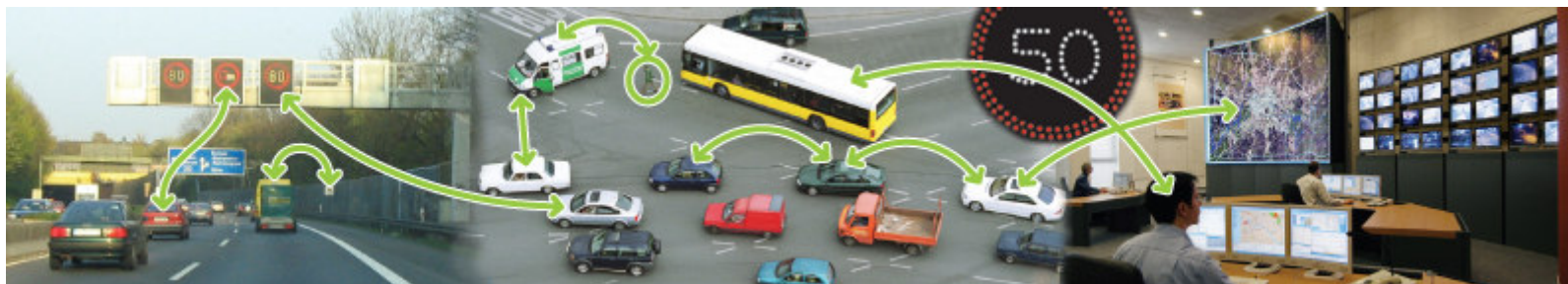




VOLVO

Cooperative Freight & Fleet Applications

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Key issues for commercial transports



- Questions for fleet managers
 - Where are my vehicles?
 - What are they doing?
 - How are they performing?
- The professional driver...
 - ... knows where to go, but not always the best route, or even the allowed route (size and cargo)
 - ... has a time slot to make the delivery – and has to respect the legal rest periods
 - ... moves across national borders every day – and needs to know the prevailing traffic regulations and traffic situation
 - ... needs to be always connected to the transport manager
 - ***... needs the current tools enhanced to get the job done in an even more efficient and safe way***



State of the Art



- Fleet Management & Logistics systems – on-board and back-office centric
- Navigation systems – not yet fully adapted to commercial vehicles
- Traffic Information Collection and Broadcasting => one-way information, addressing all road users
- Research projects & pilots for monitoring HGV (heavy goods vehicles)

- CVIS selected areas and related projects
 - **Dangerous goods**
 - MITRA project (FP6)
 - GoodRoute project (FP6)
 - **Parking Zones reservation**
 - Optimising HGV Parking, Rheinland-Pfalz, Germany
 - **Access Control in sensitive areas**
 - SafeTunnel (FP5)



Goals

- Increase safety and transport efficiency for commercial transports through selected sample applications, demonstrating new cooperative elements that extends existing systems and services
- Addressing the user needs and showing the benefits for several stakeholders; i.e. public authorities, drivers and transport companies





Objectives (1)

- **Monitoring and guidance of dangerous goods**
 - Safer transport of dangerous goods through:
 - Monitoring of dangerous goods vehicles
 - Route guidance adapted to vehicle dimensions and goods type and local preferences
 - Cooperative re-routing initiated by monitoring center in case of changes in the traffic situation (road conditions, accidents, congestion, temporary limitations)





Objectives (2)

- **Urban loading zone and highway parking slot management**
 - Safer traffic situation in busy urban business streets, through efficient booking of unloading zones and swift enforcement of illegal parking
 - More efficient traffic flow through less “search traffic” (instead: reserved slots, waiting vehicles can be directed to safe “holding zones”)





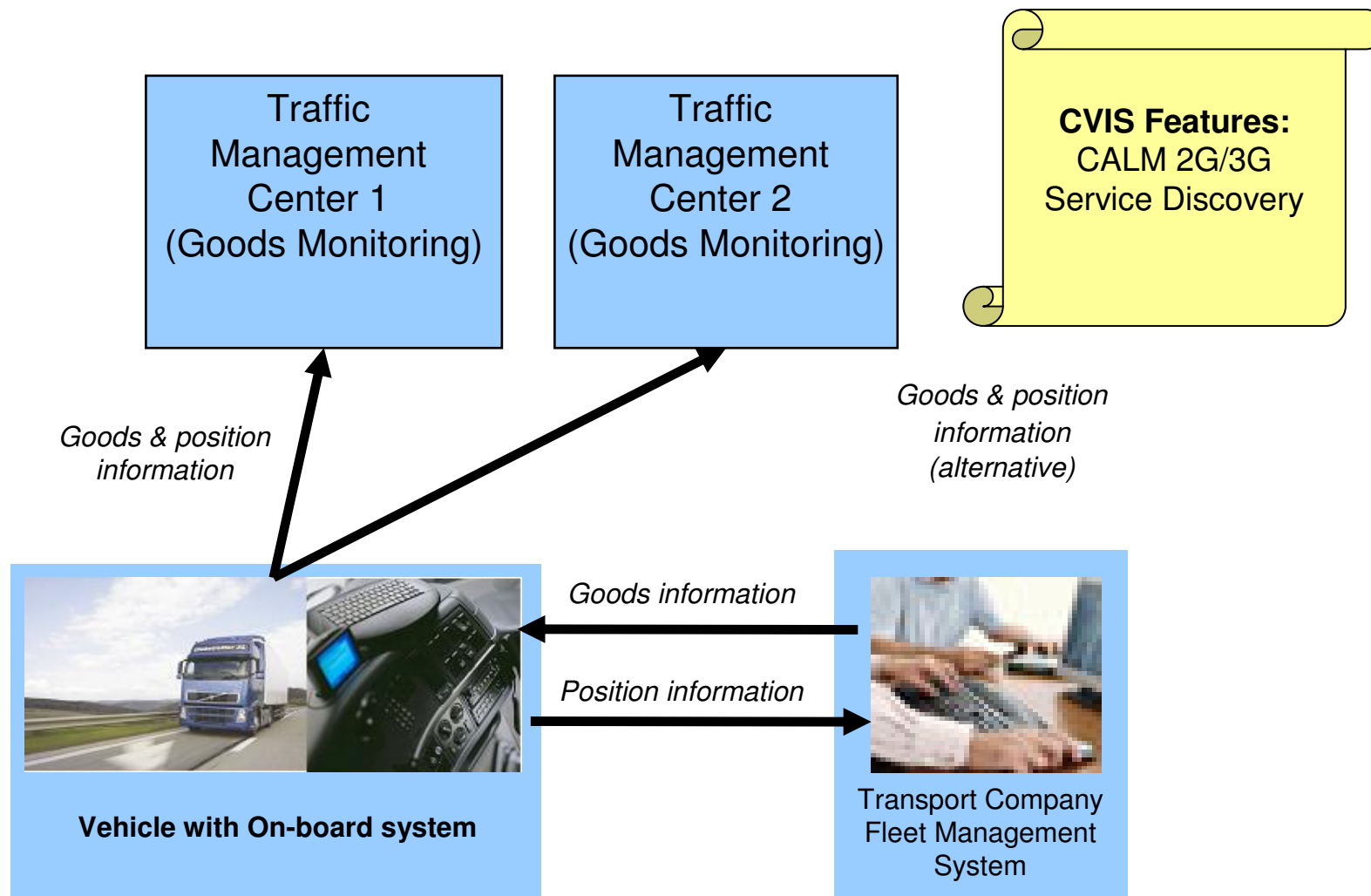
Objectives (3)

- **Access control to sensitive infrastructures**
 - Safer traffic inside a sensitive zone through careful monitoring of vehicle and driver performance inside the zone as well as before entering, denying access to vehicles / drivers not following with the rules
 - More efficient traffic flow into a sensitive zone, compared to manual inspections / gates



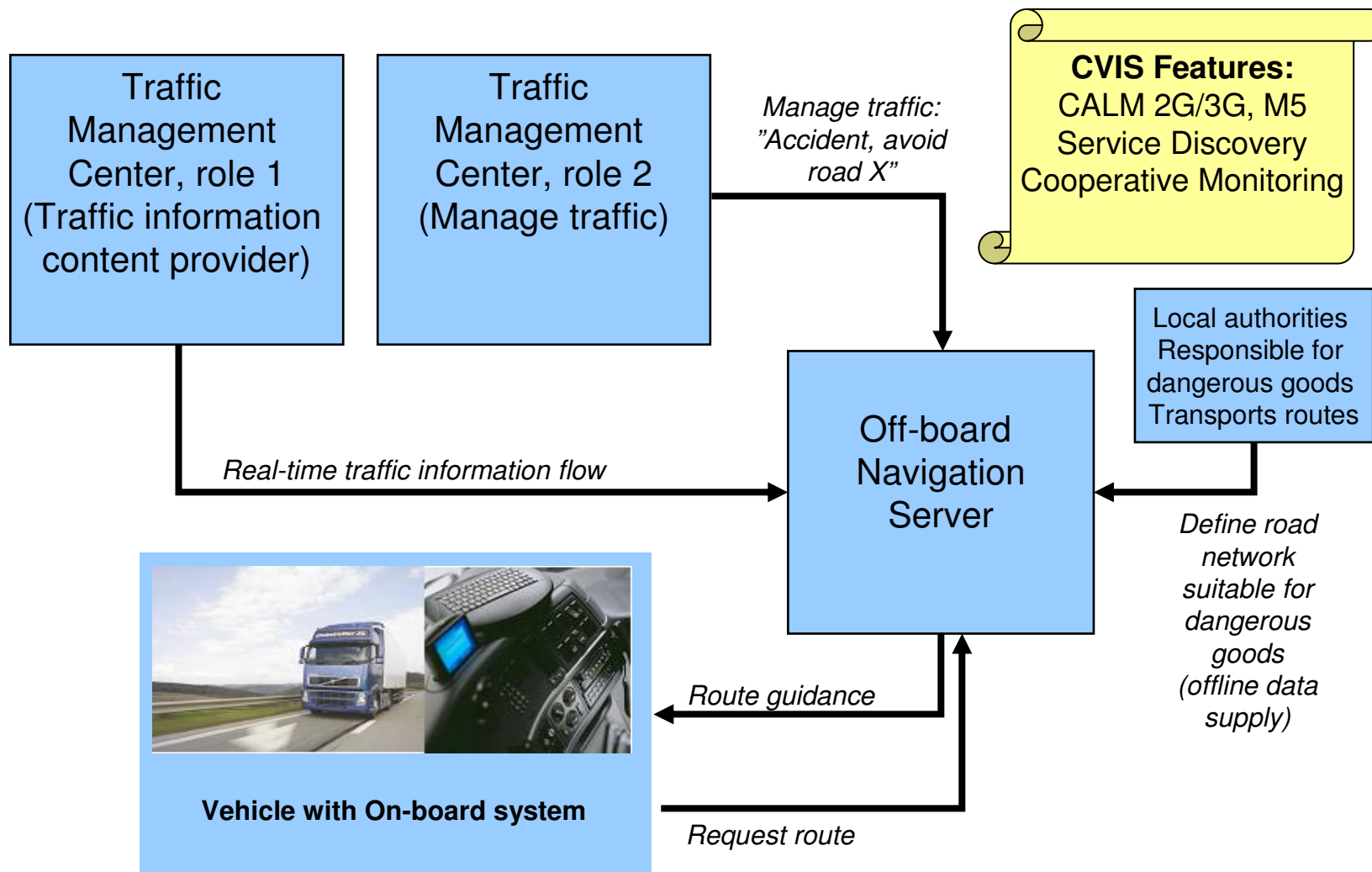


Monitoring of dangerous goods



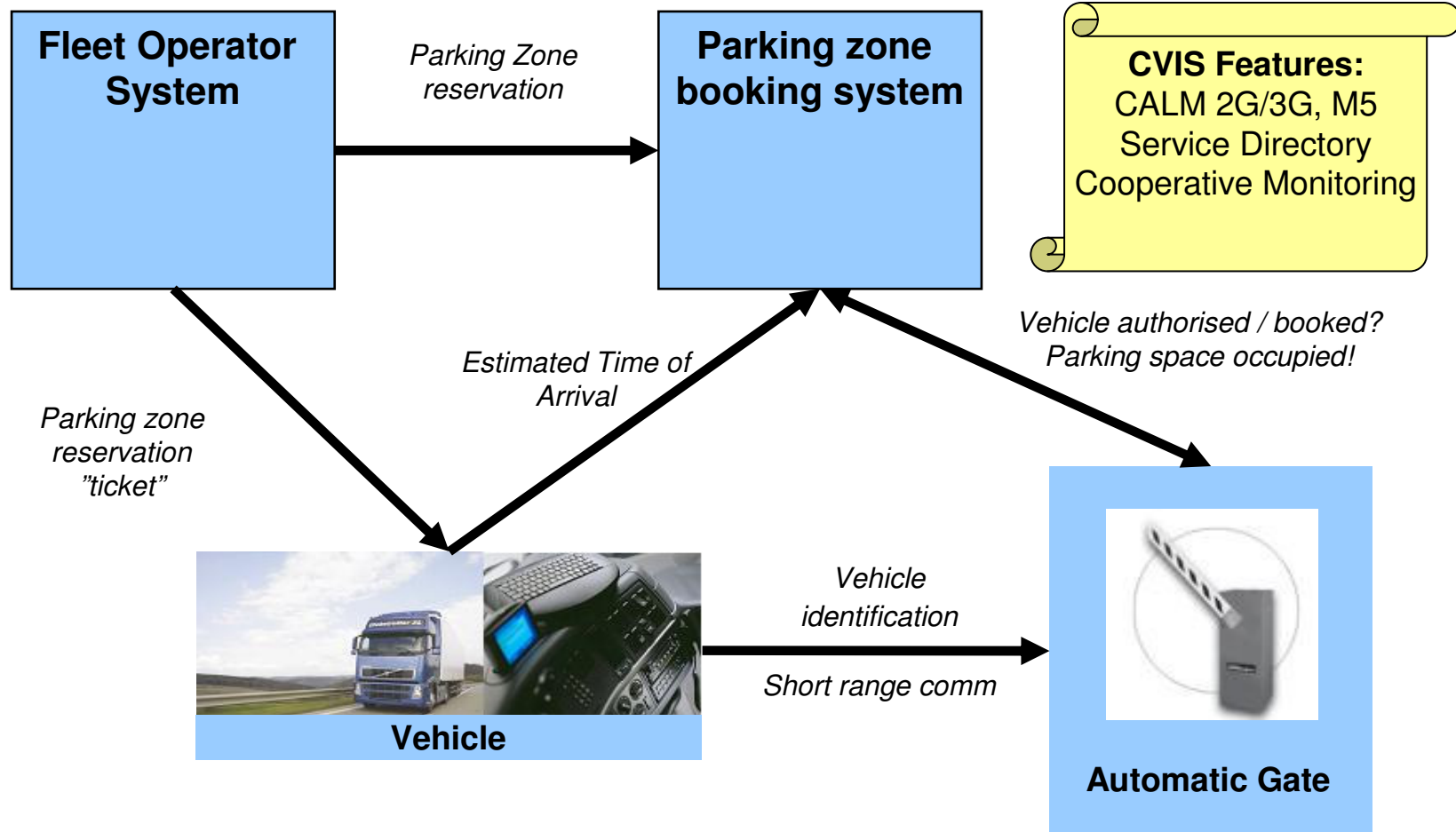


Guidance of dangerous goods



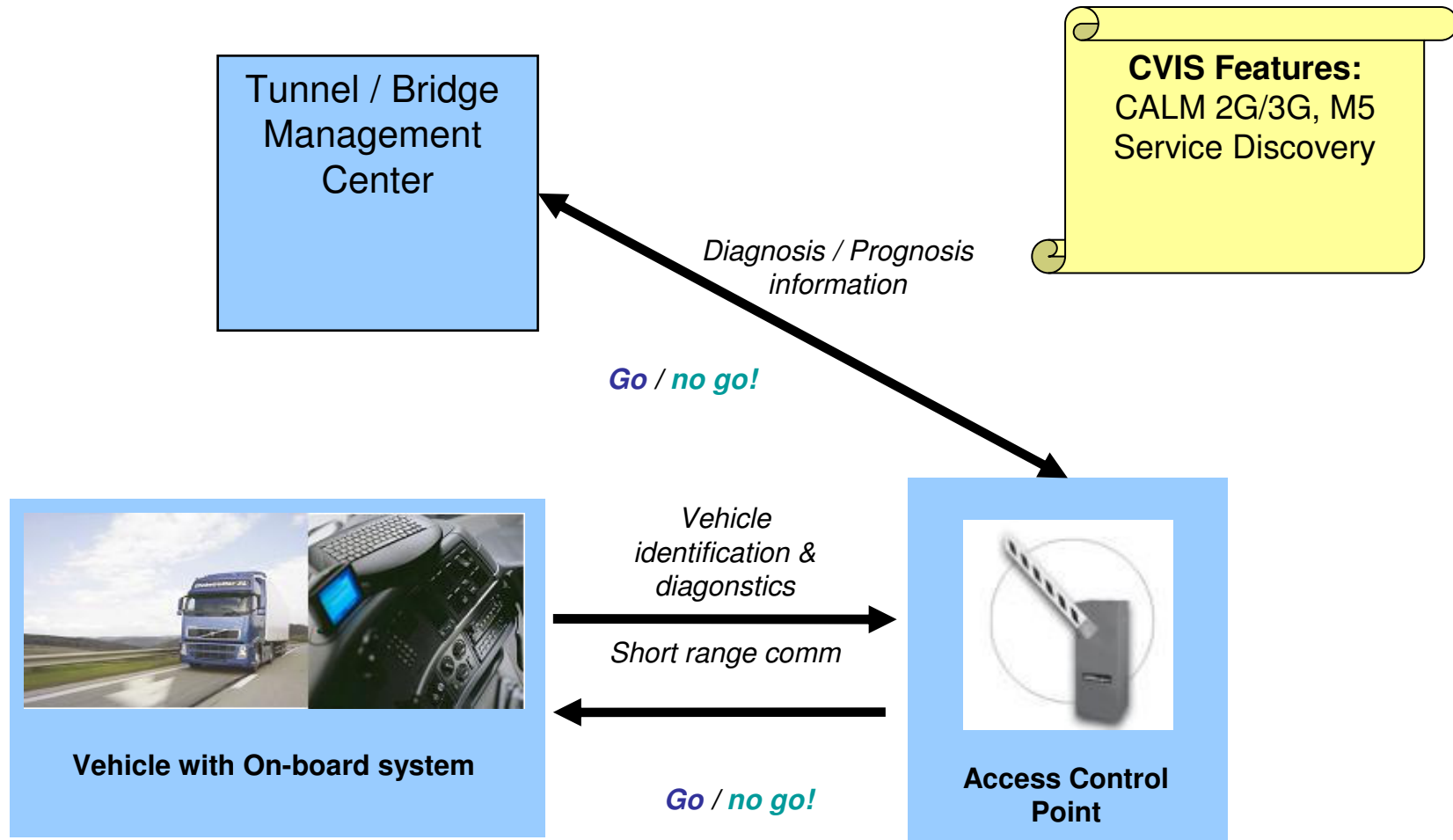


Parking Zones





Access control to sensitive infrastructures





CVIS innovation, CF&F



- **Cooperative dynamic management of dangerous goods transport, by**
 - dangerous goods vehicle navigation, based on locally defined preferences
 - monitoring and dynamic influence of local authorities on dangerous goods routing and guidance, including re-routing of dangerous goods vehicles after incidents or changed local conditions
- **Dynamic scheduling of loading bays and highway resting areas** for truck drivers through cooperation with road operator (booking, access control, monitoring).
- **Enabling of dynamic geo-fencing policies regulating sensitive area access** in dependence of time, place, vehicle status, driving style or other parameters (i.e. to verify vehicles/drivers compatibility with sensitive area dynamic characteristics).



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Thanks for your attention...

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