



GCF™

Global Certification Forum

Industry specific challenges: Critical Communications

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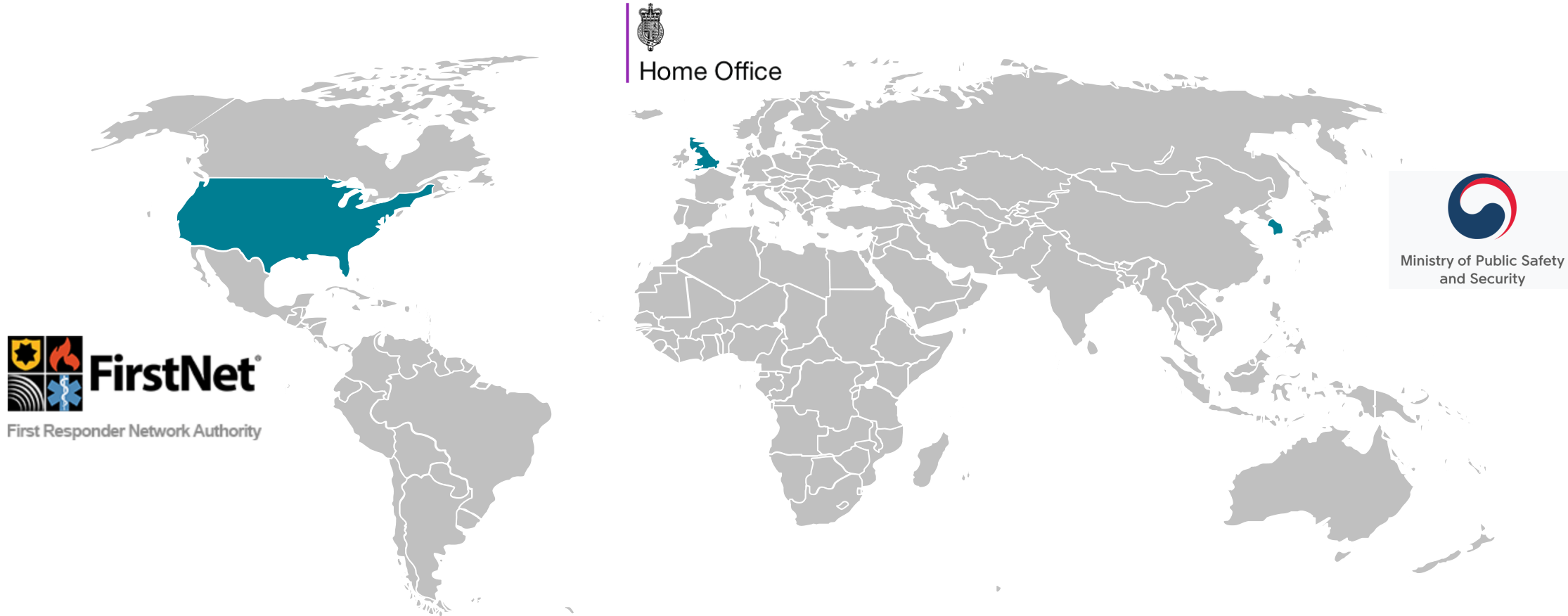
Critical Communications – Why?

- Technology moving from TETRA / PMR / P.25 to 4G / 5G.
- Reliable communications are essential to managing emergencies.
 - Lives depend on this.
 - Certification is a key component to providing assurance of reliability.



Not just emergency users. Market expected to expand to include other professional radio users.

Current / Pending deployments...



Expect move to 4G and 5G to occur over next 10 - 15 years.

Potential architectures...

Key issues:

- Frequencies
- Level of control
- Coverage



	Dedicated	MVNO	MVNO + additional coverage	MVNO 'lite'
Application	X	X	X	X
Core	X	X	X	
RAN	X		X	

Mission Critical Devices: What's different?

- **Features**

- Mission Critical Push to Talk (MCPTT / MCX) services.
- Multimedia Broadcast Multicast Service (MBMS).
- Support of relevant QoS Class Identifier (QCI) values.

- **Security**

- Device, OS and Applications must be secure.

- **Performance**

- Antenna / Coverage.
- Battery life.

- **Device Types**

- Rugged smartphones / tablets.
- Wearables / clothing.
- Drones.



Certification for Critical Communications



- **Mission Critical Services depend on reliable devices, networks and services.**
- **Devices and Networks are specialized**
 - Features supported.
 - Network architecture / operational model.
- **GCF and TCCA plan to work together to jointly investigate and develop a Mission Critical Certification.**
 - Plan to launch early Q3-2020.



Summary

- **Critical Communications services will be migrated from TETRA / PMR / P.25 to 4G and 5G networks.**
- **Other sectors with similar reliability and performance requirements are investigating using mission critical networks and devices.**
 - Utilities sector (Electricity, gas).
 - Mining and oil and gas industries.
 - Public transit / metro / rail (potential replacement for GSM-R).
- **Certification is important for this market.**
 - GCF and TCCA are working to develop MC Certification.



MURLLC

MCX Roaming

Device Certification
Smartphones

Mission Critical
Mobile Certification

5G
5G-EN-DC
5G NR
5G EN-DC
Test Once
LTE Advanced Pro
Interoperability
Connect Everywhere
IoT



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