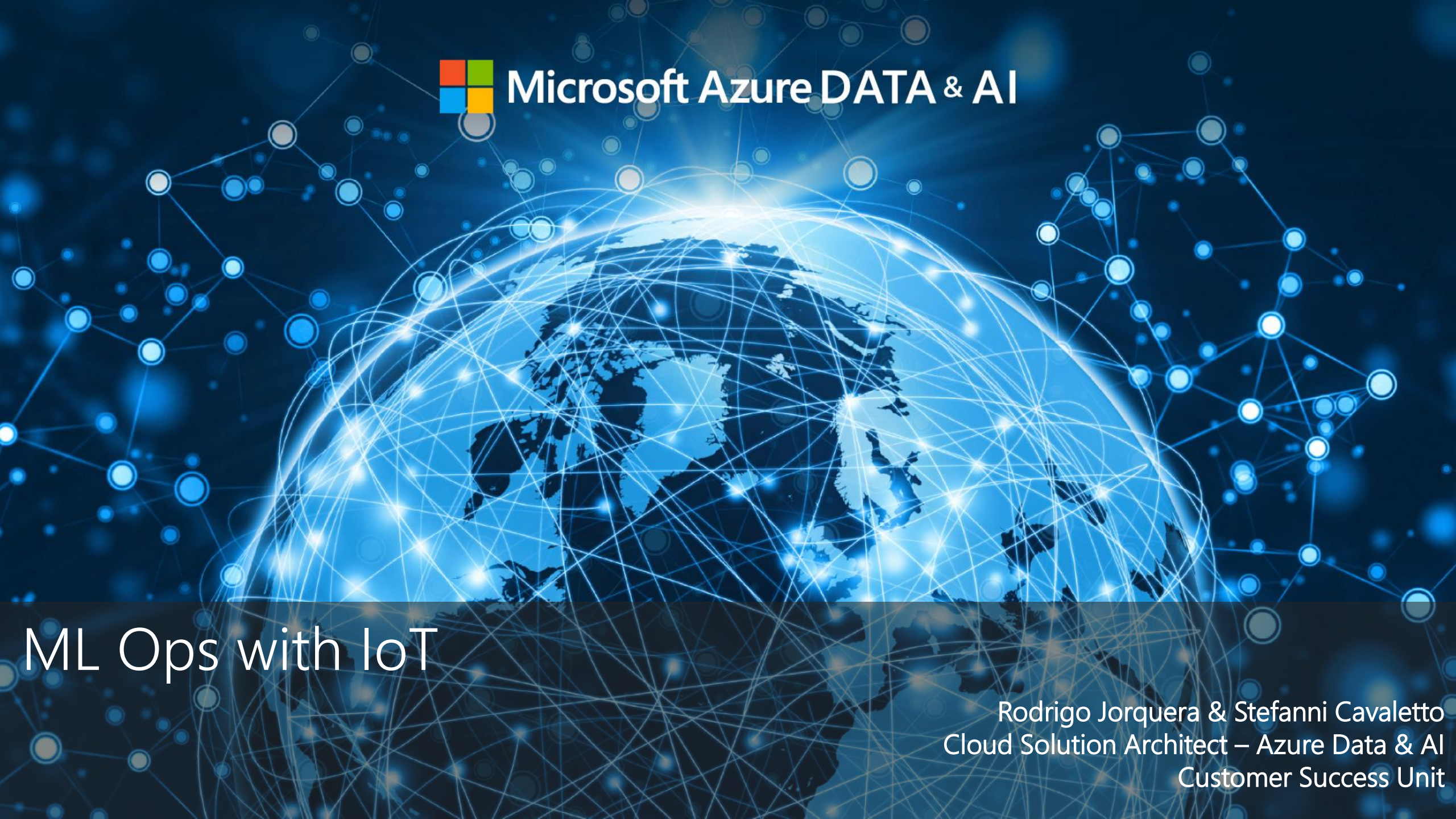
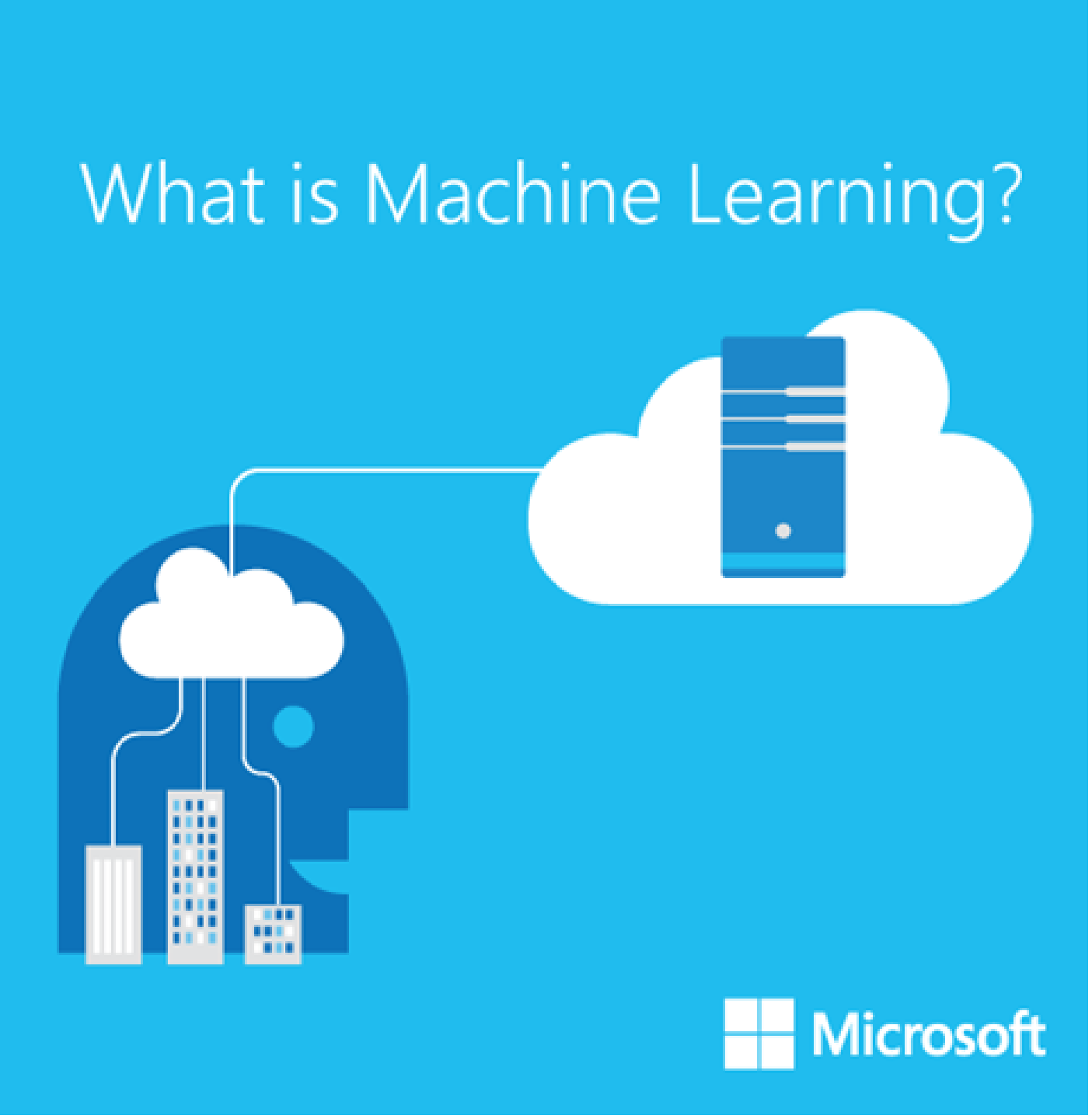


ML Ops with IoT

Rodrigo Jorquera & Stefanni Cavaletto
Cloud Solution Architect – Azure Data & AI
Customer Success Unit



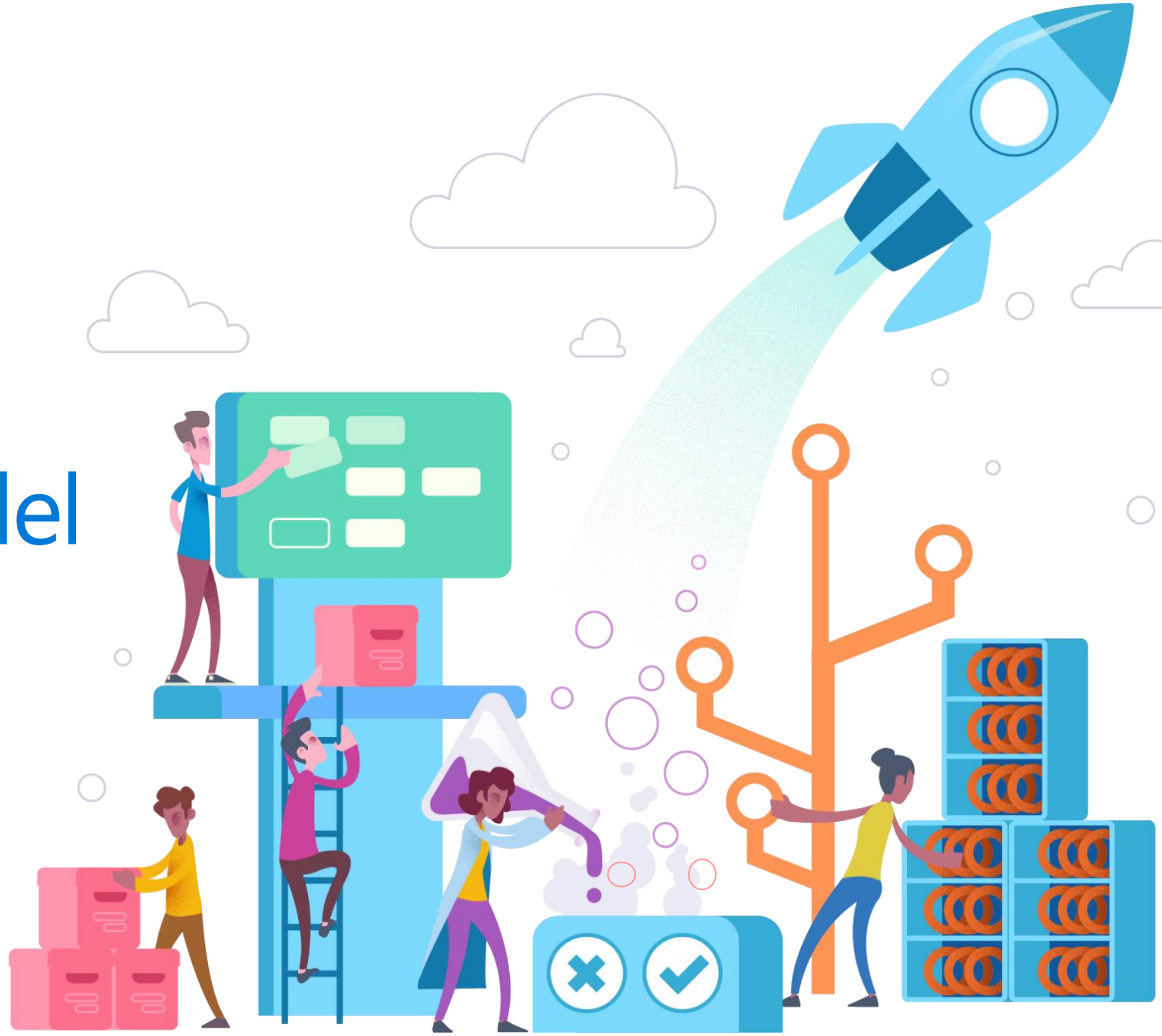
Agenda

Life-Cycle of Model (ML+Ops)

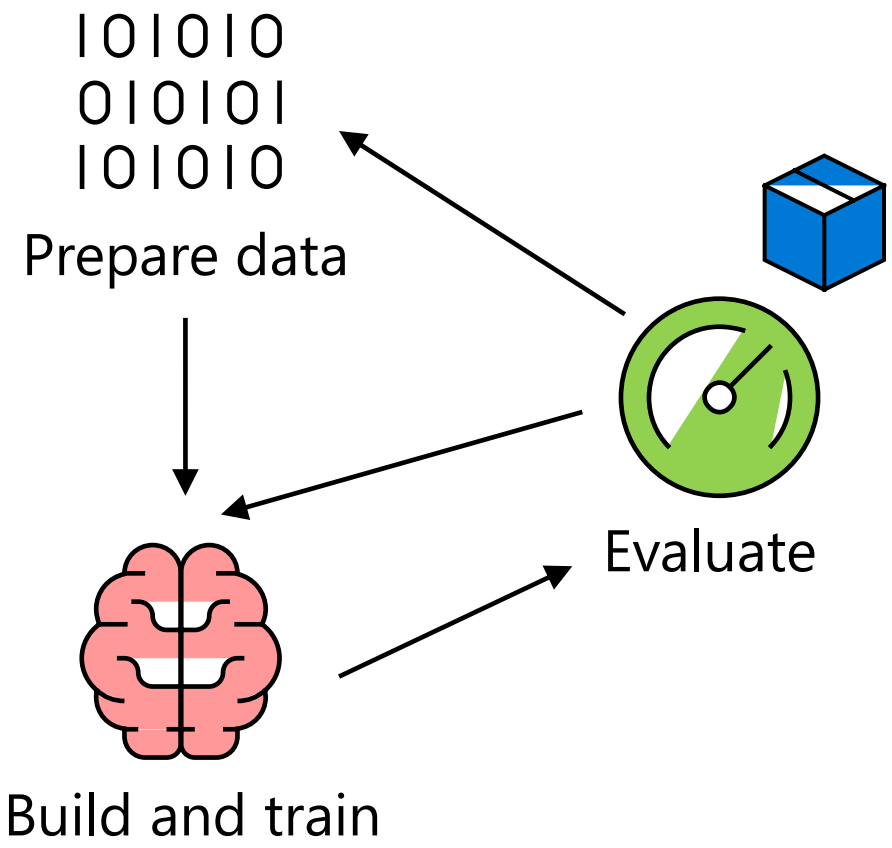
Deployment and Delivery in Edge

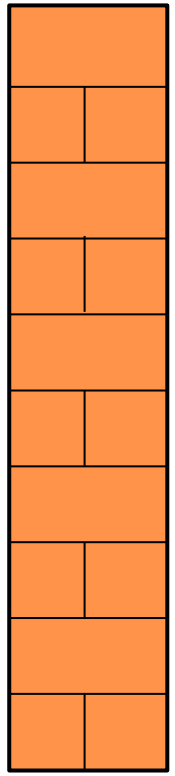
Microsoft

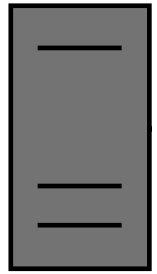
Life-Cycle of Model (ML+Ops)



Machine Learning Process





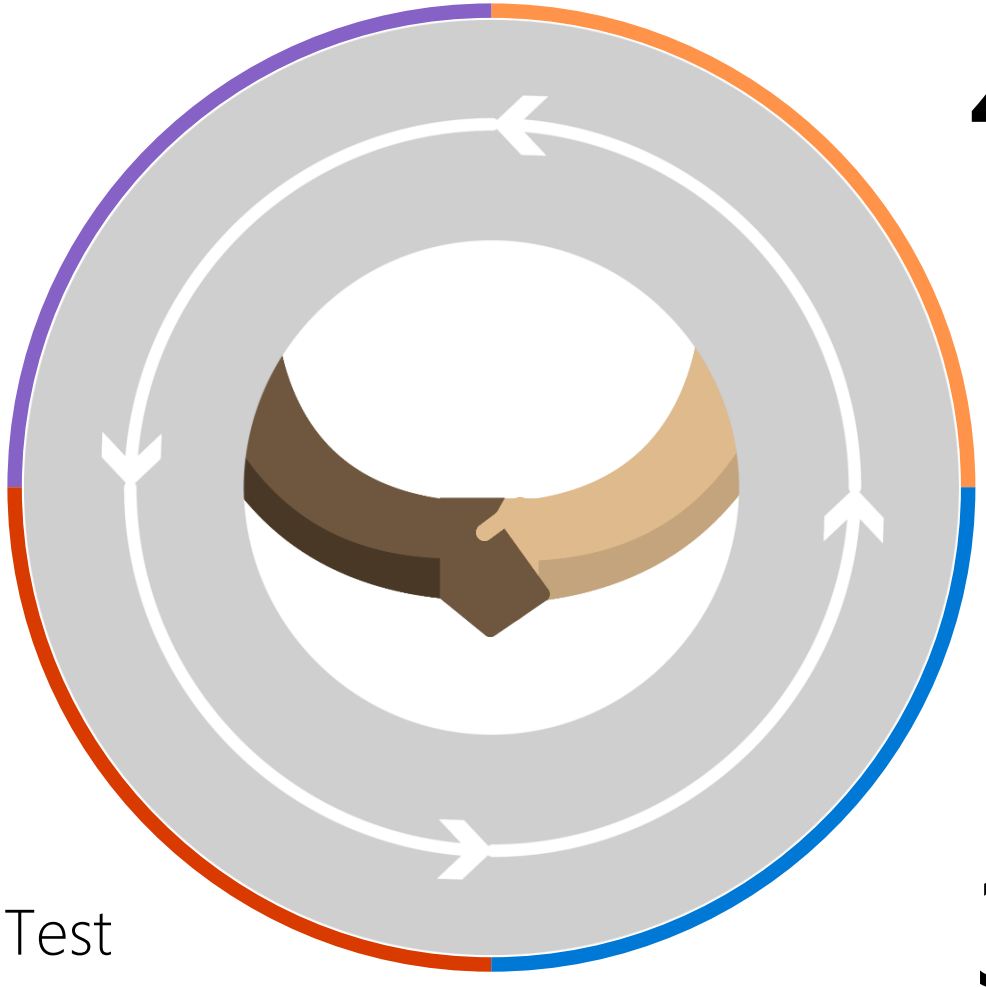


Production

Microsoft Azure

DevOps Process

1 Plan



4 Monitor + Learn

Development

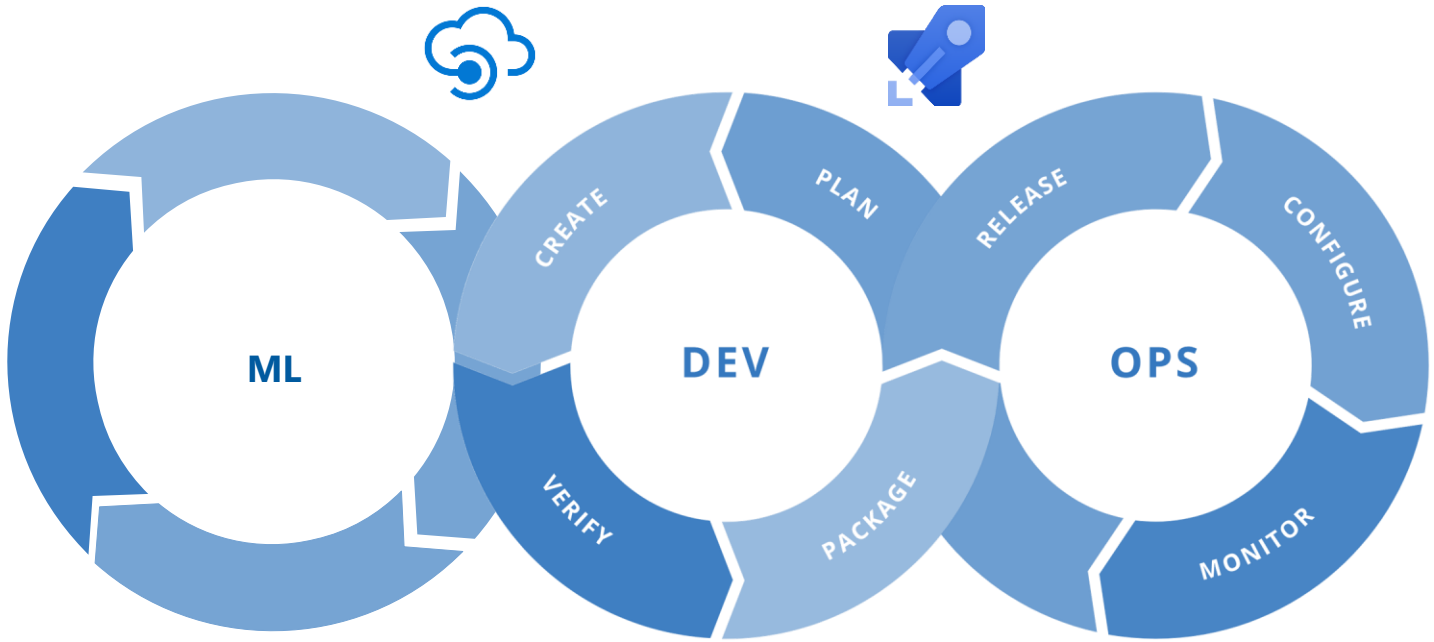
Production

2 Develop + Test

3 Release

Microsoft Azure

MLOps = ML + DEV + OPS



Experiment
Data retrieval
Business understanding
Initial modeling

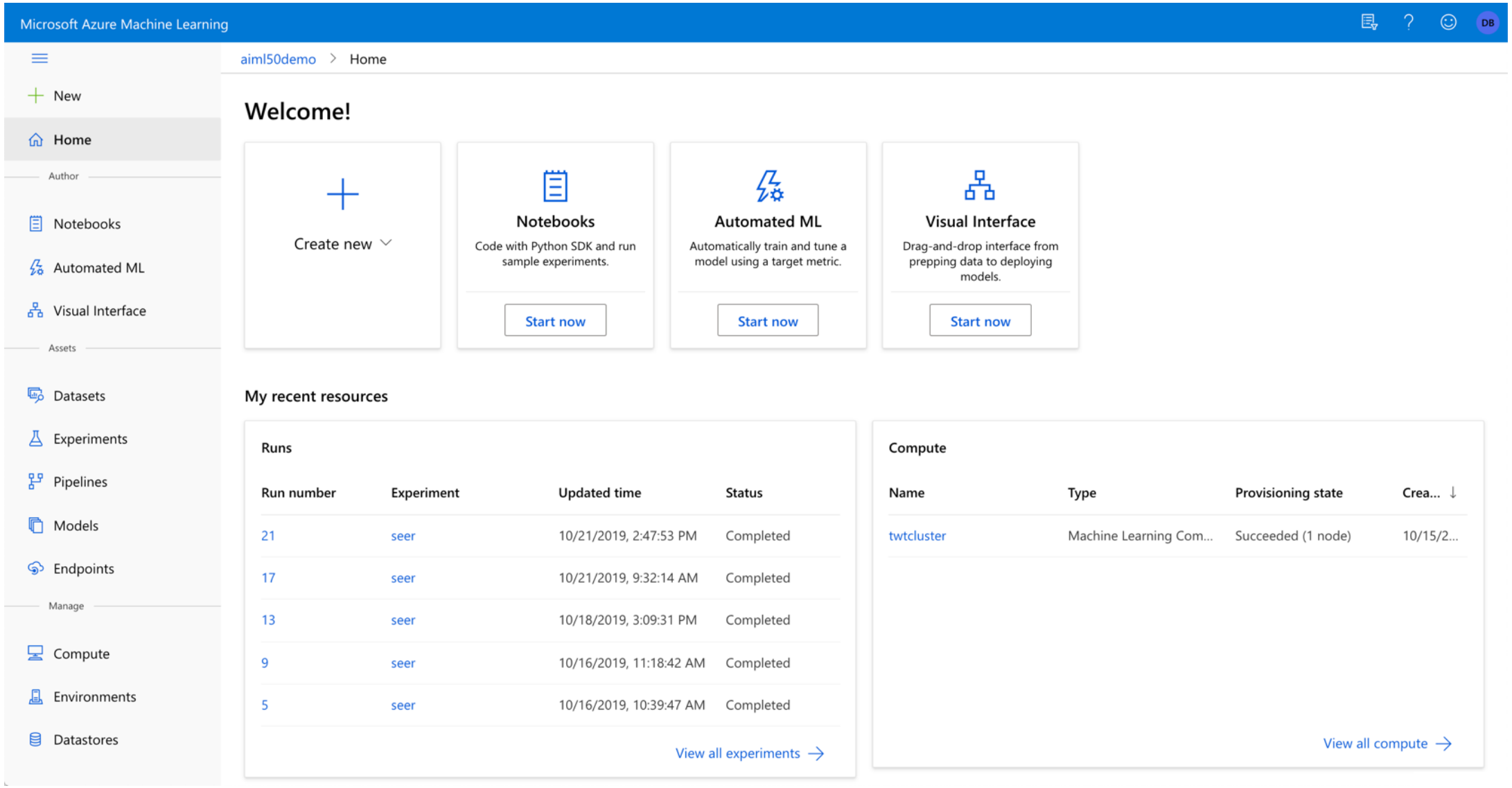
Develop

+ Testing
Continuous Integration
Continuous Deployment

Operate

Continuous Delivery
Data Feedback Loop
System + Model Monitoring

ml.azure.com



Microsoft Azure

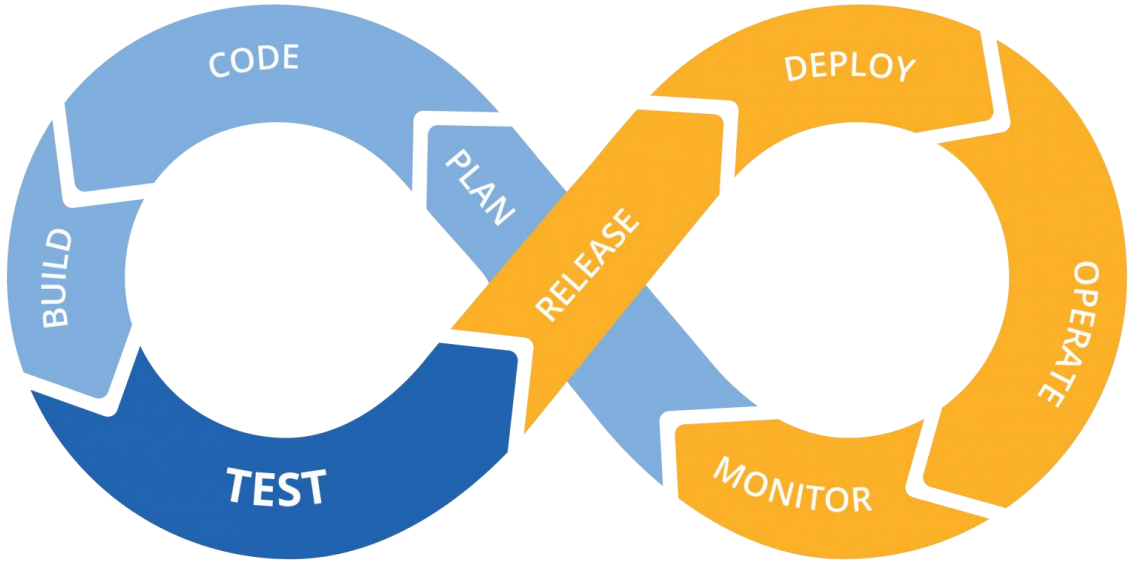
Introducing Azure DevOps

Azure Pipelines

Build, test, and deploy with CI/CD that works with any language, platform, and cloud. Connect to GitHub or any other Git provider and deploy continuously.

Azure Repos

Get unlimited, cloud-hosted private Git repos and collaborate to build better code with pull requests and advanced file management.



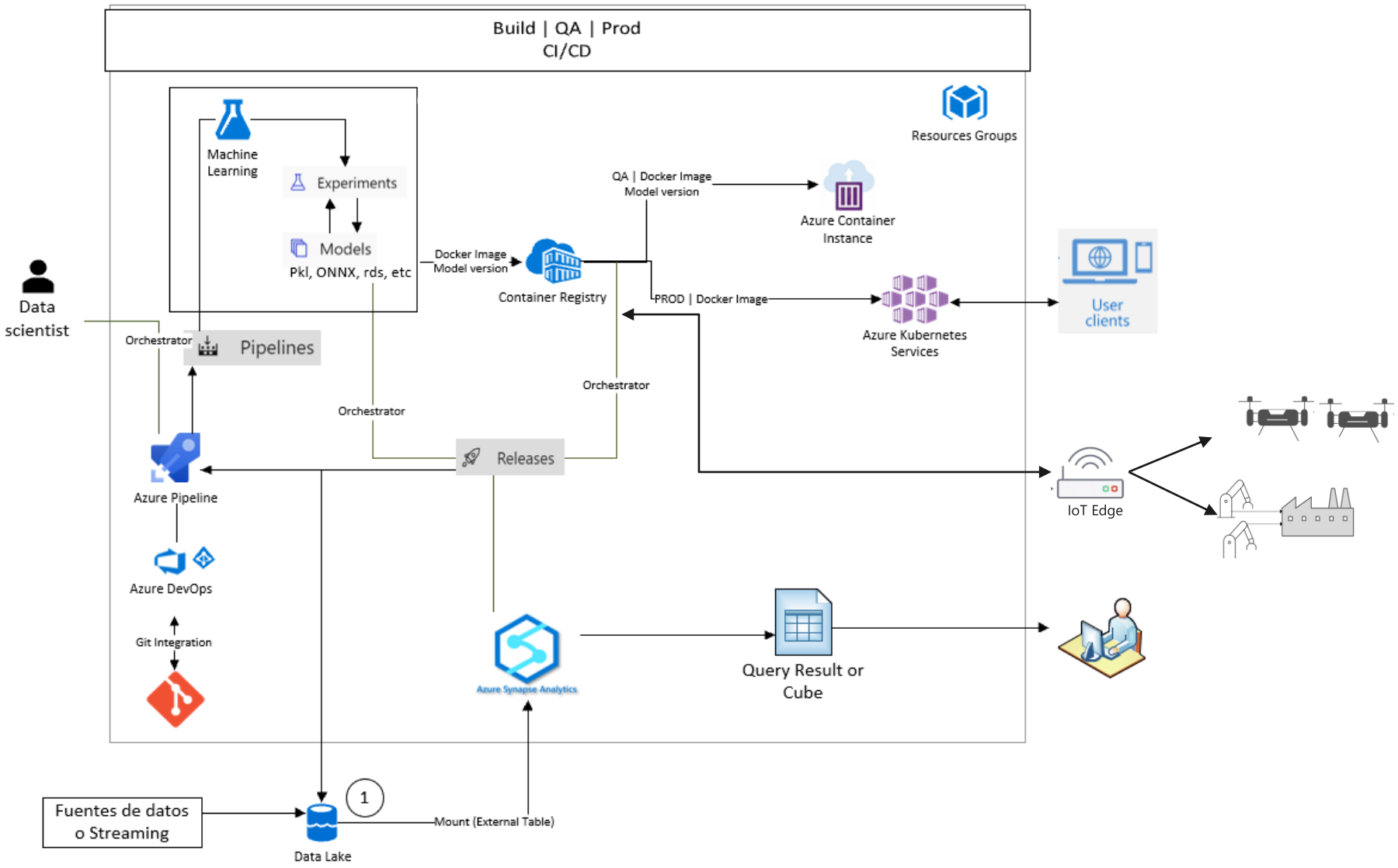
CI/CD

Continuous integration and continuous delivery

1. Segregation for Stakeholder Responsibility
2. Risk Reduction
3. Short Feedback Loop

Microsoft Azure

Arquitectura Alto Nivel Machine Learning

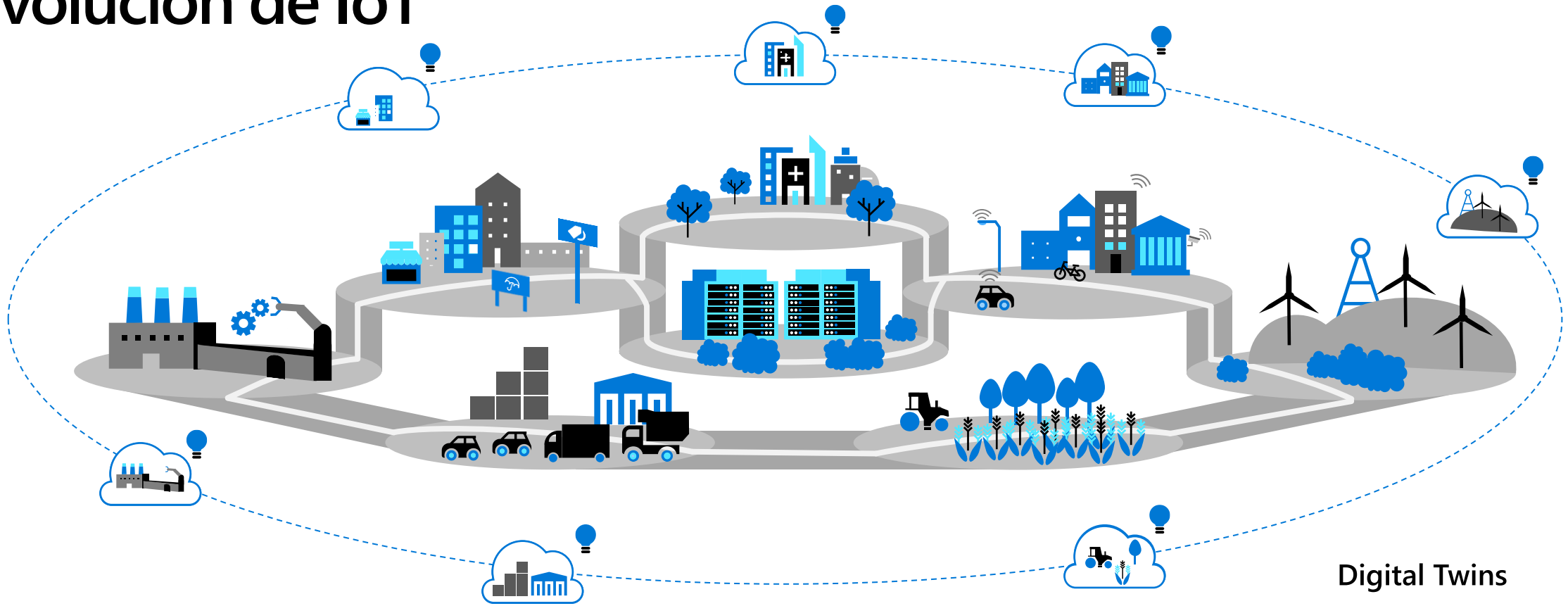


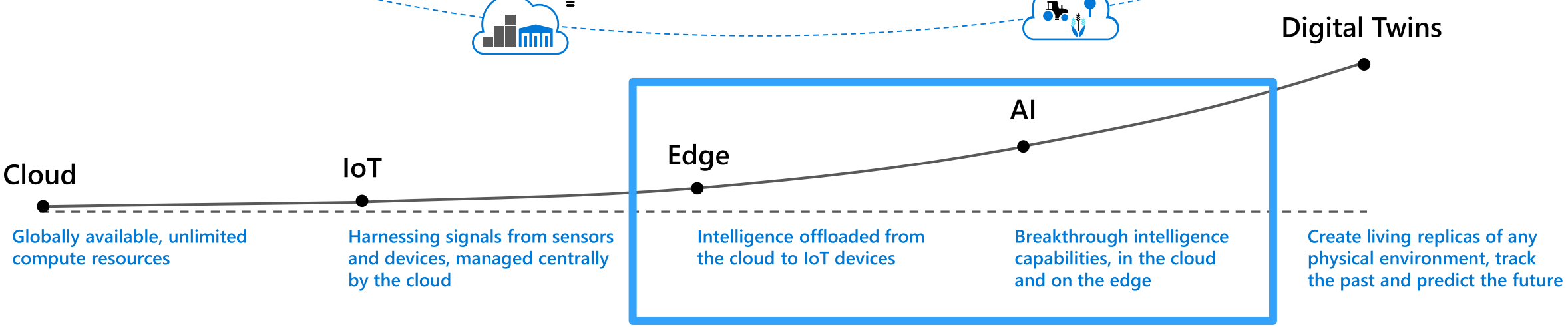
Microsoft Azure

Microsoft

Deployment and Delivery to the Edge

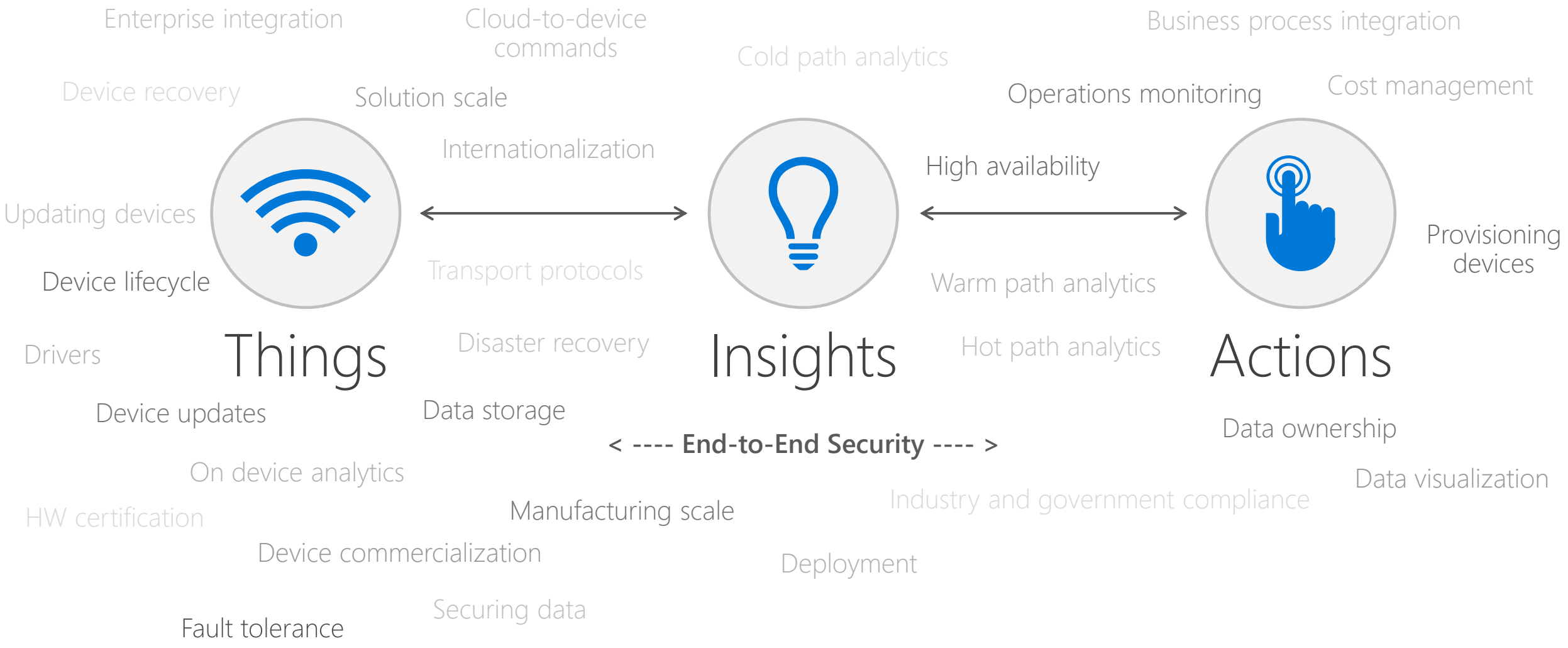
Evolución de IoT





IoT es un concepto fácil de entender

La implementación de IoT es muy compleja



Portafolio completo de IoT

Soluciones (PaaS)

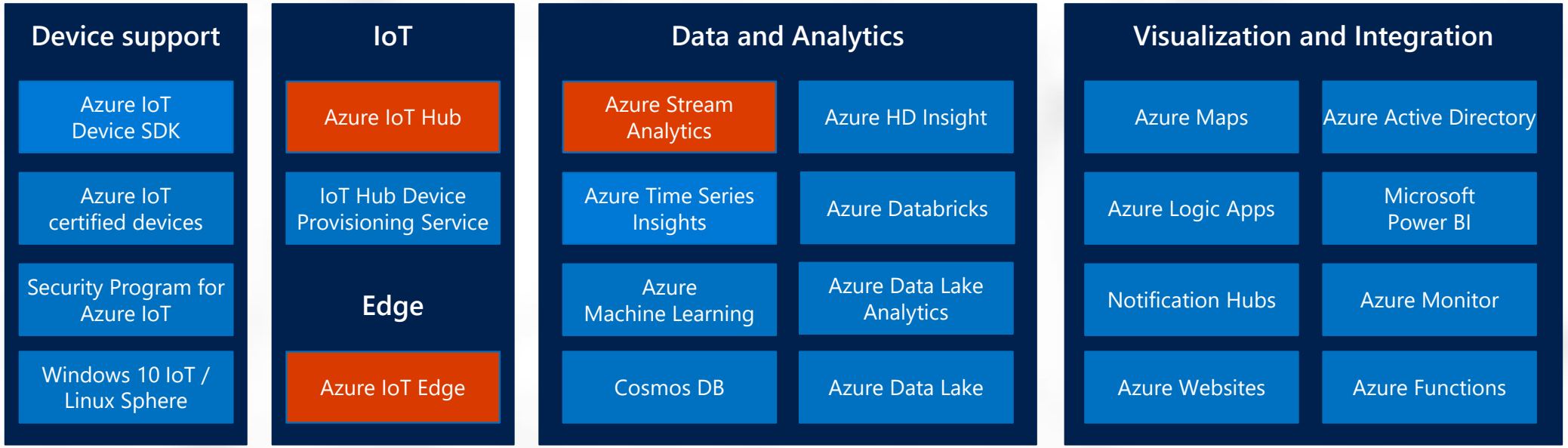
Azure IoT Suite (PaaS)
Soluciones preconfiguradas para escenarios típicos de IoT

Soluciones (SaaS)

Microsoft IoT Central
IoT SaaS

Microsoft Dynamics
Connected Field Service

Tecnologías (PaaS)

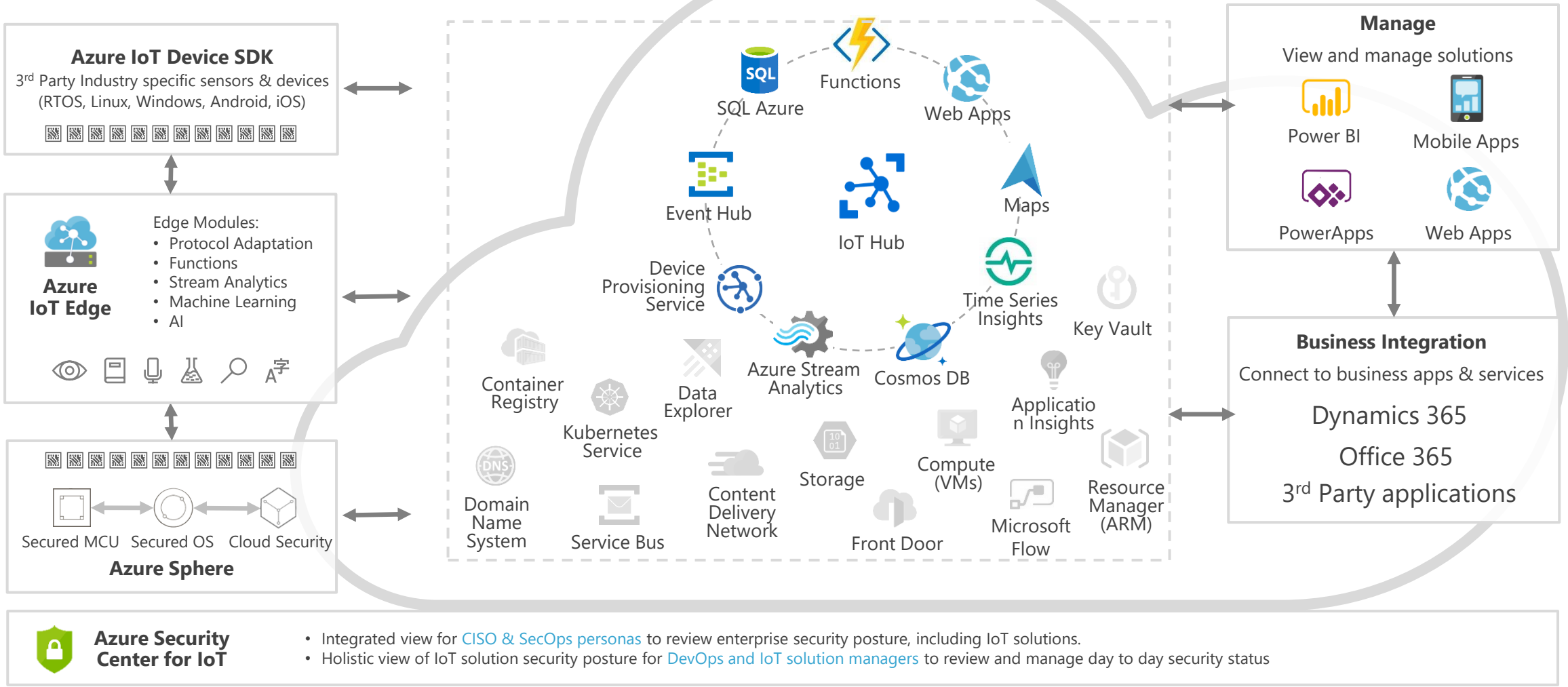


Microsoft Azure

Opciones para construir soluciones IoT

1. Build from the ground up

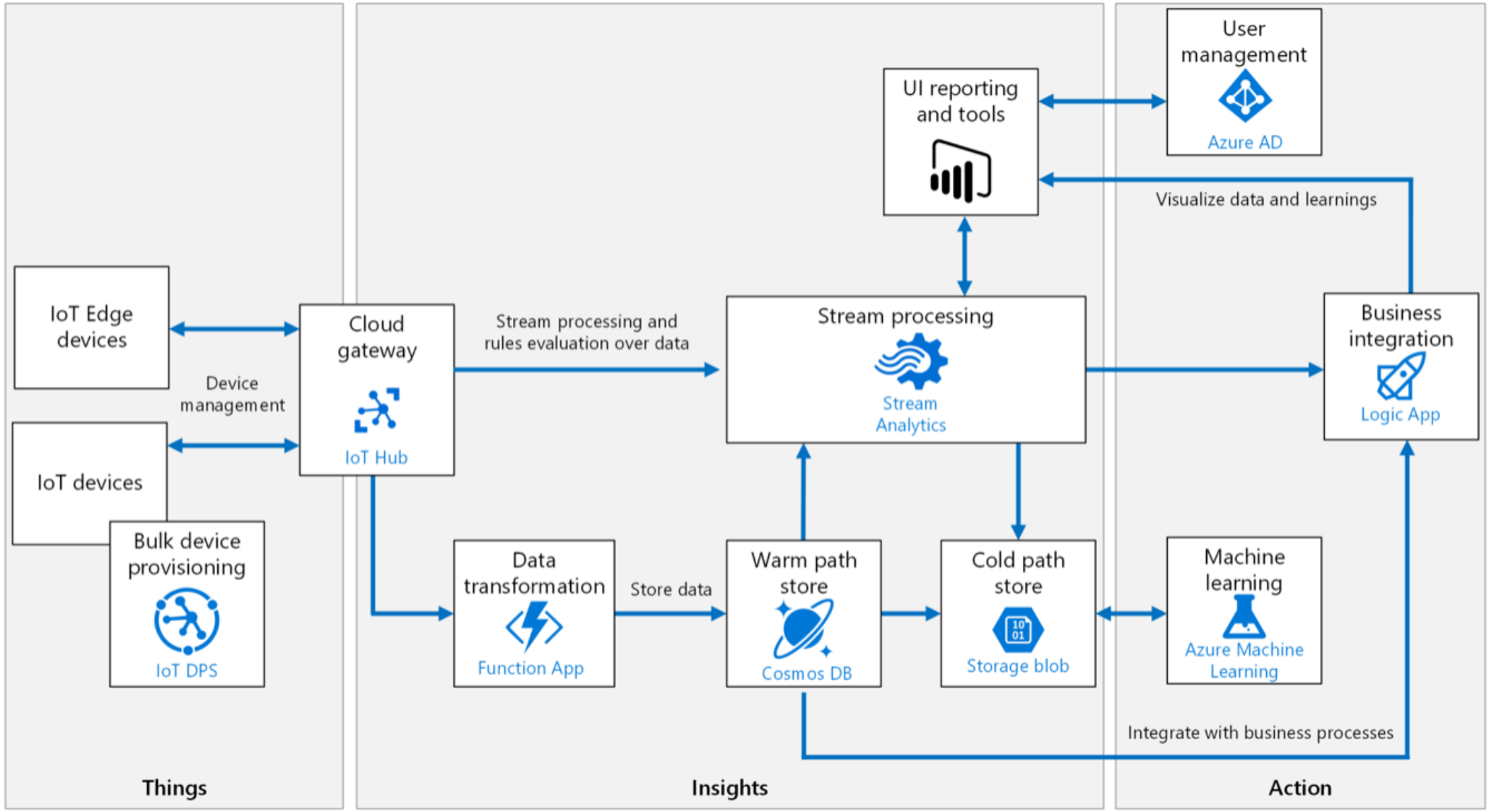
The issue: Designing, integrating and maintaining dozens of individual services requires extensive expertise, time and financial investment



Azure Security Center for IoT

- Integrated view for CISO & SecOps personas to review enterprise security posture, including IoT solutions.
- Holistic view of IoT solution security posture for DevOps and IoT solution managers to review and manage day to day security status

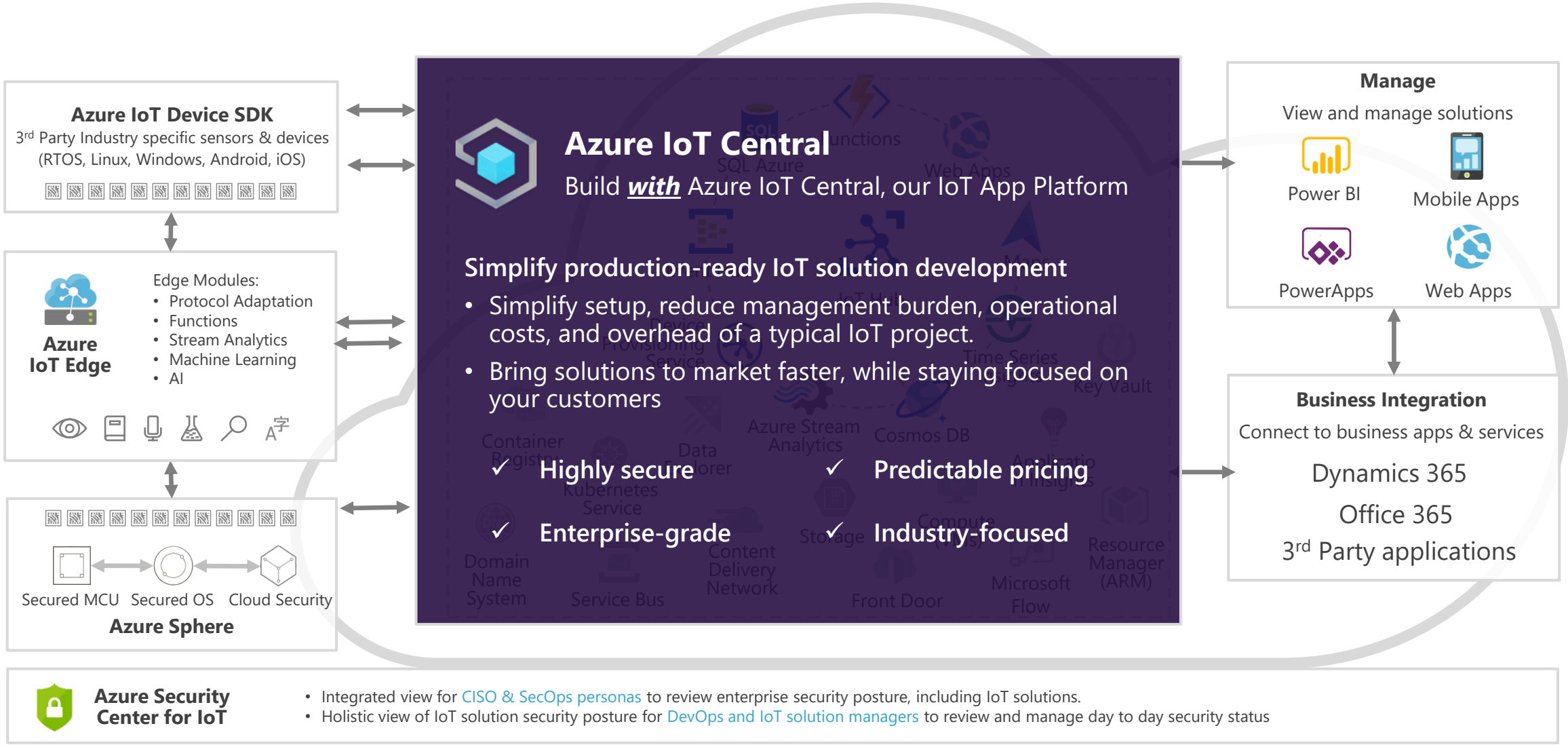
Arquitectura Conceptual



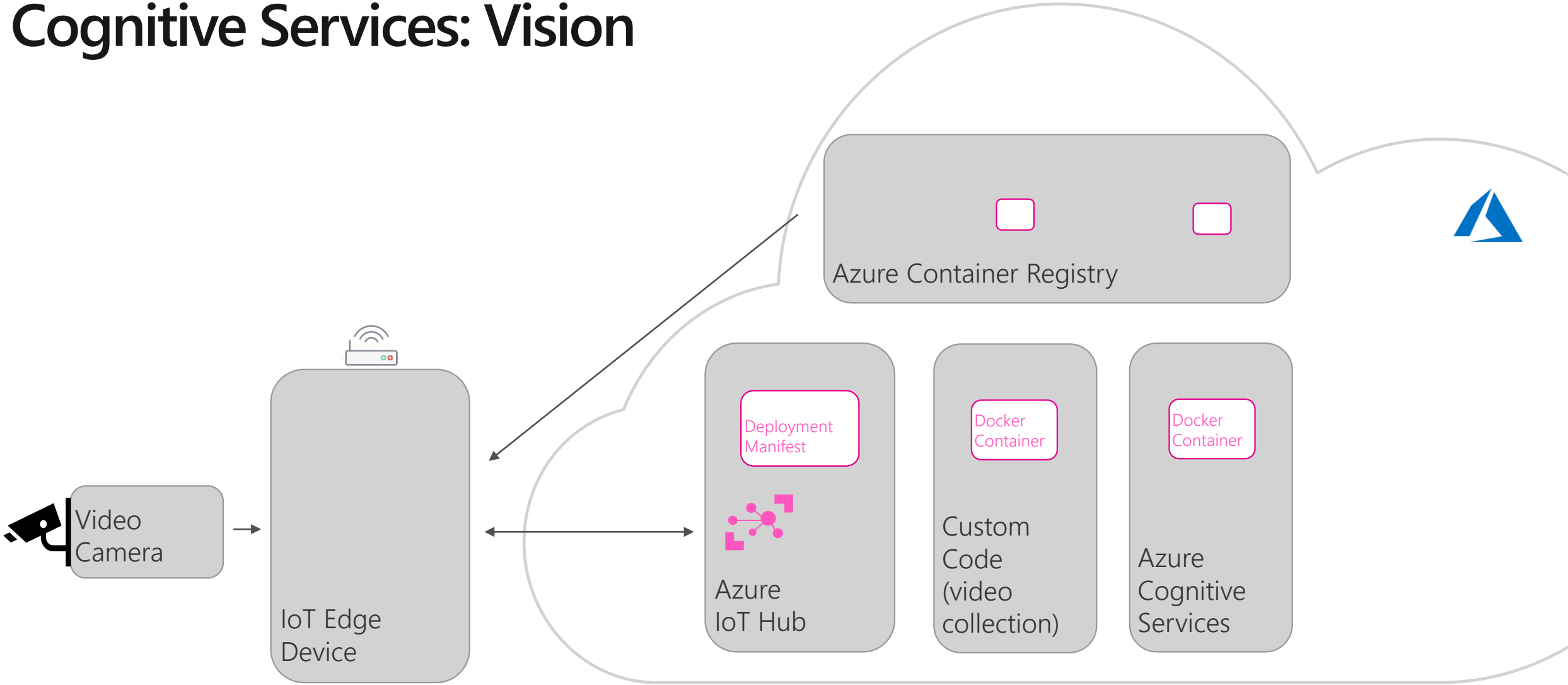
Microsoft Azure

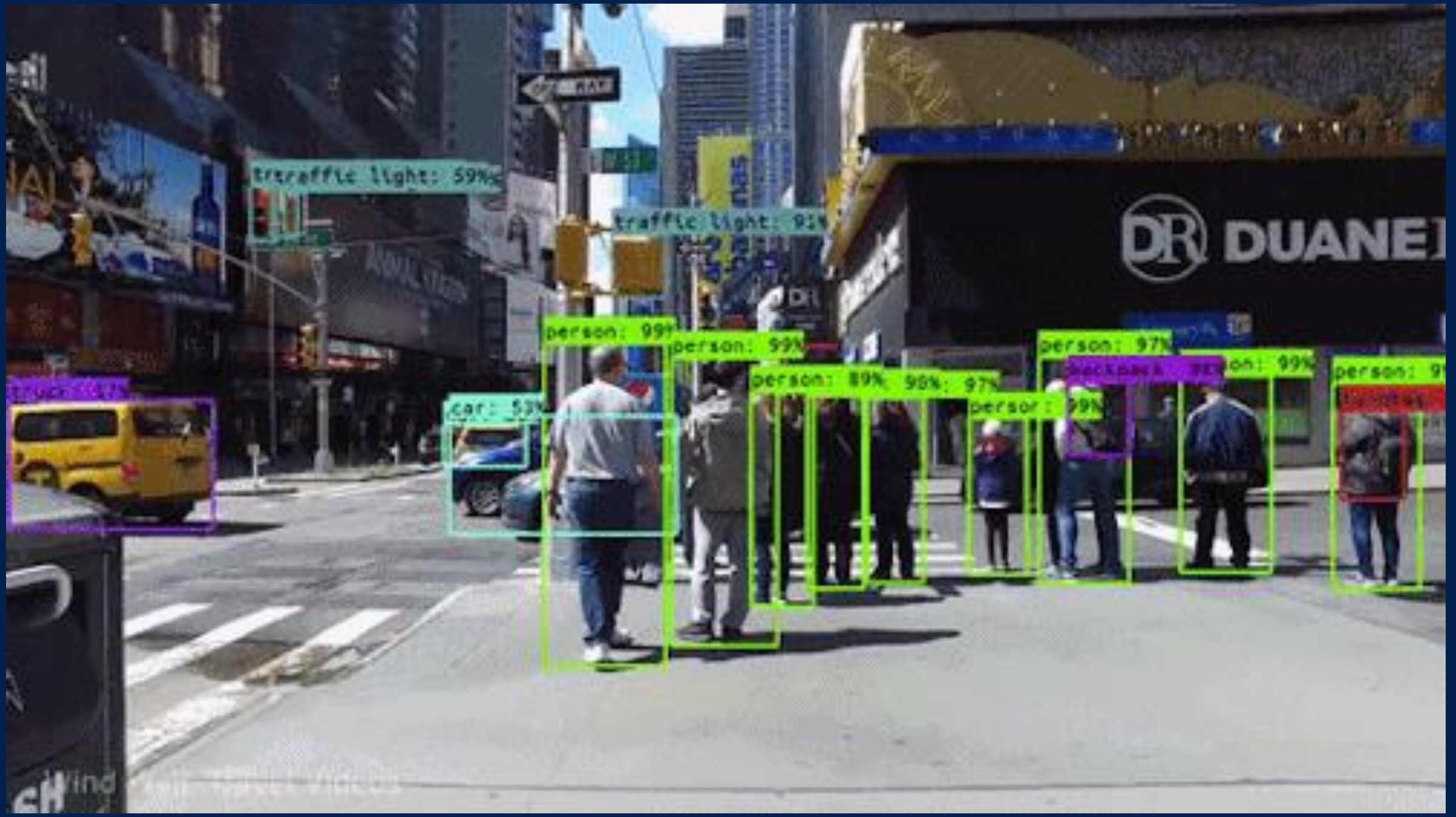
Opciones para construir soluciones IoT

2. Build with a fully managed IoT app platform



Azure IoT Edge Deployment
Cognitive Services: Vision




traffic light: 59%
traffic light: 9%
person: 99%
person: 99%
person: 89%
person: 97%
person: 97%
person: 99%
DUANE

Tipo de alerta en desarrollo: detección de disfraz

Funciona “indoor”

Microsoft

¡Thank you!