

# Accelerating Digital Industries of the Future with 5G

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Healthcare



Smart cities



Industrial



Agriculture



# Driving more than a decade of digital transformation

More than \$13 trillion in economic activity enabled by 5G in 2035

Energy



Retail



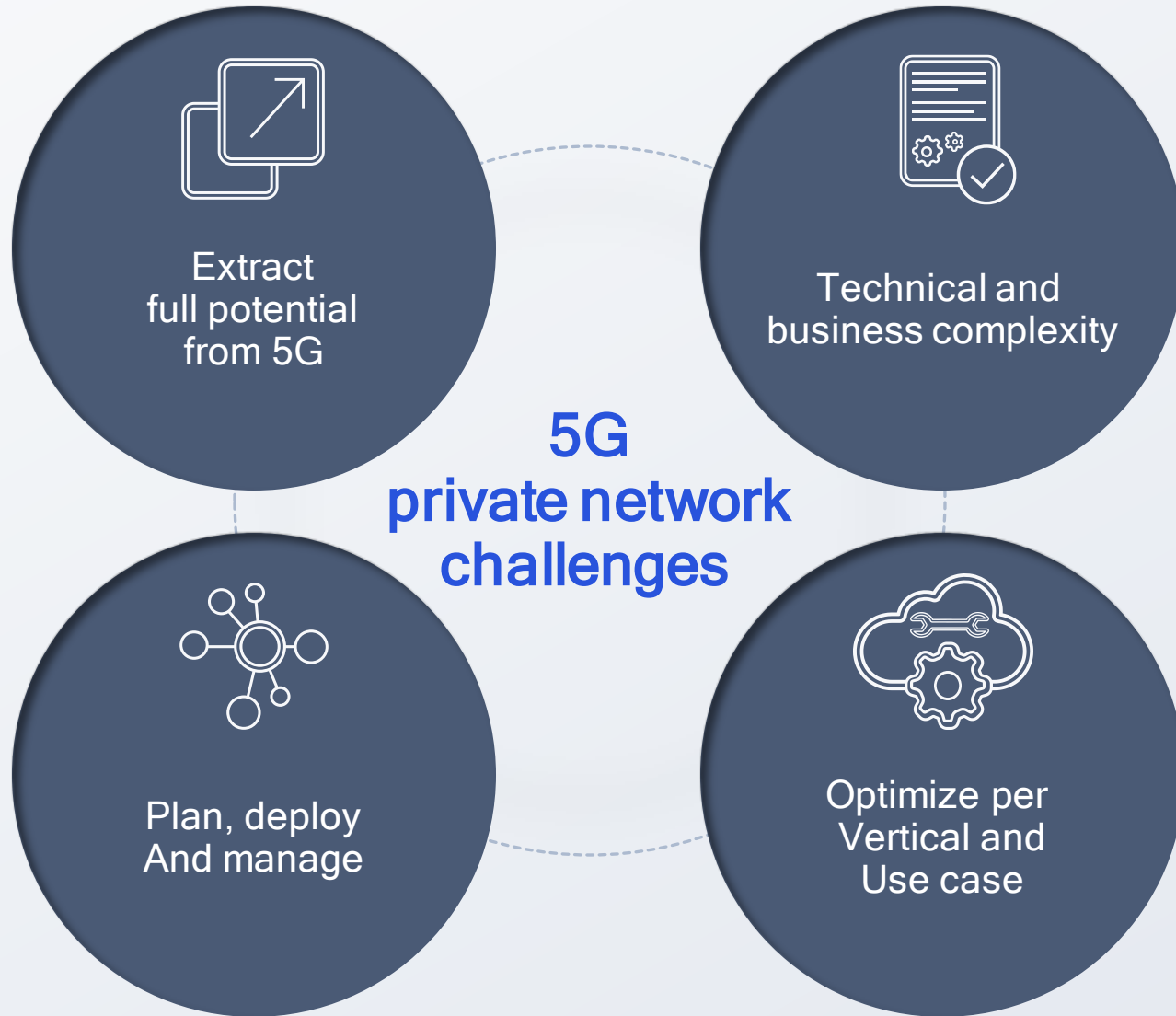
Automotive



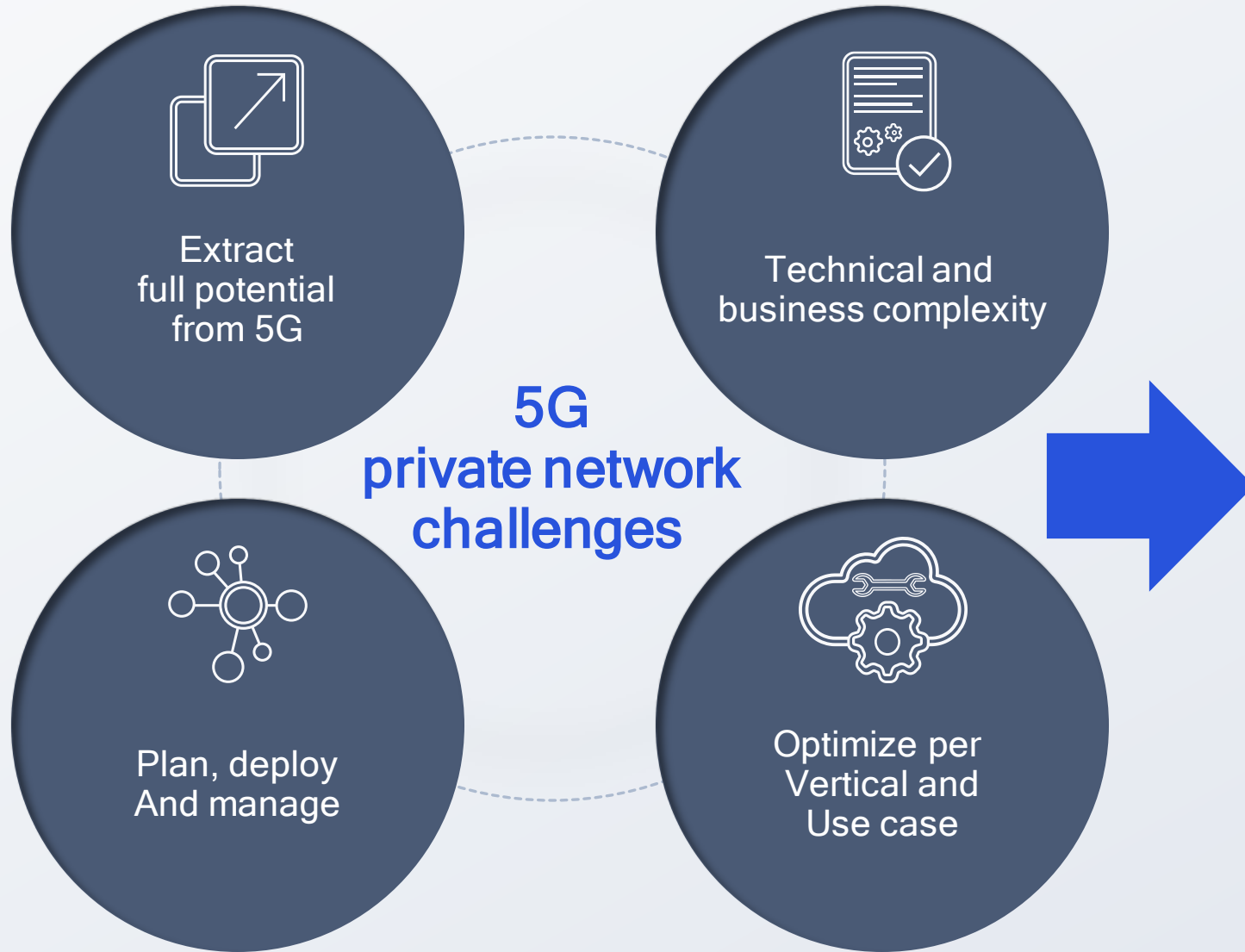
Manufacturing



Source: The 5G Economy, an independent study from IHSMarkit, commissioned by Qualcomm Technologies, Inc., November 2020



Challenges must be overcome to extract full potential of multiple types of 5G private networks



# Our approach to addressing challenges

Qualcomm Edgewise™ Suite

Partner Program

Simplified management for accelerated market adoption

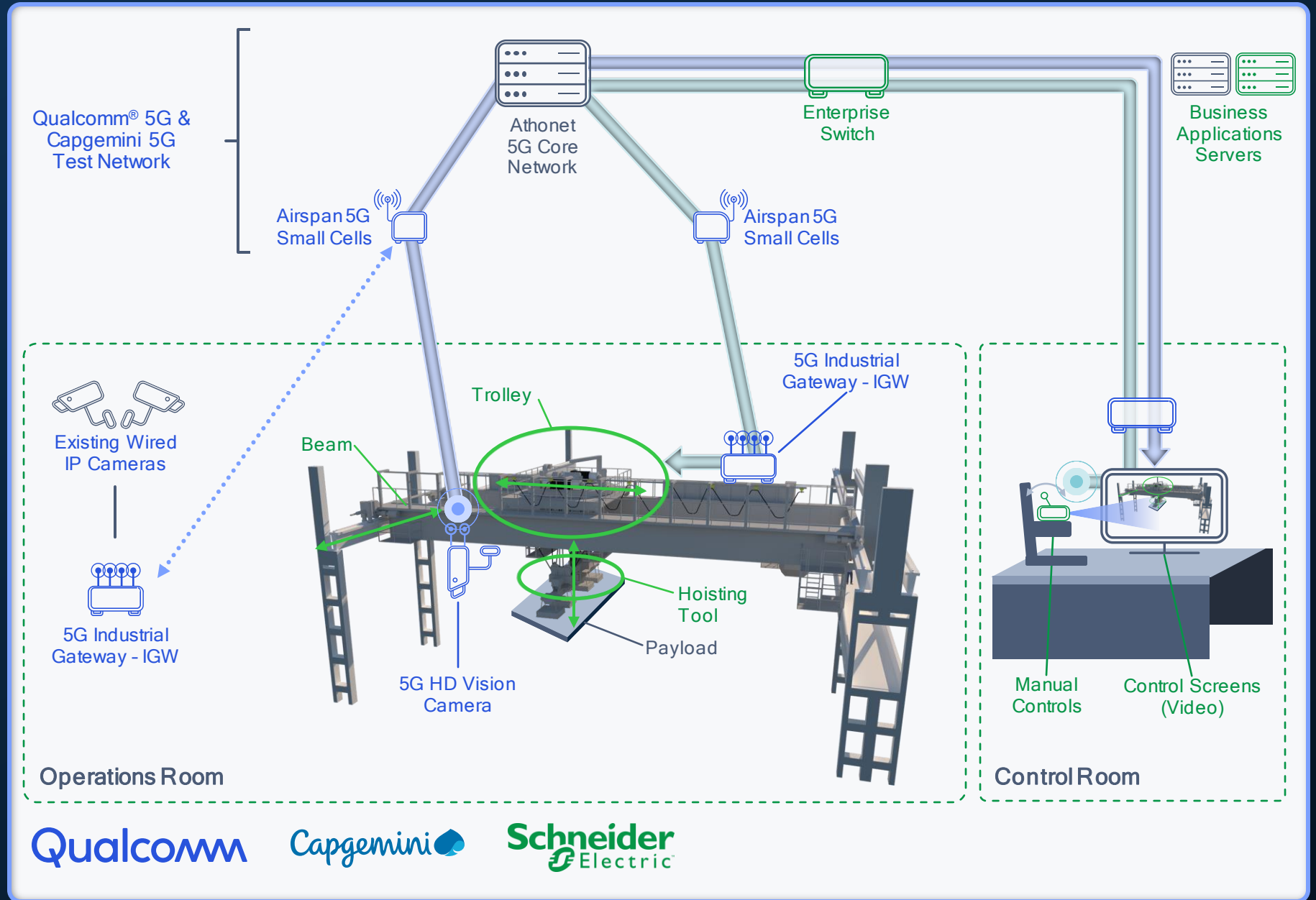
Multi-vendor choice across RAN vendors to address diverse use cases, regions and market needs

Flexibility with RAN programmability to address diverse verticals, use cases and customer requirements

Ecosystem enablement by validating vertical-specific use cases and providing end-to-end blueprints ahead of deployments

# Schneider Electric EcoStruxure Hoisting Test Bench

Grenoble, France



5G Private Network  
3.8GHz

Based on Qualcomm Technologies, Inc. Solutions

Schneider Electric Solutions

Other Supplier Solutions

Qualcomm

Capgemini

Schneider Electric

# Modern 5G Private Networks

## Qualcomm Edgewise Suite

5G Private Networks

Qualcomm Edgewise Suite

Multi-site RAN management

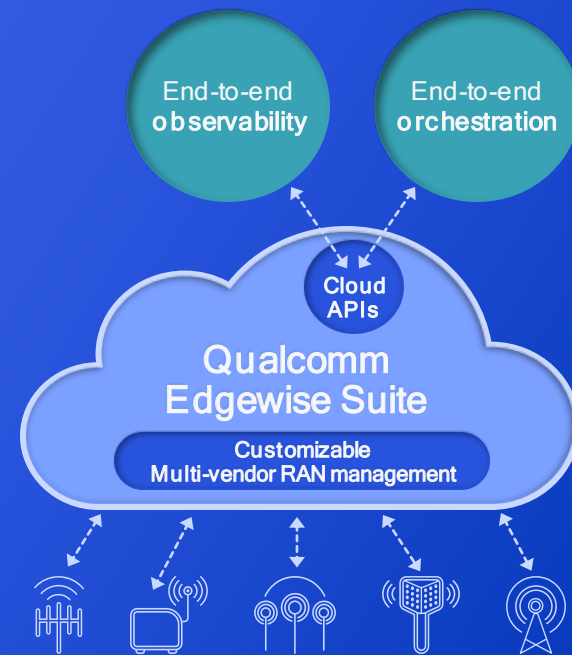
Auto Plan/Deploy

Device-based Testing

Programmable Apps

Multi-vendor RAN management, devices and ecosystem collaborations are coming together

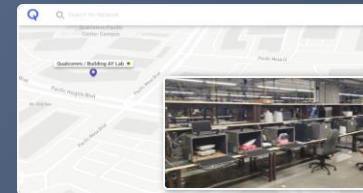
### Centralized RAN Automation and Management



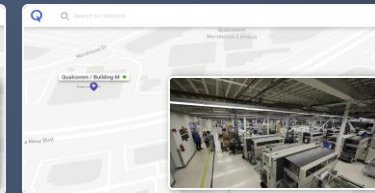
### Multi-site E2E demo harnessing Ecosystem Partner Program

Visible sites (primary test site in San Diego)

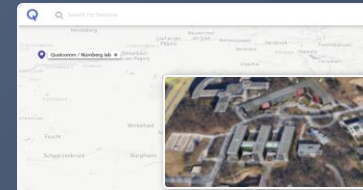
San Diego (Building AY)



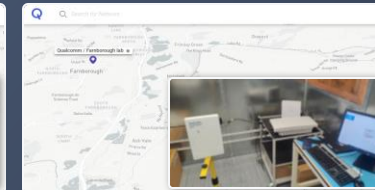
San Diego (Building M)



Nuremberg



Farnborough



Multi-vendor RAN

Verified core networks

athonet

Pipeline to broad multi-vendor ecosystem

Partner program selected by

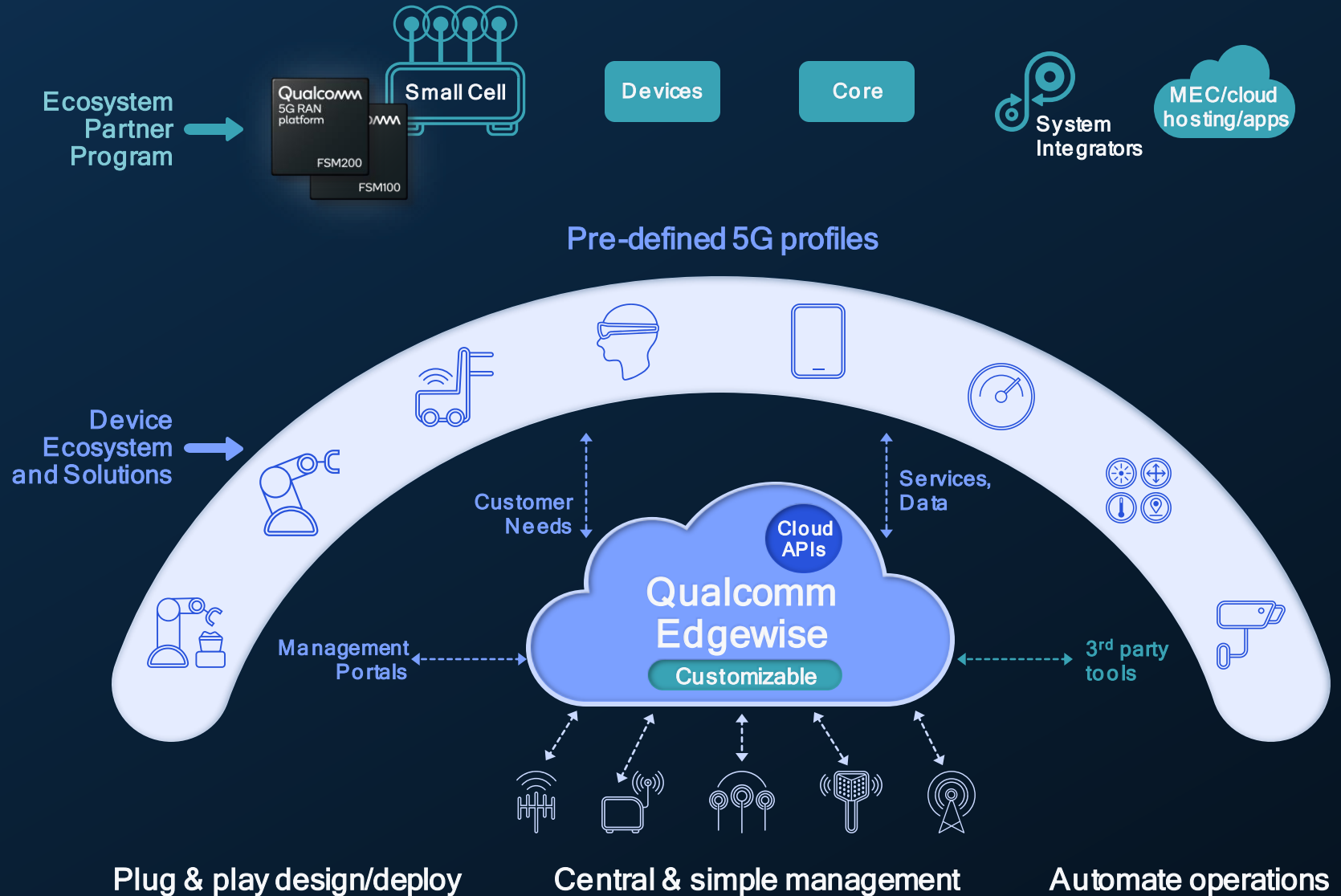
**17+**

Global Private Network innovators

# Digital Transformation with 5G Private Networks

- Horizontal cloud solution spanning automation, planning, deployment & operations
- Validated end-to-end 5G private network solutions
- Multi-vendor choice and ecosystem enablement
- Device ecosystem and solution

E2E pre-integration - multi-vendor choice and ecosystem enablement







**Sebastiano Di Filippo**

Senior Director, Business Development  
Qualcomm Europe, Inc.

A new era of  
**connected,  
intelligent  
devices**



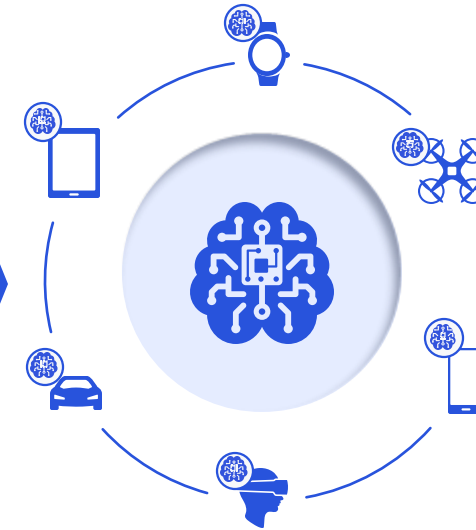
To efficiently scale,  
AI processing is expanding  
towards the edge



Central Cloud



Edgecloud



On-device

- Privacy
- Reliability
- Low latency
- Efficient use of network bandwidth

← Connected Intelligent Edge →

We are a leader in the realization  
of the Connected Intelligent Edge

Convergence of:

- Wireless connectivity
- Efficient computing
- Distributed AI

Unleashing massive amount  
of data to fuel our digital future

# Qualcomm Technologies

## Low power and powerful computing processors

CPU, GPU, DSP, NSP

## Multimedia

Video

Language

Voice UI

Display processing

Camera processing

Audio processing

AR / VR

Sensors

## Security features

Qualcomm® Trusted Execution Environment (TEE)

Secure boot

Wireless protocol security

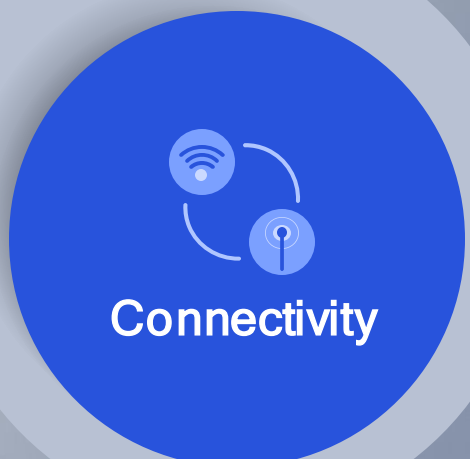
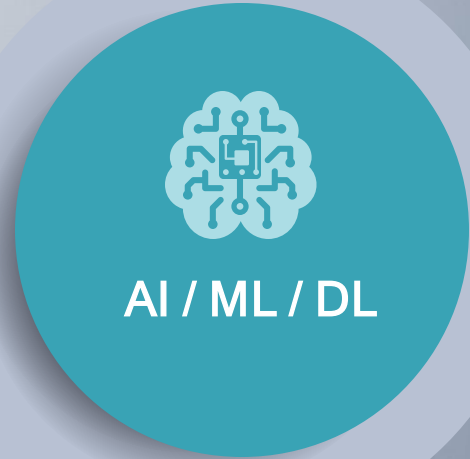
Storage Security & Key Provisioning

Debug Security

Fingerprint

Hardware Crypto

Secure video processing



## AI / ML

Cognitive Computing

Qualcomm® AI Engine

Qualcomm Hexagon™

Tensor Accelerator

CV-ISP

Depth sensor

Always on camera

## Connectivity

2G, 3G, 4G, 5G

802.11 n / ac / ad

Wi-Fi 6, Wi-Fi 6E

Bluetooth

802.15.4

C-V2X

Powerline

GNSS / Location

Peripherals (PCIe, USB.)

## RF

Power amp, LNAs, Acoustic filters,  
Antenna Tuner, RF switches, Envelope Tracker



## Band 68

Accelerating the digital transformation of mission critical communications and new public safety and emergency response use cases





Crosscall CORE-Z5

# IoT transformation begins with Qualcomm Technologies

## Qualcomm® QCM6490 SoC

Integrated multi-mode 5G and support for Wi-Fi 6E, with a superior set of features designed for high-compute and greater connectivity



Global coverage with mmWave and Sub-6 TDD/FDD, NSA and SA mode



Enterprise grade, multi-gigabit speeds for a boost in speed, capacity and latency



Fused AI-accelerated architecture to bring astonishing performance at low power



Triple ISP support with 4K video encode/decode



# Thank you

**Qualcomm**

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