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**IRIGATE system
powered by Telco API**

 **SORACOM** 

1

AEECC

AUTOMOTIVE EDGE
COMPUTING CONSORTIUM

3

**Traffic steering for Traffic
Digital Twin powered by
Traffic Influence API**

 **EQUINIX** 
 

4

**EtoE high quality
communication
powered by QoD API**

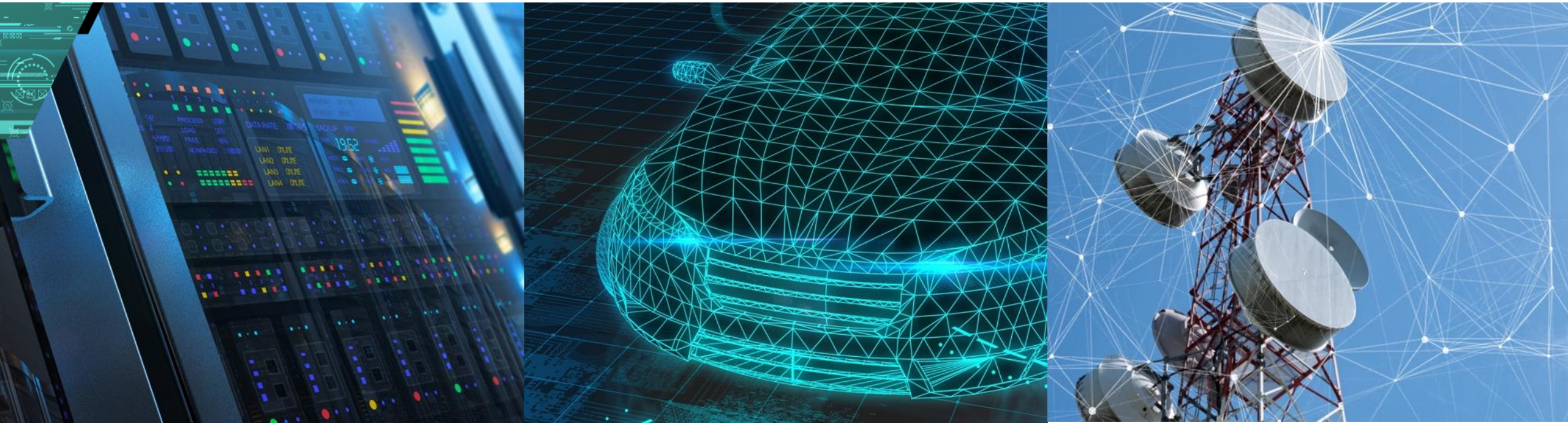
  

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**MEC Federation PoC
powered by OpenGateway**



① AECC Overview



Additional
Resources:










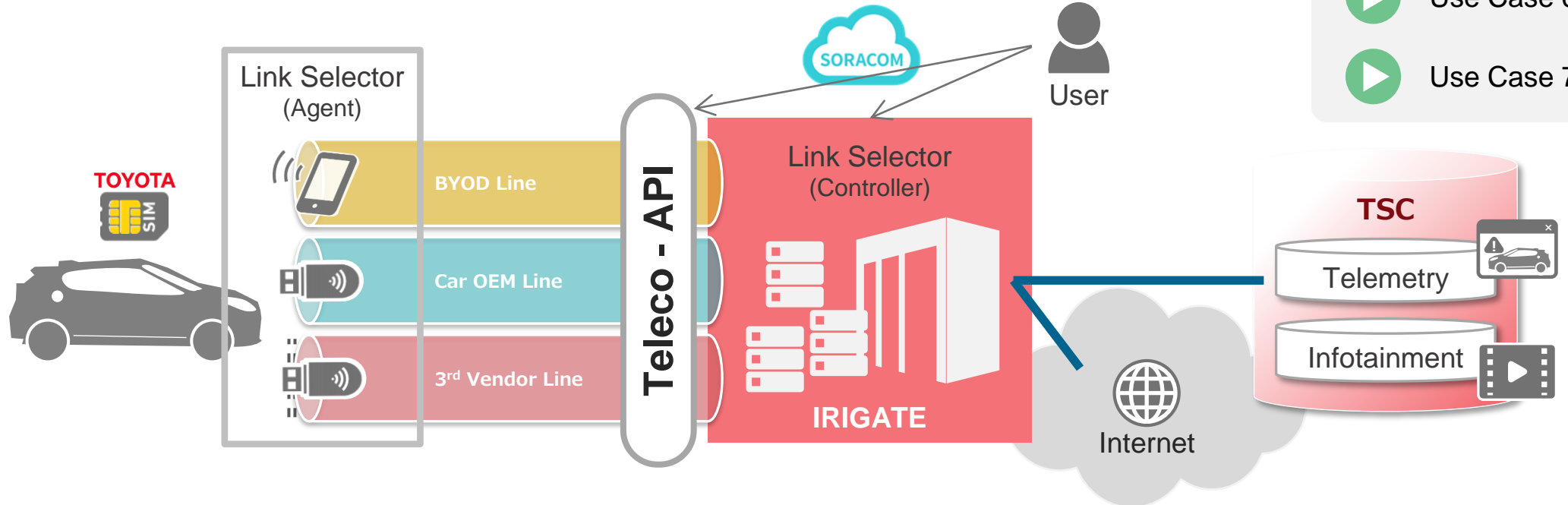
The **Automotive Edge Computing Consortium (AECC)** brings together leaders from the automotive, mobile network, cloud, and technology sectors to address Big Data challenges in connected vehicle services. By advancing network architecture and computing infrastructure, the AECC enables AI-driven innovations that enhance the intelligence, efficiency, and performance of connected vehicle services.



② IRIGATE System powered by Telco API

1. Connect between the car and the cloud using multiple lines by IRIGATE technology.
2. Those multiple lines are brought into the car by users, so any MNO's line can come in, but they are all managed by IRIGATE (powered by SORACOM Arc).
3. IRIGATE uses each MNO's Telco-API to change the speed of the line or shut down the line.

-  Use Case 1
-  Use Case 2
-  Use Case 3
-  Use Case 4
-  Use Case 5
-  Use Case 6
-  Use Case 7

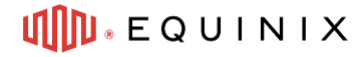


Additional Resources:



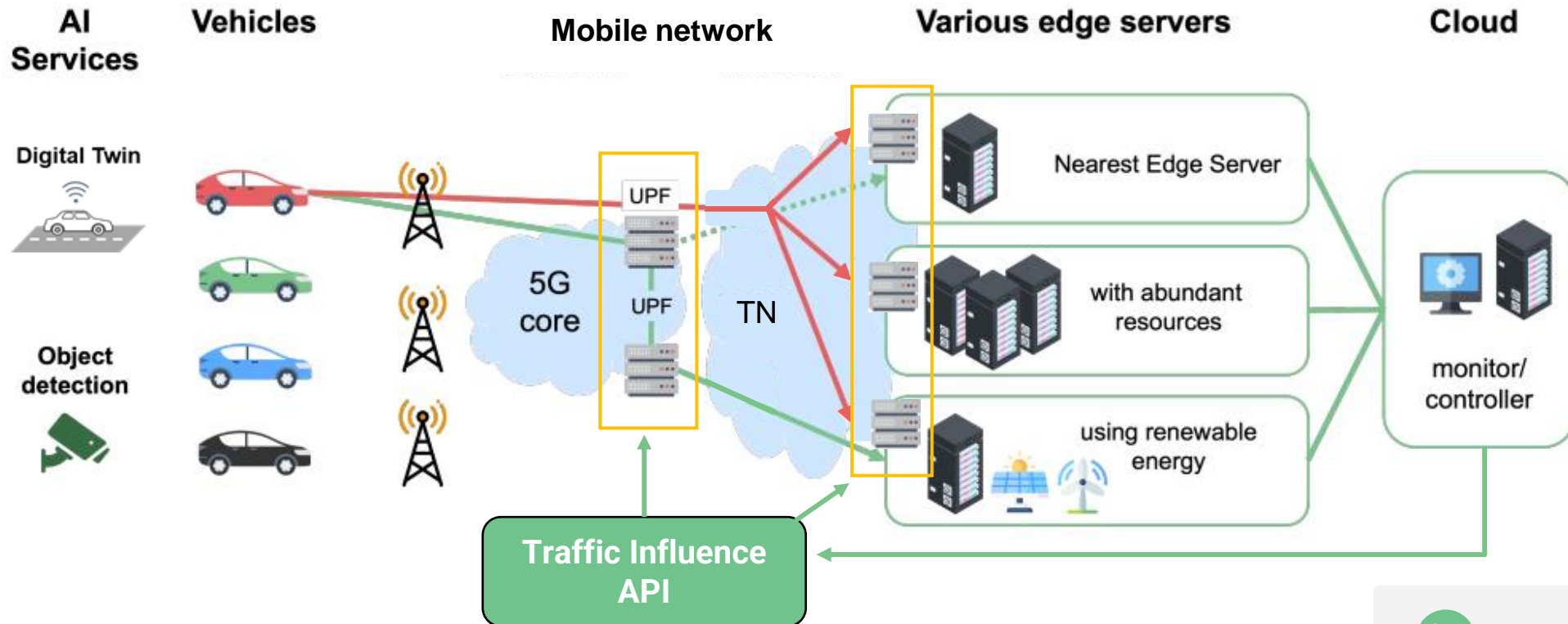


③ Traffic steering for Traffic Digital Twin powered by Traffic Influence API

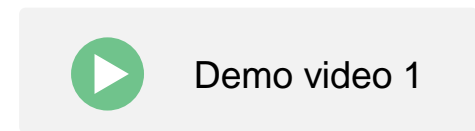


Flexible edge server selection to realize diverse services

Flexible server selection based on situations and service requirements allows edge servers to be used in various scenarios, including green energy, load balancing, and more.

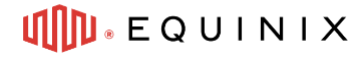


Additional Resources:



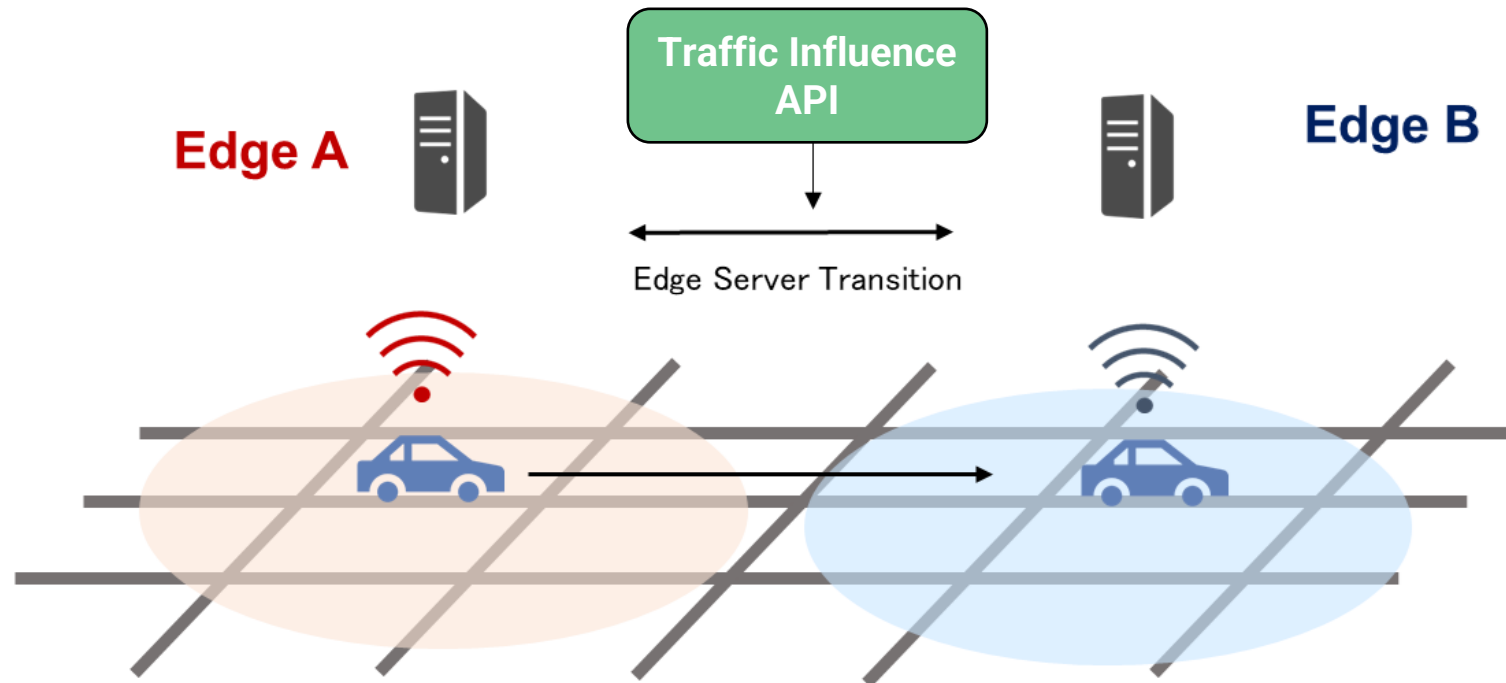


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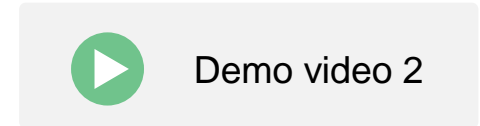


Traffic Digital Twin to improve driving safety and passenger comfort

Safety and comfortability events are immediately captured by nearby edges and delivered to vehicles heading to the event locations in a timely and precise manner.



Additional Resources:



④ EtoE high quality communication



Differentiated connectivity

High-performance, differentiated networks are the foundation for the evolution of new, advanced enterprise services.

This evolution starts with differentiated connectivity and in this demonstration we show how connected cars utilize different performance levels to match the requirements of four different, and simultaneous, connected-car services.

Automotive mobility services

Use case 1A: Navigation - route selection

In this demonstration, the route selection technology, the QoS API and network slicing combine to show how differentiated connectivity can provide a premium user experience in all network situations.

The driver of the car can use the network route selection function, which uses the Service Area API, to trigger the required network functions for different network situations.

This enables the vehicle to choose a shorter route through high network-congestion areas and still enjoy high-quality communication and premium video calls using 5G and network APIs.

Use case 2: In-vehicle infotainment

- Create instant video meeting
- Invite participants
- Initiate meeting
- Set-up and run media

Differentiated connectivity services journey

Additional Resources:



Connected vehicle APIs

Standardized, globally uniform and accessible APIs are key building blocks for the connected-vehicle industry to access and fully utilize existing and future 5G services.

QoS	Dedicated Network	Performance Monitor	Network Insights
Dynamic change of priority for defined traffic flows, in real time.	Advanced Differentiated connectivity with service categories, location, security and edge routing	Enables QoS performance observability	Information such as dynamic people density information, road traffic density and weather conditions
Location	eSIM Mgmt	Subscription Mgmt	Edge Cloud
Highly reliable and real-time network-based location.	Device credential mgmt (incl remote SIM mgmt e.g. for connectivity, roaming, coverage etc)	Information like data bucket size etc incl usage reporting and rule management	Functionality for edge routing and workload management.



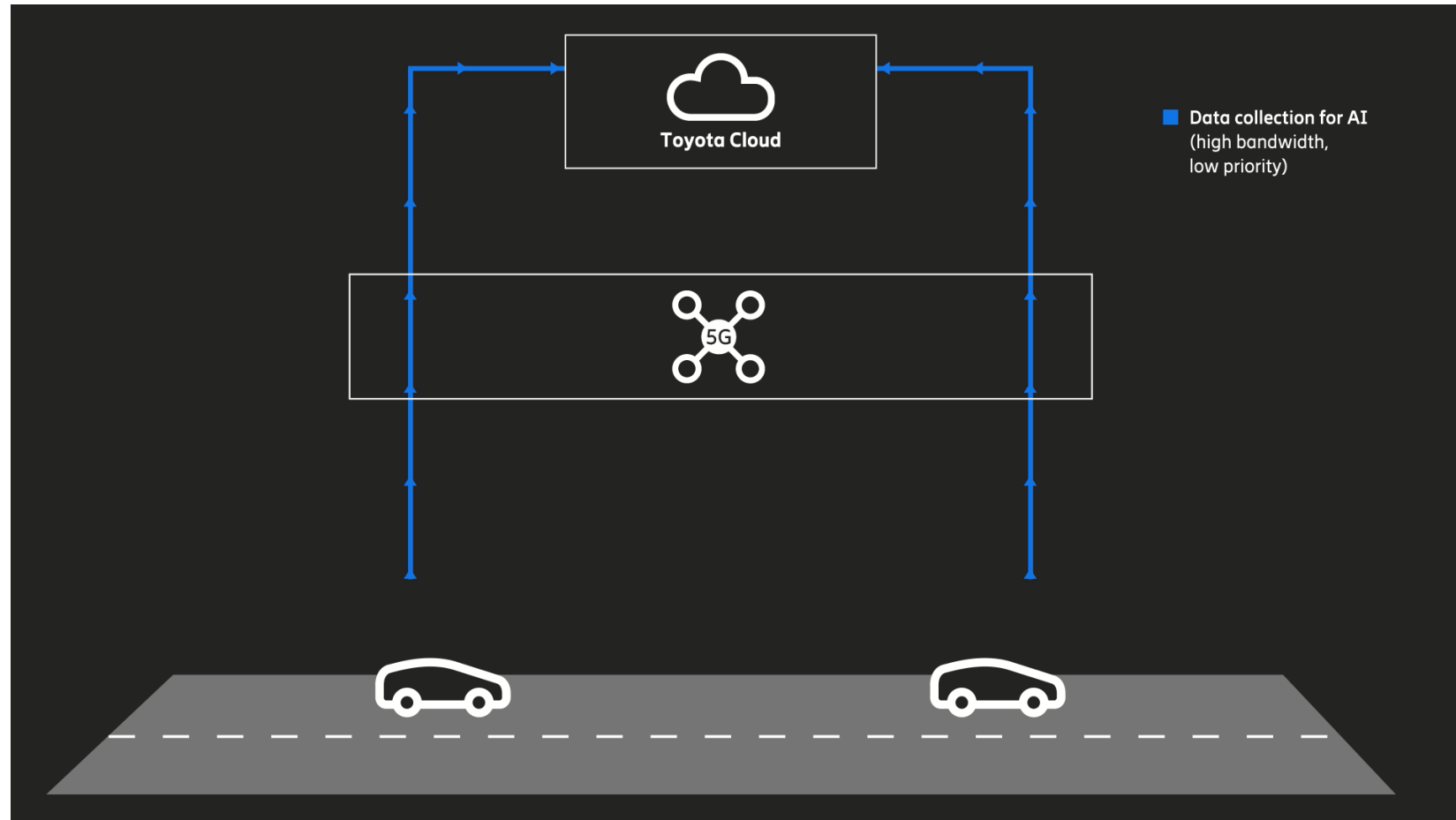
Differentiated connectivity



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Additional Resources:





Premium
Communication
using Connected
Vehicle APIs

Additional
Resources:





⑤ MEC Federation

- **Enabling Capabilities and Innovative Features:**
 - Standardized GSMA (including CAMARA) and TMForum APIs
 - GSMA Roaming Federation for seamless cross-operator handovers
 - 3GPP Edge/MEC node model
 - “Network drives the Vehicles” concept
 - AI-controlled capabilities for Edge resource optimization (exploiting NTT DATA contribution to EU Funded “MLSysOps” project results)
- **Key Components:**
 - Federation Broker to manage multi-operator Edge/MEC
 - Edge/MEC Integration: low-latency apps and service continuity
- **Business Benefits:**
 - Extension of currently available commercial use cases
 - Effort/cost optimization for service design
 - Faster delivery over distributed network infrastructure

Additional Resources:



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⑤ MEC Federation

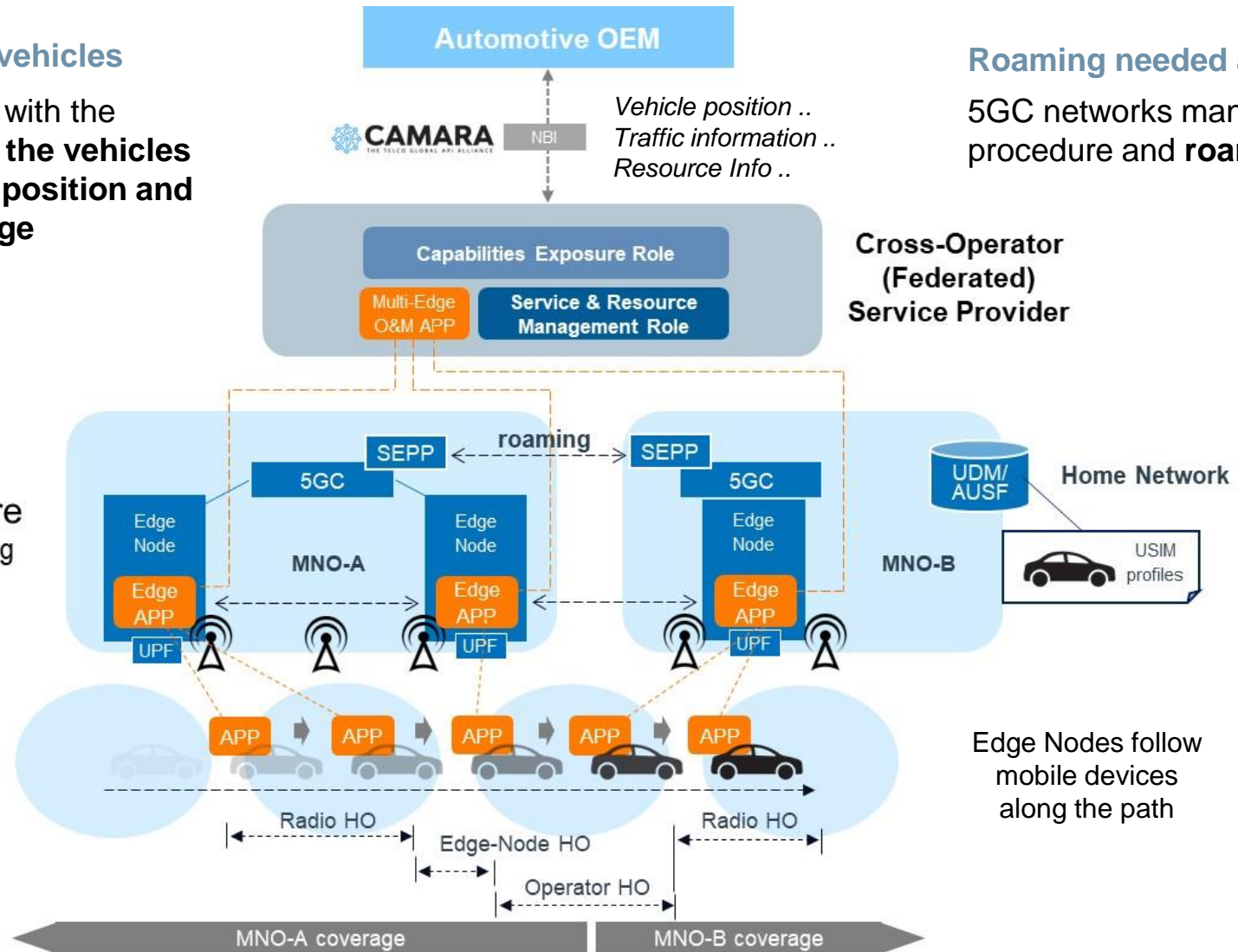
The Network «drives» the vehicles

Edge (MEC) nodes **interact** with the individual devices and **drive the vehicles** by managing their current position and geo-fence for edge coverage

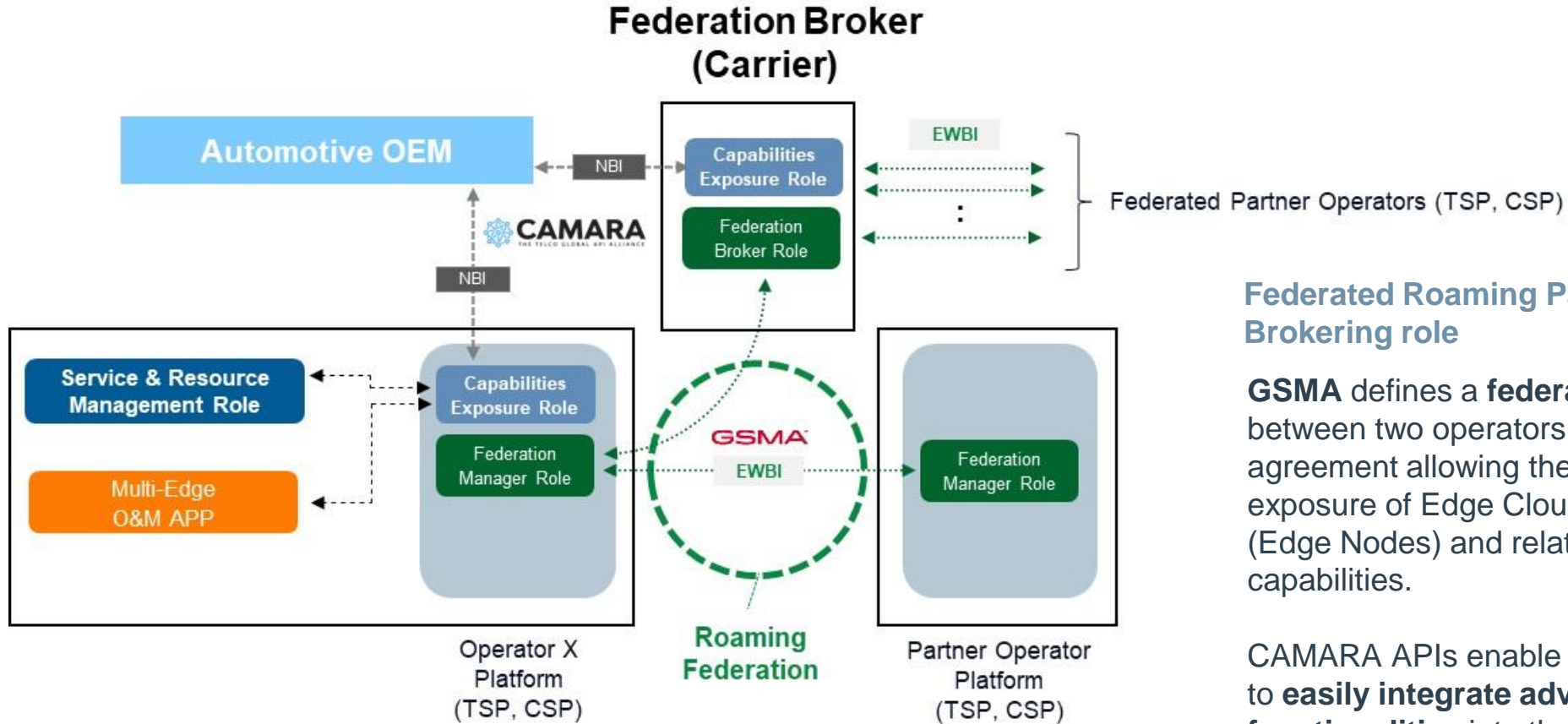
Roaming needed among partner MNOs
5GC networks manage **handover (HO)** procedure and **roaming scenarios**

5G
Network Infrastructure and Edge Nodes belonging to different MNOs

Additional Resources:



Roaming Federation



Federated Roaming Partners and Brokering role

GSMA defines a **federation** between two operators (OPs) as an agreement allowing the mutual exposure of Edge Cloud resources (Edge Nodes) and related MEC capabilities.

CAMARA APIs enable developers to **easily integrate advanced telco functionalities** into their applications without dealing with the technical complexities of network infrastructure.

- NBI** NorthBound Interface
- EWBI** East/West Boundary Interface
- CSP** Communication Service Provider
- TSP** Transport Service Provider

CAMARA API and E/WBI are part of GSMA Open Gateway umbrella

Additional Resources:

