

The Digitally connected Fire and Rescue Service

The Emergency Services Network

Speakers

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What is ESN?

- The next generation of emergency service comms
 - More than just an 'Airwave replacement'
 - Resilient and secure mobile broadband
- EE 4G network provide the coverage backbone
 - Other provision for other coverage locations
- Motorola provide the application and associated systems
- Increasing eco system of ESN compatible devices
- 3ES transition onto ESN expected from 2022
- ~~ES~~When ESN **NOW**

EMERGENCY SERVICES NETWORK: THE FACTS



Organisations

107 Emergency Services
12 Non emergency Services



Costs and savings

Airwave - £12.2 billion
ESN - £9.3 billion
Saving - £2.9 billion



Road coverage

334,807 miles



Masts

19,000 Total network
466 EE ESN specific masts
292 Extended Area masts



Users

300,000



Vehicles to be fitted

45,000



Air coverage

10,000 feet



London Underground tunnels

422km leaky feeder cabling
127 stations



Connections

277,000 emergency services
25,000 Non-emergency
Services



Aircraft to be fitted

103



Maritime coverage

12 nautical miles



Critical locations

28,000

ESN Products

- ESN Assure 1.1 – coverage assurance
 - Roll out imminent
- ESN Connect – prioritised data
 - Available now
- ESN Direct
 - Early voice capability
- ESN Prime
 - Full mission critical voice and data capability expected 2022
- ESN Air
 - Air to Ground solution [A2G]

The Digital Drivers

- State of Fire Report – use of technology and ICT
 - *‘While there are pockets of innovation, services and the sector as a whole need to use technology better’*
 - *‘...using broken, dated or unreliable IT systems and had inefficient paper-based systems. Many computer systems that services rely on are slow and don’t work together’*
- Intraoperability and interoperability
 - Fire / Fire and with 3ES and wider multi agency community [FRS National Framework, JESIP]
- Authority digital ambitions
 - Effectiveness and efficiencies

The Digital Challenges

- Funding and Finance
- Internalised perspective
 - Intra and Interoperability
- Technology dependence
- Technology lifecycles
- Becoming a truly intelligent client
- Potential for FRS national digital programmes
- Spectrum of digital workforce
- Previous programmes and over ambition

Opportunities

- Where does ESN / ESMCP fit within your strategies?
 - Corporate / IRMP / digital / ICT / procurement / innovation / technology
- Early integration with incoming technology
- Can digital assist with challenges from (recent) enquiries
- Extending technologies e.g. Body Worn Video
- Data handling / transfer
- The Internet of Things [IoT] & Next Gen 999 / 112
- Security may provide FRS access to previously unavailable data / information
- Collaboration

Introduction to ESN Connect

What is it?

ESN Connect is a SIM only product providing secure 4G data access to the dedicated 4G ESN network. With data prioritisation, users can get on and stay on the network, even at times of congestion

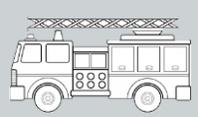
What do users get?

- **Secure data access to the dedicated 4G ESN network, with data prioritisation***
 - Secure and reliable data connectivity to support data communications across a dedicated link (DNSP) to the user organisation.
 - Use the essential* bearer to get on and stay on the network, even at times of congestion.
 - A dedicated ESN network built for the Emergency Services, providing coverage and resilience across England, Scotland and Wales
- **Use with an increasing range of ESN certified data devices, available from a choice of device suppliers**
 - Use own Mobile Device Management solution
 - Ability to tether other devices to ESN certified data devices

Who is it for?

ESN Connect is available to the Fire, Ambulance and Police emergency services, national agencies and other emergency services in England, Scotland and Wales and other user organisations who require the product for public safety purposes.

Connect Use Cases



Installed in a 4G vehicle router to provide a secure mobile data connection between a User Organisation and a vehicle data terminal



Installed in a vehicle 4G router to provide a W-Fi hotspot for connection between a User Organisation and non-ESN data devices



Installed in a handheld tablet device to access online applications on-the-move



Providing a secondary data connection for resilience to a primary fixed line data link

CDDFRS Proof of Concept

- Digital Transformation Agenda – The ‘connected appliance’
- Commercial v ESN
- Development then Deployment
- Challenges
- Lessons Identified
- ESN live on Essential Bearer since April 2019
- Evolution of Use Cases – ESN as an enabler

Benefits

- Early Adoption of ESN Connect de-risks delivery of the overall ESN Project
- Taking ESN Connect early affords the User Organisation (UO) with access to external technical expertise
- Embedding the levels of Security required to connect to the ESN community
- ESN Connect provides a platform that will form a foundation for the UO to embrace advanced data communications in both operational and corporate working environments
- But...internal communications is critical !

Benefits (2)

- Will provide a UO with a more robust data communications network
- Attraction of future financial savings
- Early adoption gives the UO time to establish and embed people, policies and processes that are required to support ESN achieving the necessary business change ahead of when it is required.
- Places the UO in a good position to engage in further collaboration activities at a local, regional and national level.

Myth Busting

- It's too big to ever happen
- The technology is unproven
- It'll cost too much
- It'll never work

Questions