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INTERNET OF THINGS: GLOBAL OVERVIEW

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The evolution of wireless

Redefined Telephony By mobilizing communications



Mobile surpassed fixed voice

Redefined Computing By mobilizing the Internet

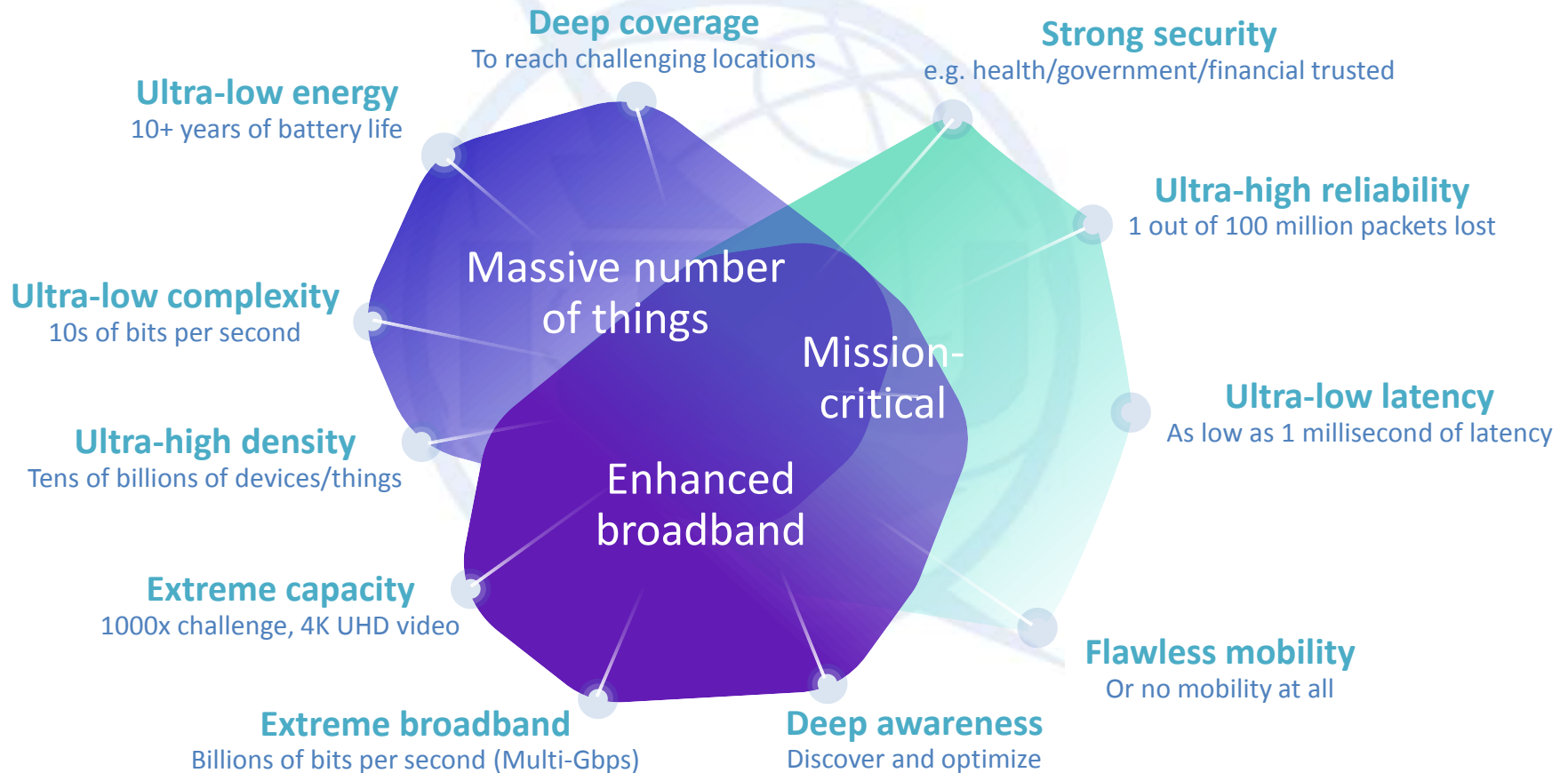


Mobile surpassed fixed BB

Redefining Everything By providing the connectivity fabric for everything



Exponential connectivity complexity



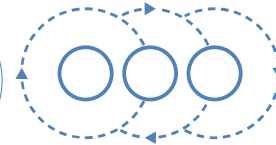
Optimizing LTE Advanced for Machine-Type Communication

1



Benefits from the reliability, pervasiveness, efficiency, and longevity of 4G LTE

3



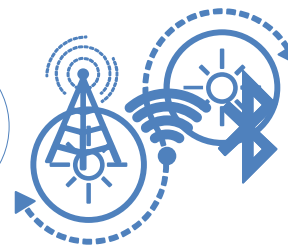
Co-exists with mobile broadband services enabling continued M2M business model innovations

2



Significantly increases battery life, while reducing cost/complexity and enhancing coverage

4



Plays a key role among the multiple solutions required to connect the Internet of Everything



Personalized Retail



Entertainment on-the-go



Smart Digital Homes



Intelligent Energy

Redefining Everything
 Connecting new industries
 Empowering new experiences
 Transforming society



Continuous Healthcare



Transportation Redefined



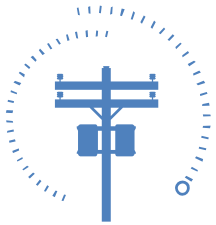
Sustainable Cities



Education Anywhere

Smart Cities

Bringing greater connectivity to urban environments



Smart energy



Smart building



Smart infrastructure



Smart transportation





The car seamlessly connects to the cloud and environment

Activities in CITEL PCC.I

Rapporteurship on Technological Innovations and Trends

- Studying and evaluating the technical and regulatory best practices related to M2M communications
- Aim to develop regional recommendations and guidelines
- Doc P1!T-3711: compilation of inputs on IoT/M2M technology and policy overview
- Information related to technology, market trends, socio-economic benefits, taxation, roaming, spectrum and case studies

Activities in CITEL PCC.I

Regulatory and Policy Frameworks Governing M2M Services in the Region

Summary of the answers to the M2M survey

- No specific regulations for M2M communications
- In one country M2M is defined in a national law or regulation
- Special tax framework, including tax exemptions specifically for M2M devices
- No regulatory limitations on type of technology (i.e., cellular networks, wi-fi)
- Specific M2M licenses not required
- No restrictions for machine cross-border data transfers
- In one country, there are conditions or restrictions on the use of a foreign SIM card or IMSI
- In other countries, such devices are not subject to roaming requirements or regulations different from other types of devices, though it is noted that the devices should be certified
- In Brazil, there were more than 9.5 million active 3G/4G M2M connections at the end of 2014
- In the United States, according to the GSMA Wireless Intelligence (2015), there were approximately 42 million M2M connections at the end of 2014

What should be considered?

Making the best use of existing technologies

- Use of existing networks, with incentives for better quality and reliability
- Innovation in the provision of services such as the use of 0800 data
- Incentive for R&D of sensing technology companies, development of management systems and system data applications coming from M2M/IoT
- Discussion of user privacy regulation, data storage and security generated in M2M/IoT communication, ensuring the protection of personal data without restricting the use of collective data
- Government tenders related to infrastructure with encouragement for the use of M2M
- Public projects and financing to generate demand



THANK YOU!