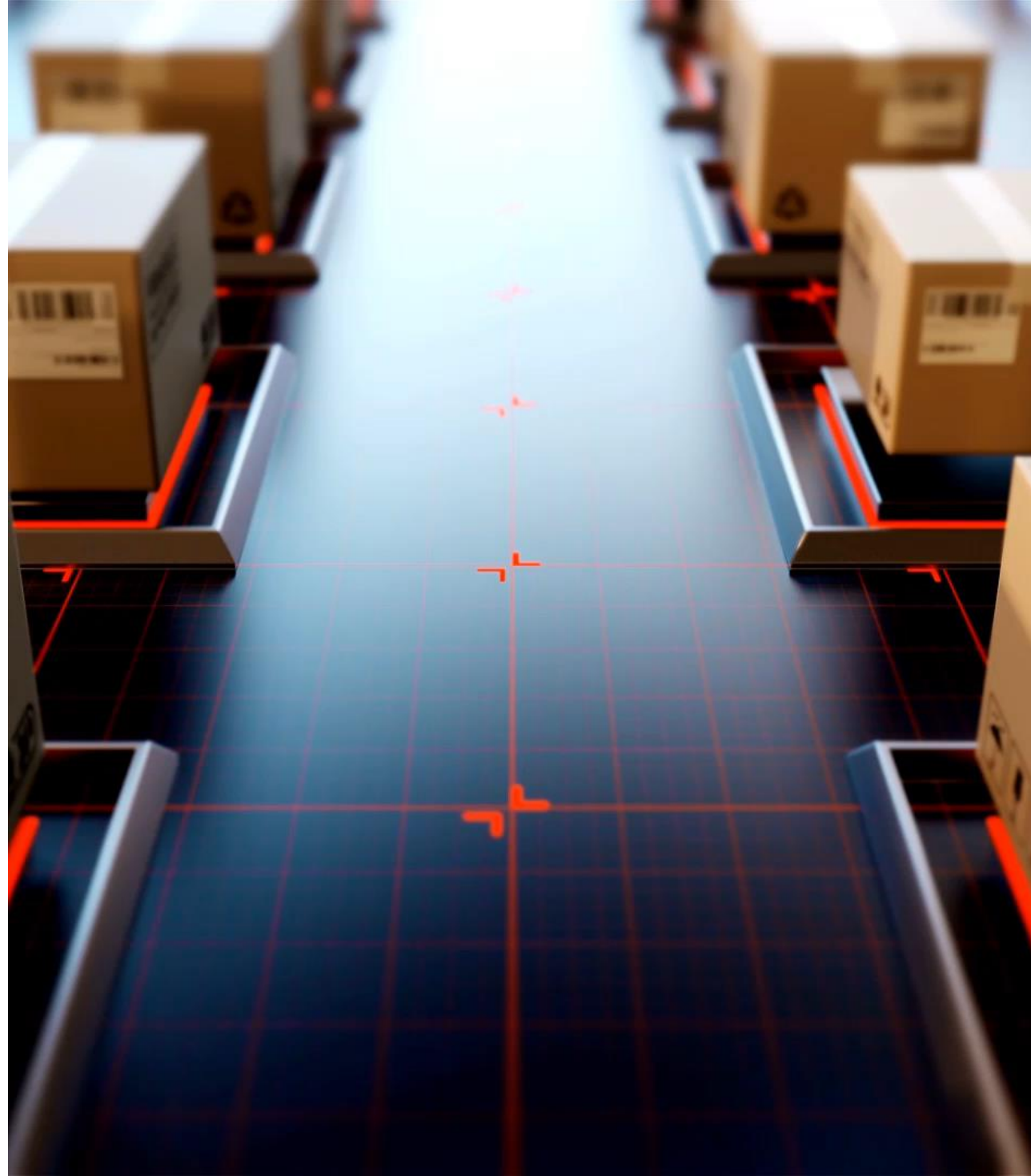# Container & Serverless Applications

About

Fabio Padua
CSA (Cloud Solution Architect)
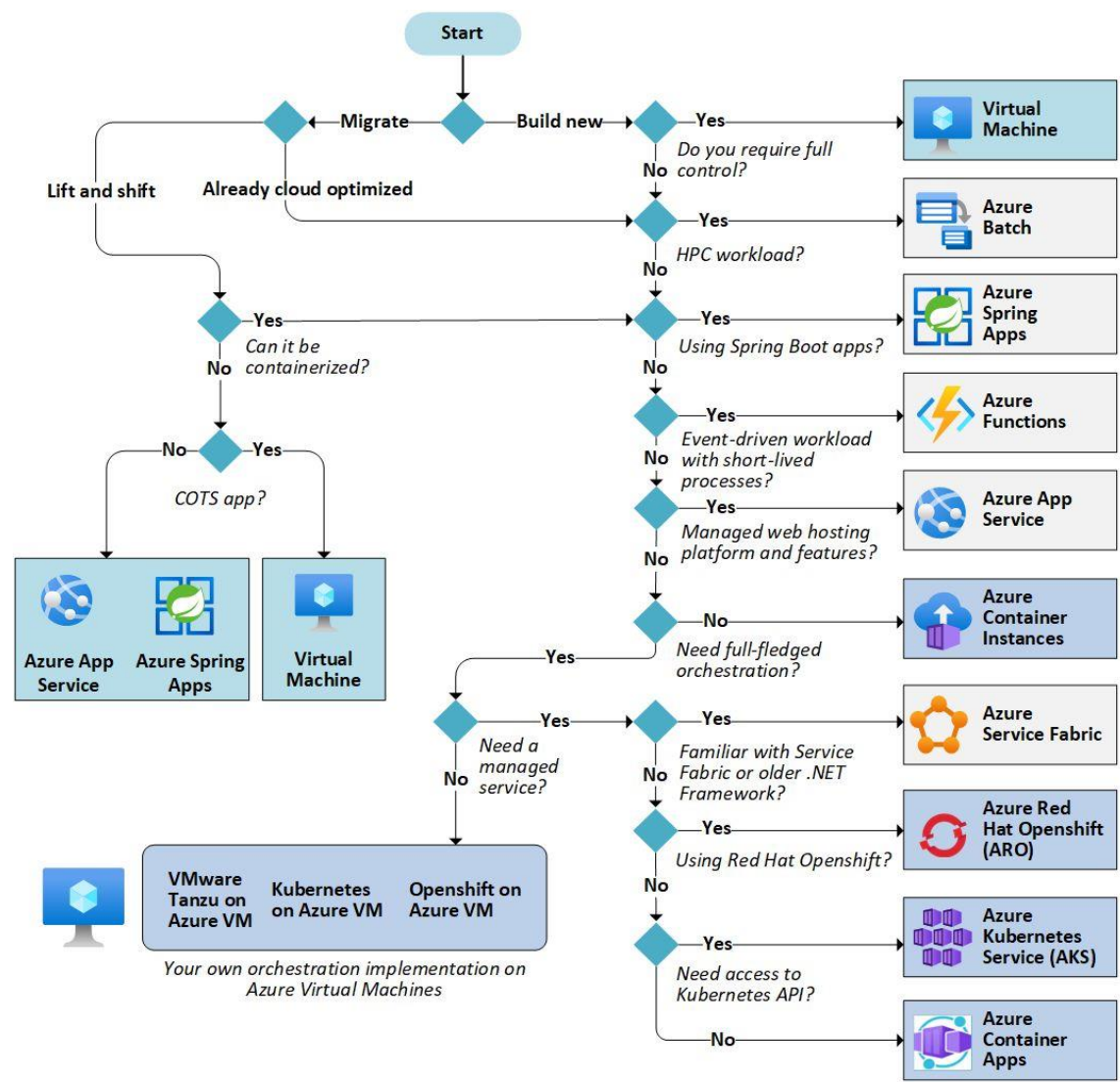
/fabio-padua   fabiopadua@microsoft.com

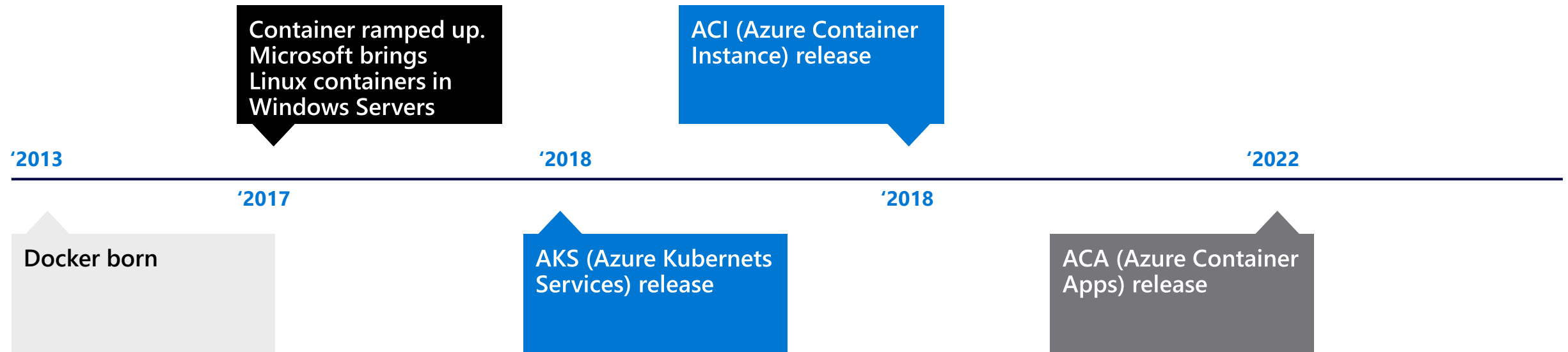# Build or Migrate

Start

Migrate — Build new — Yes → **Virtual Machine**

Do you require full control?

Lift and shift — Already cloud optimized

No

Yes → **Azure Batch**

HPC workload?

No

Can it be containerized? — Yes → Yes → **Azure Spring Apps**

Using Spring Boot apps?

No

No

Yes → **Azure Functions**

Event-driven workload with short-lived processes?

No

Yes → **Azure App Service**

Managed web hosting platform and features?

No

No → **Azure Container Instances**

Need full-fledged orchestration?

Yes

COT app?

No — Yes

Azure App Service   **Azure Spring Apps**   **Virtual Machine**

Yes → Yes → **Azure Service Fabric**

Need a managed service?

Familiar with Service Fabric or older .NET Framework?

No

Yes → **Azure Red Hat Openshift (ARO)**

Using Red Hat Openshift?

No

No

Yes → **Azure Kubernetes Service (AKS)**

Need access to Kubernetes API?

No → **Azure Container Apps**

VMware Tanzu on Azure VM   **Kubernetes on Azure VM**   **Openshift on Azure VM**

Your own orchestration implementation on Azure Virtual Machines

Container exclusive services
- Azure Batch   - Azure Spring Apps   - VMware Tanzu on Azure VM
- Azure Functions   - Azure Service Fabric   - Openshift on Azure VM
- Azure App Service   - Kubernetes on Azure VM

Container compatible services
- Azure Batch   - Azure Spring Apps
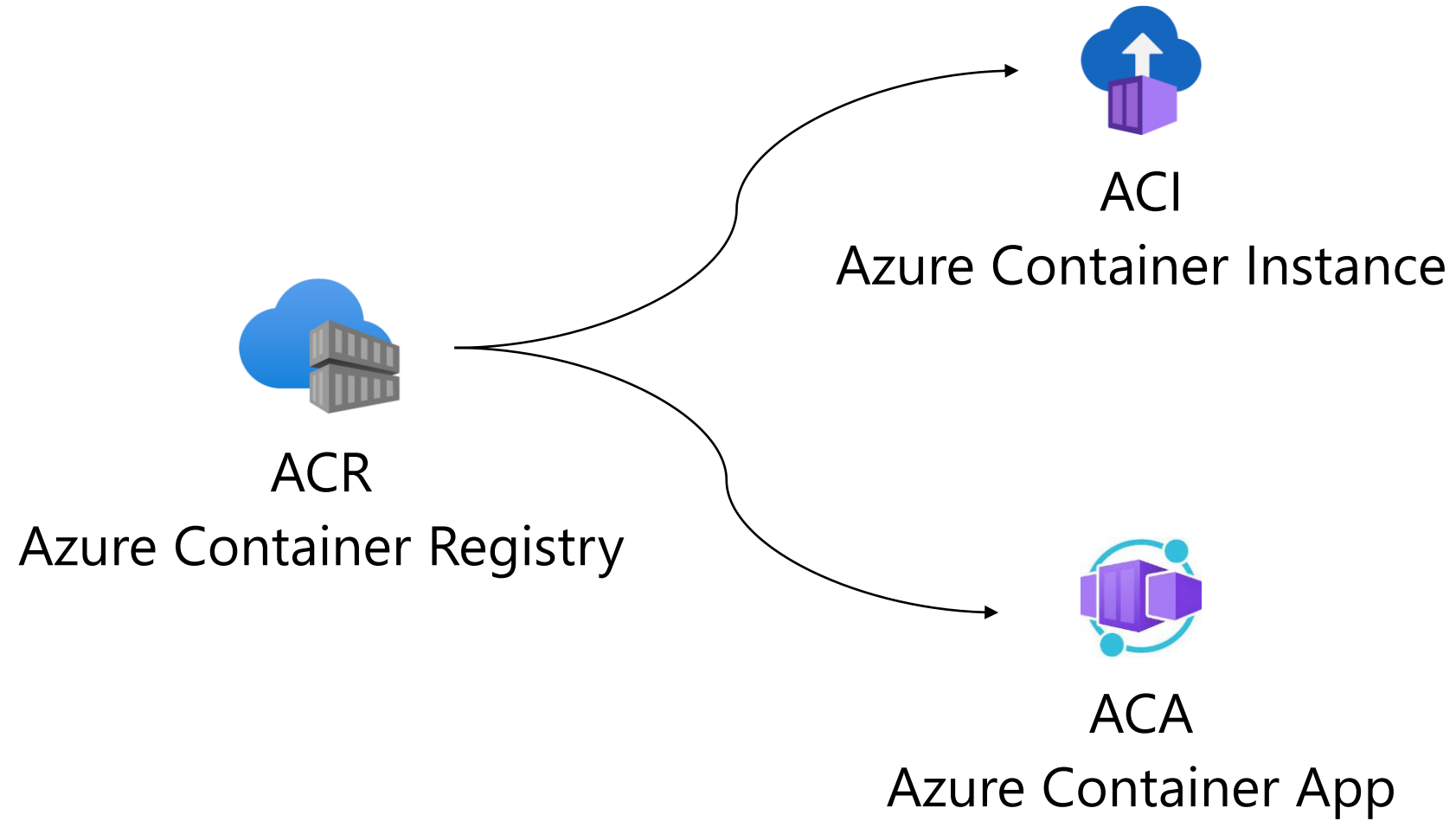- Azure Functions   - Azure App Service
- Azure Service Fabric

Containers vs VMs

- Menor necessidade de configuração de recursos *
- Rápidos para escalar Up & Down
- Menor esforço para gerenciamento

Containers over time

Container ramped up. Microsoft brings Linux containers in Windows Servers

ACI (Azure Container Instance) release

'2013

'2017

'2018

'2018

'2022

Docker born

AKS (Azure Kubernets Services) release

ACA (Azure Container Apps) release

Demo

ACI
Azure Container Instance

ACR
Azure Container Registry

ACA
Azure Container App

References

- [Choose an Azure compute service - Azure Architecture Center | Microsoft Learn](#)

- [Frequently asked questions | Microsoft Learn](#)

- [Azure Container Apps documentation | Microsoft Learn](#)

- [Comparing Container Apps with other Azure container options | Microsoft Learn](#)

Microsoft Azure

Thank you.