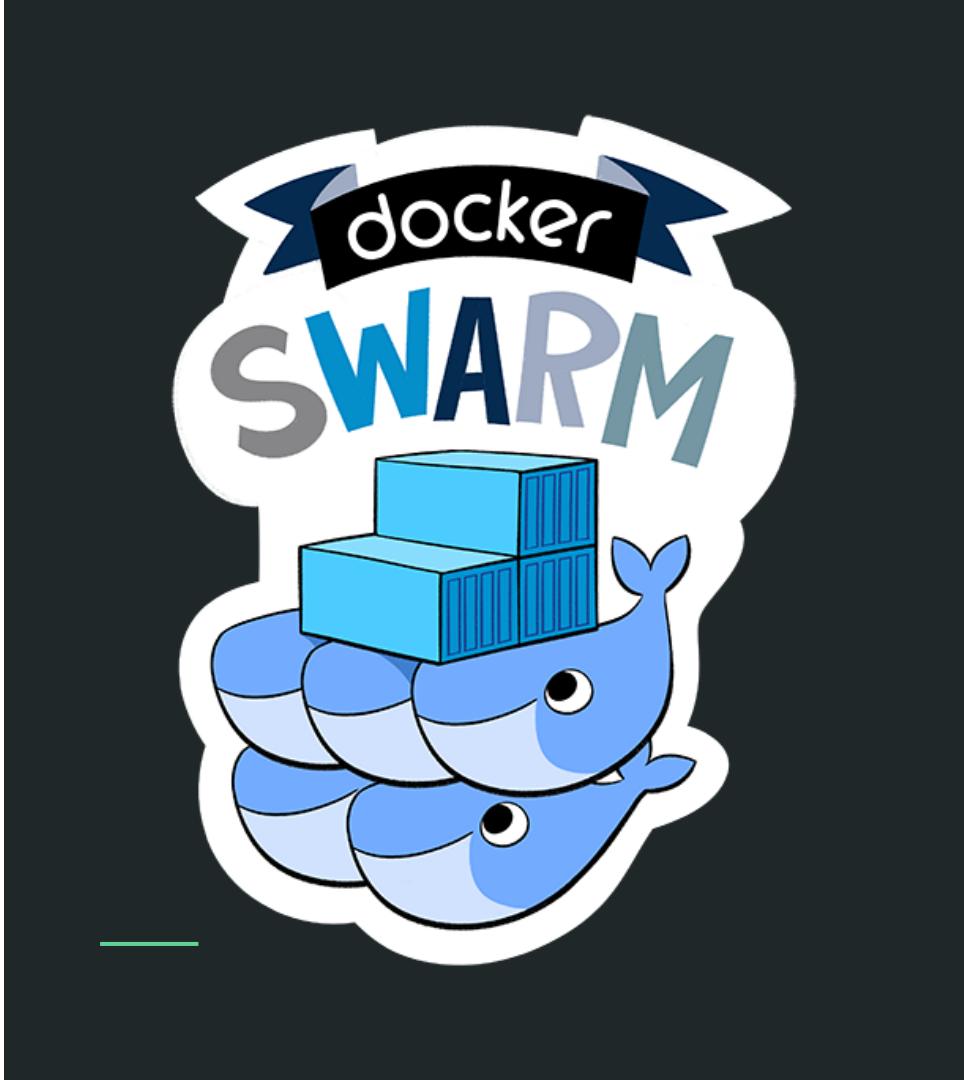

App
?
Cache
?
DB
?
App
App
App
Host
Host
Host

Container orchestrator jobs

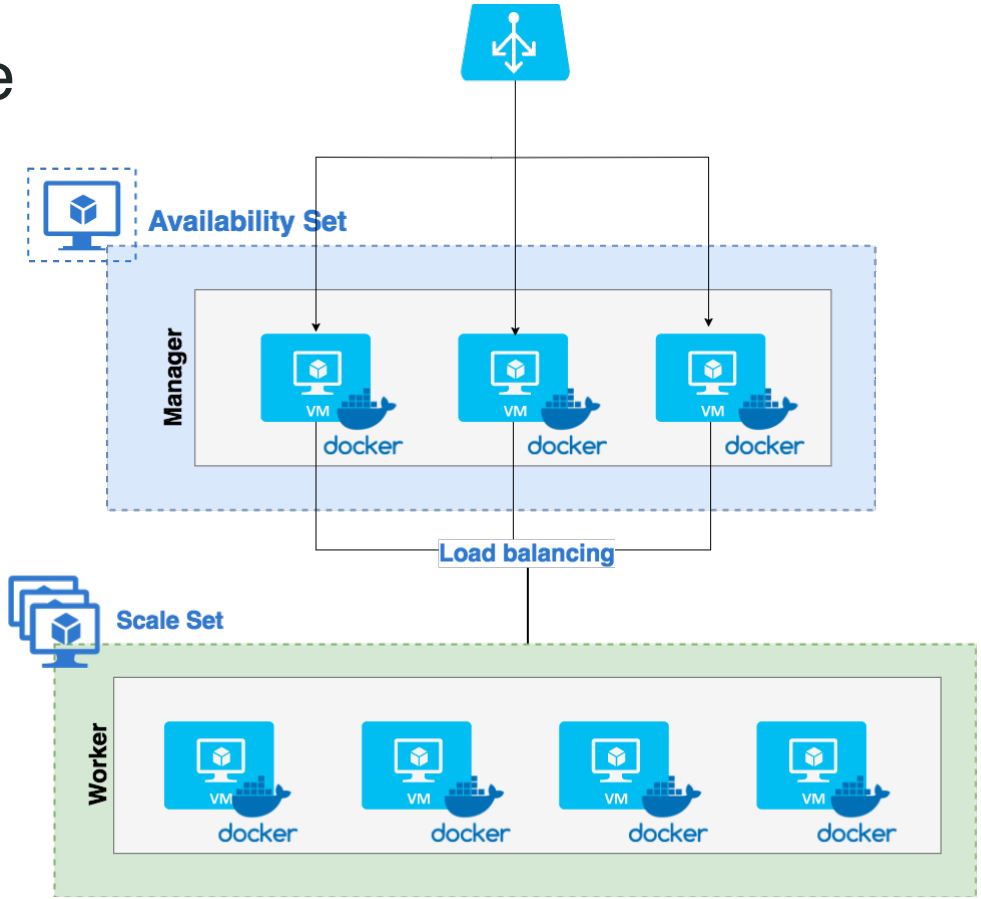
- Start containers on host
- Rescheduling failing containers
- Networking
  - Containers on the same host
  - Containers on different hosts
  - Containers and the outside world
- And more...

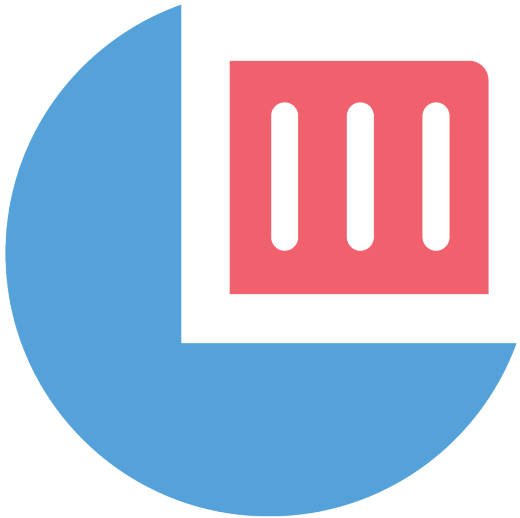
Unmanaged Docker cluster with Swarm

The hard way

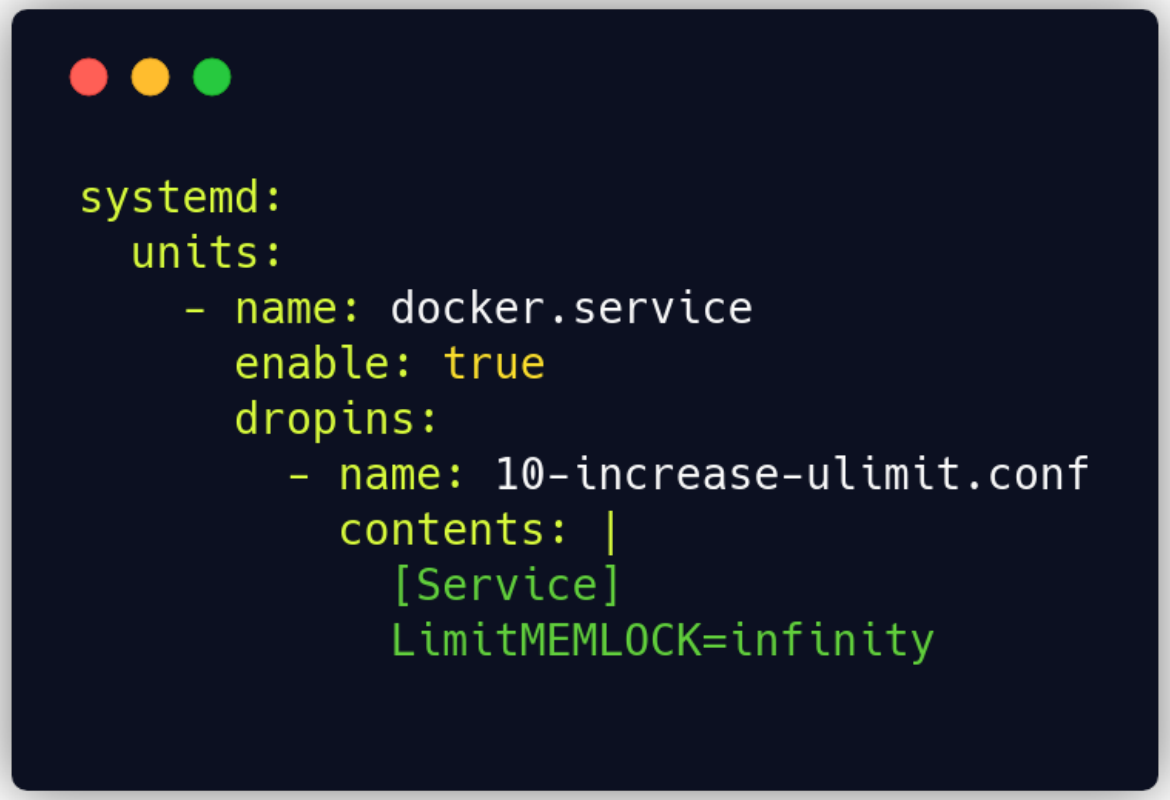


Infrastructure





container
linux


systemd:
units:
- name: docker.service
enable: true
dropins:
- name: 10-increase-ulimit.conf
contents: |
[Service]
LimitMEMLOCK=infinity


docker
SWARM

Demo

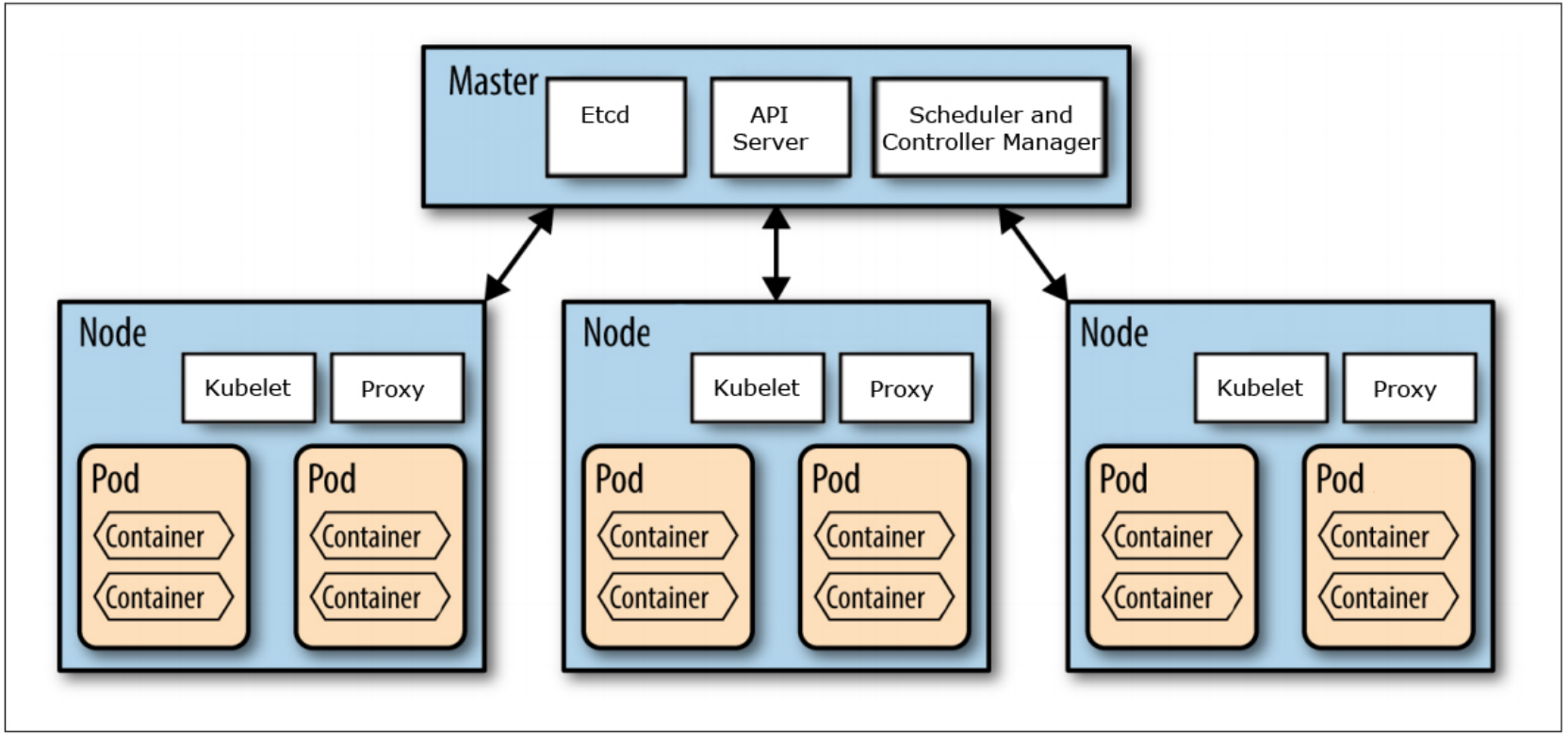
Managed Docker cluster with Azure Container Service (AKS)

Whats is Kubernetes ?

Open source container orchestrator that automates deployment, scaling, and management of applications

- Automatic bin-packing
- Self-Healing
- Horizontal scaling
- Service discovery and load balancing
- Automated rollouts and rollbacks
- Secret and configuration management
- Storage orchestration
- Batch execution

Kubernetes Architecture



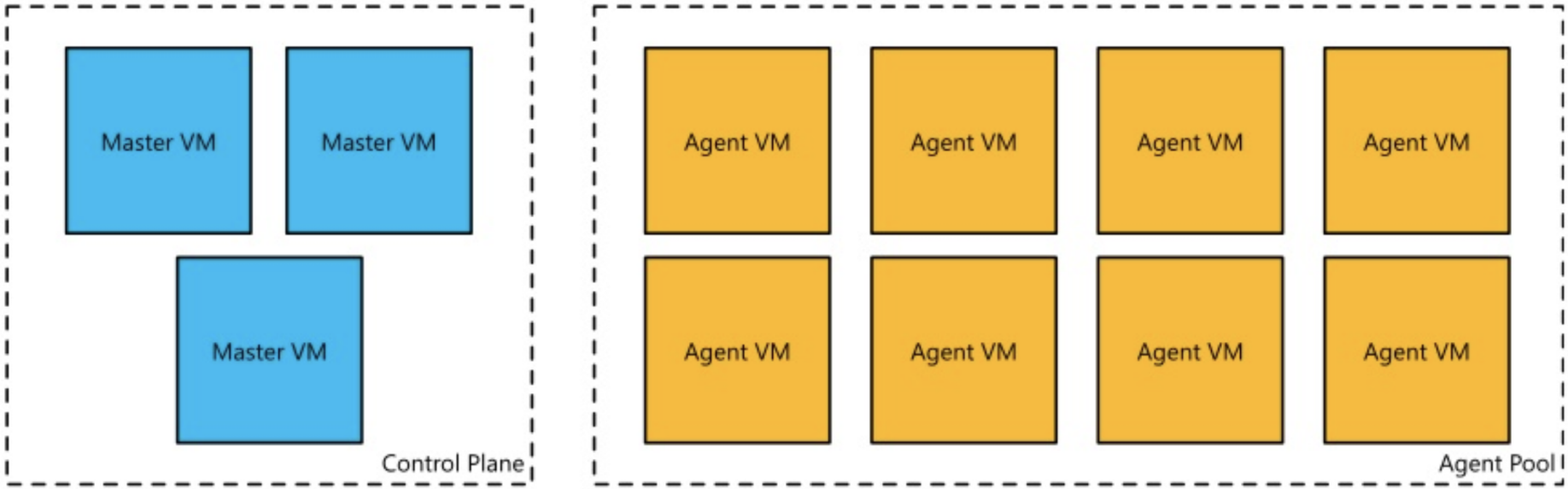
Azure Container Service (AKS)

Your Kubernetes cluster, managed by Azure

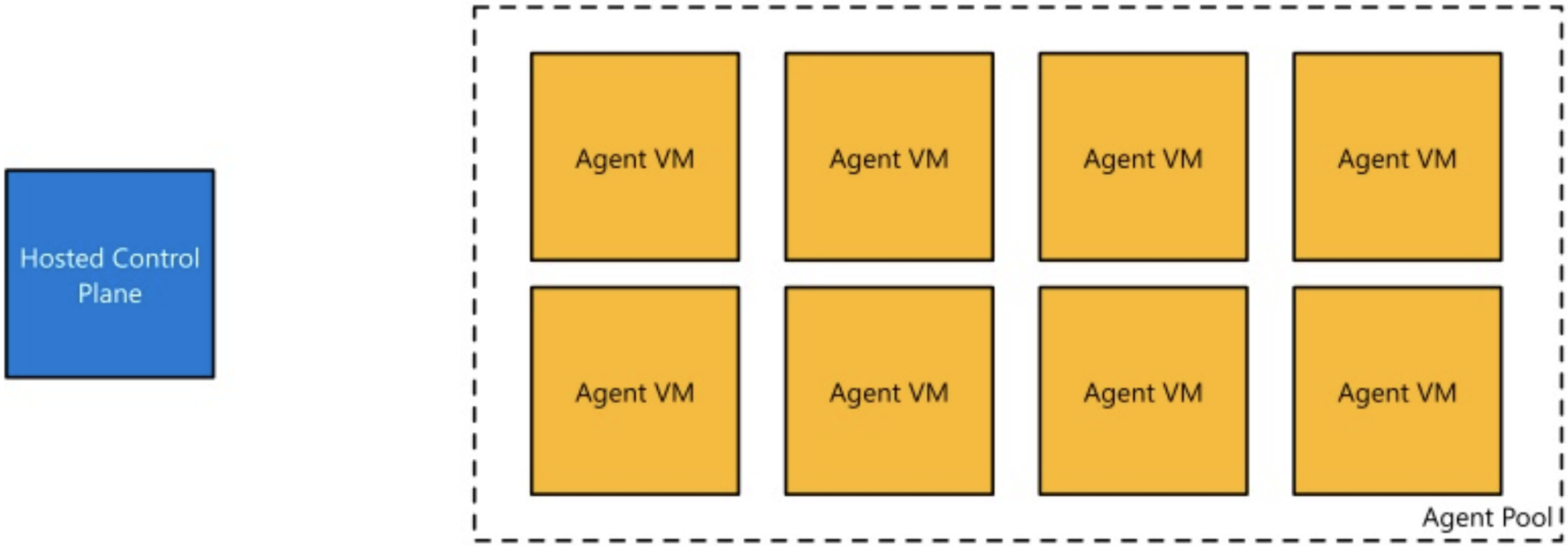
Why AKS ?

- Easy to use
  - Fastest path to Kubernetes on Azure
  - Up and running with 3 simple commands
- Easy to manage
  - Automated upgrades and patching
  - Easily scale the cluster up and down
  - Self-healing control plan
- Use Open APIs
  - 100% upstream Kubernetes

Kubernetes without AKS



Kubernetes with AKS




LIVE DEMO

Limitations

- Windows containers are not supported yet in AKS, but it is in their road-map.

Service quotas and limits

Resource	Default Limit
Max nodes per cluster	250
Max pods per node	110
Max cluster per subscription	5[1]

Region availability

Azure Container Service (AKS) is available for preview

- East US
- West Europe
- Central US
- Canada Central
- Canada East

22
MAI

mardi 22 mai 2018

AKS - Hands on lab

Organisé par Mathieu B.
De Communauté Microsoft Azure Québec

Vous y allez? 27 personnes y vont

Partager Tweeter

Détails

Suite à la présentation Azure Container Service for Kubernetes (AKS) du Meetup de février (http://zigmax.net/aks-in-action-meetup-kubernetes-and-cloud-native-quebec-azure-quebec/). Maxime Coquerel nous invite à venir nous rejoindre pour une session Hands on lab avec AKS.

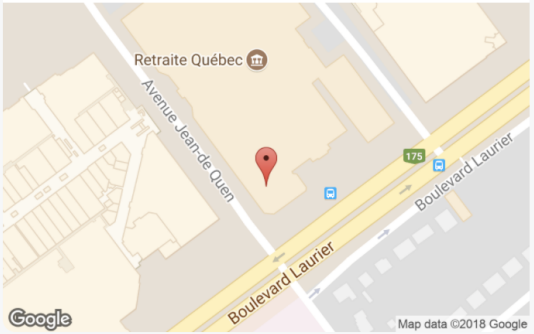
Au programme :

- Créer un cluster AKS
- Automatiser le déploiement de son cluster AKS avec Terraform
- Déployer une application avec Helm
- CI/CD avec Brigade

Vous devez apporter votre laptop (Windows, Linux ou Mac).

mardi 22 mai 2018
17:30 à 20:00
Ajouter à mon agenda

Bureau de Microsoft Québec
2640 boul Laurier · Québec, QC



Questions / Talks