Mobile IoT Security

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GSMA

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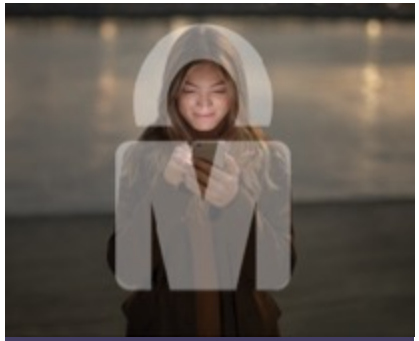
Who is the GSMA?

The GSMA Board

Our Board comprises 25 members who represent the largest operator groups as well as smaller independent operators with global reach.

Programmes



Identity

Enabling trust and creating value through digital identity

Future Networks

Creating the Network for secure, smart and seamless services

Internet of Things

Mobilising the Internet of Things

GSMA Connected Living Programme

MOBILISING THE INTERNET OF THINGS – ENABLING GROWTH & OPPORTUNITY

CURRENT SITUATION

- IoT is developing rapidly but with significant market fragmentation.
- Operators will add value beyond connectivity.

MARKET GROWTH

IoT M2M Connections Forecast Growth

2015	2020
6bn	15bn

Source: Machina Research, 2016

MARKET OPPORTUNITY

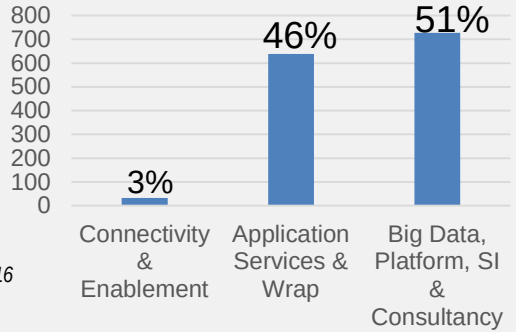
Enable Operators to deliver the breadth of IoT solutions required and move up the value chain to achieve full market potential.

$1.3

TRILLION

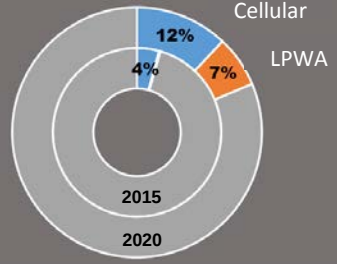
Total IoT Services Revenue market in 2020

Source: Machina Research, 2016



IoT M2M Connections

as percentage of mobile connections



By 2020 nearly 20% of mobile connections will be cellular or LPWA = 1.8 billion

FOCUSED DELIVERY ON KEY MARKET ENABLERS

- Mobile IoT to develop licensed LPWA opportunity and pilots
- Customer focused remote SIM provisioning
- IoT Big Data harmonised data and APIs
- Securing the IoT
- Sustainable IoT regulatory & policy environment
- Active industry engagement – Smart Cities, Automotive and Health

More info on IoT - www.gsma.com/connectedliving

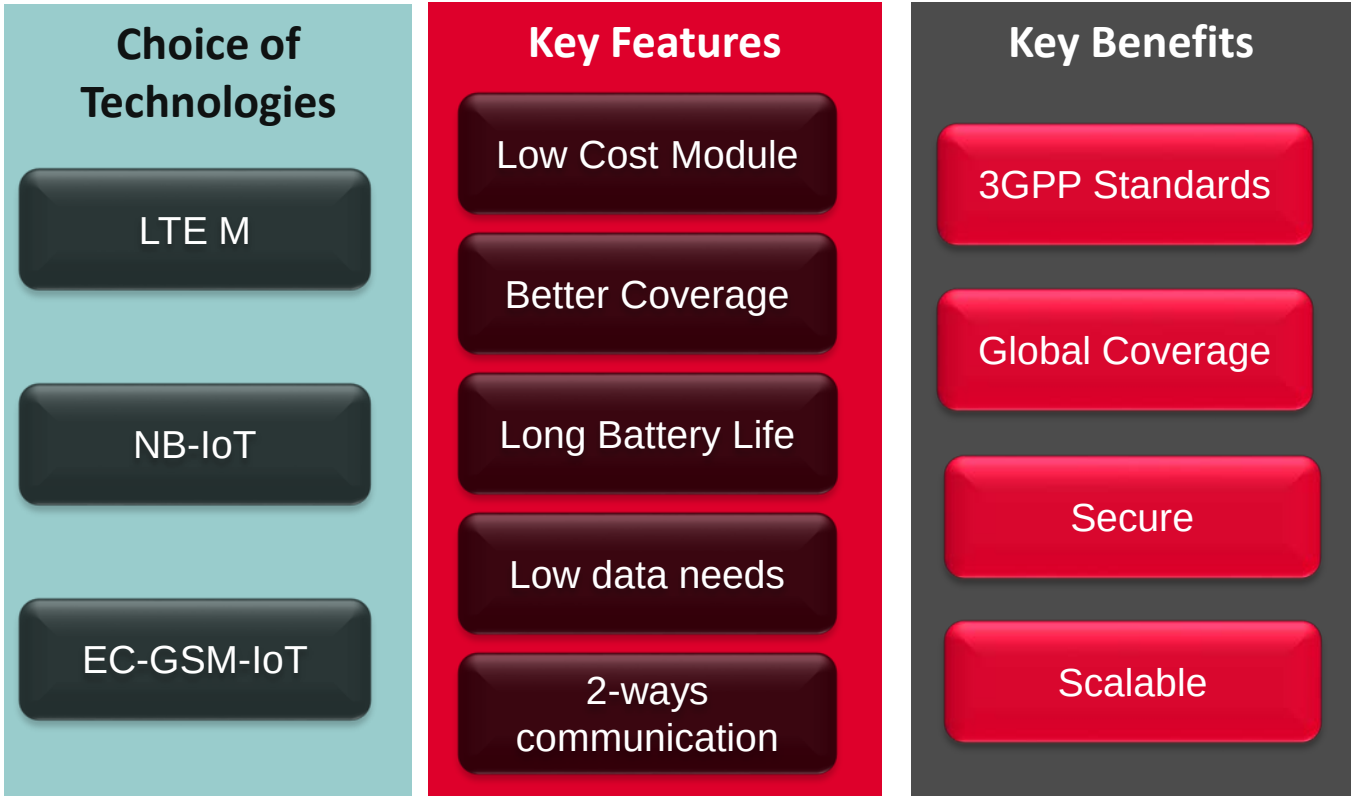
Diversity of IoT Applications

IoT services can be linked by common infrastructure, data sets and technologies.

Mobile operators are able to provide connectivity and managed services for a variety of applications with very diverse requirements.

Mobile IoT: 3GPP standard technology for LPWA

Mobile IoT refers to 3GPP standardized secure operator managed IoT Networks, in particular low power wide area network



Major Development: Growing Mobile IoT Ecosystem

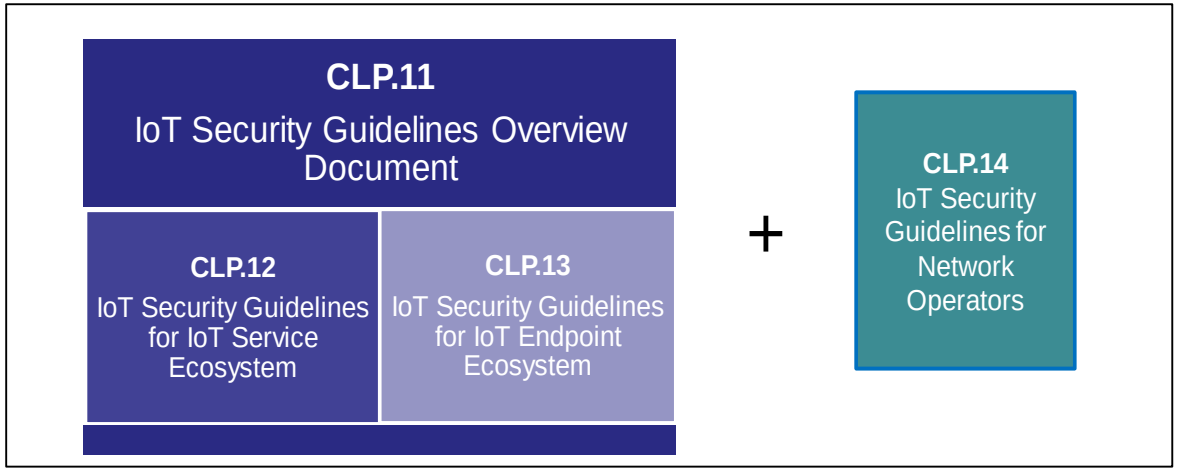
Supported by all major vendors in the mobile ecosystem
Clear roadmap: LTE-M and NB-IoT will become part of 5G standard

Chipsets and modules

Infrastructure

Sample IoT Model

GSMA IoT Security Guidelines Structure

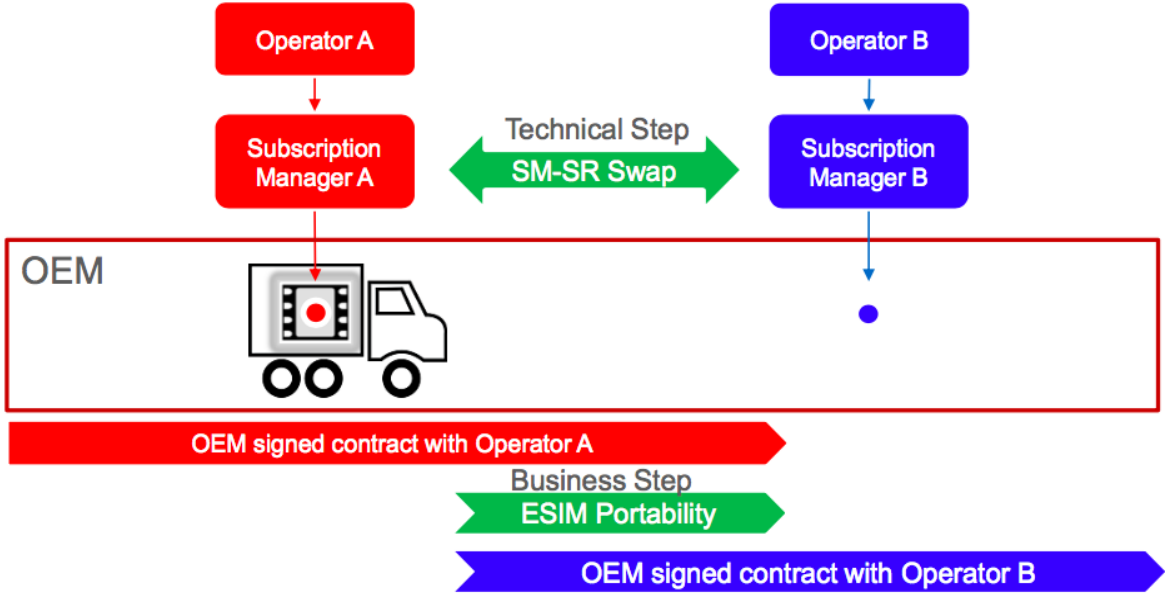


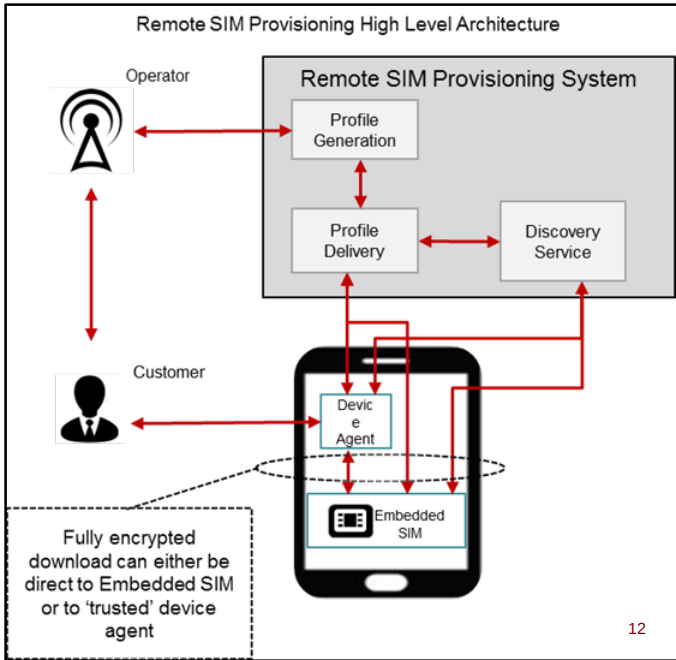
- IoT Service Providers
- IoT Device Manufacturer
- IoT Developers
- Network Operators

Security Challenges Inherent In The Growth of IoT

- Availability: Ensuring constant connectivity between Endpoints and their respective services
- Identity: Authenticating Endpoints, services, and the customer or end-user operating the Endpoint
- Privacy: Reducing the potential for harm to individual end-users
- Security: Ensuring that system integrity can be verified, tracked, and monitored

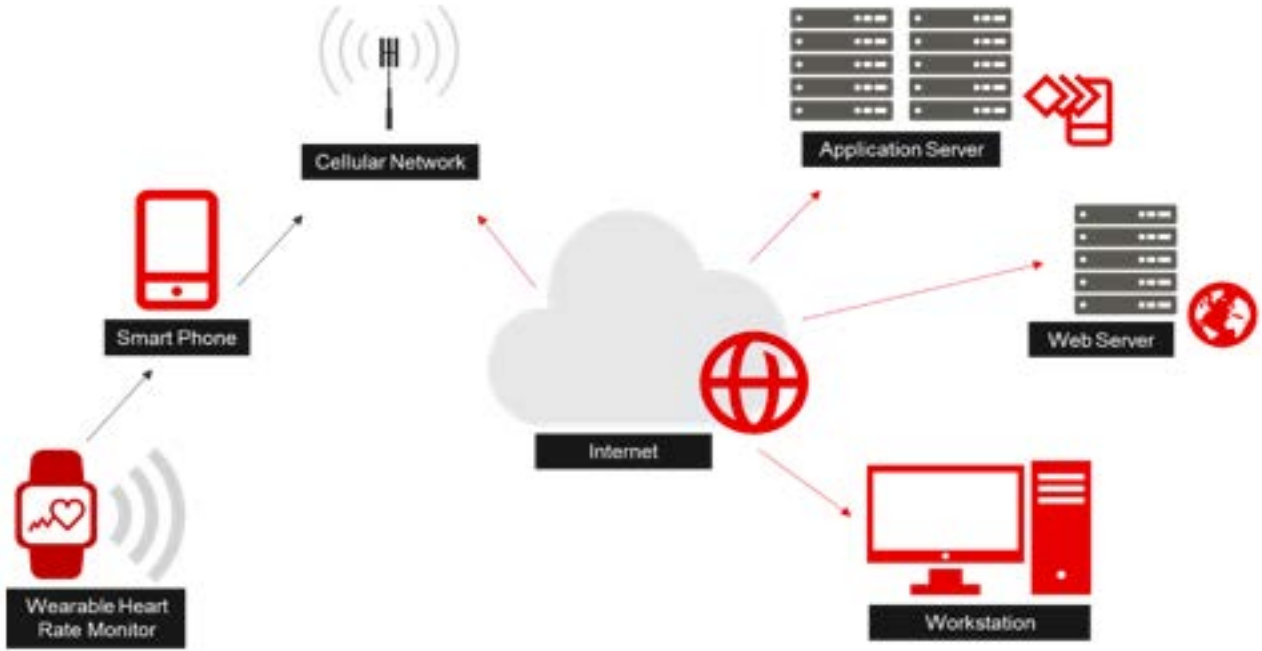
eSIM and Remote SIM Provisioning



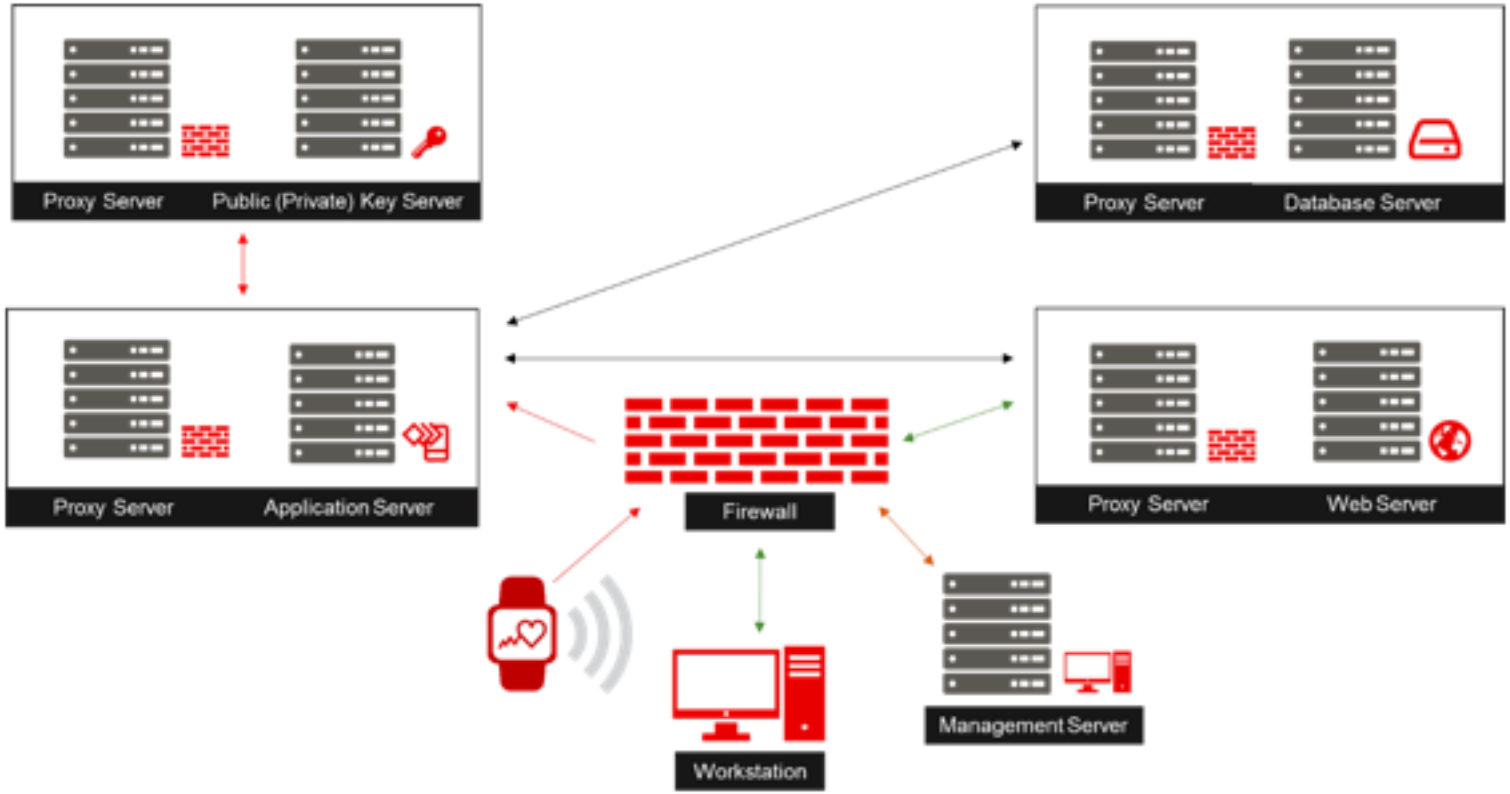


Example – Endpoint Overview

Flow of Data to Simple Back End Service



Resultant Service Ecosystem



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Thank you

http://www.gsma.com/connectedliving/