

# International Conference on 5G Network Security Challenges in 5G:

# MEC

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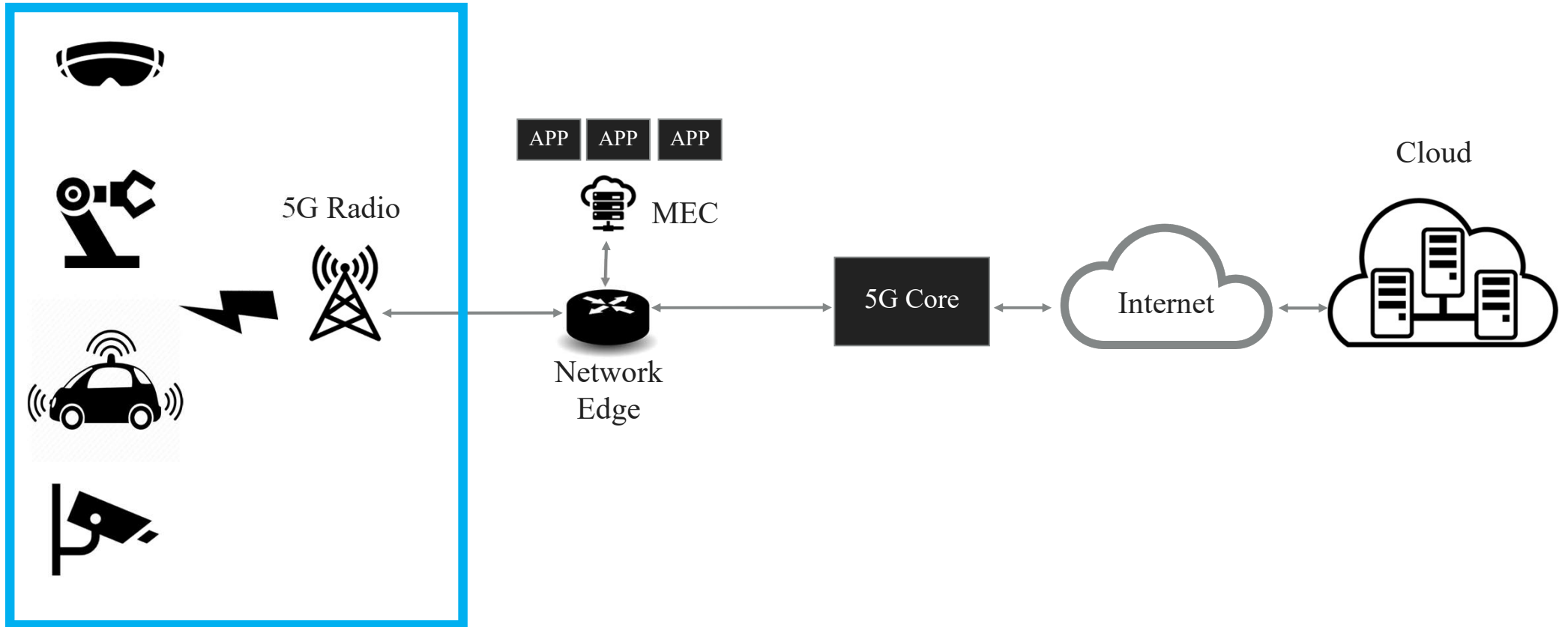
10-Aug-2023

# Agenda

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- ▶ MEC in 5G
- ▶ What makes MEC complex?
- ▶ Challenges in MEC adoption
- ▶ Industry Trends / Solutions
- ▶ Way Forward

# MEC in 5G



# MEC – Hype & the Reality

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“Verizon said that it expects to generate at least **\$1 billion** in revenues from public MEC services by 2025”

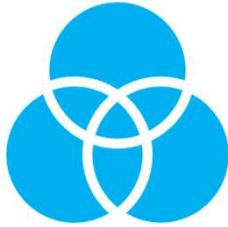
**Source: Verizon Investor’s Meet (Mar 2022)**

“The mobile edge compute adoption curve **is a little slower** than maybe we would like”

**Source: Verizon Earnings Call (Jan 2023)**

# What makes MEC unique & complex?

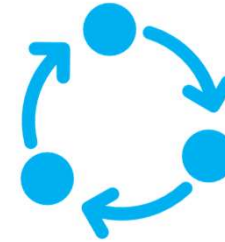
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**Heterogenous  
Applications**



**Performance  
Requirements**



**Management &  
Orchestration**



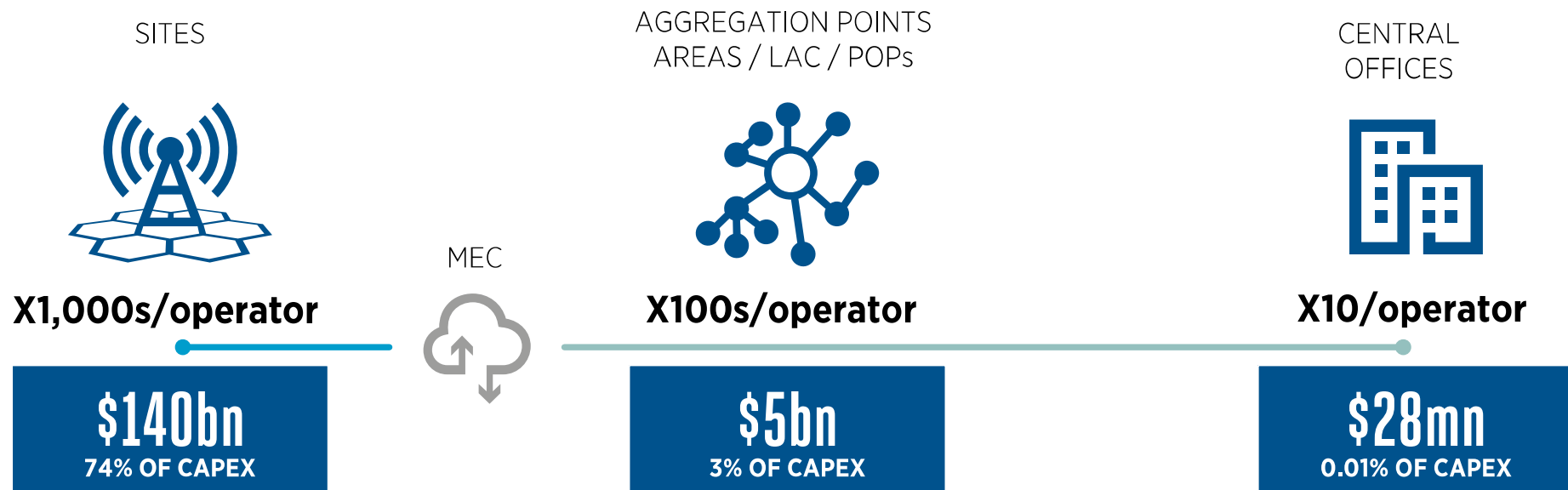
**Installation  
Locations**



**Security  
Requirements**

# Challenge #1 - Costs

## THE COST OF MEC AT DIFFERENT 'EDGE' LOCATIONS



Source: GSMA, 2019

# Costs Challenge – Industry Direction

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**“Verizon teams with Microsoft to offer private 5G mobile edge computing”**

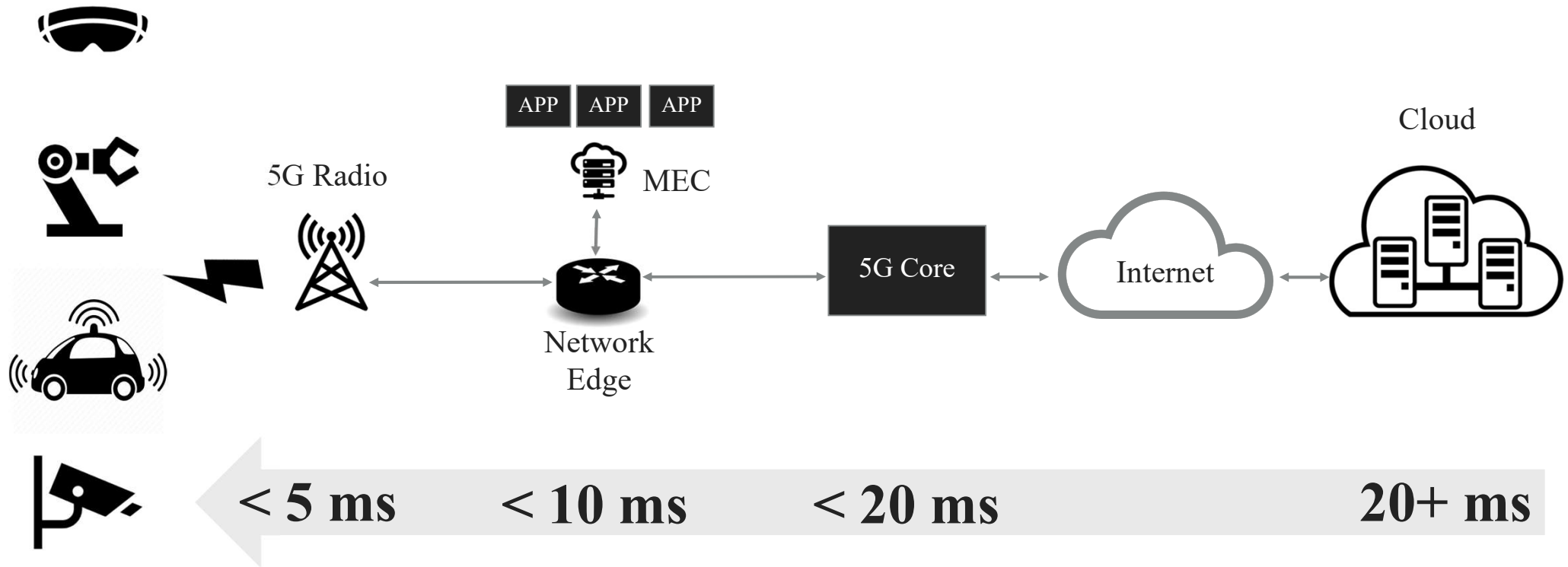


**“AT&T's edge computing strategy takes shape with Google, Microsoft”**

**“T-Mobile, AWS join forces to unlock 5G connectivity for edge compute”**

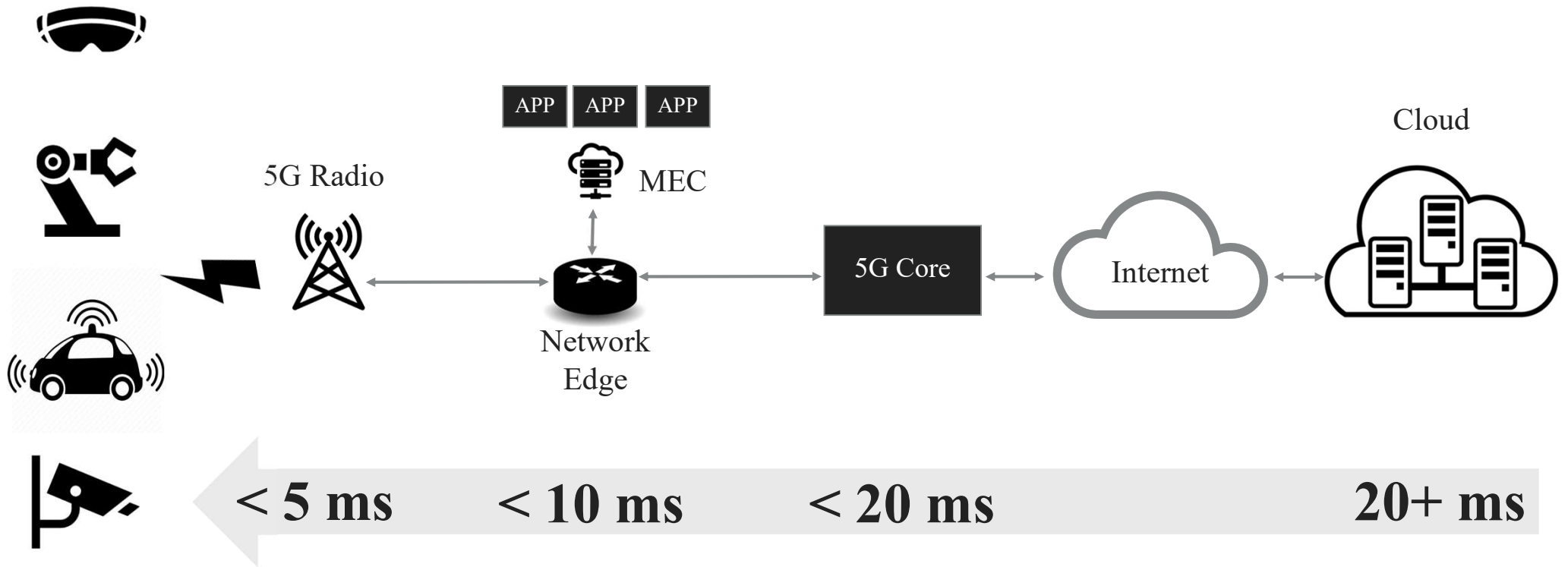


# Challenge #2 - Latency





# Latency Challenge – Industry Direction



  
AWS Outposts

  
Wavelength

  
AWS Local Zones

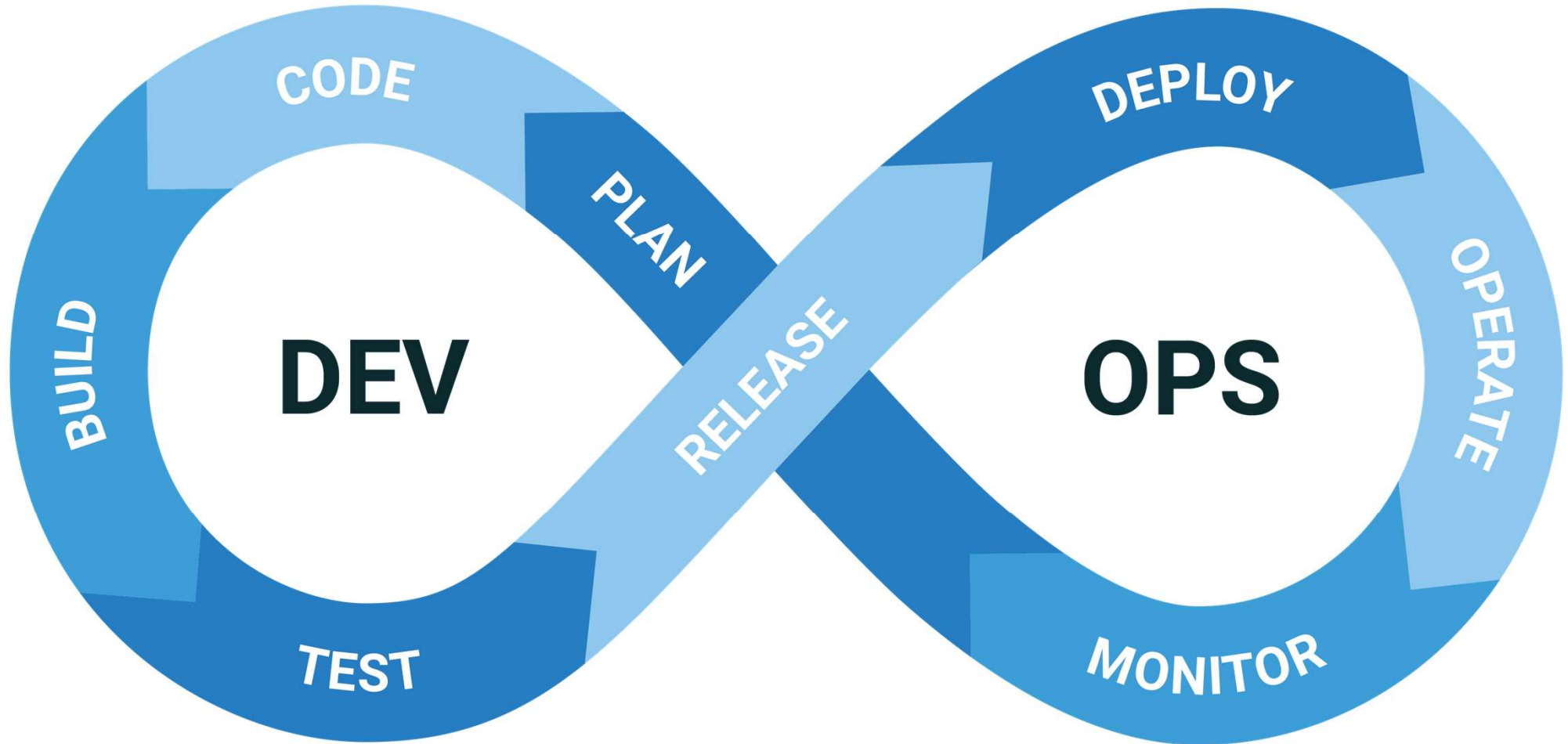
# Challenge #3 - Manageability

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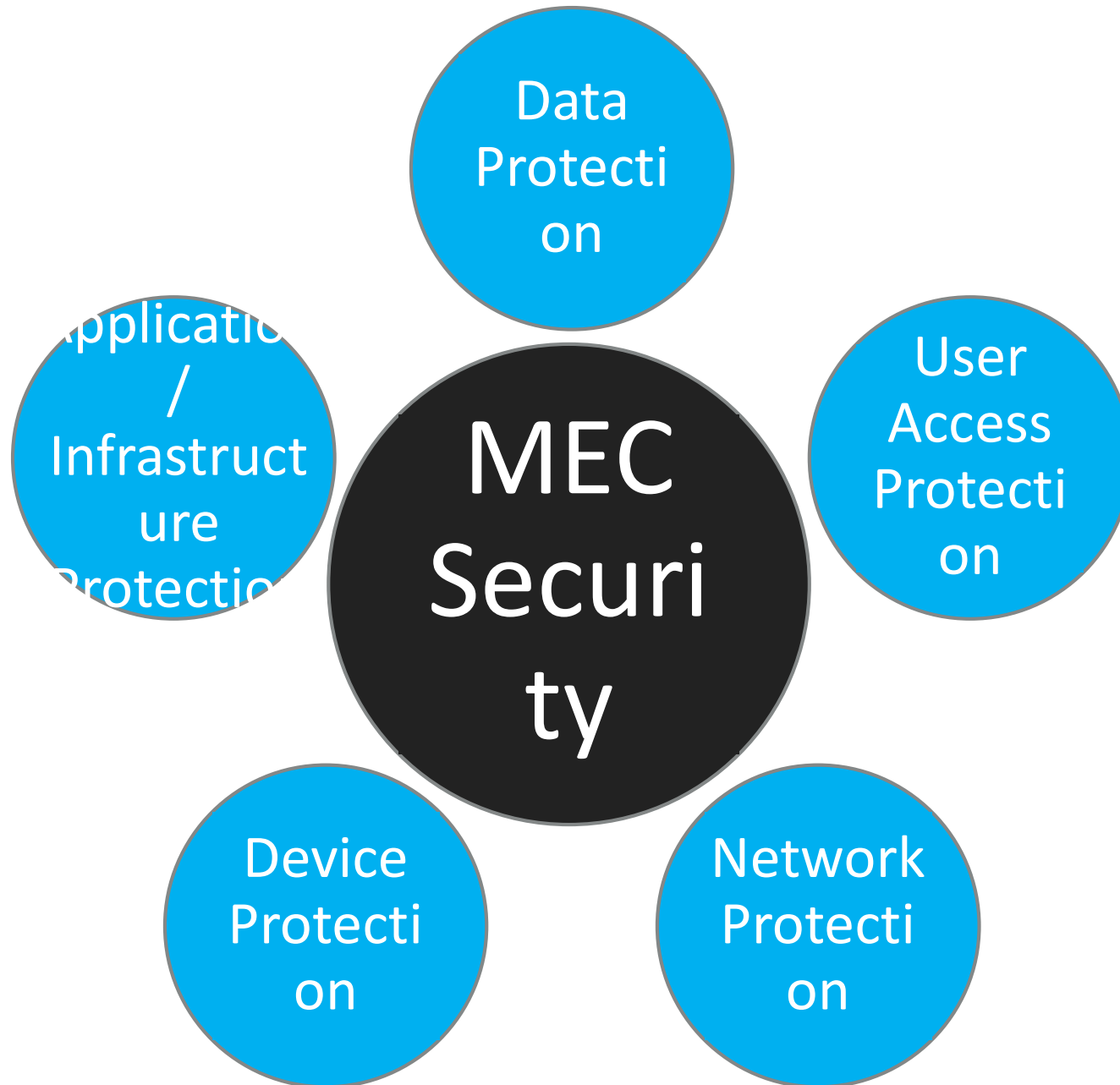
# Manageability Challenge – Industry Direction

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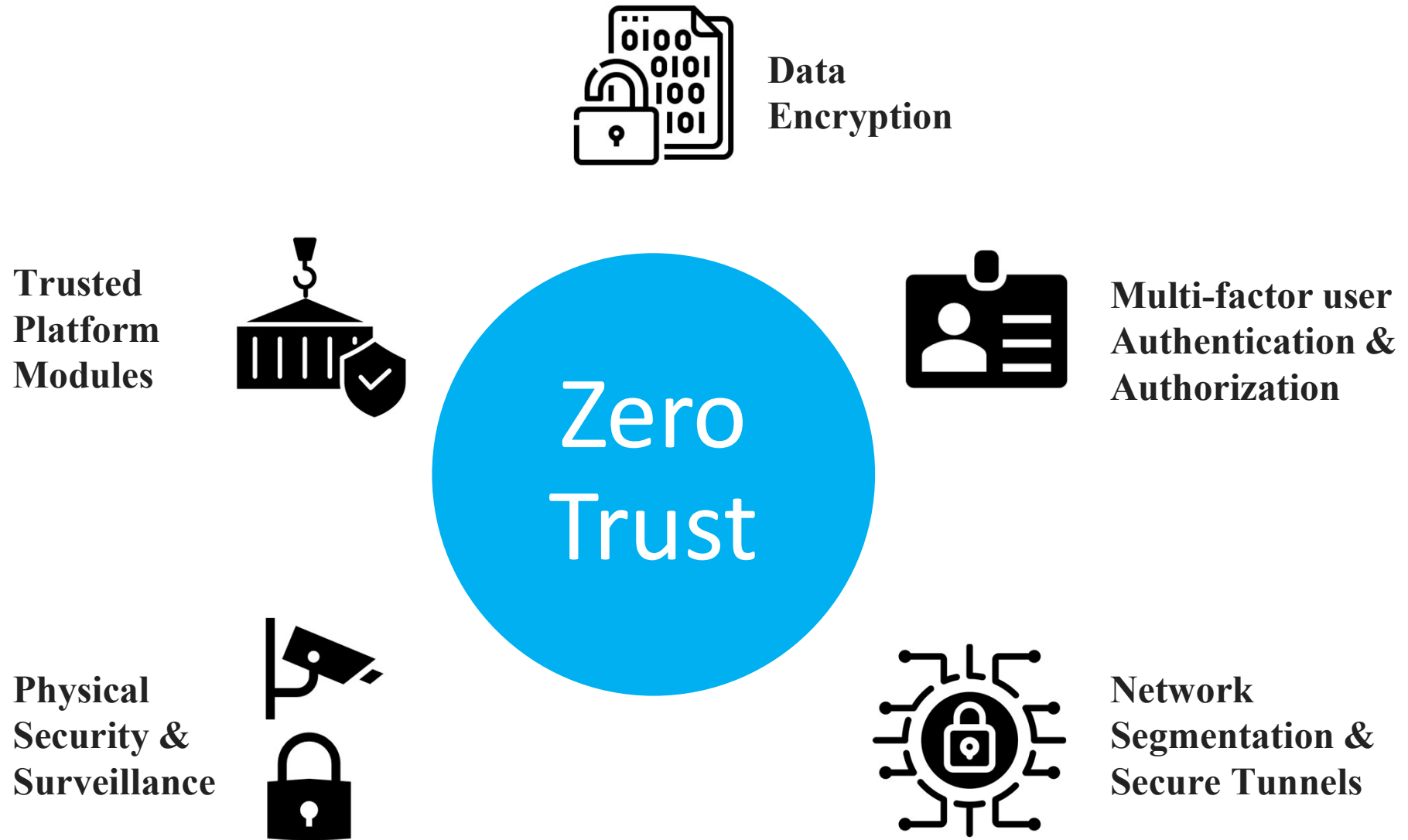
# Challenge #4 - Security

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# Security Challenge – Industry Direction

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# Questions?

# Way Forward

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- ▶ **Hybrid MEC** to achieve scale / cost reduction
- ▶ **Distributed MEC** deployments at different points in the network, to achieve performance targets
- ▶ **DevOps** for MANO
- ▶ **Zero Trust framework** to improve security

# Thank You

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