



AUTHORITY PARTNERS

Advanced IT Solutions

# Azure Loves Containers

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## Speaker Introduction

- Mustafa Toroman
- Solution Architect @ Authority Partners
- @toromust
- Microsoft Azure MVP
- MCSE, MCP, MCSA, MCITP, MCSA, MCT, MS v-TSP



Before we begin...

# Why containers

Works on my machine  
Every environment looks the same  
Increased velocity  
Run anywhere



# Containers run everywhere



Linux



Windows



Cloud



Drones, Raspberry PI, IoT

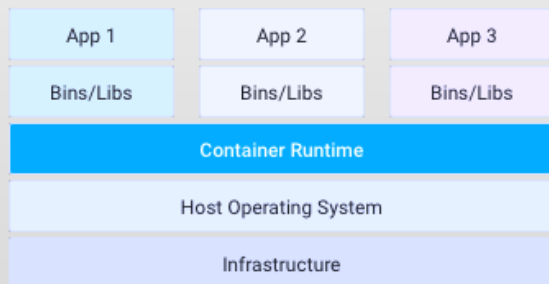
# Containers vs. virtual machines

## Docker containers

Shared host OS kernel

Portability

Faster scalability

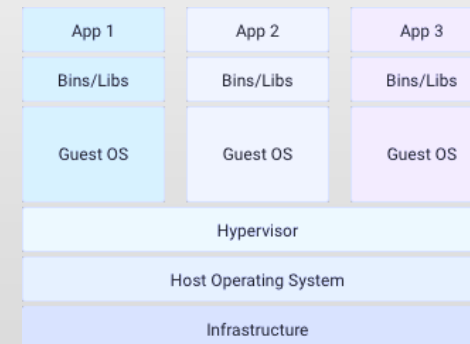


## Virtual machines

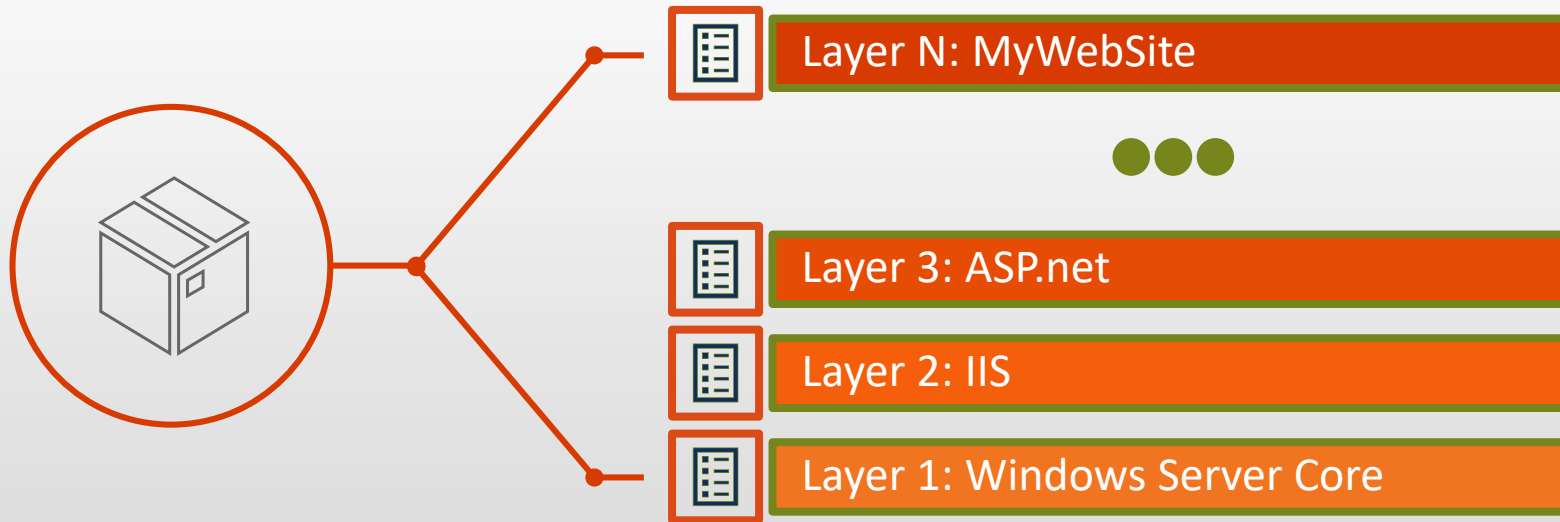
Separate OS per instance

Large footprint

Slower startup



# Building Containers



# What is a container registry?

A repository for storing container images

Public registries i.e. Docker Hub—free & easy

Private registries allow for efficient/  
secure storage

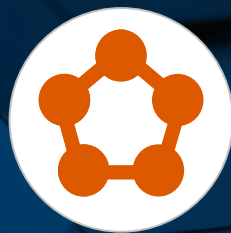




# Containers in Azure



App Service



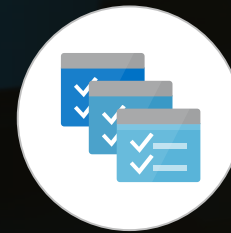
Service Fabric



Kubernetes Service



Container Instances



Batch





# Service Fabric

Windows and Linux Containers

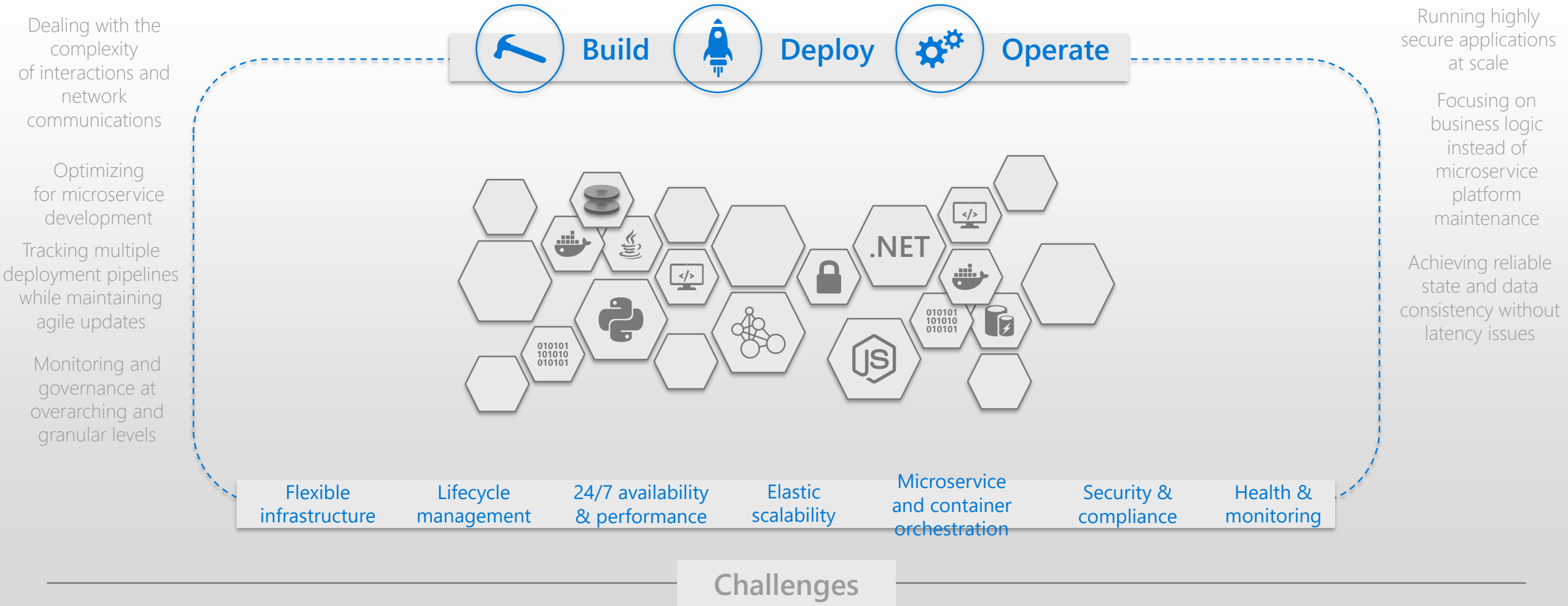
Stateless and stateful microservices

Deploy on Azure, Azure Stack and on-premises



# Azure Service Fabric

Build and deploy containers and microservices on Windows and Linux, at any scale, on any cloud





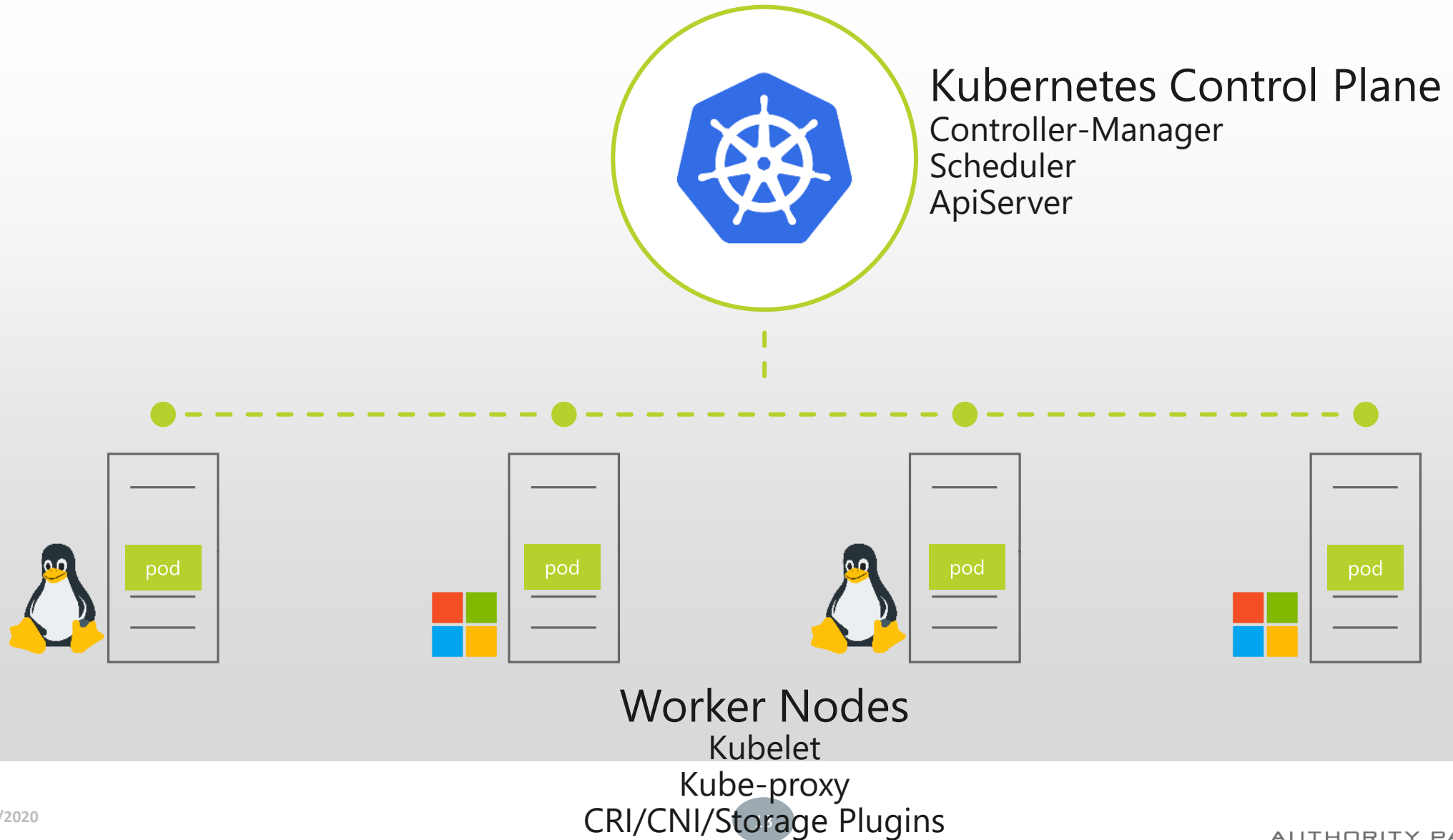
# Azure Container Instances (ACI)

Easily deploy and run containers with a single command

Launch container instances in seconds

Cost effective per second billing

# Mixed Windows and Linux Clusters





# Azure App Service

Quickly build, deploy, and scale web apps

Now supports Windows Server containers



# Web app for containers

Easily deploy and run container-based web apps at scale

## Accelerated outer loop



Tight integration w/Docker  
Hub, Azure Container Registry



Built-in CI/CD w/  
deployment slots



Intelligent diagnostics and  
troubleshooting, remote debugging

## Fully managed platform



Automatic scaling  
and load balancing



High availability  
w/auto-patching



Backup  
and recovery

## Flexibility & choices



From CLI, PS (Windows),  
portal, or ARM template

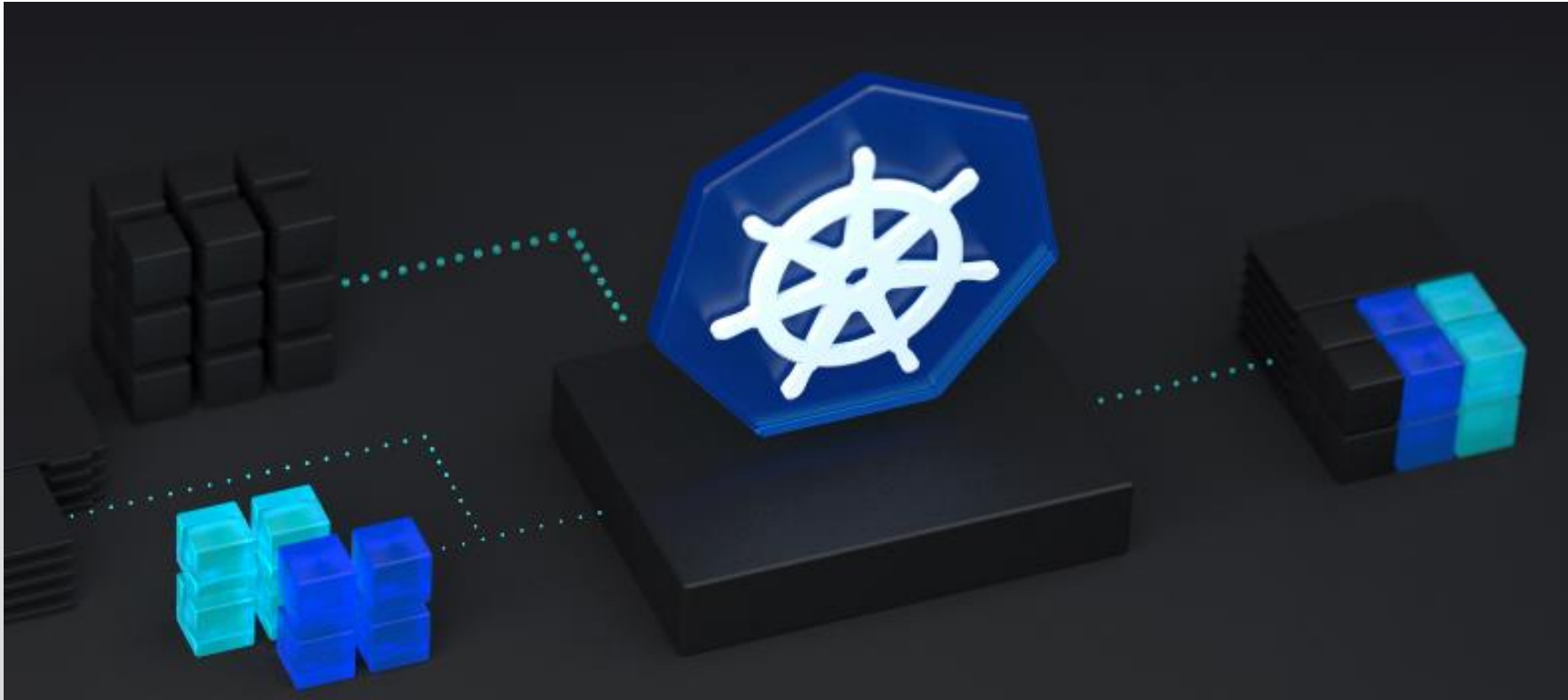


Single Docker image Linux only—  
multi container w/Docker compose,  
or Kubernetes pod definition



IntelliJ, Jenkins, Maven  
Visual Studio family

- Let's talk about Kubernetes and Azure...





# Azure kubernetes service (AKS)



Fully managed kubernetes service

Elastic provisioning

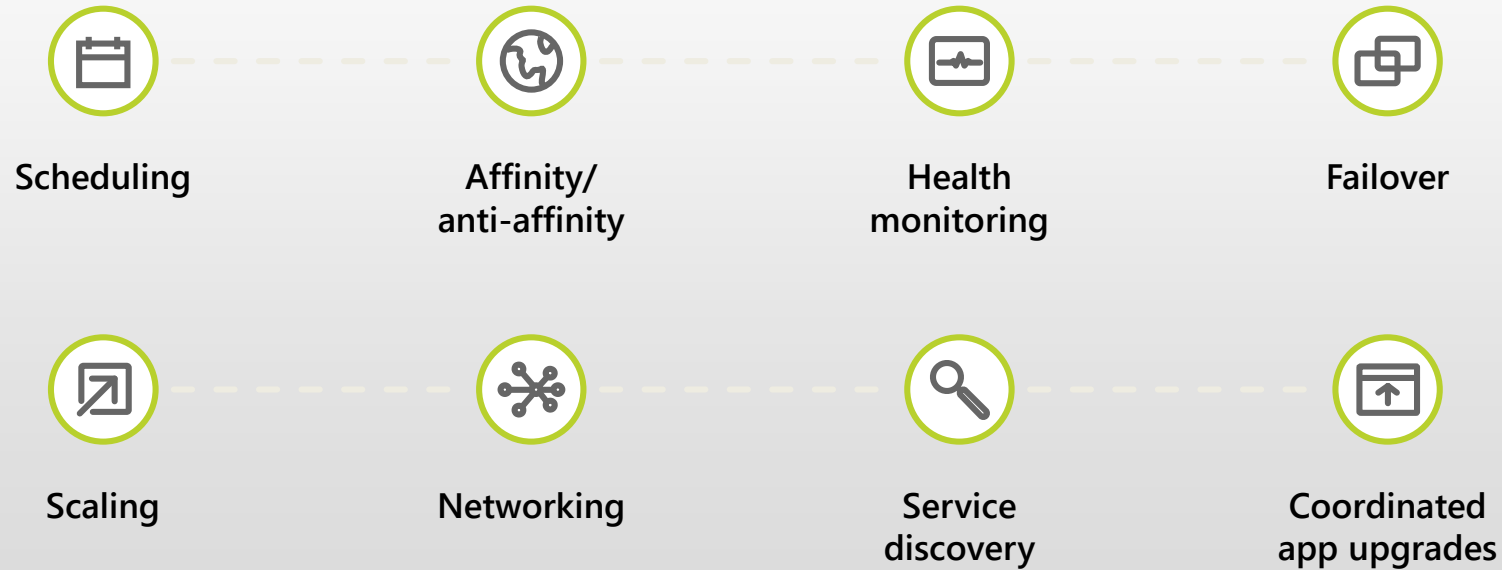
Fast end-to-end development

Identity and access management with AD

Orchestration across 29 regions, Azure stack, IoT

# Azure kubernetes service (AKS)

## The elements of orchestration



# Questions?



# Thank You!

