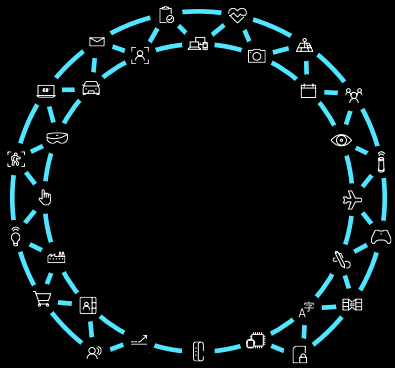




Azure Edge, IIOT and AI

The new compute paradigm is solutions that spans cloud and edge



Intelligent Edge

IoT
Edge Computing & 5G
AI
Digital Twins



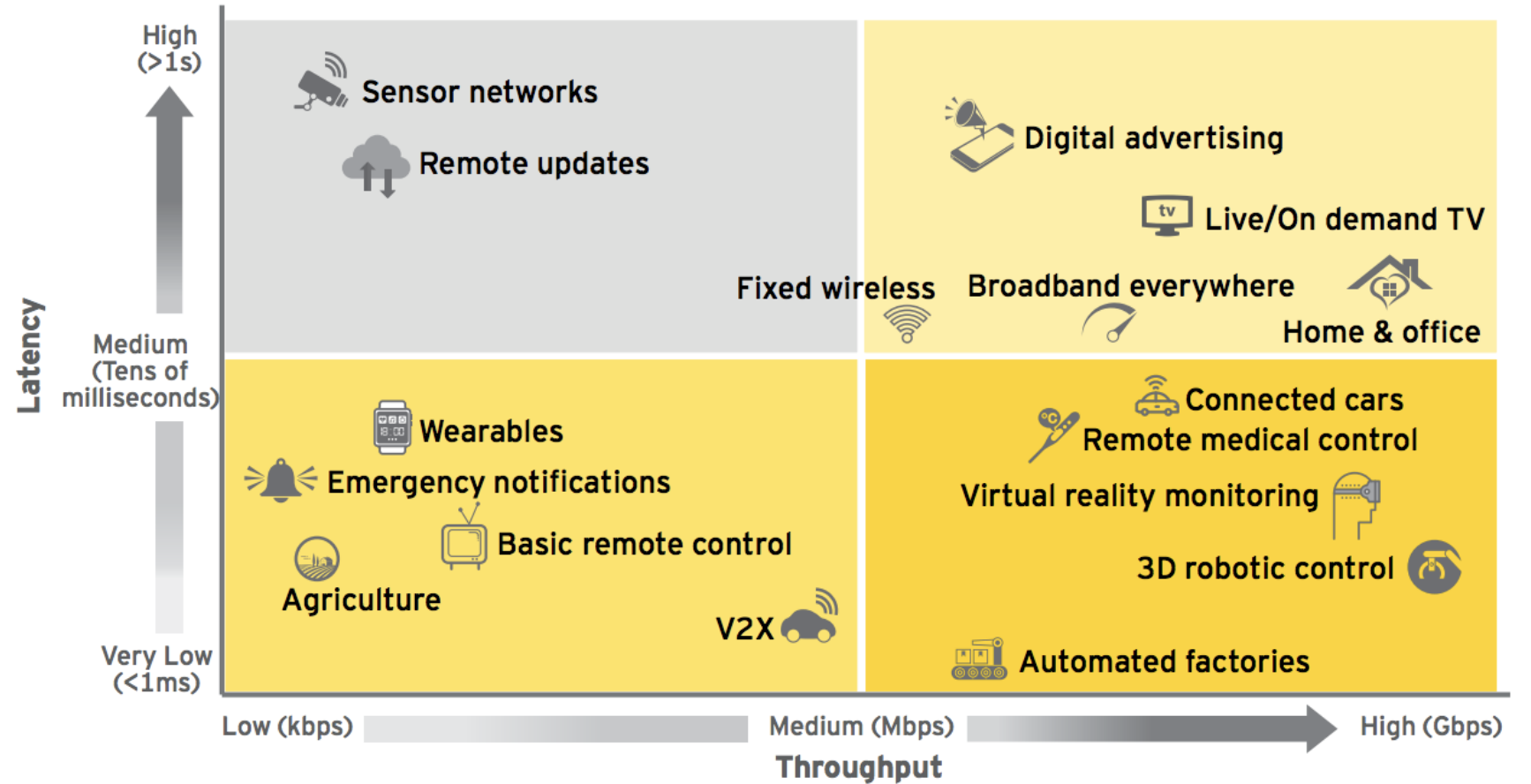
Intelligent Cloud



Solutions

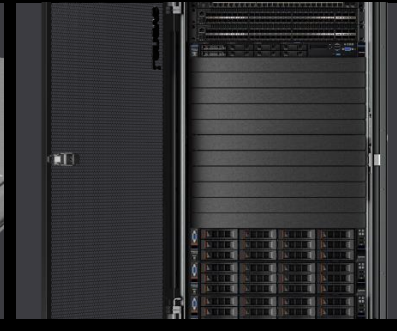
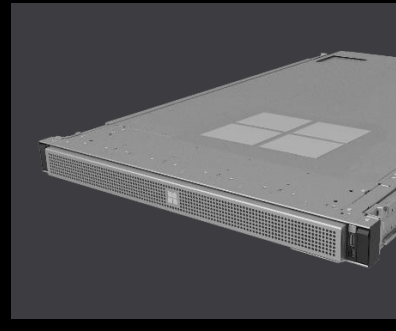
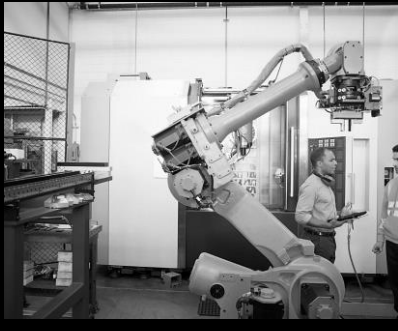
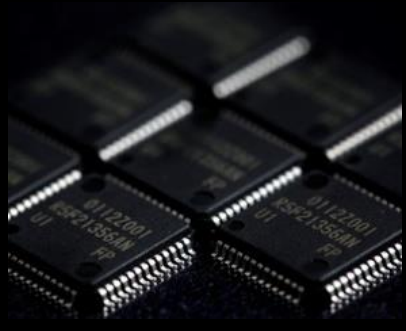
IoT, AI and 5G

High speed and low latency of 5G fuels demand of new services ("in yellow areas")



Source: EY, GSMA

Microsoft's intelligent edge + cloud product landscape



Sensors + Control

Sensors to Interactive

Integrated Platform

Global scale processing

Microcontroller

Azure RTOS & Azure Sphere

IoT Devices

Azure IoT Device SDK

Edge Devices

Azure IoT Edge

Edge Appliances

Azure Stack Edge & Azure Edge Zones

Edge Stack

Azure Stack Hub

Hyperscale Cloud

Cloud Regions

Integrated Circuit designed to govern a specific operation in an embedded system

Highly-secured, connected MCU

Azure Sphere Linux OS for modern MCUs

Included Azure IoT Device SDK

Endpoint devices such as appliances, vehicles, or factory machines that connect, interact and exchange data

1300+ devices, 300+ partners - all certified to work great with Azure IoT Services

Cross-platform and open source: Windows IoT, Linux, Android, iOS, RTOSs and more

Devices that aggregate, process & provide gateway capabilities for IoT endpoints

Deploy and manage Azure Services in containers on any IoT device

AI, AzureML, Azure Stream Analytics and more

Cross-platform and open source: Windows IoT, Linux

Integrated appliances that provide a subset of cloud edge roles, such as ML-inferencing

Azure Stack Edge: AI-Enabled, Storage and compute Azure Edge appliance

Scalable solutions that provide a full cloud stack, including IaaS and PaaS capabilities

Edge and Disconnected Scenarios

Regulatory Requirements

Cloud app model on-premises

First-party cloud regions

Full Range Hyperscale Cloud Services

Tiered Service availability: Heroes > Hubs > Satellites

Open Source Based Services & Tools

Most specialization

Fewest services

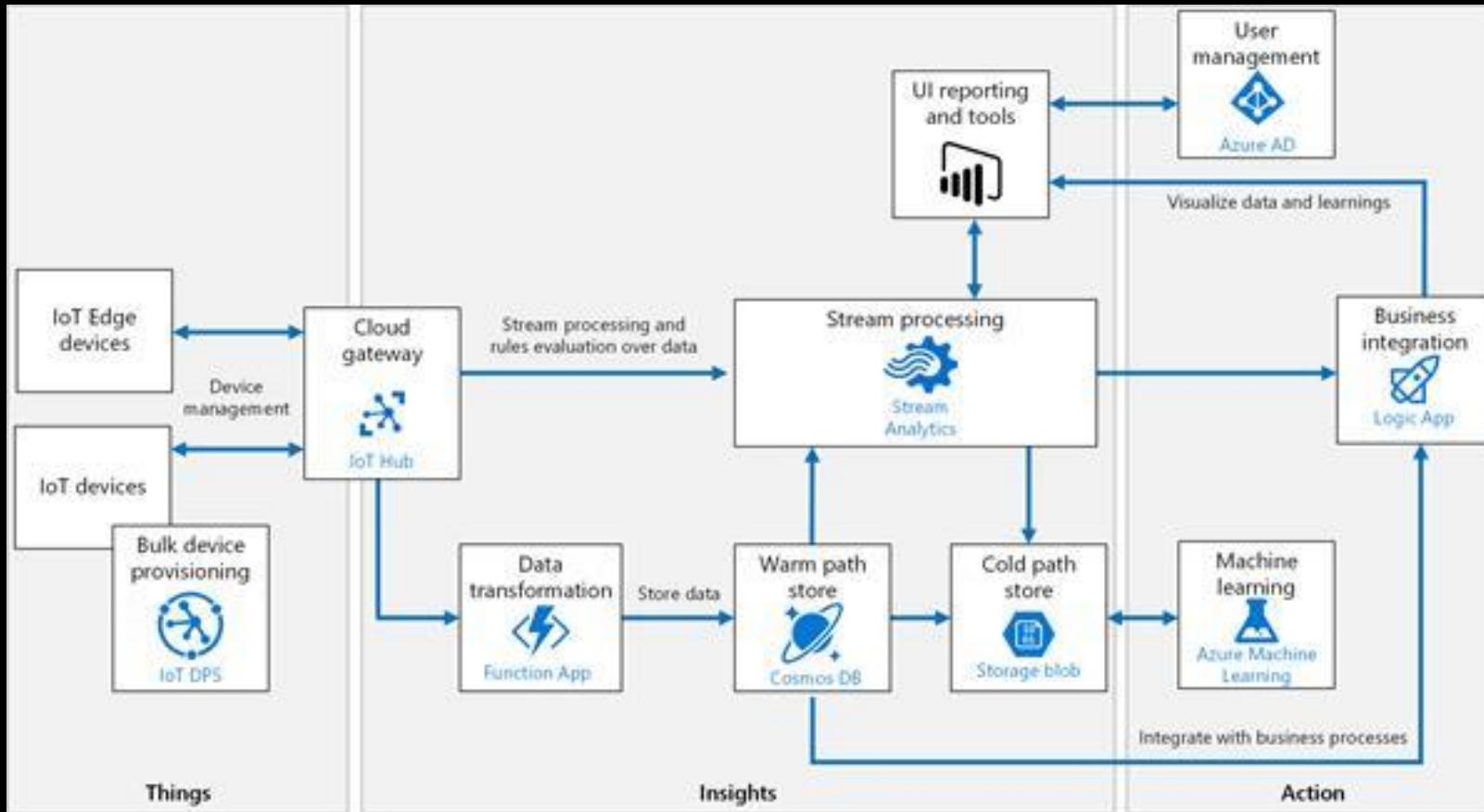
Full Spectrum of Cloud + Edge Form Factors

Intentional & Appropriate Azure Service Availability

Fewest form factors

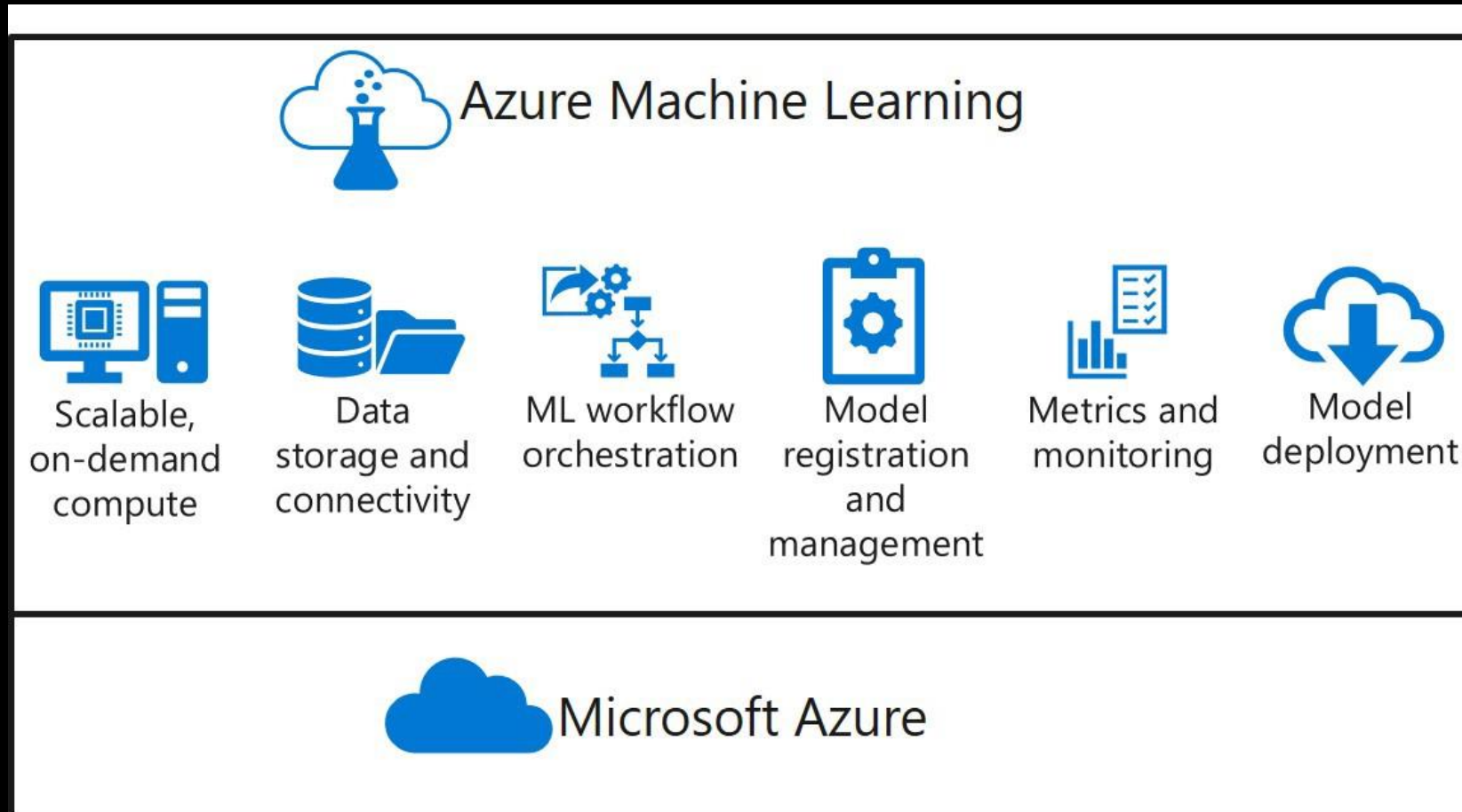
Most services

Azure IoT



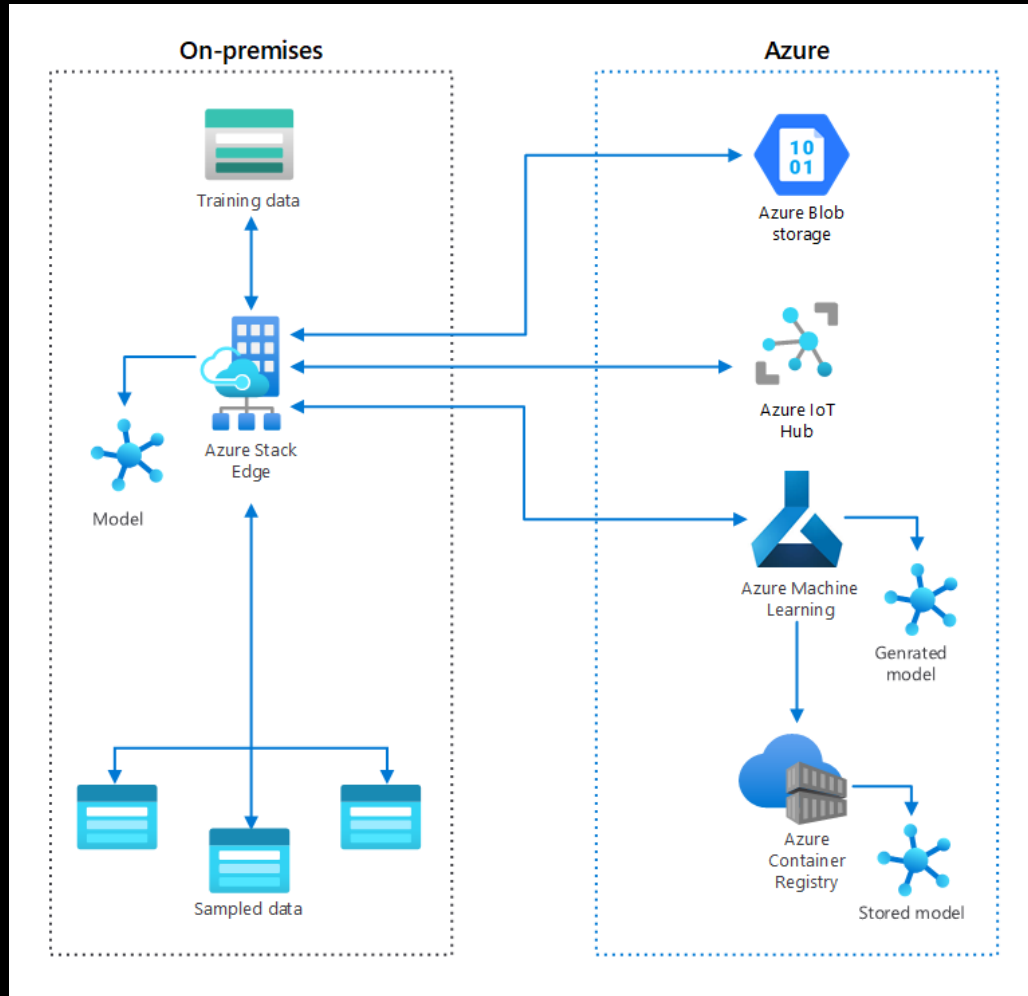
- IoTEdge is opensourced
 - Gateway
 - Secure
 - Message broker
- Workload run as container on edge
- Support both docker and K8s
- Secure connection between edge and azure
- Azure ecosystem

Azure Machine Learning



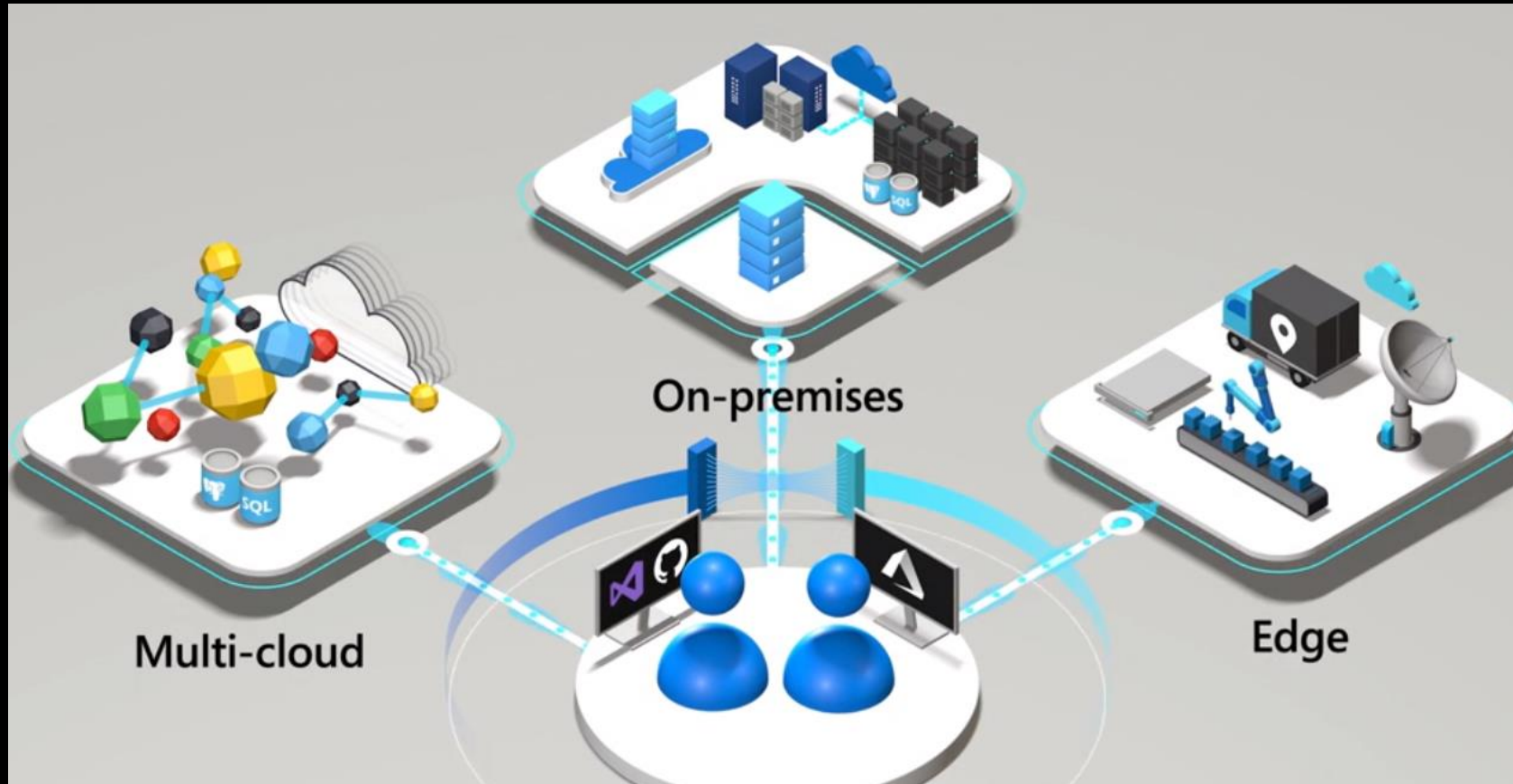
- Unified E2E customer experiences
- Open to opensource community tooling/standard
- Inference endpoint on edge gateway

Azure Stack Edge and Edge Zones



- Rich customer experience and capabilities on edge
- Customers can deploy & manage K8s clusters from Azure
- Edge and cloud are integrated for IoT and ML

Azure ARC

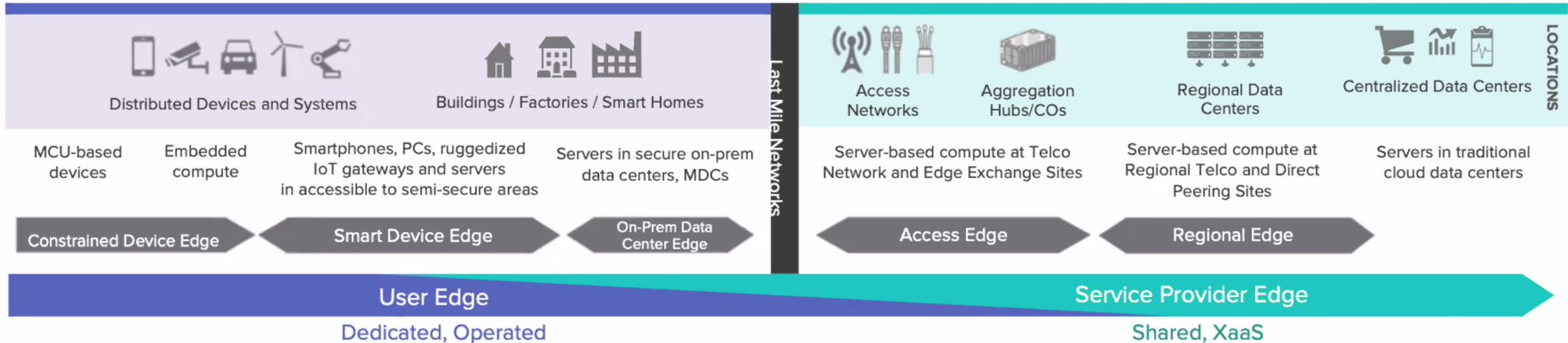


- Unified control plane
- Multi-cloud, on-prem and edge support
- E2E experiences for devops, SREs, mgmt. business, etc.

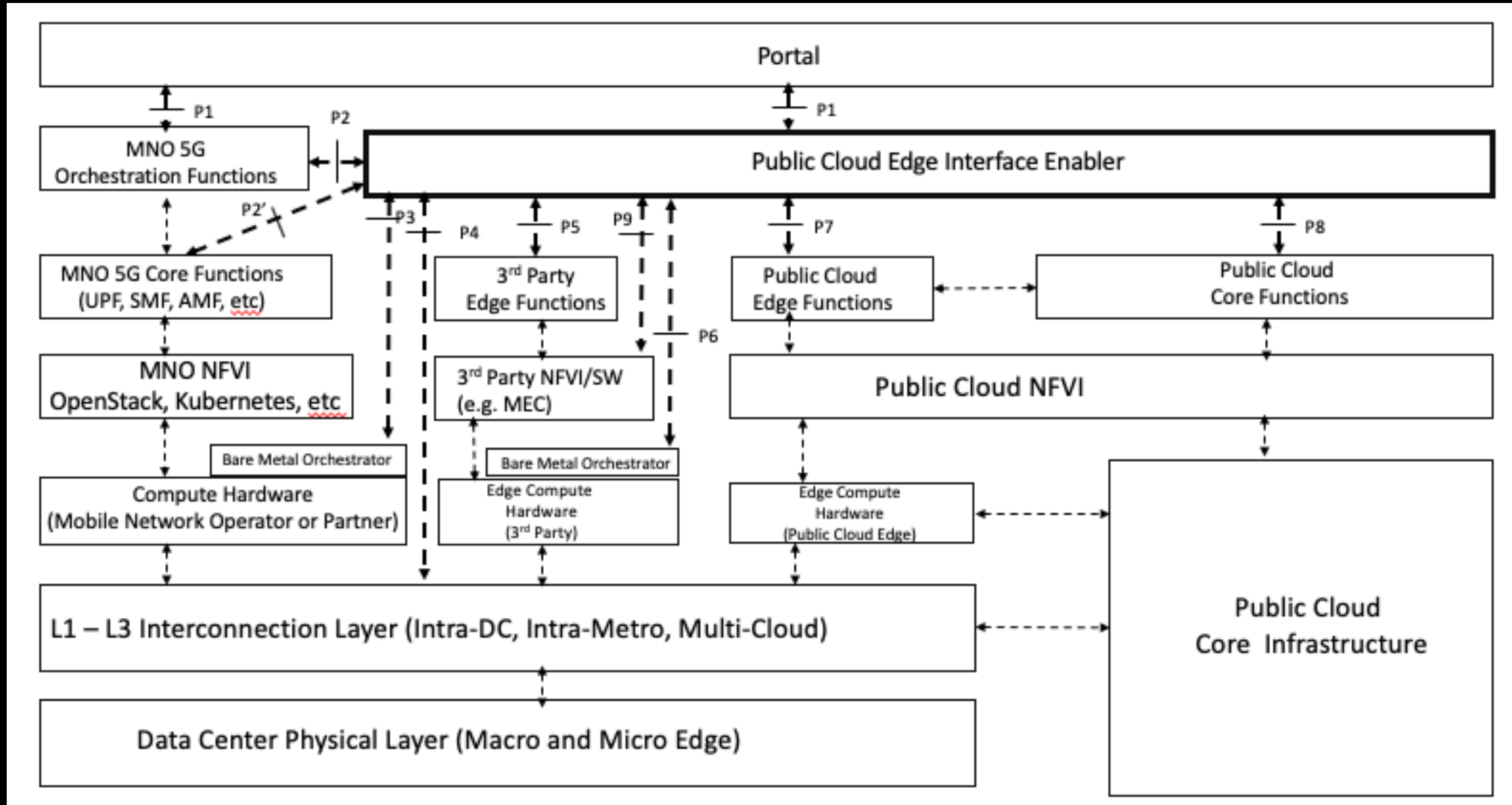
Unified Edge Framework



Proximity (compute & storage)
Responsiveness (5-20ms latency)
Mobility



Akraino PCEI Blueprint



Thank you