

Deploying Container Groups



Mark Heath

MICROSOFT MVP

@mark_heath <https://markheath.net>



Overview



Container groups

- Can host one or more containers

Why use container groups?

Deploying container groups

- ARM templates

Managing container groups

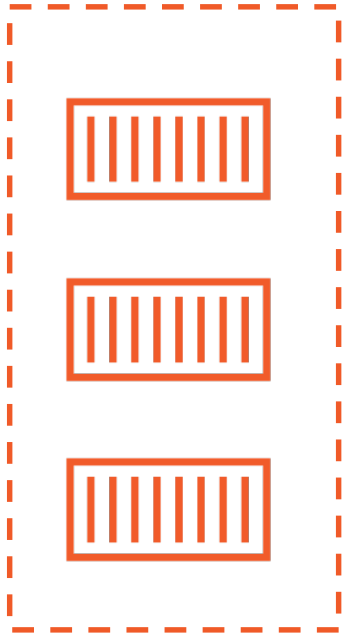
- Accessing container logs
- Executing diagnostic commands

Integration possibilities

- Azure Functions
- Azure Logic Apps
- Azure Kubernetes Service (AKS)



Container Groups



Scheduled on the same host machine

Share common resources

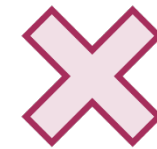
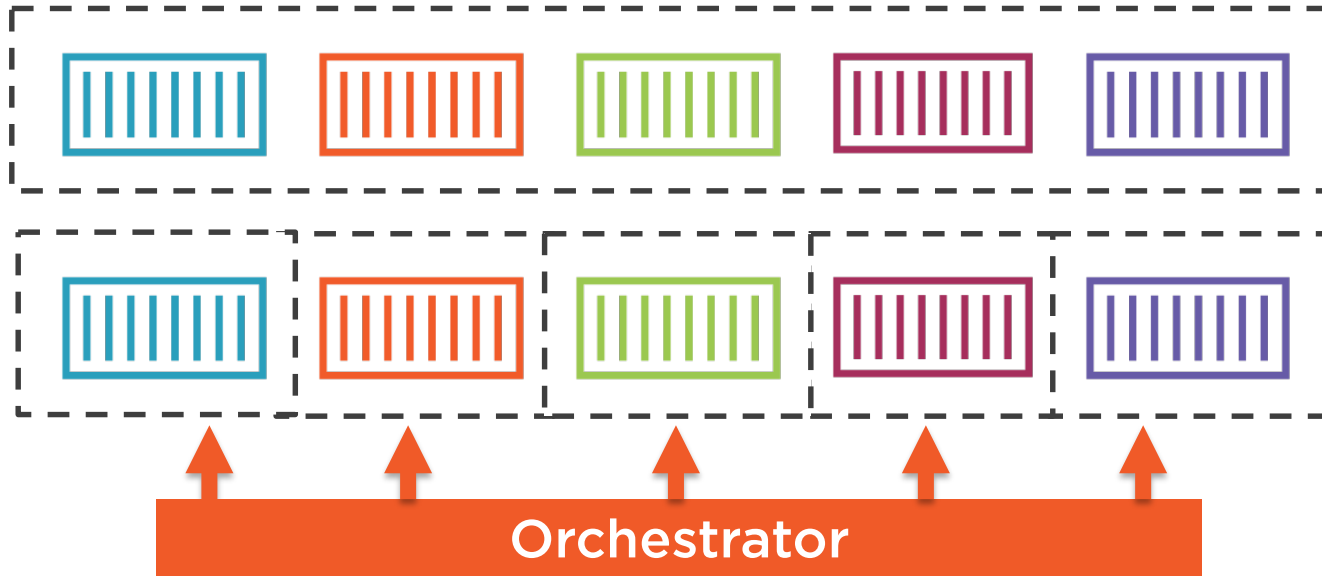
- Volumes
- Networking

Share a common lifecycle

Can communicate on localhost

Similar to Kubernetes “pods”

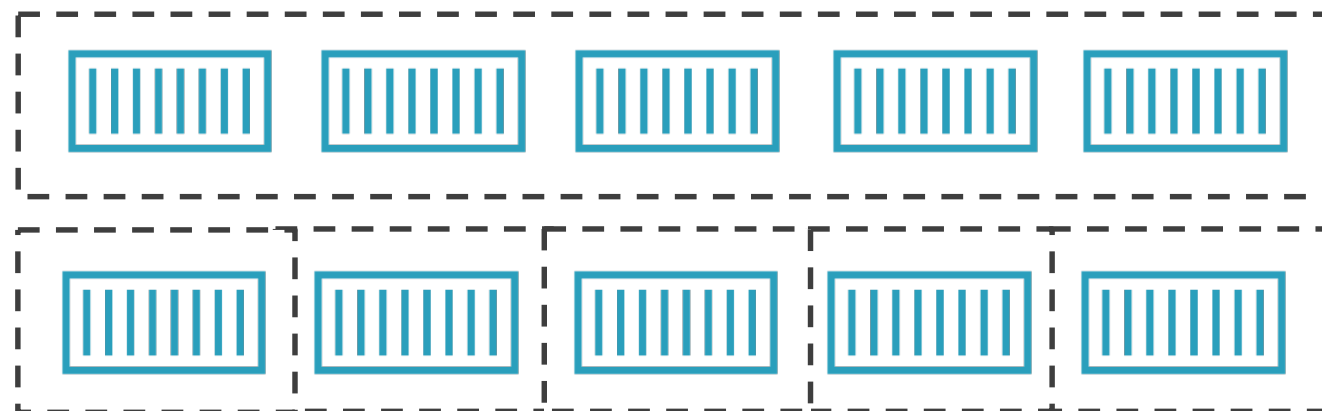
When Not to Use Container Groups



Don't put all microservices into one container group



Do put each microservice in its own container group



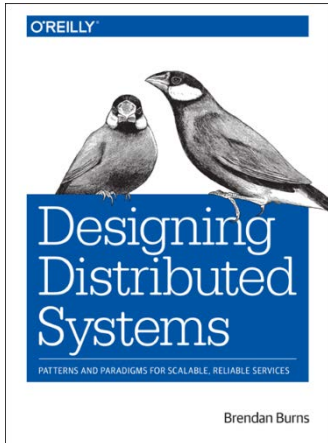
Don't use a single container group for scale out



Do scale out by creating additional container groups



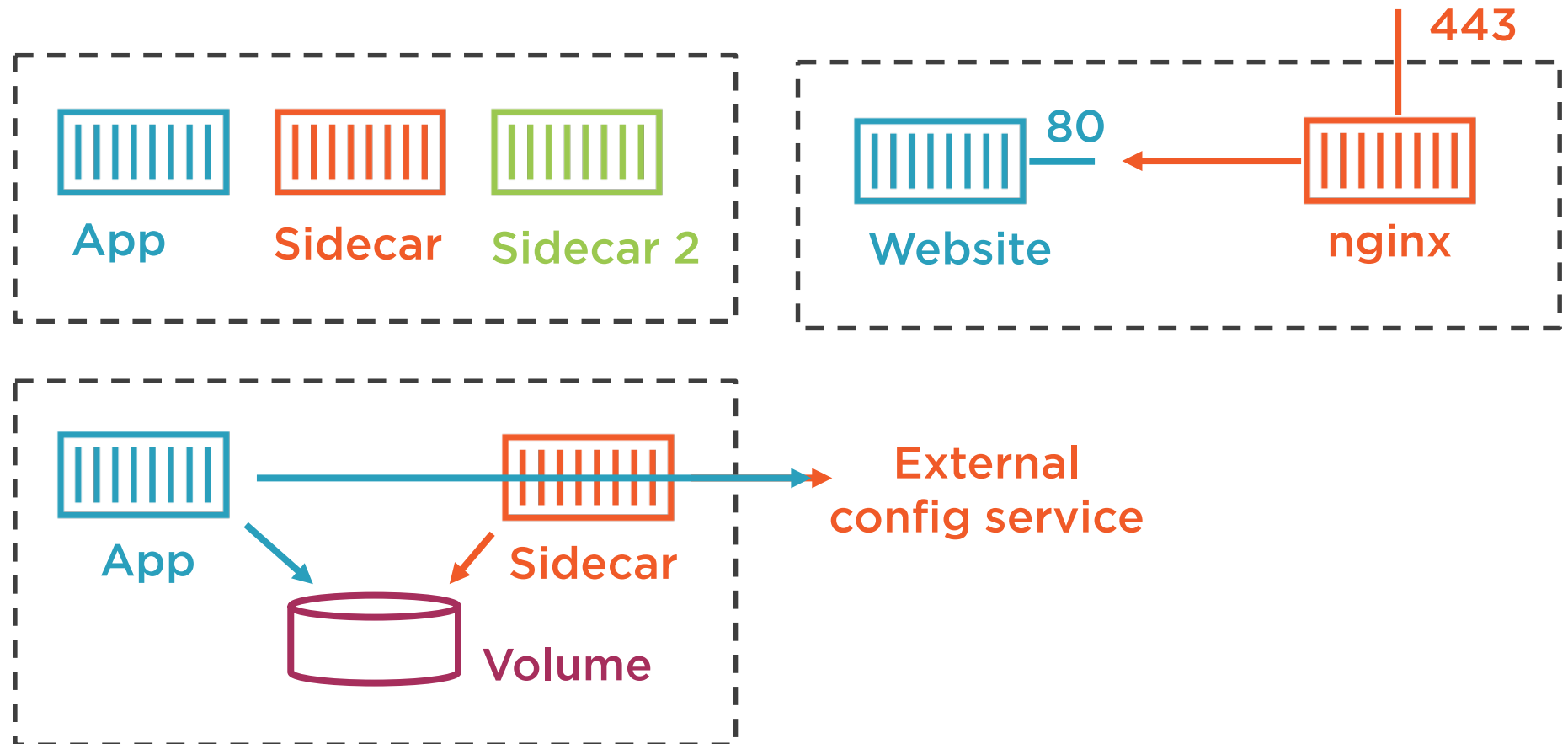
Implementing the “Sidecar” Pattern



Free e-book:

[Designing Distributed Systems](#) by [Brendan Burns](#)

<http://bit.ly/aci-sidecar>



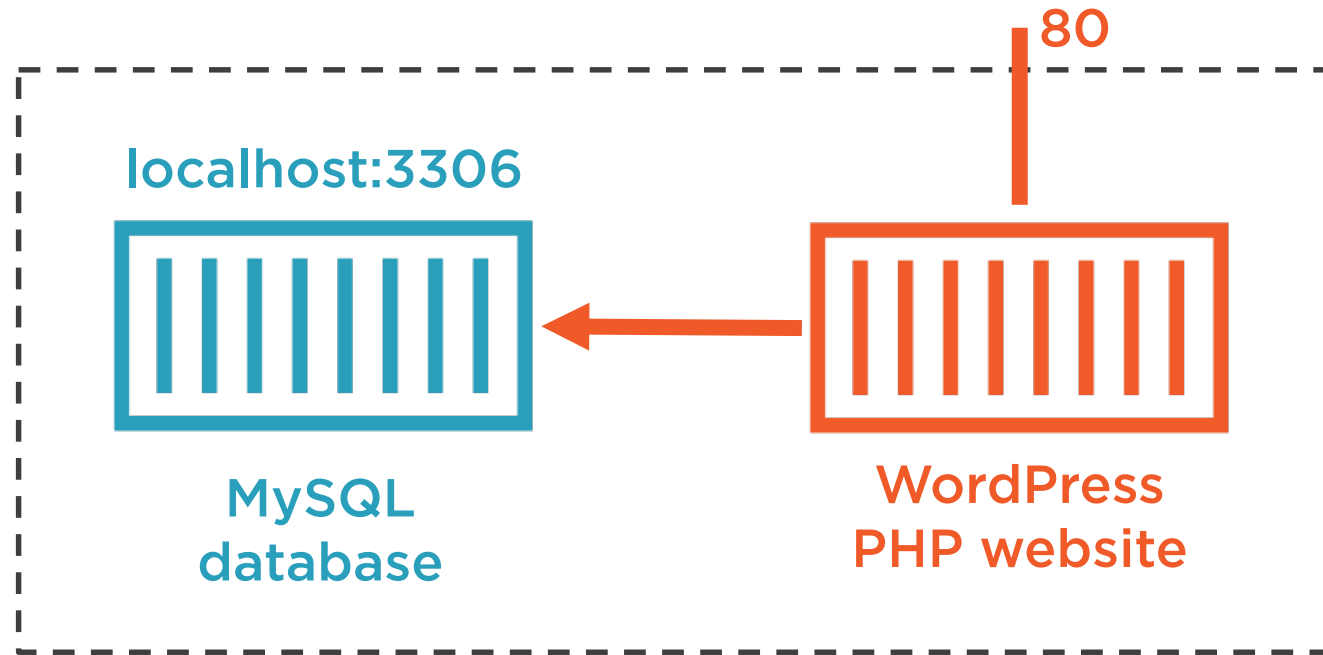
Demo



Defining an ARM Template
WordPress blog



WordPress in a Container Group



Demo



Deploy an ARM template

- az group deployment create



Demo



View logs for a specific container

- az container logs

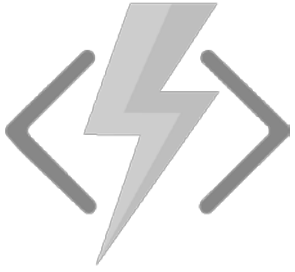
Execute commands on a container

- az container exec

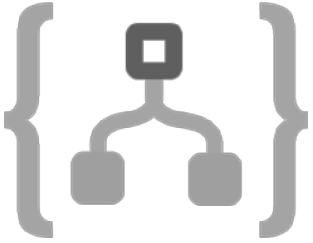


Integrating with Other Azure Services





Azure Functions



Azure Logic Apps

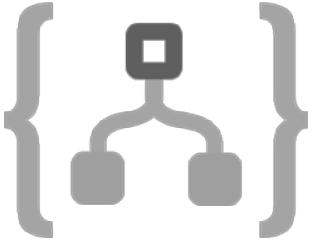


Azure Kubernetes
Service (AKS)





Azure Functions

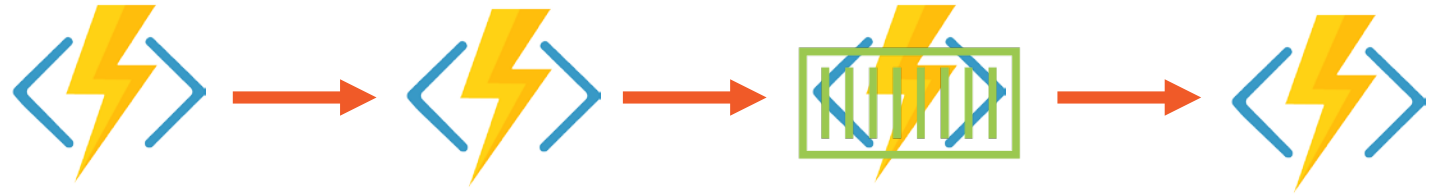


Azure Logic Apps



Azure Kubernetes
Service (AKS)

Workflows (Durable Functions)



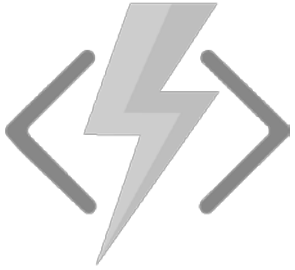
Deploy an ACI container group

Wait for it to finish (polling, webhook, Event Grid)

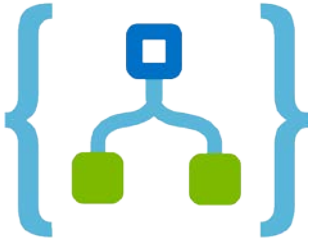
Scalable multiplayer backend
(Brian Peek & Dimitris Gkanatsios)

<http://bit.ly/aci-multiplayer>





Azure Functions



Azure Logic Apps



Azure Kubernetes
Service (AKS)

Azure Container Instances Connector

Create container group

Delete container group

Get container group **properties**

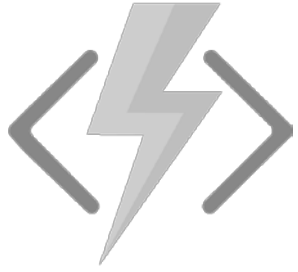
Get container group **logs**

List container groups

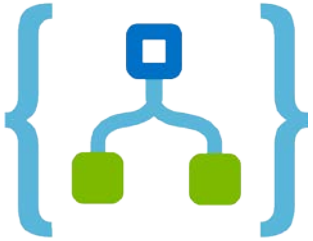
Sentiment analysis using Text Analytics and ACI

<https://github.com/Azure-Samples/aci-logicapps-integration>





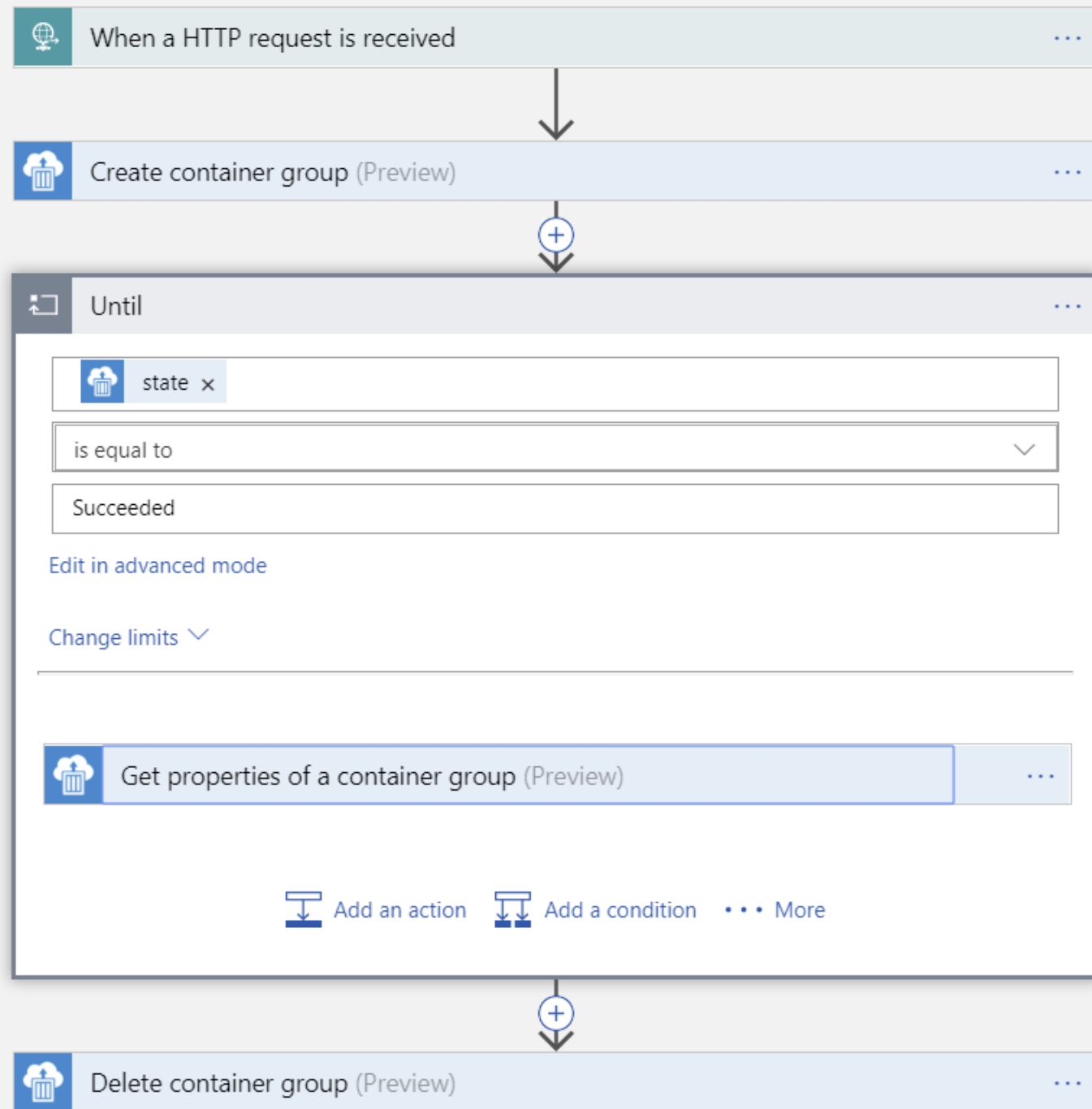
Azure Functions

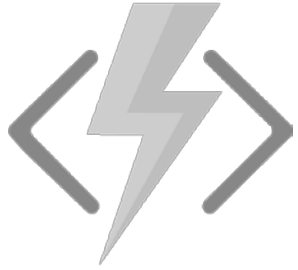


Azure Logic Apps

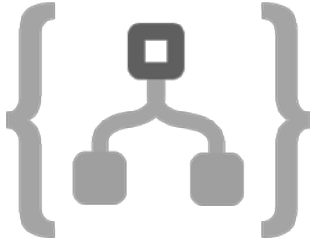


Azure Kubernetes
Service (AKS)





Azure Functions

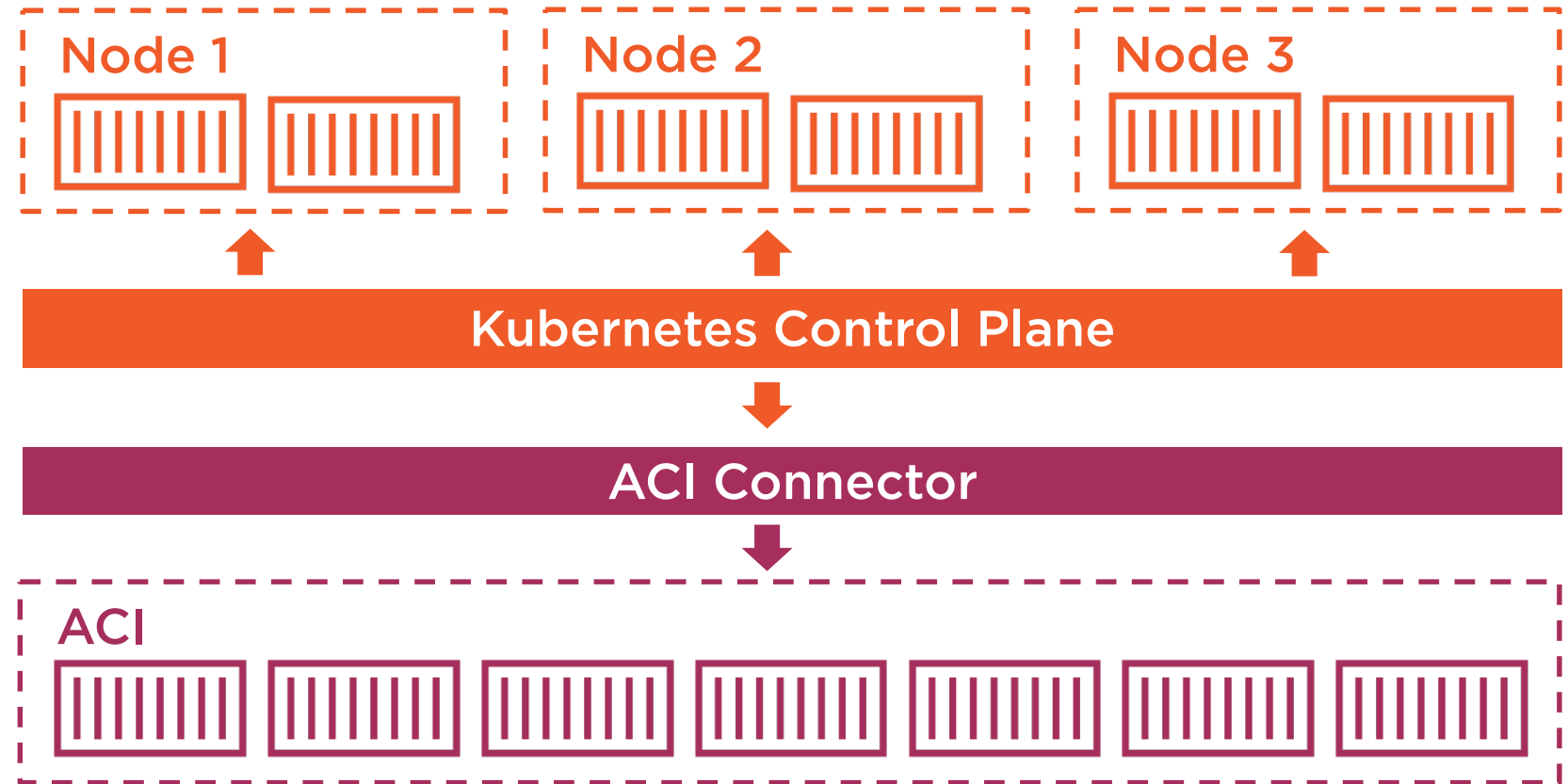


Azure Logic Apps



Azure Kubernetes
Service (AKS)

ACI Kubernetes Connector (Virtual Kubelet)



```
az aks install-connector
```

Facial recognition with ACI for bursting

<http://bit.ly/aci-burst-demo>



Summary



Container groups

- Share common resources
- Share common lifecycle

ARM template deployment

- az group deployment create

Run commands in containers

- az container exec

Integration

- Azure Functions
- Azure Logic Apps
- Azure Kubernetes Service (AKS)



Thanks for watching!

<https://aka.ms/aci>

