

# ITG - Workshop

## *An Always Best Connected Vehicular Communication Gateway*

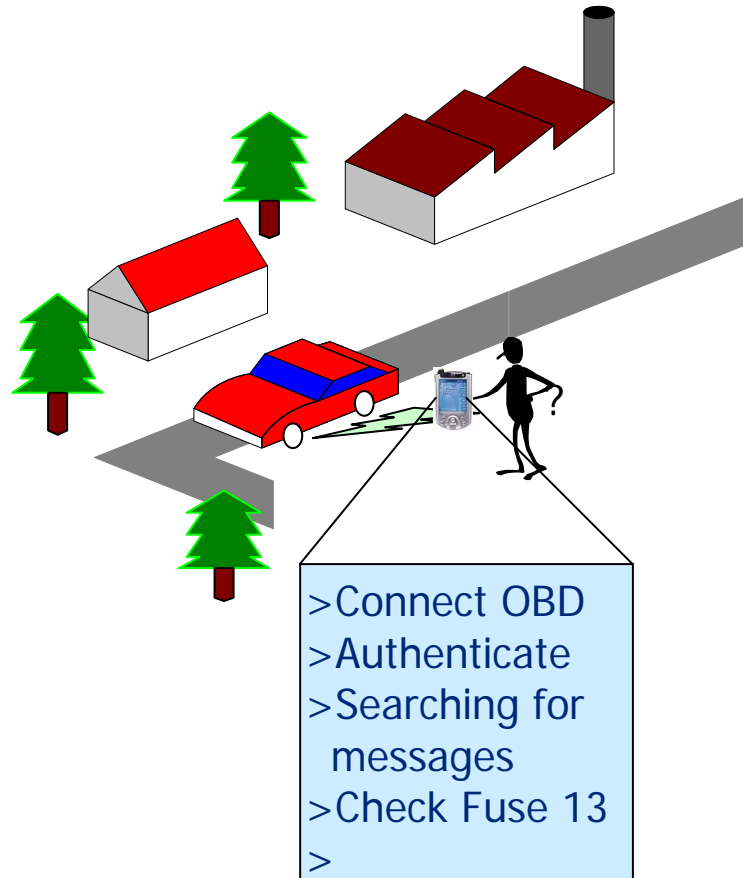
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# Focus Areas

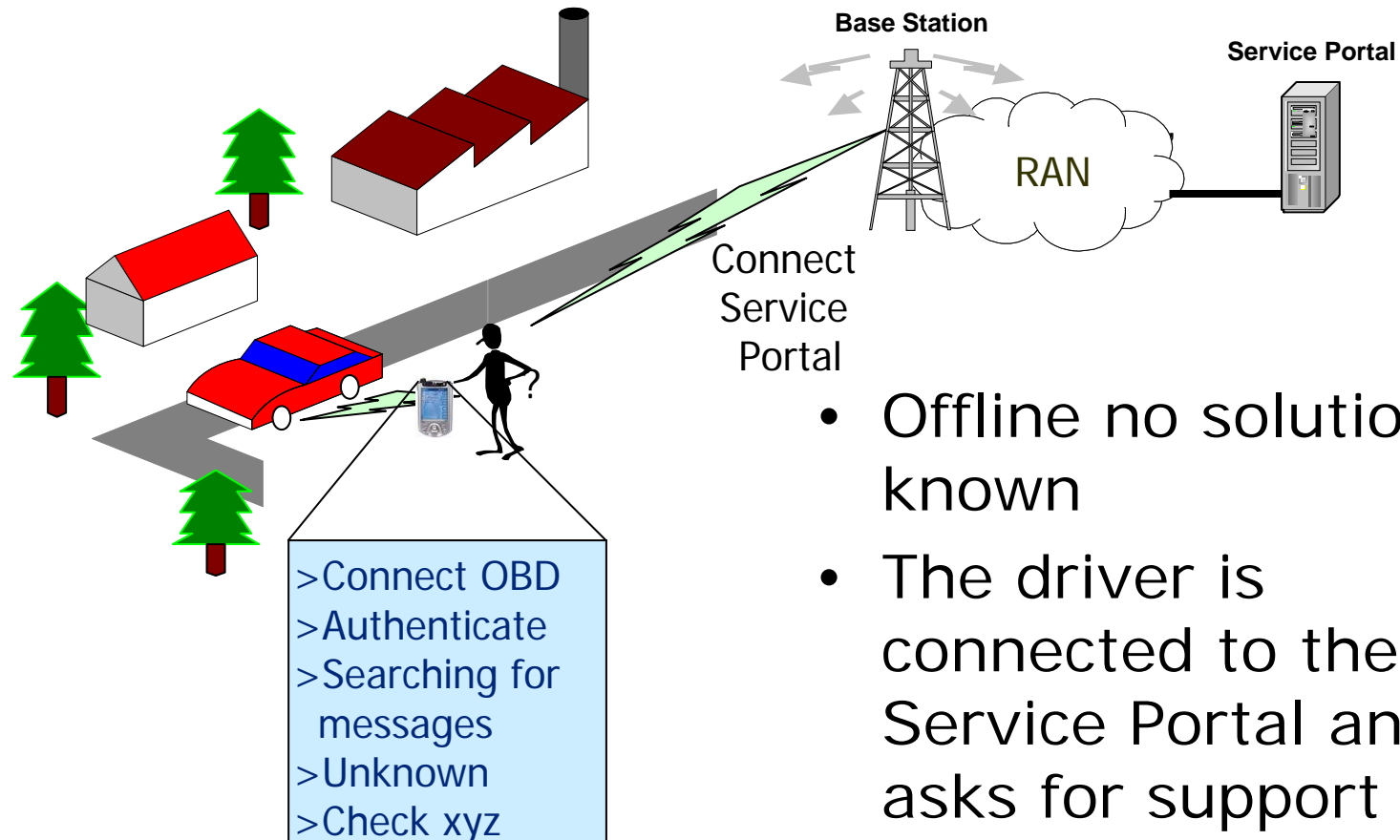
- Car maintenance and remote diagnosis
- Groups of use cases
  - Driver Self Service
  - Manufacturer Specific Workshop
  - Manufacturer Specific Road Assistant
  - Manufacturer Independent Road Assistant
  - Manufacturer Independent Workshop

# Driver Self Service



- Error detected
  - Either by driver or OBD reports major failure
- The mobile app. reads & interprets OBD messages
- The application provides solution guidance
  - Taken from local stored database

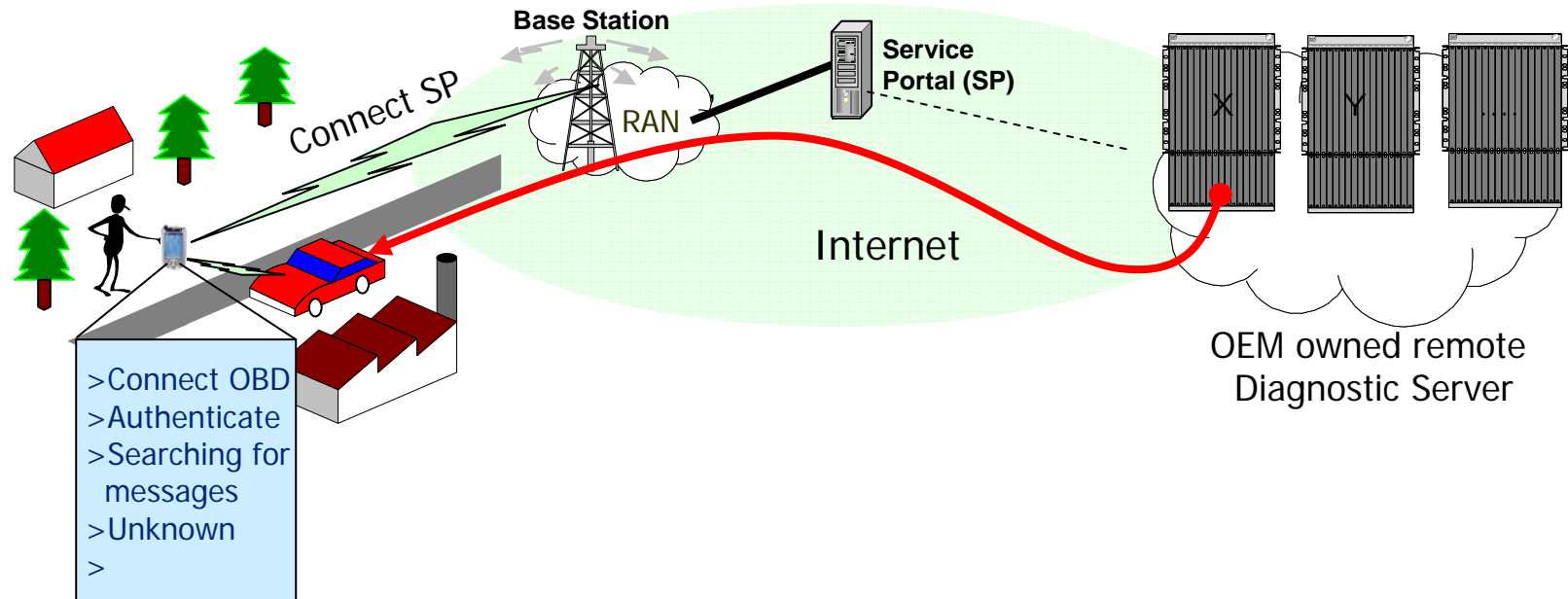
# Driver Self Service



- Offline no solution is known
- The driver is connected to the Service Portal and asks for support

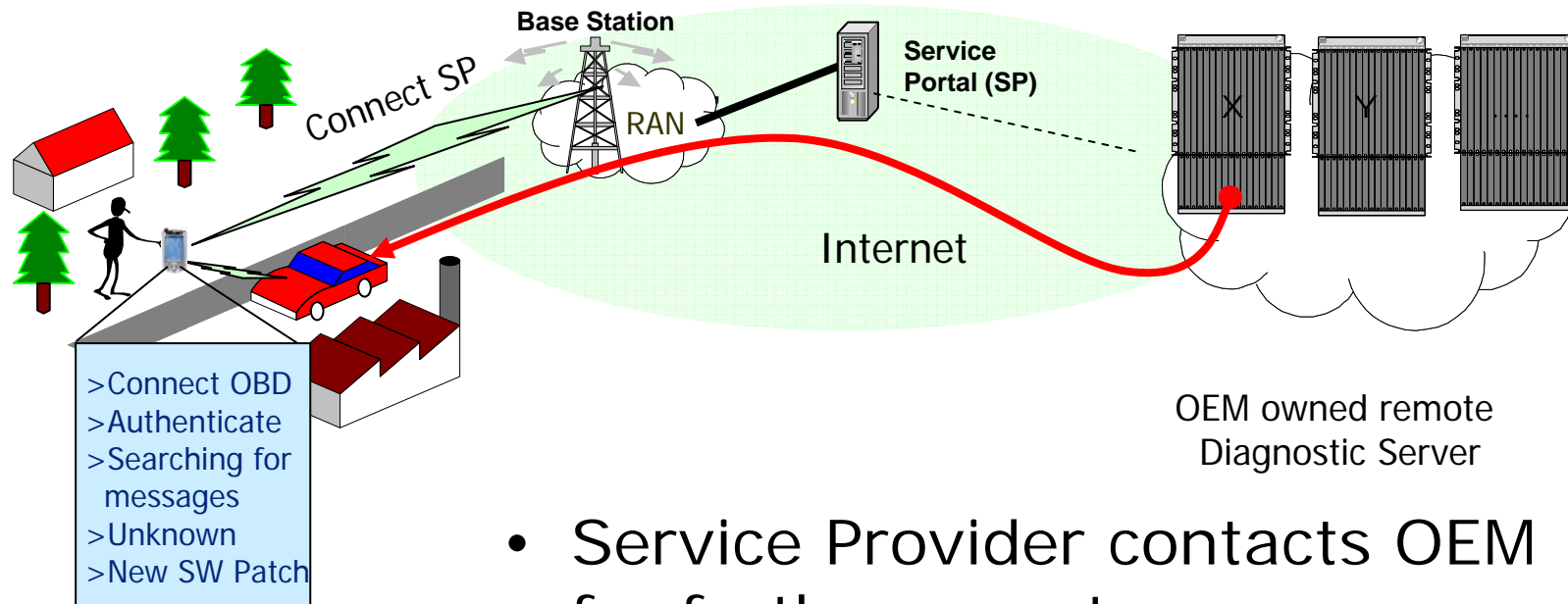
- Service Portal provides guidance to the driver

# Driver Self Service



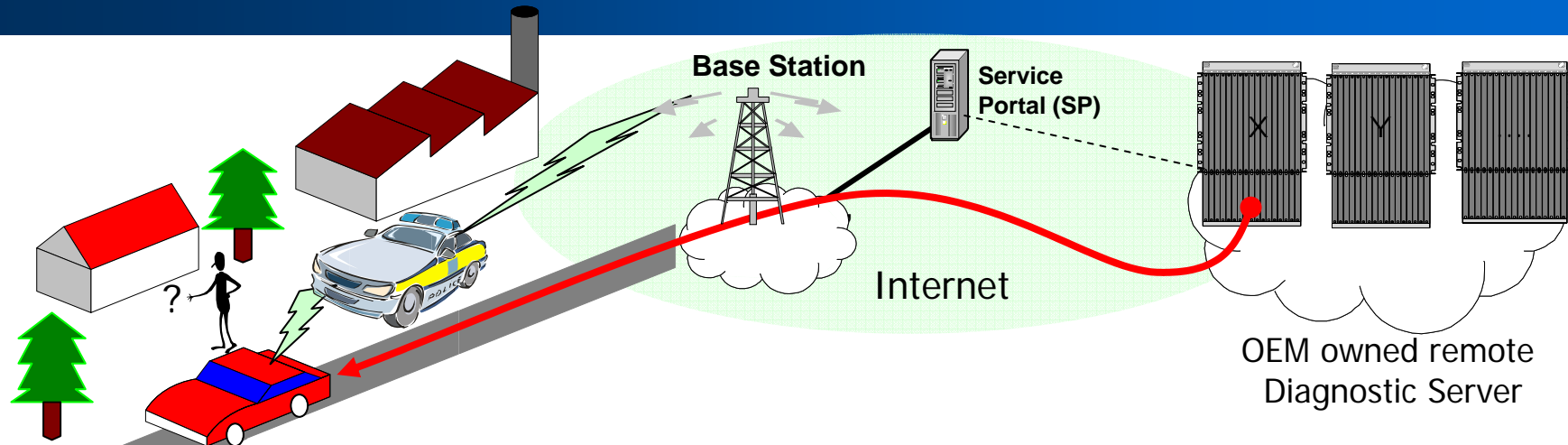
- OEM provides guidance to the driver
- The road side assistant is called
  - OEM independent / specific
- Car towed to a workshop
  - OEM independent / specific

# Driver Self Service



- Service Provider contacts OEM for further remote car diagnostics
- The OEM runs remote-diagnostic on the car
  - LRC direct to the car
  - Via the mobile device to the car
- OEM provides guidance/software

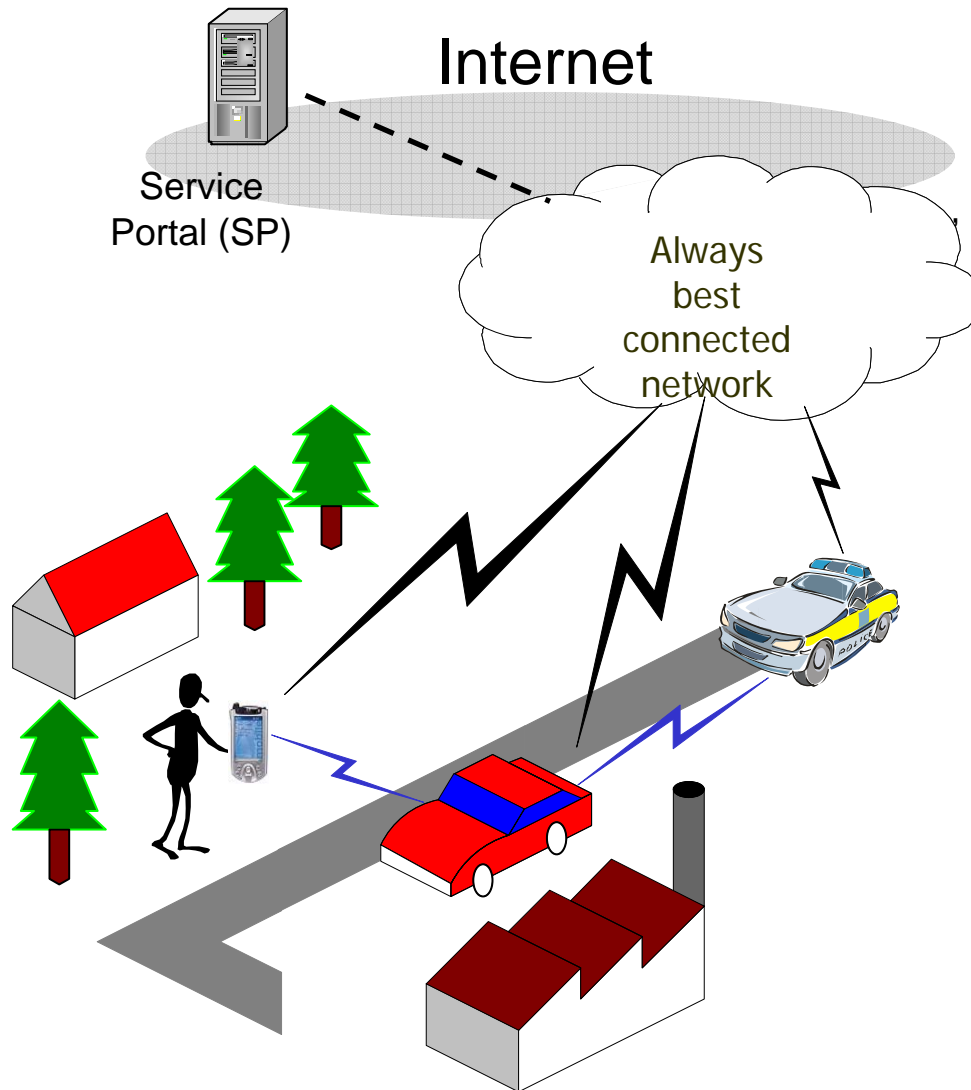
## Manufacture independent and specific road side assistant



- >Connect OBD
- >Authenticate
- >Searching for messages
- >Unknown
- >Check DB
- >Update Engine Control SW
- >Fixed

- Road Side Assistant connects to the OBD
  - Compares error code with its database and validates
- Contacts the Service Portal
  - Connects to the Service Portal
  - Requests remote-diagnostic
- Repairs car or orders a tow-car

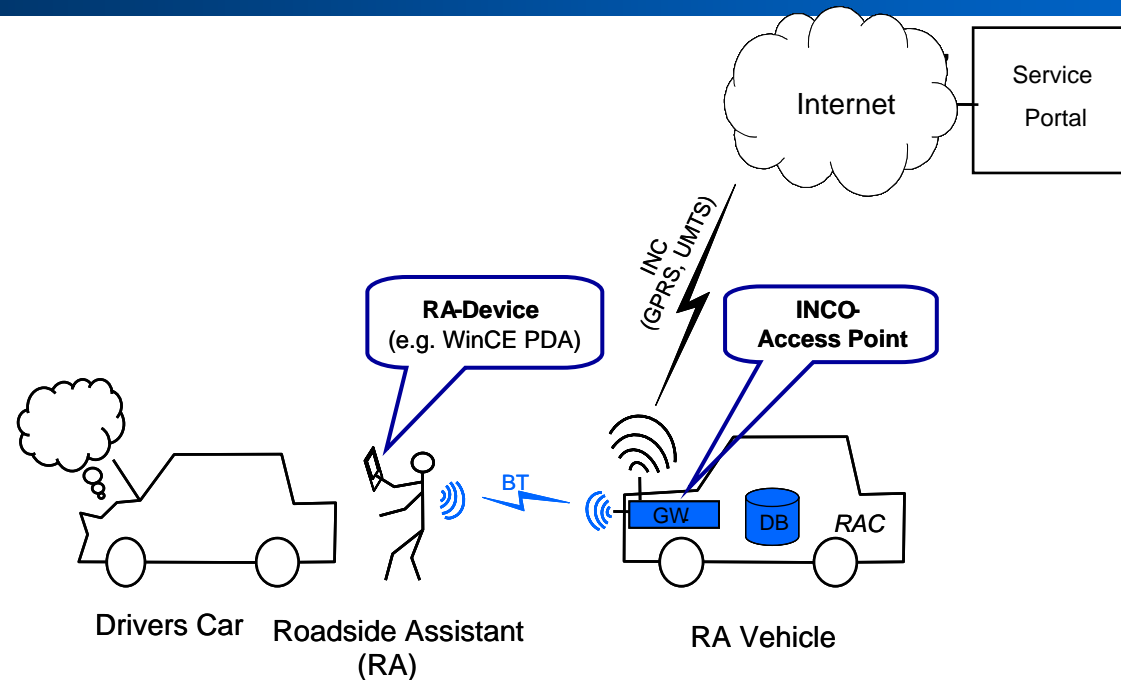
# Mobile Communication Scenario and Vision



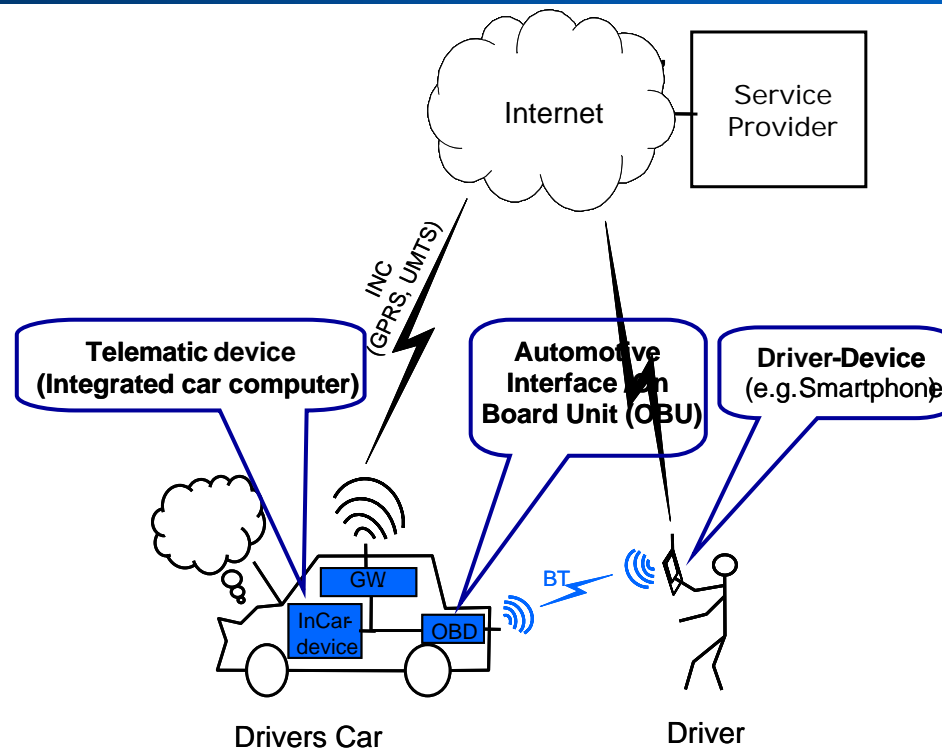
- Driver self service
- Manufacture independent and specific road side assistance
- Manufacture independent and specific workshop
- Remote diagnostic by OEM
- Pre-Diagnostic by workshops



# Prototype Realization



- RSA equipped with the car gateway
- Communicates to a service provider without manual handling of the connection



- The gateway is integrated in a car
  - providing the communication interfaces for the in-car telematics box.
  - The car gateway provides the functionality of a vehicular mobile gateway, connecting the car over the best suitable and most reliable communication system to the service portal

**Thank you for your attention !**

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