5G Private Mobile EDGE Computing
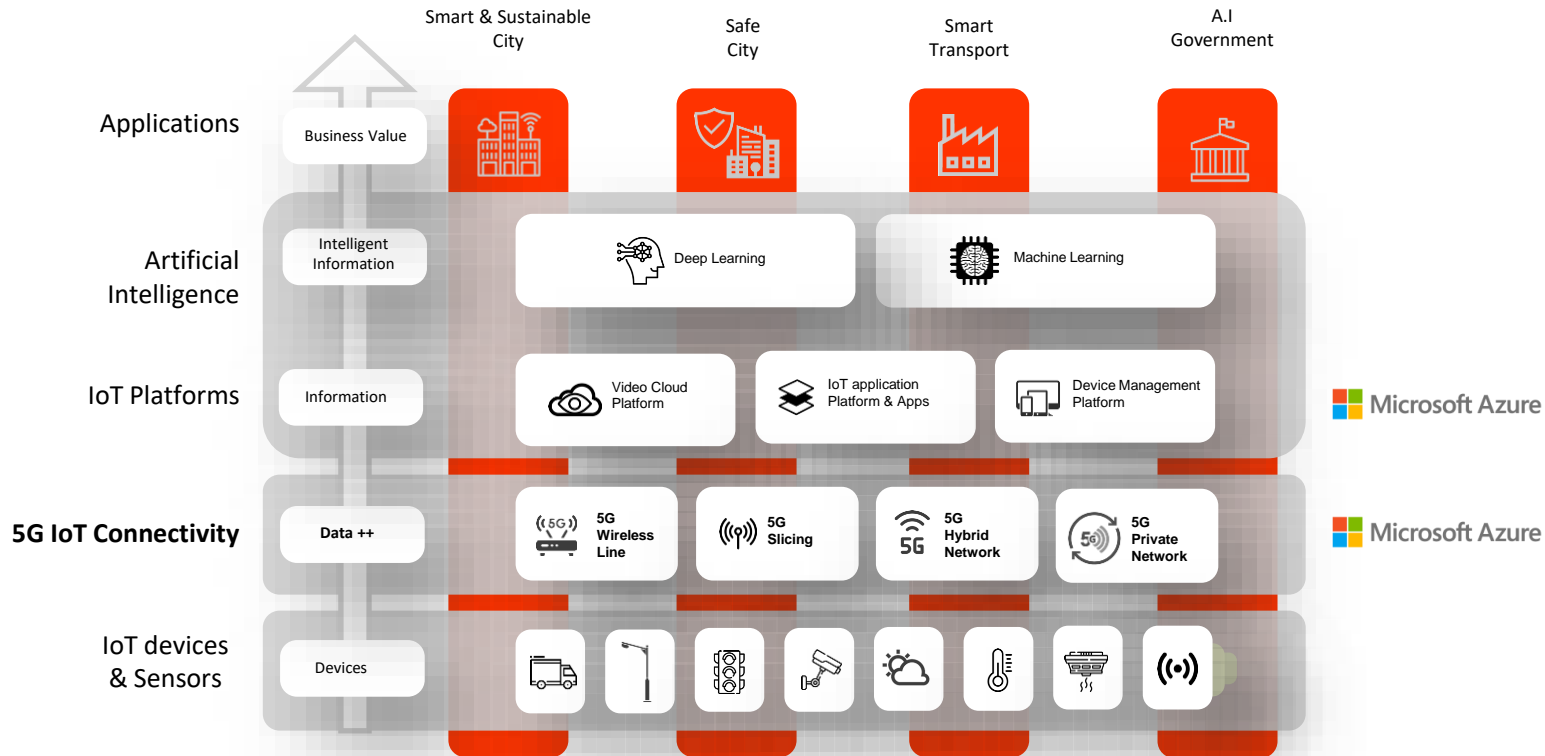## Industry X.0 powered by 5G
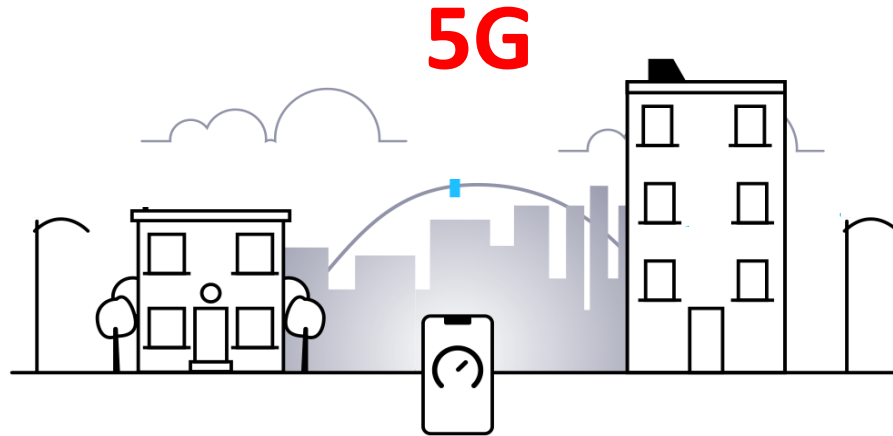
5G, IOT & AI Evolution
Multi-technology platforms to provide industry solutions

Smart & Sustainable City · Safe City · Smart Transport · A.I Government

Applications — Business Value

Artificial Intelligence — Intelligent Information — Deep Learning · Machine Learning

IoT Platforms — Information — Video Cloud Platform · IoT application Platform & Apps · Device Management Platform — Microsoft Azure

5G IoT Connectivity — Data ++ — 5G Wireless Line · 5G Slicing · 5G Hybrid Network · 5G Private Network — Microsoft Azure

IoT devices & Sensors — Devices

5G is HERE
New waves of Innovation

5G

5G is the new generation of radio systems and networks architecture delivering extreme broadband, ultra-robust, low latency connectivity and massive network which will transform technologies and industries

10X

Decrease in latency:
Delivering latency as low as 5ms

10X

Connection density:
Enabling more efficient signaling for IoT Connectivity

10X

Experienced Throughput:
Bringing more uniform, multi-GBPS peak rates

100X

Network Efficiency:
Optimizing network energy consumption with more efficient processing

3X

Spectrum Efficiency:
Achieving even more bits per Hz with advanced antenna techniques

100X

Traffic capacity:
Driving network hyper-densification with more small cells everywhere

5G Private Connectivity
Solutions for new opportunities

Value Proposition
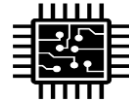
Managed Services' SLAs

Utilize existing 5G investment

Private Network as a Service (OPEX model)

Prompt delivery and GTM

Mobile Edge Computing

5G Dedicated Experts & Partners

Joint GTM with Microsoft

e& Microsoft Azure

Introducing Etisalat 5G Services
and Edge powered by Microsoft

Differentiators:

Etisalat superior connectivity platform

Microsoft leading cloud platform

Partner Ecosystem to enable industry use cases

Intelligent cloud

Intelligent edge

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5G Private Networks
5G Private Mobile EDGE Computing

5G Private Network Solution Offering

- Mission Critical **Ultra-Low latency and high throughput, increased device density**
- Business Grade **Security & Privacy** with fast and private processing
- Enhanced **data isolation and privacy**
- **Increased device density**, improved latency, and more reliable coverage **QoS and SLAs**
- Targeting **large scale deployments in square kms**
- **Turnkey solution** delivered and managed by Etisalat
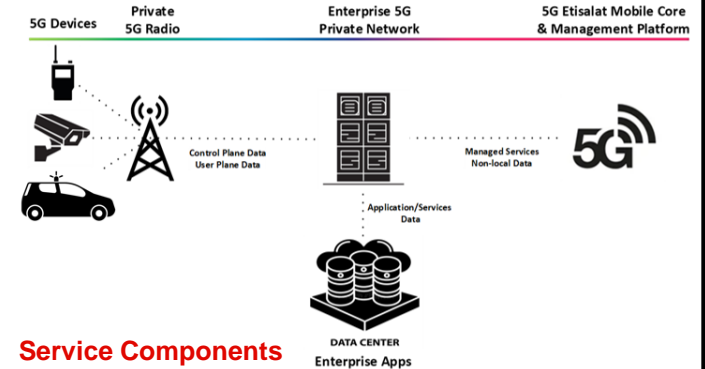
RAN
Private radio

5G Core
Private Core & Transport

Devices
IoT sensors CPEs

Services
Private network

Applications
Industrial Apps

Support
Device & network mng

High level architecture

5G Devices | Private 5G Radio | Enterprise 5G Private Network | 5G Etisalat Mobile Core & Management Platform

Control Plane Data
User Plane Data

Managed Services
Non-local Data

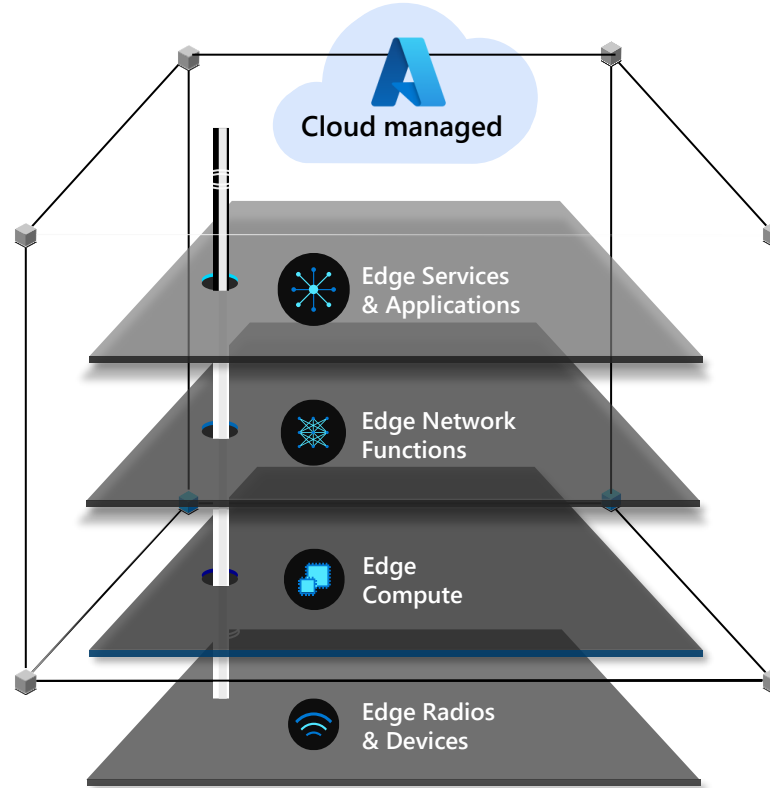Application/Services Data

DATA CENTER
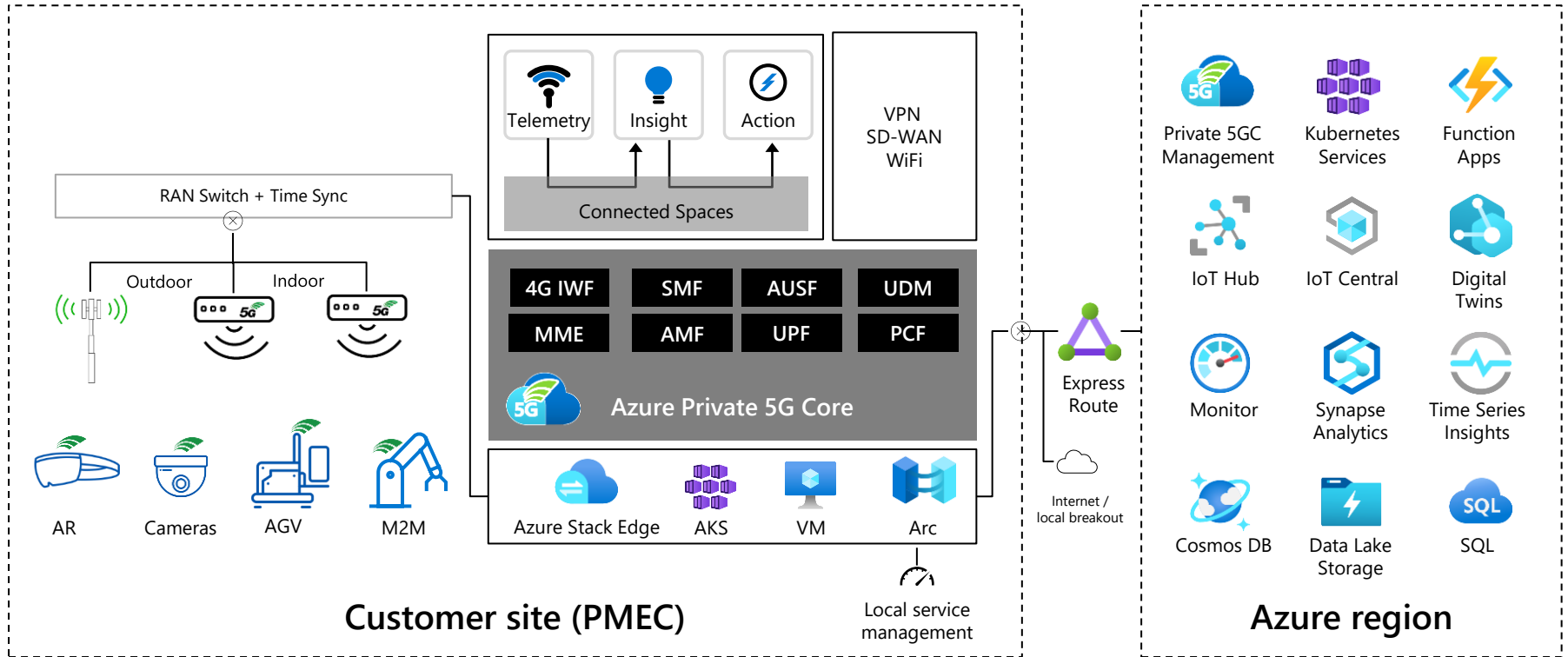Enterprise Apps

Service Components

- **Microsoft** Azure Private Core
- Dedicated Radio Access Network
- Transport layer & CPEs,
- Ubiquitous connectivity & Dedicated SIMs
- Corporate & Industrial Applications adds-on

What is Azure private MEC?

1. Flexible solution for integrating edge compute, networking and applications on choice of edge platforms

2. Designed for operators and system integrators to deliver high performance MEC use cases to enterprises

Cloud managed

Edge Services & Applications

Edge Network Functions

Edge Compute

Edge Radios & Devices

Microsoft Azure Deployment Architecture

Customer site (PMEC)

- RAN Switch + Time Sync
- Outdoor
- Indoor
- Telemetry
- Insight
- Action
- Connected Spaces
- VPN SD-WAN WiFi
- 4G IWF | SMF | AUSF | UDM
- MME | AMF | UPF | PCF
- Azure Private 5G Core
- Azure Stack Edge | AKS | VM | Arc
- AR | Cameras | AGV | M2M
- Local service management

Express Route — Internet / local breakout

Azure region

- Private 5GC Management
- Kubernetes Services
- Function Apps
- IoT Hub
- IoT Central
- Digital Twins
- Monitor
- Synapse Analytics
- Time Series Insights
- Cosmos DB
- Data Lake Storage
- SQL

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5G + Edge + AI solving industry challenges

Retail
- Shelf stockouts
- Customer journey analytics
- Curbside pickup

Manufacturing
- Employee safety
- Monitoring compliance violation

Transportation
- Aircraft turnaround
- Passenger counting
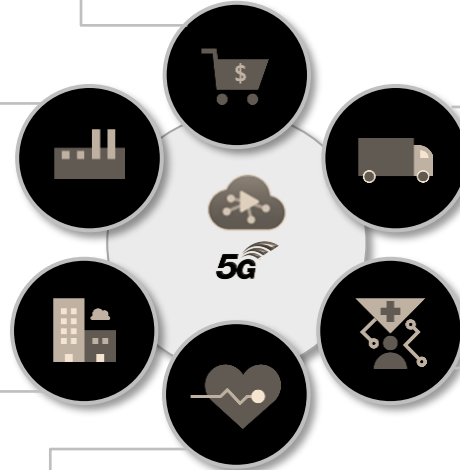- Traffic & parking analysis

Infrastructure
- Early infrastructure deterioration detection
- Critical infrastructure protection

Public Safety & Health
- Pedestrian & bike safety
- Commercial security
- COVID-19 mitigation

Healthcare
- Detection of health anomalies– mammograms, tumors etc.
- Patient monitoring

Thank you!