

TECH CONFERENCE

# DotNet 2020

#DotNet2020

**Living in the hybrid side,  
desarrollo de soluciones con Azure Arc  
para tus entornos.**



## ORGANIZATION

**plain concepts** 

## PLATINUM SPONSORS



## COLLABORATORS



**Thank you!**



**Jorge Valenzuela**

Cloud Solution Architect

**@jj\_tel**



**José Ángel Fernández**

Cloud Solution Architect

**@jangeldez**

# Customer environments and application requirements are evolving

How to govern and operate across disparate environments?

How to ensure security across the entire organization?

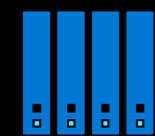
How to best enable innovation and developer agility?

How to meet regulatory requirements and overcome technical hurdles?

## 100's–1,000's of apps



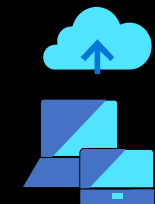
VMs



Databases



Containers



Serverless



## Diverse infrastructure



Datacenters



Hosters



Branch offices



OEM hardware



IoT devices



Edge

## Multi-cloud



Microsoft Azure



Google Cloud

# Customer challenges when hybrid

**Complexity:** *I need to have health visibility in single pane of glass to all my existing and future infrastructure and applications"*

**Compliance:** *I need to manage security and incident management across my public cloud and datacenter assets*

**Inconsistency:** *I want my on-prem skills work in the cloud, and my cloud skills to work on-prem.*

**Regulation:** *Our DB layer must remain on-premises due to sensitive patient data and data availability needs*

**Latency:** *We can't take a dependency on the internet. If we lose connectivity, we still want to be able to access the data.*

**Legacy:** *Our older systems take too much maintenance. We want evergreen technology and to pay for it like a utility*



Multi-cloud



Datacenter



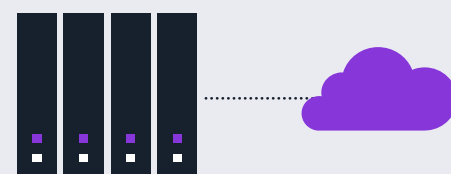
Edge

# Azure Hybrid

Innovation anywhere with Azure



Single control plane with Azure Arc



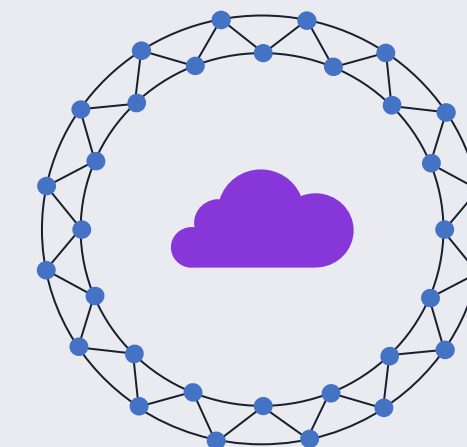
aws

Google Cloud

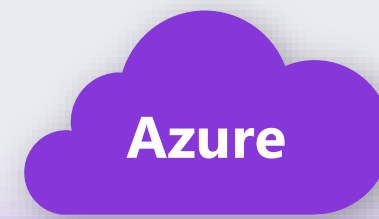
Bring **Azure services** to any infrastructure



Modernize datacenters with **Azure Stack**



Extend AI to the edge with **Azure IoT**



# Azure Arc

## Azure Arc

### enabled infrastructure

*Connect and operate hybrid resources as native Azure resources*

## Azure Arc

### enabled services

*Deploy and run Azure services outside of Azure while still operating it from Azure*

**Visibility:** Bring distributed Windows, Linux, SQL and Kubernetes together **a single plane of glass**

**Compliance:** Reduce risk and cost by establishing a single governance frame for all your workloads without additional overhead or additional approval processes

**Consistency:** Simplify the way you work by consolidating tooling and using cloud-native technology and practices everywhere

**Flexibility:** Reduce risk and adhere to regulatory requirements by deploying cloud services on-premises

**Latency:** Deploy data services on-premises, close to your data sources with support for both disconnected and connected workloads

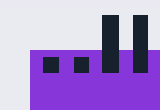
**Always current:** Get evergreen SQL and Hyperscale on-premises with a cloud billing model



Multi-cloud



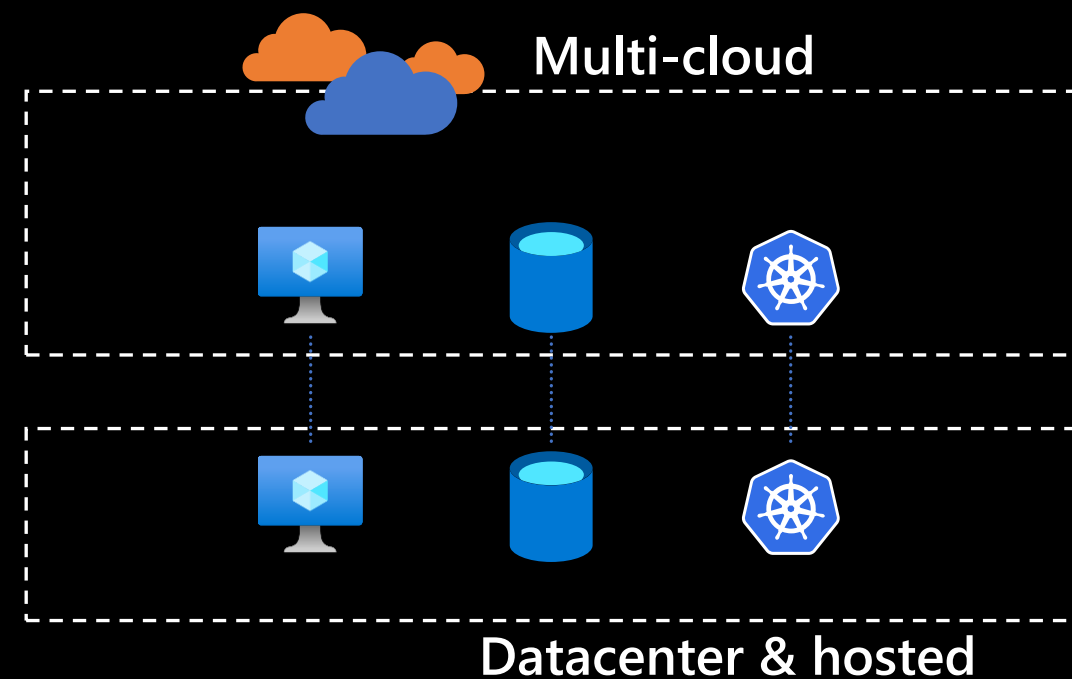
Datacenter



Edge

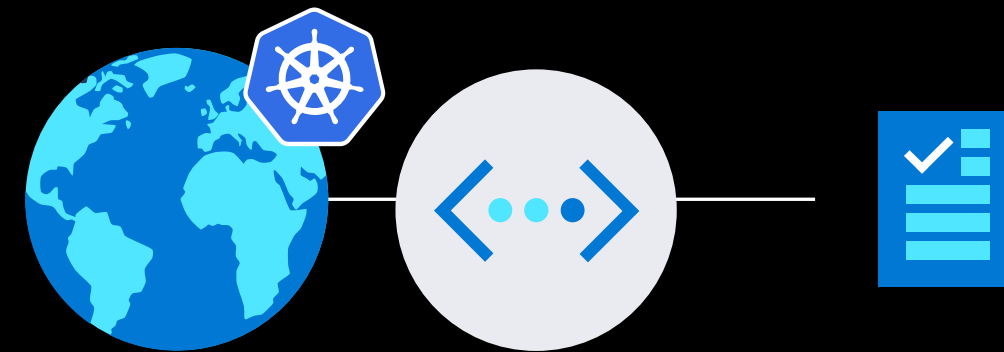
# Azure Arc Use cases

Bring Azure services and management to any infrastructure



## Organize and govern across environments

Get servers and Kubernetes clusters that are sprawling across clouds, datacenters and edge under control by centrally organizing and governing from a single place.



## At-scale Kubernetes app management

Deploy and manage Kubernetes applications at scale across environments using DevOps techniques, ensuring that applications are deployed and configured consistently from source control, at scale.



## Run data services anywhere

Deploy and manage data services where you need it for latency or compliance requirements.

Always use the most current technology and seamlessly manage and secure your data assets across on-premises, clouds, and edge.



# Demo Time

- **Organize and govern across environments**
- **At-scale Kubernetes app management**
- **Run data services anywhere**



# Azure Arc Architecture

 Microsoft Azure

Customer locations (On-Premises / Clouds)

Resource specific tools

Management Interfaces

Azure Portal

Azure CLI

Azure SDK

Azure Resource Manager (ARM)

Management Services

Monitoring | Update | Containers | Backup | Security Center | More...

Access and Security

RBAC | MSPs | Subscriptions

Environments and Automation

Templates | Extensions

Organization and Inventory

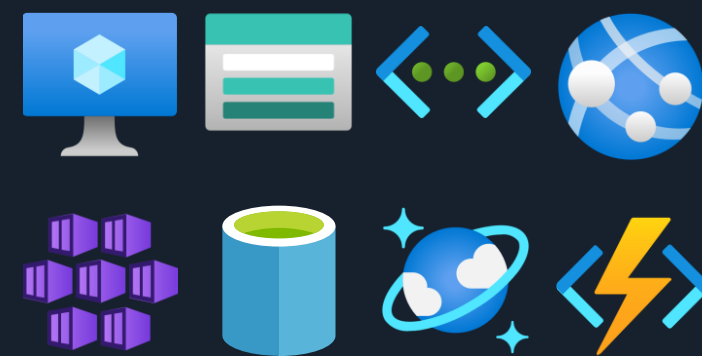
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Governance and Compliance

Logs | Policy | Blueprints

Azure Arc

Azure Resources



aws

Google Cloud

Multi-Cloud

On-Premises / Hosted Services

Azure Data Studio

K8s Native Tools

Cluster provisioning  
Cluster upgrade and patch management

Cluster lifecycle management

Cluster monitoring

Server Admin Tools

# Azure Arc Architecture

Microsoft Azure

Management Interfaces

- Azure Portal
- Azure CLI
- Azure SDK

Azure Resource Manager (ARM)

- Identity
- RBAC
- Policy
- Index
- Groups
- Etc.

- Azure Arc Data Resource Provider (RP)
- Container Registry
- Azure Arc K8s Resource Provider (RP)
- Azure Arc Server Resource Provider (RP)

Customer locations (On-Premises / Clouds)

Azure Data Services

- Azure Arc Data Agent (SQL, SQL, SQL)

Kubernetes Cluster

- Azure Arc Data Controller
- GitOps Manager
- Azure PaaS Control
- Azure Arc K8s Agent

Servers

- Azure Arc Server Agent
- Linux
- Windows Server

Resource specific tools

- Azure Data Studio
- K8s Native Tools
  - Cluster provisioning
  - Cluster upgrade and patch management
  - Cluster lifecycle management
  - Cluster monitoring
- Server Admin Tools



Azure Arc



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# Questions & Answers



Thanks and ...  
See you soon!

Thanks also to the sponsors.  
Without whom this would not have been possible.

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