➢ The number of LTE subscriptions worldwide will approach 2 billion by the end of this year and will grow almost threefold by 2022.

➢ By 2022, Strategy Analytics forecasts that figure will have grown to 5.6 billion, equivalent to 62% of all user-linked mobile subscriptions.

➢ By that date, 5G connections will also have started to make an impact. There will be 116 million 5G subscriptions in 2022, up from around 2 million in 2020, the year in which the first 5G deployments are expected to commence.

By Mary Lennihan, Total Telecom
Friday 03 June 2016
Data from Strategy Analytics
According to Ericsson’s latest Mobility Report, overall connections will number 27.5 billion by 2021, with the IoT accounting for 15.7 billion of that total. By comparison, the number of mobile phone connections is expected to reach 8.6 billion.

"5G networks will provide additional capabilities that are critical for IoT, such as network slicing and the capacity to connect exponentially more devices than is possible today," Ericsson’s Qureshi said.

By Nick Wood, Total Telecom
Wednesday 01 June 2016
Why Should Automakers Care?

- Cars are more than “things” while the new generation of consumers care more about “things” than cars - many are viewing simply as transportation
- Self-driving cars shared by multiple owners
- Better made and more expensive - longer replacement cycle
- Uber effect, ZipCar, congestion and demand for safer transport
- Device integration relegates cars to peripheral status
TESLA MODEL S AND TESLA MODEL X ELECTRIC CARS ARE ALREADY GETTING THEIR NEW 7.1 SOFTWARE UPDATE.
Utilizing OMA DM, OTA empowers Tesla to move beyond fixing problems to adding customer desired features.
Suddenly features are coming out at an alarming rate faster than many other OEMs.
CASE STUDY: NISSAN LEAF CLOUD HACK

a/k/a - How to run down the battery of an EV from across the globe
CASE STUDY: NISSAN LEAF CLOUD HACK

a/k/a - How to run down the battery of an EV from across the globe
“It took Miller and Valasek about a year to hack into Chrysler's UConnect head unit, and according to Miller, it required three steps.

- Gain access to the vehicle's head unit/controller chip and firmware
- Use the head unit's firmware to compromise the vehicle's controller area network (CAN), which speaks to all of the electronic control units (ECUs) throughout the car
- Discover which CAN messaging can control various vehicle functions.”

http://www.wired.com/2015/07/hackers-remotely-kill-jeep-highway/
The hack works, according to Hunt, because Nissan's Connect app, which allows users to control their car, has poor security -- in fact, you only need a car's vehicle identification number in order to gain access to the car. This number is often visible in the window of a car.

http://www.troyhunt.com/2016/02/controlling-vehicle-features-of-nissan.html
OMA INCUBATOR PROPOSAL

➢ Open to all - OMA members and invited non-members (application form required)
➢ Minimum two automaker OEMs required
➢ Equal influence from operators and automotive participants (4+4) with consensus based decision making
➢ Limited duration (6 months, April-Sept 2016), repeat if necessary
➢ Deliverables handed to OMA and other SDO working groups for development
➢ Concurrent code implementation in Open Source preferred during incubation
OMAUTO INCUBATOR GOALS

OMAuto Goals

- Establish a venue for discussion between telecom and automotive at a technical and industry level to establish *any network, any automobile* communication
- Identify select established telecom specifications to optimize for the needs of the Automotive market
- Create a path for the Automotive industry to interface with the rest of IoT via standardized enablers
- Bridge existing standards with standardization efforts in the Automotive sector
- Enable a path for automakers and operators to encourage communications interoperability across automotive and wireless industries
OMAUTO CHARTER

DELIVERABLES

Medium = technical report with a set of agreed recommendations to drive future standardization work (25-50 pages)

- Get agreement across participating parties as to what work needs to be done and where (which GOOs) needs to be done.
- Examine landscape across mobile and automotive environment.
- Identify areas of overlap across industry work groups (Wi, WPC, GSMA, OMA, Smart Device Link, Apple CarPlay and Android Auto, OBD, etc.).
- Produce use cases/ scenarios including interaction between IoT and automobile.

Publish a roadmap and proposed timeline of future work needed

- Security-related issues
- Enabler creation or reuse to facilitate development of enhanced services
- Work needed to with additional markets (environmental, safety, healthcare)

Deliverables publication to be public and available online
OMAuto Charter

OMAuto Goals

Medium to drive

- Get agreement among participating parties on what work needs to be done and where (which OMA needs to be done)
- Examine landscape in mobile and automotive environment
- Identify areas of overlap across industry work (3GPP, 3GPP, GSMA, OMA, Smart Device, Apple CarPlay and Android Auto, QCT, etc.)
- Produce use case descriptions including interaction between mobile and automobile

Timeline

- Preview charter with automotive companies and allocate initial responsibilities and volunteers
- Presentation of charter to OMA BoD April 11
- Monthly/bi-monthly conference call Thursday, 2PM GMT
- Face-to-face at GENIVI meeting in Paris April 26 - 29
- Face-to-face at OMA meeting in Edinburgh May 2-4
- Intermediate report and timeline check – June 23
- Finalize publication of technical report September
- Promote results via public channels – October onward
18 Company representatives agreed objectives worth continued participation

- Scope for Oct 2016 deliverable will focus on API alignment and recommendations plus identification of next phase topic
- Software Management
- Connected Security
- “Need bridge between auto and wireless telecom” - GM/Onstar ED

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OEM DISCUSSIONS