# ciab febraban 2016

21 A 23 DE JUNHO TRANSAMERICA EXPO CENTER SÃO PAULO - SP







#### **Internet of Things**



#### **BIG Numbers for IOT**

**Forecasted growth of the Internet of Things** (in billions of connected objects – Cellular and Fixed connections – M2M and Consumer)



#### Key analysis

The connected objects integrate all type of connections (mobile and fixed, M2M, consumer electronics, smartphones, tablets, laptops) The forecasts in terms of connected objects vary significantly from one source to another They range from 50

billions in 2020 to 14 billions

Our consensus is set at 30 billions connected objects in 2020 from 8 billions in 2014 It represent a 22% CAGR

Source : Cited sources



















#### GSMA defines two markets



Remote SIM Provisioning for Machine to Machine



First Supplier to have a Certified SM 3.1 Solution ready eSIM and solution supplier for Samsung on commercial launching for CE product.



#### **Full Profile Download**



- Full profile download OTA over HTTPs to install & to enable a new profile on the eUICC:
  - Activation can be done in HTTP or by SMS (server configuration).
  - Pre-check that the new profile is compliant with the eUICC.
- Based on a SCP03 Channel (GP) over HTTPs secured by SCP81:
  - SCP03: Cipher with AES / checksum / sync. counter.
  - SCP81: Cipher with AES / integrity with signature / sync. counter.
- OTA/HTTP connection requires an eUICC and a module HTTP enabled.
- Complete isolation between MNO Profiles with dedicated security keys.
- Once swap, the profile is manageable remotely by OTA (RFM/RAM) with MNO OTA keys (roaming management for example).

Fully secured downloadOptimized flexibility between MNOs

#### Managing eSIM Connectivity on Demand for M2M













#### **GSMA - eUICC 3.0 architecture**

- A profile area is dedicated to a MNO (own keyset per profile area).
- Privacy and data isolation is guaranteed to MNO trough GP std implementation (GP security domains).
- Only active profile area is seen by the terminal.
- Subscription Manager Agent (SMA) is responsible mainly of the notification to SM-SR on enable request.







#### **QOE** Quality of Experience

Measurement of customers perceived experience making use of NON dedicated test devices.



#### **QoS** Quality of Service

Measurement of Quality of Service related aspects making use of Dedicated Test Devices.



#### **QoT** Quality of Things

Measurement of Cellular Data Network Performance based on measurements done with applications installed in M2M devices (Internet of Things).



### Why QoT?





### **Business Intelligence**



gemalto security to be free



### **Real Use Cases in Brazil**







![](_page_22_Picture_0.jpeg)

## Perguntas?

Rodrigo Sanchez Solution Sales Manager rodrigo.sanchez@gemalto.com +55 11 9 6373-8850

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