



In addition to new devices in vehicles, more than 200 control rooms will also require upgrading to be compatible with ESN and in excess of 300,000 new handheld devices will need to be deployed. But the transition to ESN begins with coverage testing to provide the confidence that ESN is available within an organisation's service area and critical operational locations.

The introduction of ESN will impact the entire emergency services communication infrastructure, from in-vehicle and hand-held devices, to control rooms, the networks connecting control rooms, and station-end and mobilisation systems used by Fire and Rescue Services. Not only will ESN enhance critical communications, but frontline and control room staff across the emergency services will have to adapt to new ways of working throughout the transformational changeover.

Coverage Testing – User Experience & Quality of Service

With any wireless based mission critical communication system, having confidence in the coverage is a vital requirement for operational delivery. Based on expertise across multiple radio technologies, Telent provides a Coverage Testing service for LTE, 4G and 5G mobile networks including ESN. Designed to provide a realistic indication of user experience and quality of service, this enhanced service is delivered using technology proven with mobile network operators to provide an independent, calibrated and comprehensive report of ESN and mobile network performance. Based on both drive tests and walk tests, Coverage Testing provides performance testing across four parameters: **Coverage** (is there a signal), **Resilience** (identify areas at risk), **Quality** (expected throughput) and **Capacity** (number of channels and available bandwidth).

A complete transition service to ESN

Fleet upgrades are a major consideration in the move to ESN, but there are many more aspects for emergency services organisations to consider. Telent provide a complete portfolio of services to support the transition to ESN. Telent offers fire and rescues services an evergreen upgrade route for Station End solutions, through the deployment of a dual SIM router that is ESN compatible and combines high-performance with advanced security features. The proven solution has been developed for mission critical applications and delivers the perfect solution to replace PSTN bearers and prepare systems to be ready for the transition to ESN.

Independent, Calibrated Walk and Drive Testing

Using a range of approaches and techniques, to provide independent, calibrated and accurate information of ESN coverage and network performance across key operational areas and within specific locations and buildings. A combination of drive tests and walk tests, delivering detailed reports allowing user organisations to fully understand coverage and network performance.

- Automated plug-and-play devices in emergency service vehicles (AutoMobile)
- Calibrated RF scanners for follow-up "traditional" drive testing and generated reports
- All data is processed, stored, correlated and visualised within the SmartTools Platform
- Exports are shared with users and available for additional analytical desktop studies
- Bespoke Reporting capability
- Options for 24/7/365 monitoring of mobile and fixed connectivity at any indoor or outdoor location

Test report parameters

Coverage	Resilience	Quality	Capacity
MNO Coverage	By Site/Cell	RSRQ & RS-CINR	Number of Channels
Benchmarking	By Band	Pilot Pollution	Available Bandwidth
Data and Streaming, Voice	Identification of areas	Estimated CQI	RF Loading & Congestion
Critical Operational Locations	vulnerable to single faults	Max Throughput	

Vehicles Services for ESN

Fleet upgrade services

Telent offers a complete range of ESN vehicle services, including pre-transition fleet surveys, design, installations, safe disposal of old devices, and ongoing maintenance for ESN equipment. All work undertaken by security-cleared, FITAS approved engineers.

Ready for hybrid and electric vehicles

Telent engineers are accredited by the institute for the Motor Industry (IMI) to work on hybrid and electric vehicles.

Smart application for fleet deployment

To give fleet managers real-time management and reporting information, Telent has implemented a bespoke workflow solution. Using video, the smartphone application provides, evidence of field services activity, fault reporting and workflow management to ensure consistent quality.

ESN Transition Services

Control Room

Providing on-site support services for control room operator positions and upgrades to deliver ESN compliant systems and network connections.

In building coverage solutions

In building coverage solutions can be designed and implemented based on coverage testing reports. Telent can work with mobile providers to bring new network capability into service quickly.

Networks

The expertise and vendor certifications to provide network planning, design, deployment and support of LAN, WAN, Wi-Fi and radio networks including upgrades to meet Code of Connection requirements plus cyber security services.

Station End

Telent offers an ESN upgrade route for Station End systems based on a secure dual SIM router solution also replaces PSTN bearers.