GSMA

FUTURE IoT CONVENTION

未来物联网大会

MWC Shanghai | Wednesday, 26 June 2019 | 13:00-18:00

MWC上海 | 2019年6月26日 周三 | 13:00-18:00

Graham Trickey, Head of IoT Programme, GSMA

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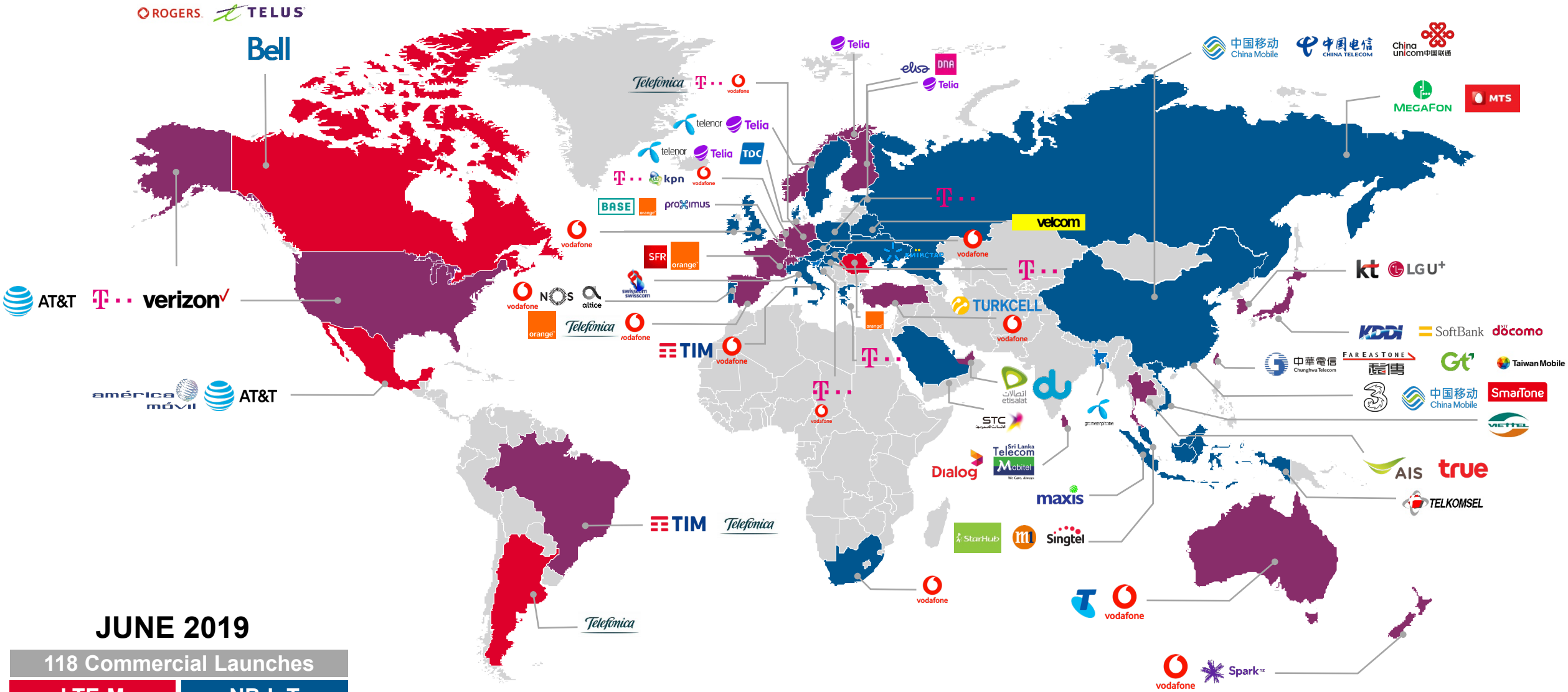
Mobile IoT Global Coverage



JUNE 2019

118 Commercial Launches	
LTE-M	NB-IoT
Both LTE-M and NB-IoT	

Mobile IoT Mass Market Customer Applications

LTE-M NB-IoT

Bell
Smart Cities & Utilities (LTE-M)

T··
Smart Beehive (NB-IoT)

China unicom中国联通
Smoke & Toxic Gas Detection (NB-IoT)

中国移动 China Mobile
Fire Alarms (NB-IoT)

中国电信 CHINA TELECOM
Smart Metering (NB-IoT)

AT&T
Smart White Goods (LTE-M)

orange
Smart Industrial Monitoring (LTE-M)

KDDI
Traffic & Weather Tracking on Mount Fuji (LTE-M)

AIS ชีวิตในแบบคุณ
Smart Cold Chain (NB-IoT)

Singtel
Smart Locks (NB-IoT)

maxis
Smart Plantation (NB-IoT)

TELSTRA
Solar Tracker (LTE-M)

TELKOMSEL
Smart Fisheries (NB-IoT)

Biggest Growth Potential for Mobile IoT

- **Industrial**
- **Environment**
- **Smart Home**

1.5bn connections, **representing almost 80% of the 1.85bn licensed LPWA connections** forecast by 2025.

Mobile IoT Mass Market Deployments – Examples

中国移动 China Mobile

Mobile IoT Technologies are Saving Lives Across China

Over 100,000 NB-IoT fire sensors have been deployed across China

- Real time tracking fire locations
- Provide early warning detection
- Faster emergency corrective actions
- Annual costs kept low due to long battery life
- Cellular so low risk of network disruption by fire

Oviphone

Safeguarding Loved Ones: Wearable Devices

Over 30,000 wearable trackers have been deployed to safeguard young children, the elderly and even pets.

- Low energy consumption and long battery lives
- Monitors vital signs of family members
- Alerts when the pet leaves a geo-fenced area
- Scaled with up to 100,000 terminals for a single system

Mobile IoT / Massive IoT is Pivotal for 5G Era

Mobile IoT is Part of 5G

LTE-M and NB-IoT, as deployed today, are part of the 5G family	Fulfils 5G requirements for Massive IoT
LTE-M and NB-IoT will continue to co-exist alongside other 5G components	Can be deployed as part of a 5G network
LTE-M and NB-IoT can operate in a 5G NR band	Enables smooth operator migration path to 5G NR bands

Transformational IoT

- IoT solutions commence with secure, scalable & ubiquitous connection
- Value realisation comes from enabling services which increase efficiency, quality and global impact
- Operators are uniquely placed to deliver the full potential of the IoT

中国移动 China Mobile

OneNET open IoT platform, chip and module, smart hardware.
Vertical application such as utilities, fire control, lighting and drainage.
Anti-theft management of 3 million E-bikes

中国电信 CHINA TELECOM

IoT open platform launched, supporting mainstream IoT standards and transmission protocols, offering one-stop IoT solutions with device adaptability and specialised industry applications

China unicom中国联通

"Platform+" Strategy

- **CMP**

  Cisco Jasper Control Center

- **DMP & AEP**

  Cooperation & self-development

GSMA IoT Security Guidelines – Securing the Future of the IoT

Over 200
pages of advice and best practice to secure devices, service platforms and networks

85 detailed recommendations

Commitment from 15+ leading global mobile operators

12 principal attack models

IoT Security Assessment checklist

3 ‘worked’ examples – **wearables, personal drone, automotive**

Risk and privacy impact assessments

Supported by

GLOBALPLATFORM® THE STANDARD FOR SECURE DIGITAL SERVICES AND DEVICES

GSA

oneM2M

IoT WORLD ALLIANCE®

simalliance Security | Identity | Mobility

gsma.com/iot/iot-security

Adoption – IoT Security Champions Report (Feb 2019)

- Case studies from 14 leading mobile operators across the globe
- Shows how the GSMA IoT security framework has been used within their product development and testing processes
- **Demonstrates the business value of IoT security**

gsma.com/iot/iot-security-champions

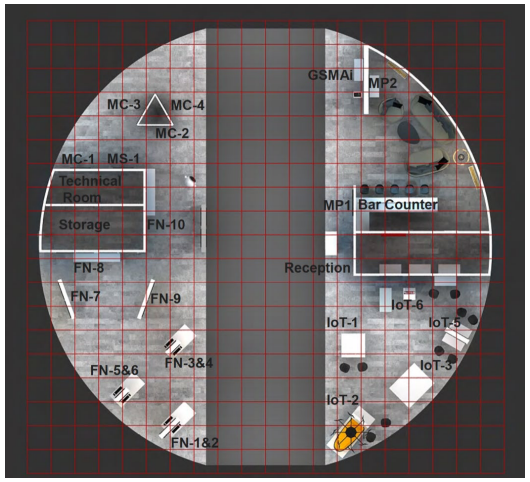
Experience IoT solutions at MWC19 Shanghai

MWC19 Shanghai • 上海

26-28 June 2019

Connected China Hall E7

Innovation City Hall N5



ASTRI

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Singtel

Mobile IoT Developer Showcase

IoT Beyond Connectivity Solutions