5G Vertical User Webinar Series – 20 April 2021

MEC4AUTO: Enabling Edge Computing to support Cellular-V2X Use Cases

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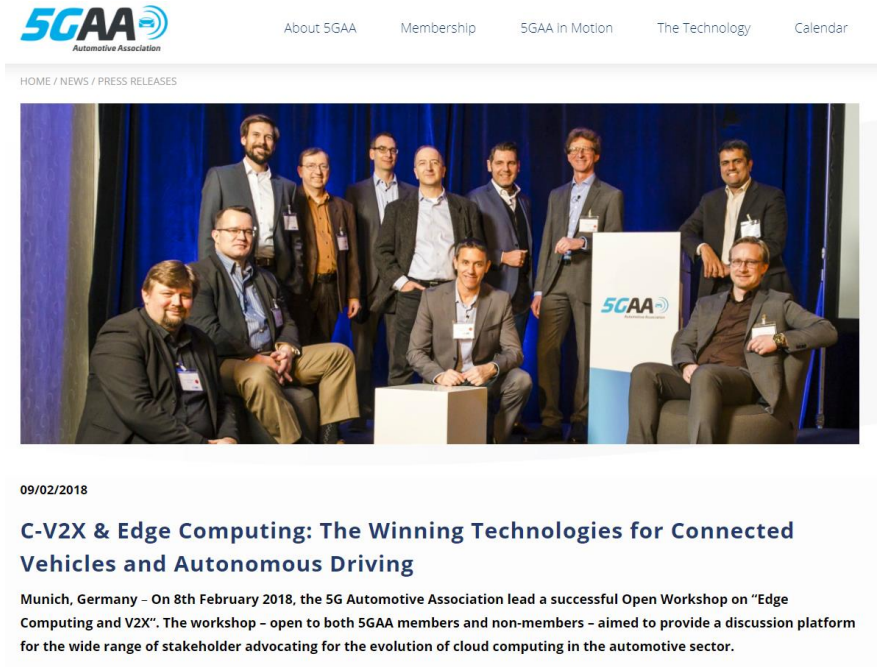
Why a dedicated 5GAA Work Item for Edge Computing?

- Edge Computing offers Cloud Computing capabilities at the Edge of the Network
- 5GAA considers Edge Computing as one of the key supporting technologies for many V2X services for Connected Vehicles and Automated Driving
- Still some challenges exist for the successful deployment of Edge Computing for V2X services

5GAA previous work on Edge Computing

- In December 2017, 5GAA publishes the White Paper "*Toward fully connected vehicles: Edge computing for advanced automotive communications*" - link

- In February 2018, 5GAA organizes the Open Workshop on "*Edge Computing and V2X*" in Munich, Germany - link



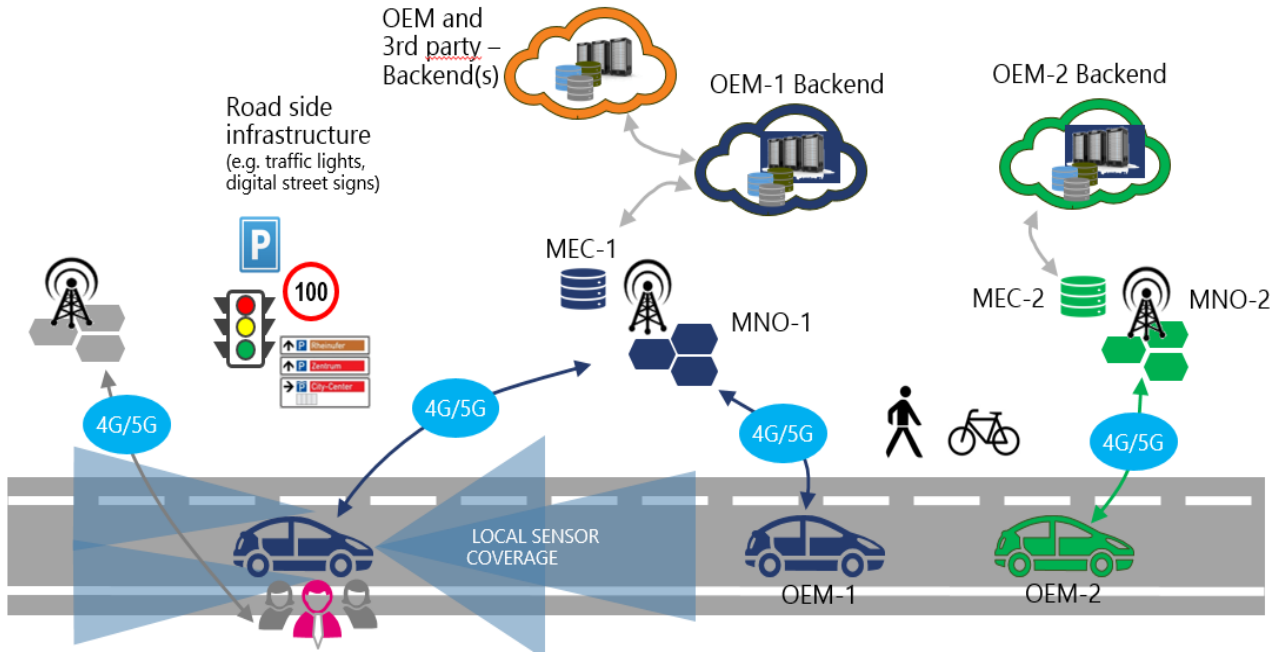
5GAA MEC4AUTO scope and high-level objective

"…demonstrate the use of Multi-access Edge Computing (MEC) technology for automotive services, for example, when two distinct automotive vendors can truly test at least three use cases involving two distinct MNOs employing network infrastructure provided by two distinct infrastructure vendors."

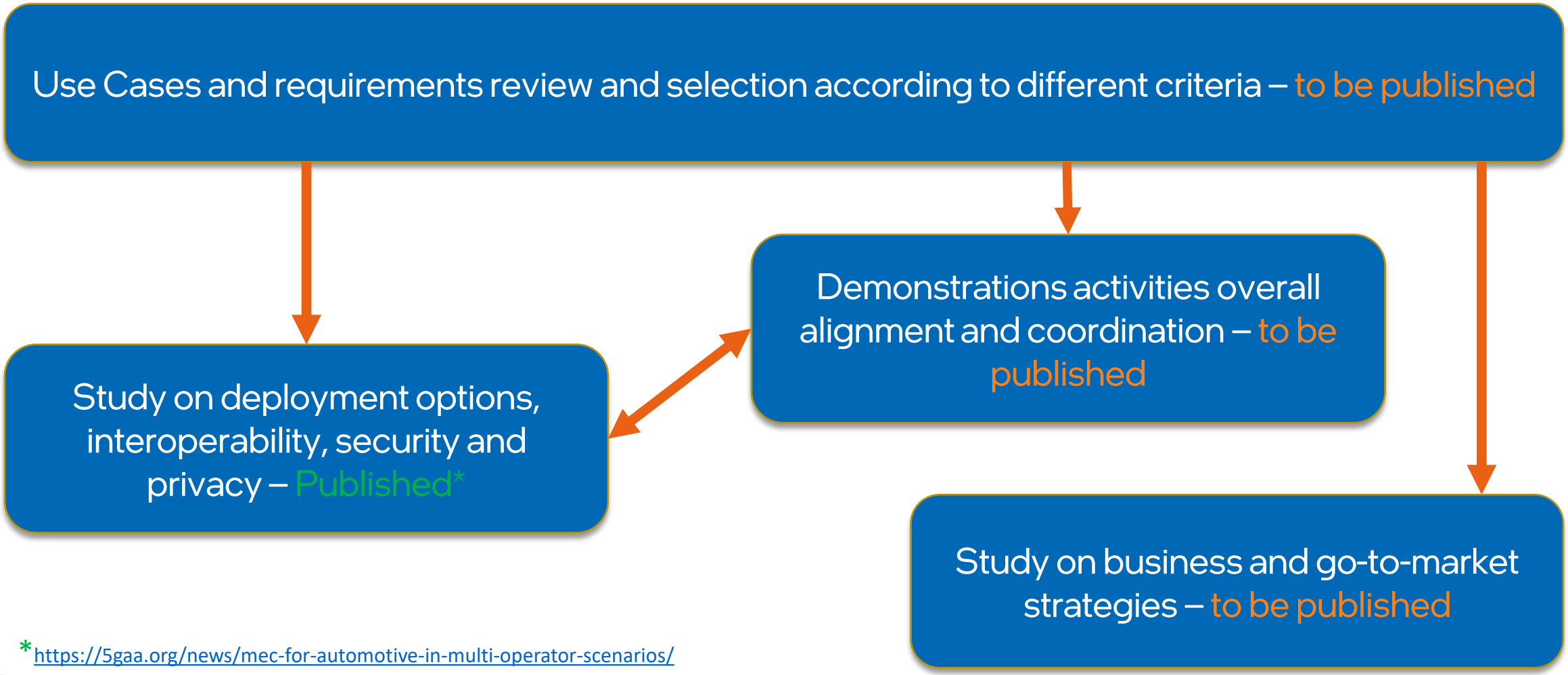
5GAA MEC4AUTO High-level Long-term Objective

Enable and demonstrate the use of Edge Computing for automotive services involving:

- Multiple automotive vendors – Multi-OEM
- Multiple network infrastructure operators – Multi-MNO
- Multiple network vendors



5GAA MEC4AUTO Work Structure



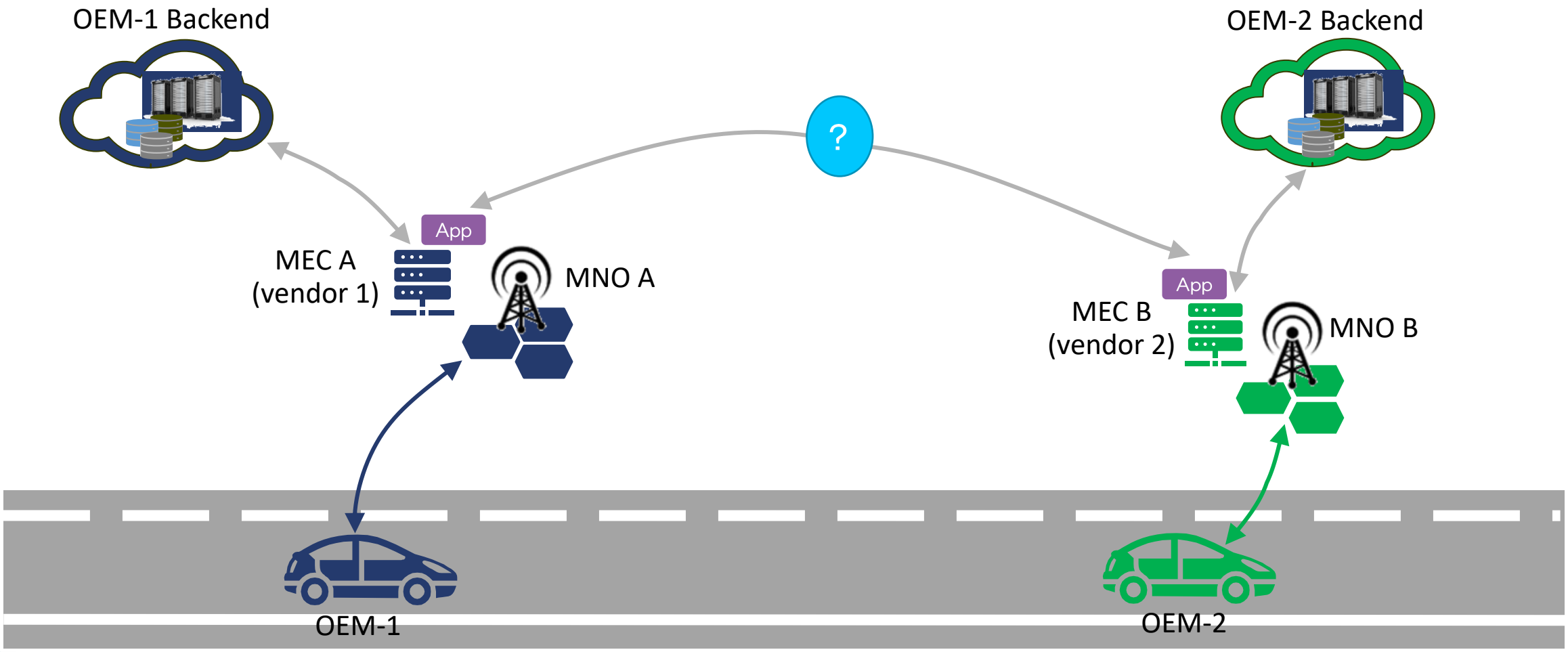
*https://5gaa.org/news/mec-for-automotive-in-multi-operator-scenarios/

5GAA MEC4AUTO Study on deployment options, interoperability, security and privacy

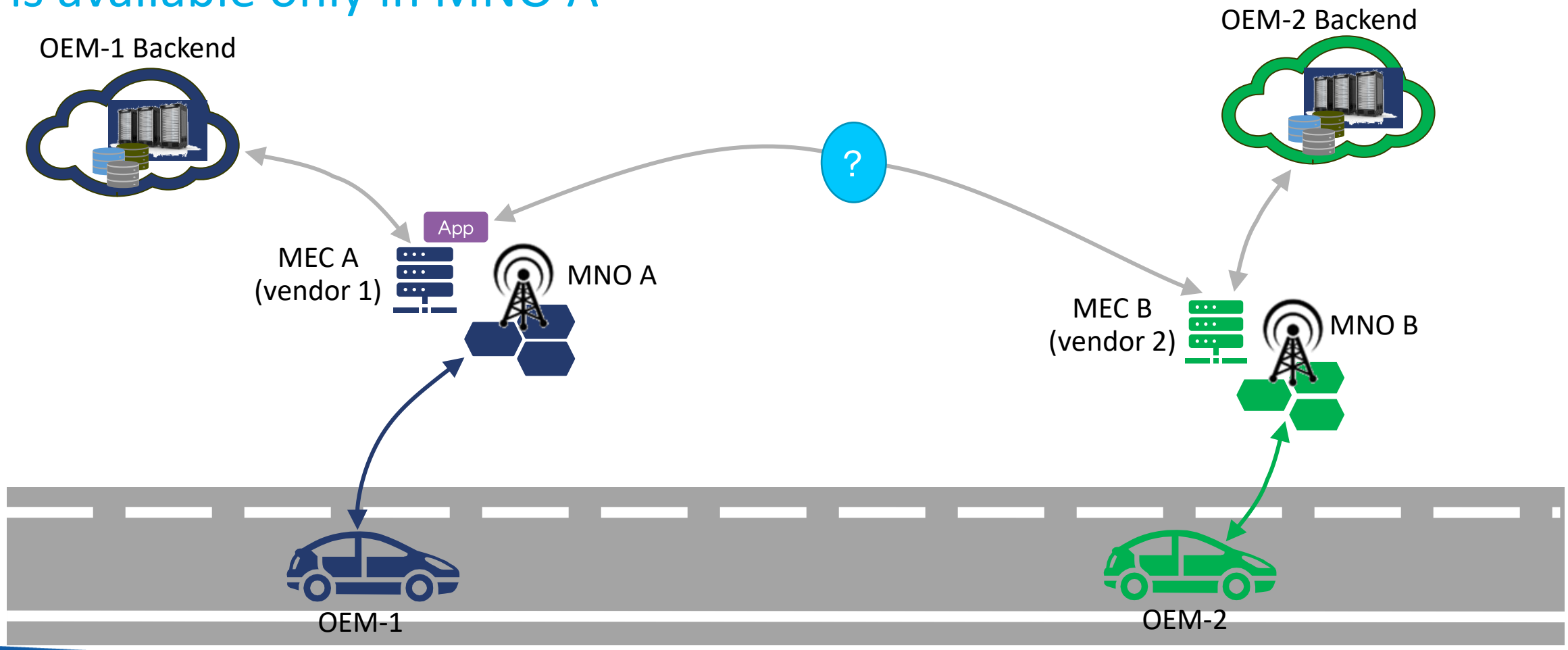
Topics:

- SoA edge computing architecture principles for V2X
- High-level Architectural Considerations on MEC in Multi-MNO Scenarios
- Deployments for use cases
- Interoperability and service continuity for edge computing
- MEC Security Guidance

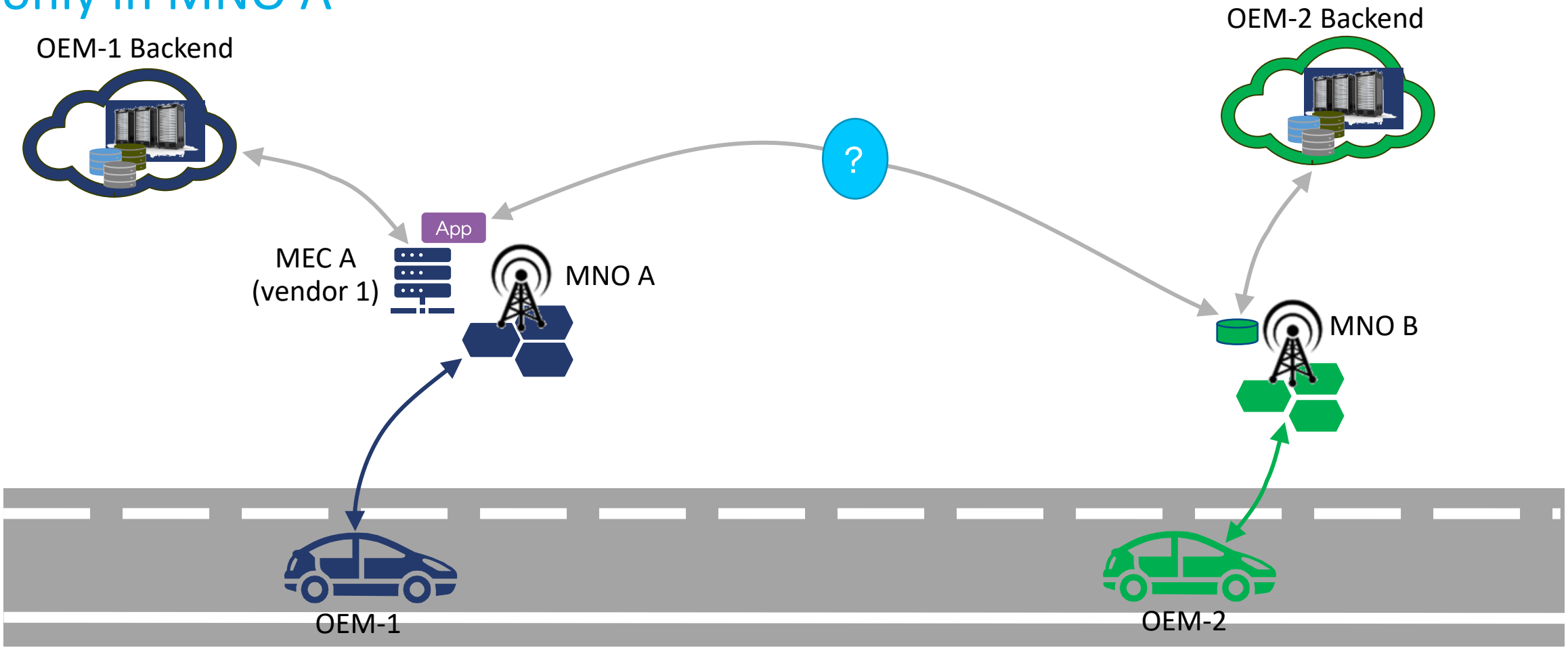
5GAA MEC4AUTO Scenario 1
Both MNO A & MNO B have MEC platform & MEC application



5GAA MEC4AUTO Scenario 2
Both MNO A & MNO B have MEC platform, but MEC application is available only in MNO A



5GAA MEC4AUTO Scenario 3
Only MNO A has MEC platform & MEC application is available only in MNO A



Thank you

5GAA White Papers: https://5gaa.org/5gaa-in-motion/news/#white-papers

5GAA Studies: https://5gaa.org/5gaa-in-motion/news/#studies