



Mission Critical Communications Ericsson



14th Mobile Connected World
June 26, 2024

Market trend

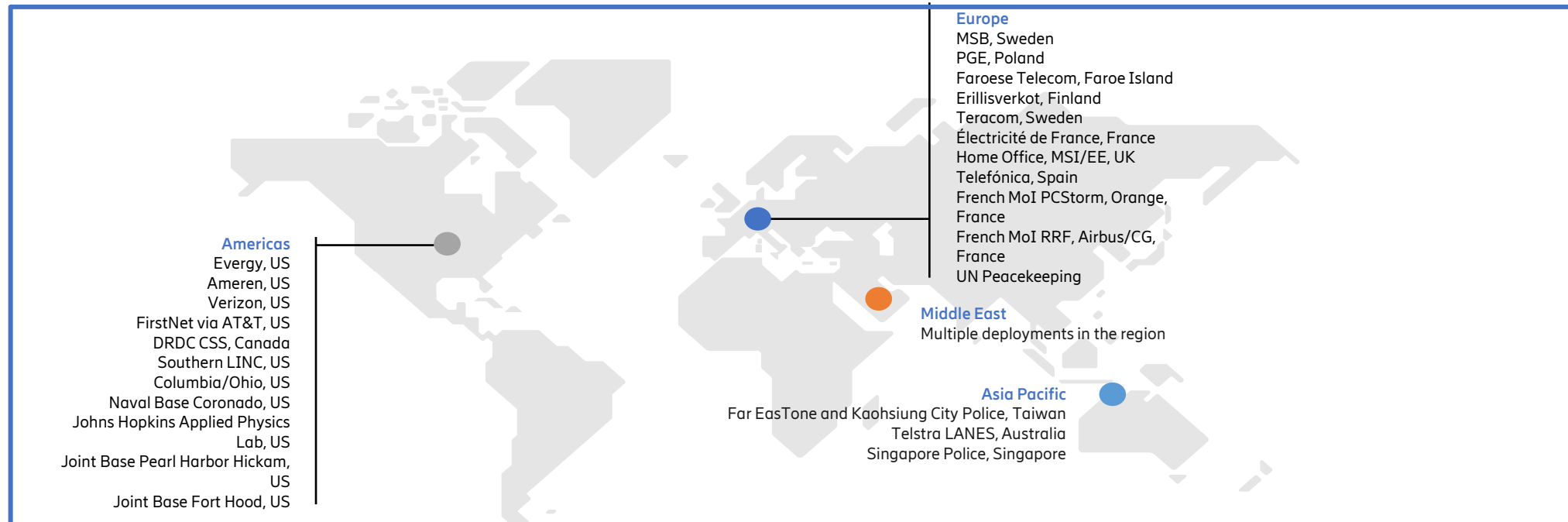
Strong market momentum in 3GPP



Overall alignment on migration to 3GPP. It is not a matter of “whether” but “when” & “how” countries migrate



Leading nations implementing 3GPP
Most of large economies are either deploying or in the tendering/planning phase for their public safety



Mission Critical evolution in 3GPP

Release 12 (2015)

- LTE MC GCSE enablers
 - QCI 65, 66, 69, 70
 - MBMS (MB2U/C)
- LTE ProSe for D2D comm

Release 14 (2017)

- MC services (MCX) common architecture
- MC Data
- MC Video
 - QCI 67

Release 16 (2020)

- MC interconnection and migration
- MCX enhancements
- MC Railways support (FRMCS)
- NR Prioritized PRACH for MCS/MPS
- NR IAB (Integrated Access and Backhaul)

Release 18 (2023)

- MCX over 5G (enh. unicast, 5MBS, 5G ProSe)
- MCX architecture enhancements
- Ad hoc group communication
- Rail interconnection, & migration, MC gateway UE functionality
- Mobile IAB, 5G Non-terrestrial networks enhancements.

2015

2016

2017

2018

2019

2020

2021

2022

2023

2024

Release 13 (2016)

- MC PTT
 - Architecture (incl. use of eMBMS, ProSe)
- IOPS (LTE)
 - Informative deployment model

Release 15 (2019)

- MC interworking
 - TETRA/P25
- 5G QoS framework; MC 5G 5QI
- NR Unified Access Control (UAC)

Release 17 (2022)

- MCX enhancements
- MC IOPS (LTE)
- 5G Multicast/Broadcast sessions (5MBS)
- 5G Proximity Services (D2D)
- MCX over 5G (unicast)
- 5G Non-terrestrial networks

Release 19 (2024)

- MCX enhancements
- Interconnection, Migration, MC gateway UE enhancements
- Ad hoc Group comm & Alert
- Sharing Administrative configuration
- MCX over 5G (unicast)
- 5G Non-terrestrial networks, RedCap, NPN Enhancements

Ericsson Mission Critical Communications



Public Safety (PPDR)



Utilities



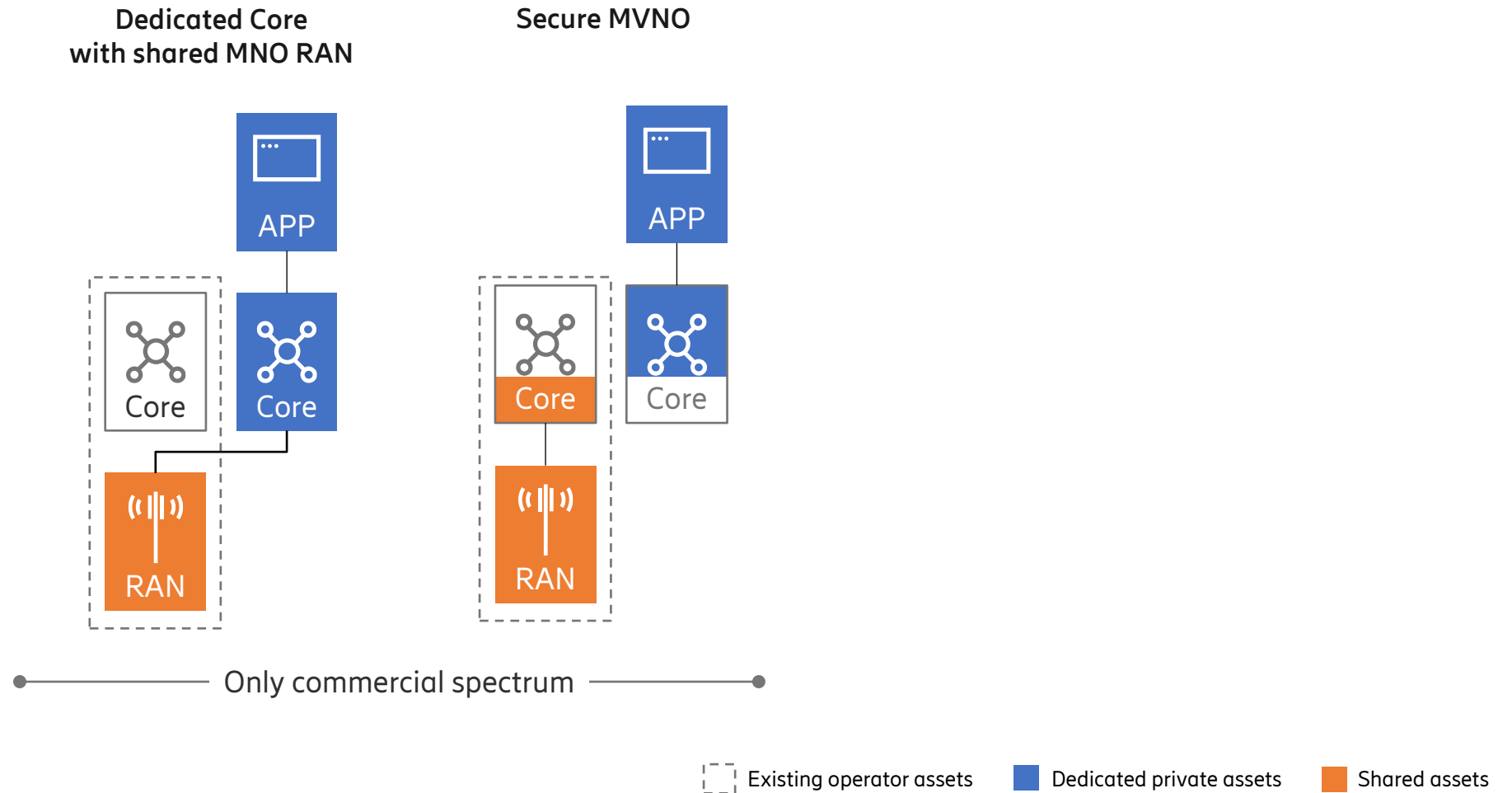
Rail





















Defense



Nationwide Mission Critical 4G/5G Network: leveraging existing MNO RAN coverage



Western Countries movers

	Network Name	Operations	Main Technology
	VIRVE 2.0		
	EMERGENCY SERVICE NETWORK (ESN)		
	FirstNet		
	RRF		
	EDR		
	Rakel 2		

FirstNet case: moving forward with 5G



[Network upgrade](#)
[Firstnet Authority to invest 6bn USD](#)

 **FIRSTNET**
Built with AT&T

BY THE NUMBERS

The **only** dedicated communications platform in the country that brings first responders:

-  **Always-on, 24x7** priority and preemption across voice and data communications
-  A physically separate network core **fully dedicated** to public safety
-  Government oversight and accountability from the **FirstNet Authority**

Updated 06/10/2024
*As of June 2024
*Since the start of the FirstNet Build

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6M+
FirstNet connections[†]



28K+
Public safety agencies and organizations subscribed



210+
Apps in the FirstNet App Catalog



755
FirstNet Ready[®] devices



AMERICA'S PUBLIC SAFETY NETWORK

2.97M+
Square miles of coverage




250K+
Square miles more than commercial networks



180+ Dedicated assets, including Flying COWs[®] and CRDs[™]



64%
Increase in Tribal Land coverage^{*}



500+
Solutions triaged and deployed this year



Public safety use cases

Application allow citizen to share information

Enhanced situational awareness

Fire fighting

Long range/remote operations of vehicles

Augmented reality

Emergency control center

Emergency medical services

Group communications

Law enforcement

Dispatch

Traffic management

First respond management

Video streaming and analytics

Incident & resource management

Social media analytics

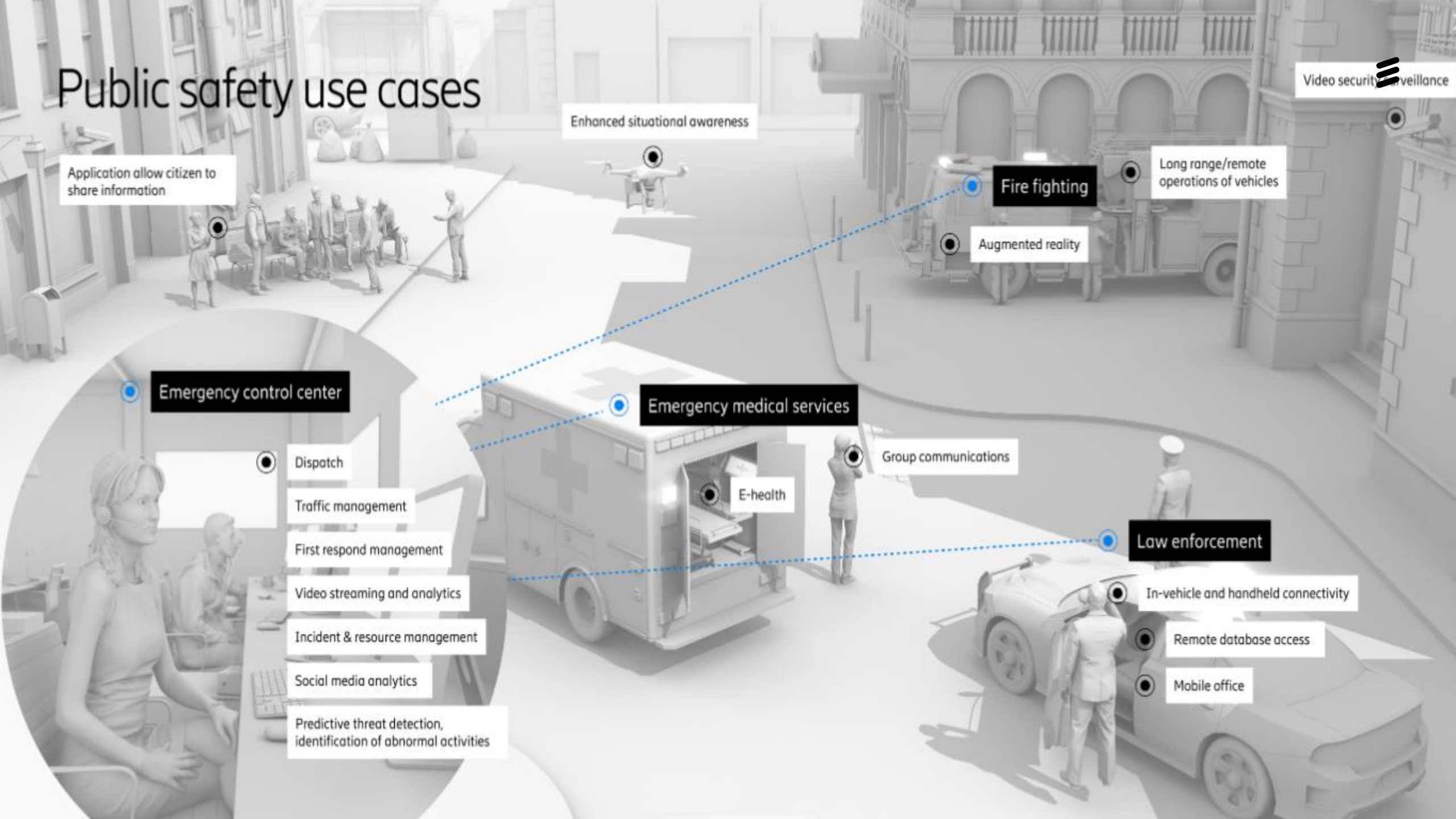
Predictive threat detection, identification of abnormal activities

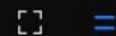
E-health

In-vehicle and handheld connectivity

Remote database access


Mobile office






Digital Airspace overview


Total Mission Critical Market
Public Safety, Rail, Utilities,
Peacekeeping and Defense and
Digital Airspace

Airline broadband >5000m 

Rescue airlift 1000m 

Forrest surveillance 250m 

Communication and command center

Police patrolling 500m 

Event surveillance 150m 

MC medicine delivery 200m 

Factory surveillance 150m 

Transportation 500m 

Deep dive →





Conclusions & Messages

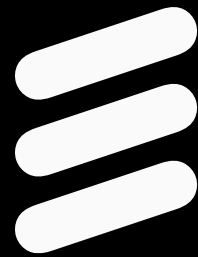
5G – 4G Broadband
Mission Critical
Networks of Choice
Future Proof with
optimal Techno-
commercial
performance

One Common
Nationwide Network
accessed by all
relevant departments
and First Respondents

Greece
Timing is crucial
&
it is now

Ericsson Leadership in
Mission Critical
Networks with vast
Field Experience

<https://www.ericsson.com/en/mission-critical-communications>



ericsson.com/en/mission-critical