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M2M/IOT – AN AUTOMOTIVE PERSPECTIVE

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GM RELATED GROUPS

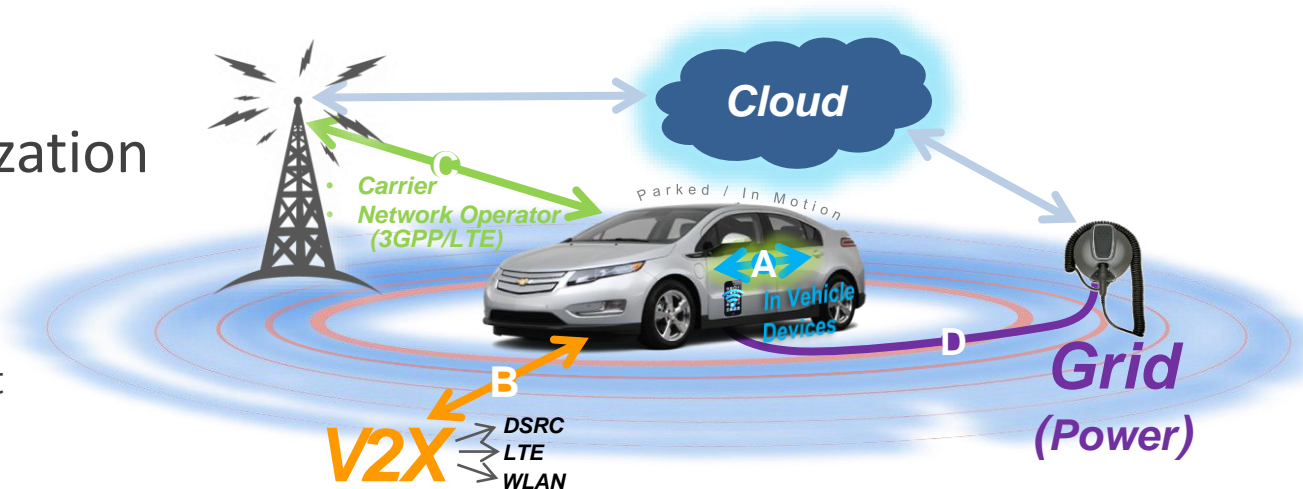


- GM R&D organization

- Wireless
 - Standards participation: 3GPP/ IEEE(802.11) / IWPC / 802.11p(DSRC)
- HMI
- Sensors
- Control
- Powertrain
- etc...

- Product organization

- OnStar / GCC
- Engineering
 - Infotainment
 - Telematics



M2M/IOT AUTOMOTIVE INTEREST



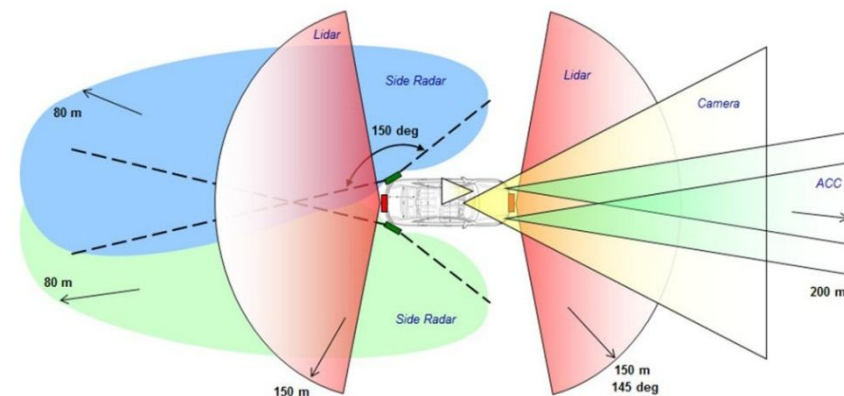
- Certification
- Vehicle as a platform
- Reliable and high level communication service
- Local area communication
- Reduce vehicle BOM and operational cost
- Safety



- Certification
 - Automotive categories
 - Automotive Voice Codec for 5G
 - "Always on" connected device
- Vehicle as a platform/service
 - e-commerce/e-wallet enabled vehicle
 - UE is a gateway for several users
 - **Vehicles security**
- Reliable and high level communication service
 - Operation under vehicle speed conditions
 - Multi power consumption levels
 - **eNB position/coordinates available to UE**
 - **Affordable data usage**



- Local area communication
 - Vehicle2X technology infrastructure / use cases
 - V2V / C2C,
 - V2I,
 - V2D ...
 - M2M data scheduling
- Reduce vehicle BOM and operational cost
 - Small automotive antenna/s, standard perspective
 - Setting international roaming bands
 - Support legacy/LTE
- Safety
 - Low latency



SUMMARY



- Nature of data traffic is going to substantially change with the increase of use of M2M/IoT
- Vehicles are going to be a significant part in M2M/IoT
- Automotive space should increase footprint in standards
 - We are participating in a dialogue within 5G forums

