



# OMAUTO OCF MEETING

JUNE 29, 2016

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Open Mobile Alliance*

The information in this presentation is public.

- 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.

- 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.

- 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



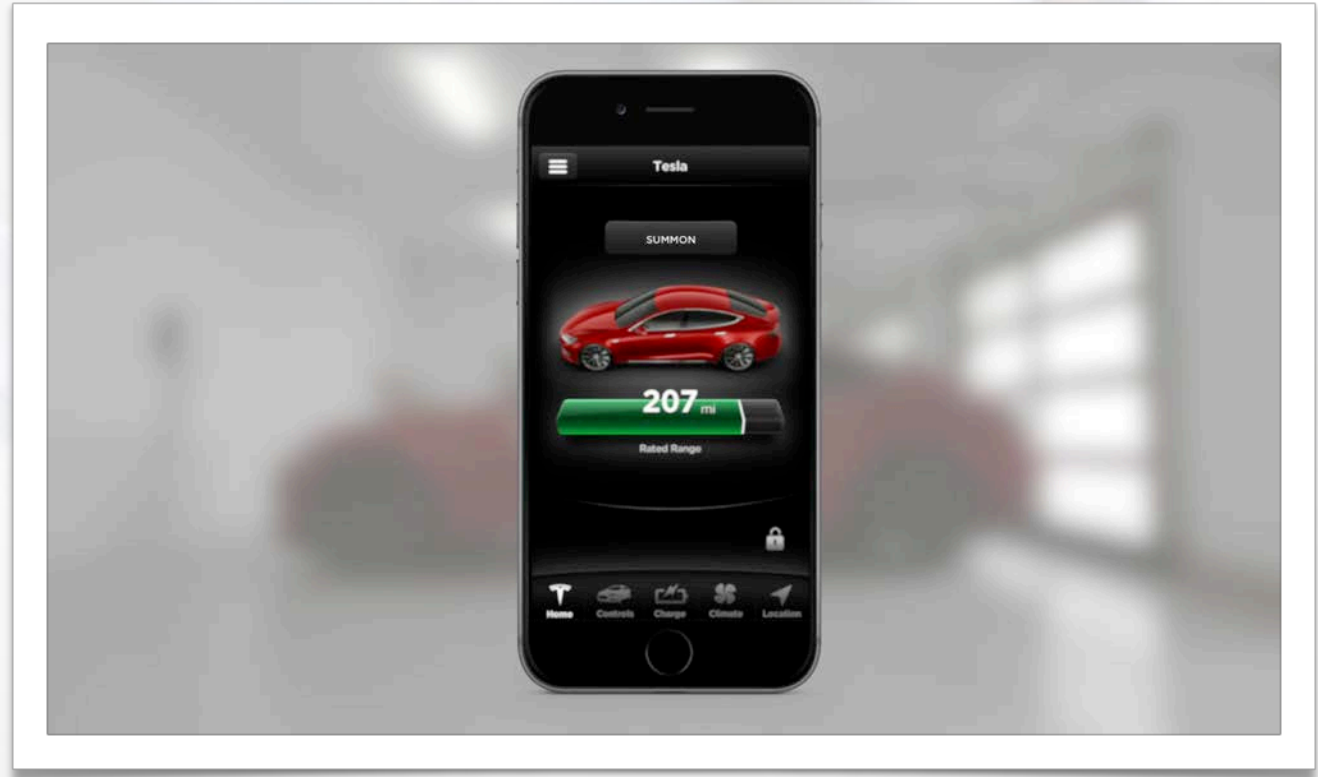
TESLA MODEL S AND TESLA MODEL X ELECTRIC CARS ARE ALREADY GETTING THEIR NEW 7.1 SOFTWARE UPDATE.

Utilizing OMA DM,  
OTA empowers Tesla  
to move beyond fixing  
problems to adding  
customer desired  
features

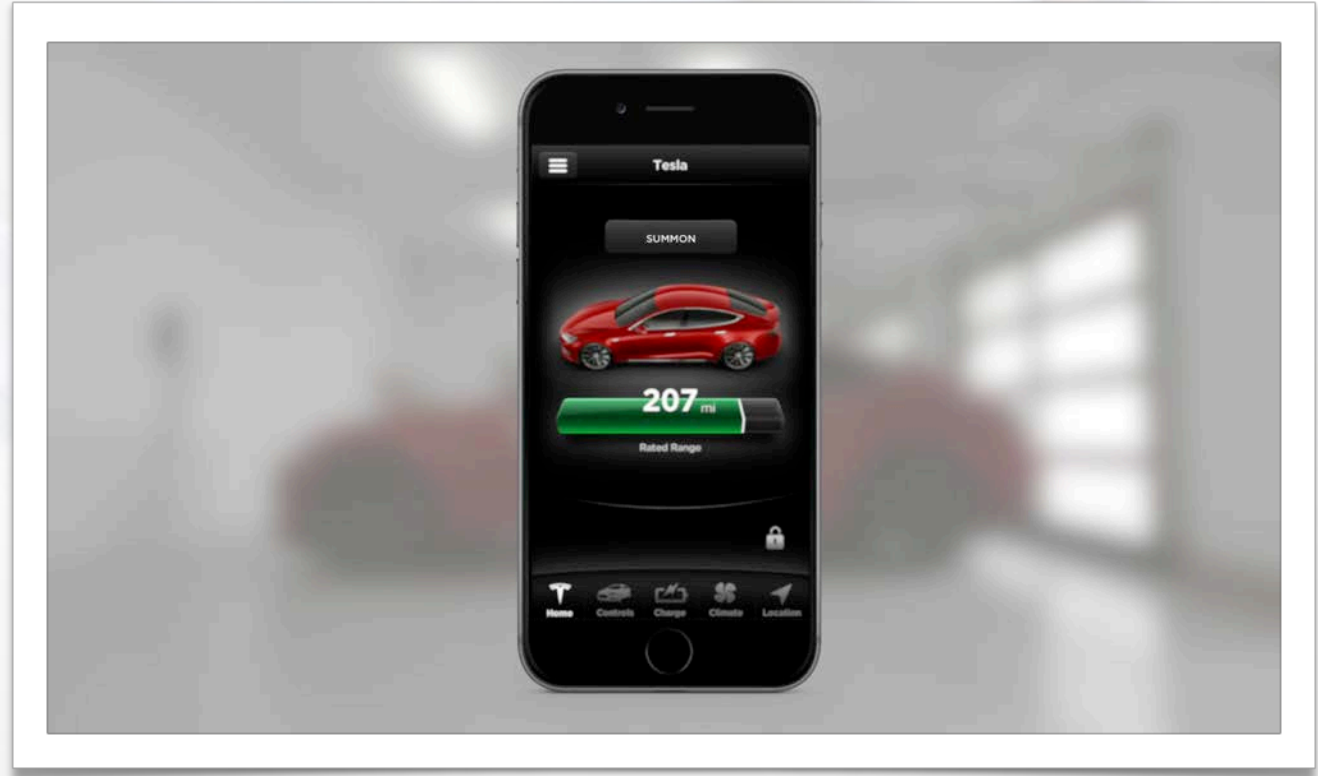


TESLA MODEL S AND TESLA MODEL X ELECTRIC CARS ARE ALREADY GETTING THEIR NEW 7.1 SOFTWARE UPDATE.





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

We are contacting you with an important update regarding upcoming cellular network changes and how these changes will affect your access to NissanConnect EV, formerly CARWINGS, in your 2013 Nissan LEAF. Depending upon your interest, this update may require you to take some action.

The NissanConnect EV features available on your vehicle will be affected by the planned discontinuation of the 2G cellular network by our service provider, AT&T. Specifically, [after December 31, 2016](#), the 2G network will be unavailable and your vehicle will be unable to access NissanConnect EV features such as Remote Climate Control and Driving History.

**If you have not already enrolled, but are interested in doing so, please enroll in NissanConnect EV as soon as possible - you must enroll [before June 30, 2016](#) to activate the service for utilization on the 2G network [through December 31, 2016.\\*\\*](#)**

If you desire to continue to utilize NissanConnect EV after the 2G network becomes unavailable, you will need to have the Telematics Control Unit (TCU) in your vehicle updated. For owners of model years 2011-2014 LEAF vehicles who are interested in continuing to use NissanConnect EV, Nissan plans to cover a substantial portion of the costs for parts and installation of the updated hardware. Nissan expects to be able to communicate details regarding the options to update your vehicle in late summer 2016.

NissanConnect EV provides a suite of electric vehicle exclusive features such as State of Charge and Remote Charging allowing you to manage your Nissan LEAF from almost anywhere you need to be. With NissanConnect EV you can view your current estimated driving range, the estimated amount of time needed for charging completion as well as your driving history.

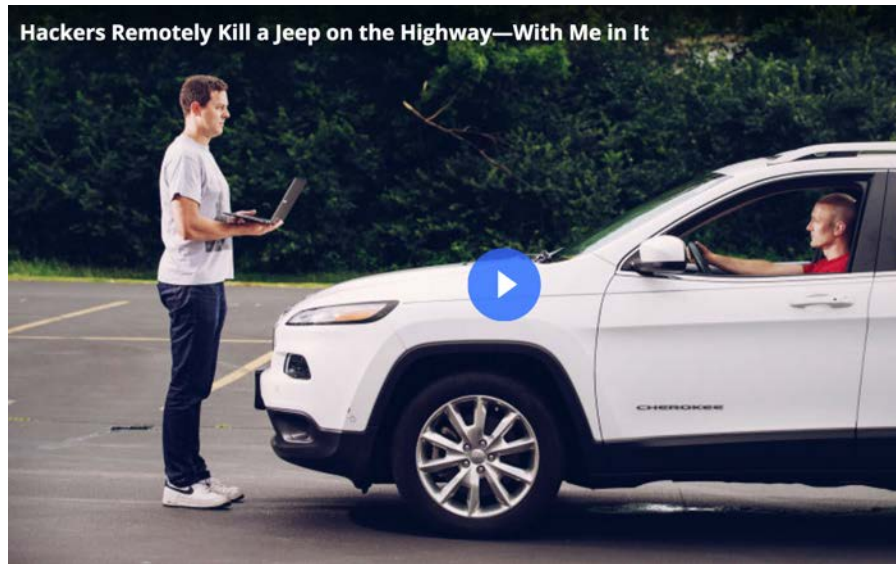
*(The following text is mirrored and appears to be bleed-through from the reverse side of the page.)*

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“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.”

Hackers Remotely Kill a Jeep on the Highway—With Me in It

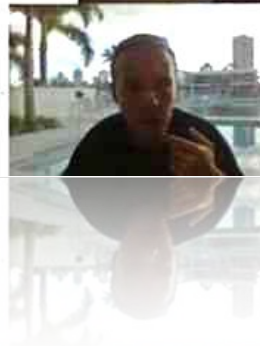


## ≡ WIRED.CO.UK

“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.”



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        CO2Reduction: "0",
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        GpsDateTime: "2016-02-22T11:11:07Z"
      }
    ]
  }
}
```







- 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





## OMA SUPPORTING COMPANIES







## 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

T-Mobi

G

## 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 SDO) it needs to be done

Examine landscape across mobile and automotive environment

Identify areas of overlap across industry work groups (RVI, W3C, GSMA, 3GPP, OMA, Smart Device Link, Apple CarPlay and Android Auto, OCF, etc...)

Produce use cases/ examples 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 with additional verticals (environmental, safety, healthcare)

Deliverables publication to be public and available online

OMA Auto Goals

T-Mobi

G

T-Mobi

### OMAuto Goals

#### Medium to drive

Get agreement across participating parties what work needs to be done and where (which SI needs to be done)

Examine landscape in mobile and automotive environment

Identify areas of overlap across industry work: (RVI, W3C, GSMA, OMA, Smart Device, Apple CarPlay and Android Auto, OCF, etc.)

Produce use case examples including interaction between mobile and automobile

Preview charter with automotive companies and allocate initial responsibilities and volunteers

Presentation of charter to OMA BoD  
April 11

Monthly/bi-monthly conference calls  
Thursdays, 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
- Partial List:
  - [kleung@airbiquity.com](mailto:kleung@airbiquity.com)
  - [andmai@cisco.com](mailto:andmai@cisco.com)
  - [dkrame15@ford.com](mailto:dkrame15@ford.com)
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  - [candre17@visteon.com](mailto:candre17@visteon.com)
- 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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**QUESTIONS**