

Internet of Things:

What are the challenges and
how far is the future?

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the M2M/IoT market

- during the past few years there has been an increasing interest on M2M/IoT
- several sectors started to explore more and more the possibility of M2M/IoT, such as: transport, utility, eHealth, agriculture, etc.
- M2M/IoT is also driven by legislations
- a lot of activities for generating open source and standards for

What is M2M and IoT

- Machine-2-machine: communication between machine without intervention of human.
- Internet-of-Things: represent the world of virtual representation of “real objects” in a internet-like structure

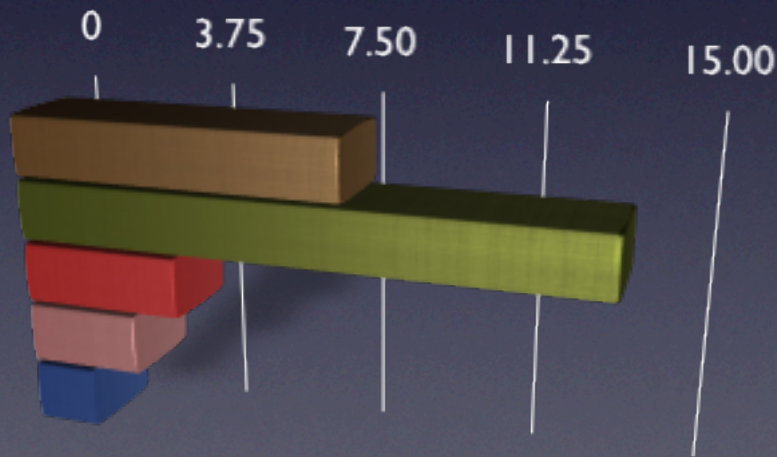
Wireless M2M/IoT in Europe

- The number of “machines” connected to mobile networks is constantly increasing
- Some consideration from Berg Insight:
 - Expected grow around about 30% per year
 - Meters are predicted to be the highest installed base
 - private and commercial vehicles
 - Security alarms

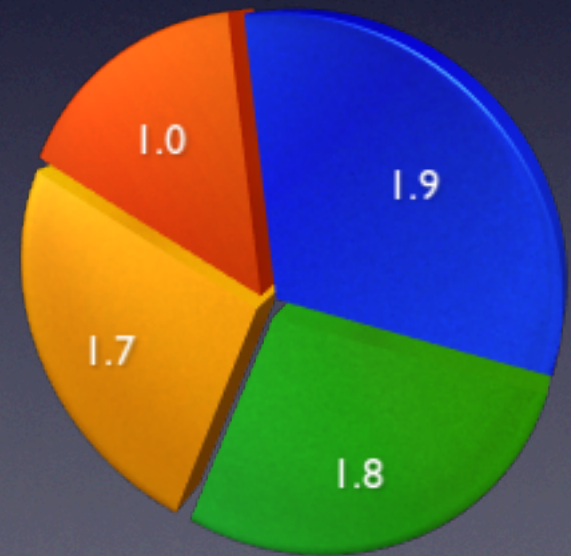
Overview European market



M2M subscription in % of the total MS



Milion of wireles M2M subscriptions



source: Berg Insight

some of the M2M/IoT challenges

- to be able to adapt to new business models
- privacy
- cyber security
- reachability
- availability
- reliability
- cost and pricing
- efficiency
- Quality of Service
- transparency towards the end customer
- understand the information and analyze it
- mobility

Panelists

- **Dr. Alexander Gluhak**: senior research fellow at the Centre for Communication Systems Research (CCSR) at the University of Surrey, UK
- **Prof. Falko Dressler**: Professor for Computer Science and head of the Computer and Communication Systems Group at the Institute of Computer Science, University of Innsbruck.
- **Prof. Uwe Kubach**: Vice President at SAP Next Business and Technology and heads the Advanced Development Program “Trillion Node Networks”.
- **Dr. Bin Zhen**: principal engineer at the 2012 Laboratory of Huawei Technologies Co. Ltd.
- **Afonso Ferreira**: expert to the European Commission, DG CONNECT, working at the Future & Emerging Technologies unit and as a member of the Digital Futures Task Force.