



Connected Response for Public Safety: Vehicle + Responder

Connected Solutions for **EMS**: Powered by FirstNet®

As a healthcare professional, you need effective communication and information access to prioritize patient wellbeing. These are essential for delivering excellent care and achieving positive patient outcomes. That's why you need **Connected Response for Public Safety on FirstNet**. It modernizes and connects technologies such as FirstNet mission critical push-to-talk solutions, FirstNet 5G-powered routers, and FirstNet MegaRange™.

Connected Vehicle and Connected Responder for Healthcare offers your team:

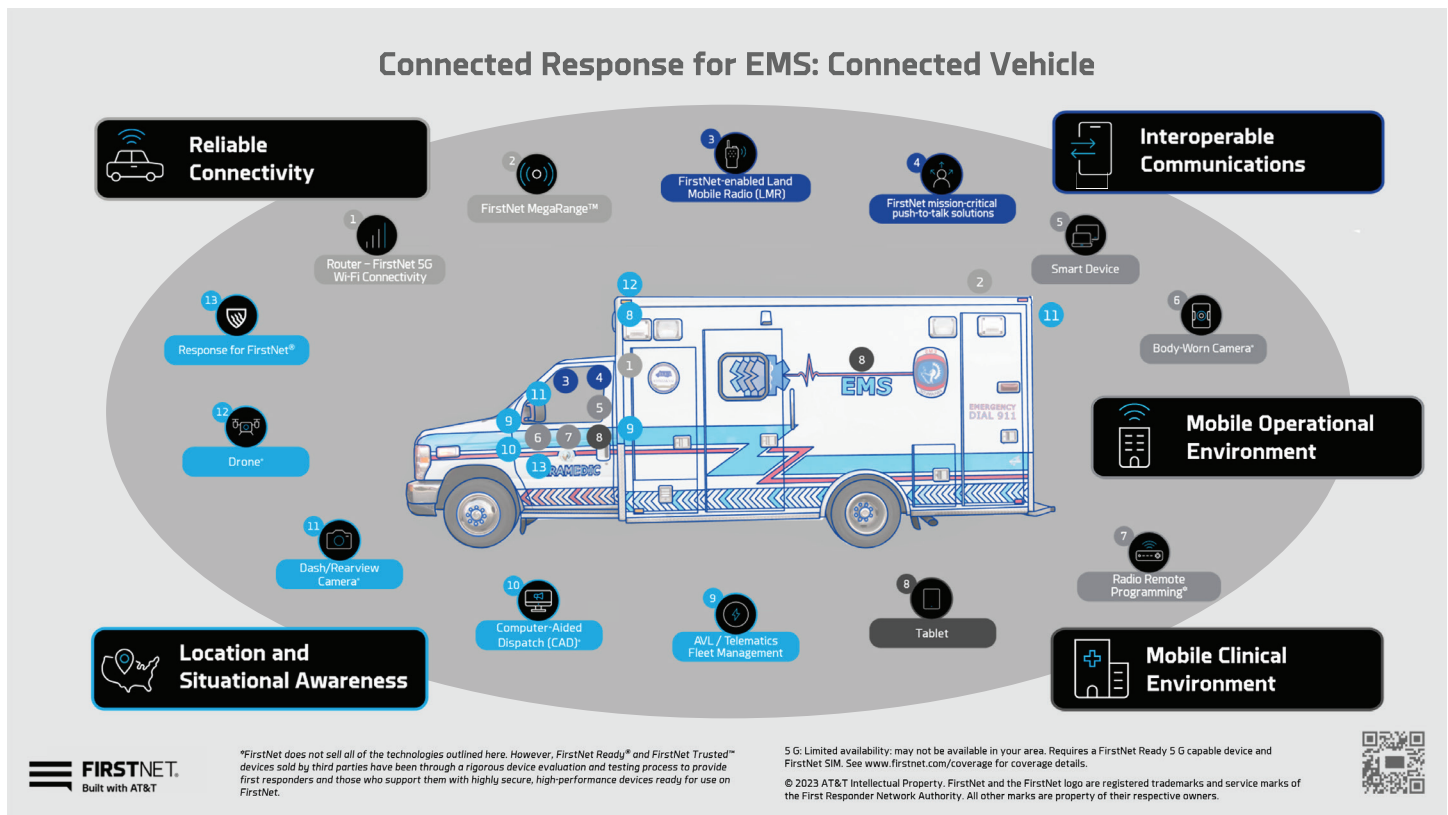
- Robust, prioritized and highly secure connectivity
- The ability to share information — video, photos, data, text and voice — in near real-time with hospitals, other healthcare facilities, across agencies and jurisdictions
- A mobile operational and clinical environment that cuts the time your staff spends doing paperwork
- More tools to keep EMTs safe on the job

Whether you choose one Connected Vehicle/Connected Responder technology or the whole suite, you'll be helping your EMTs and paramedics do their job more safely and effectively.

Core Technologies for Connected Response

While EMS agencies can and should choose only the solutions that will most benefit their personnel, these four technologies are the foundation of Connected Response for Public Safety on FirstNet and often a good place to start:

- FirstNet-enabled Land Mobile Radio (LMR)
- FirstNet-connected smart device with mission critical push-to-talk
- FirstNet-enabled Router with 5G Wi-Fi Connectivity
- FirstNet MegaRange™



In an age of dwindling resources and ongoing staffing and retention challenges, Connected Response for Public Safety illustrates how incorporating innovative technology can help enable EMS agencies to do more with less.

Reliable Connectivity

1. FirstNet MegaRange™: Exclusive to FirstNet, this high power user equipment (HPUE) solution helps boost your signal so you can perform functions like cardiac monitoring, receiving hospital status and sending and receiving prehospital instructions. FirstNet MegaRange™ can help boost your signal beyond the edge of coverage, improving connectivity in rural areas, urban “canyons,” and underground.

2. FirstNet-enabled Router with 5G Wi-Fi Connectivity: This is the foundation of all connectivity for the Connected Vehicle for EMS. The router supports the secure, reliable transmission of critical patient information to receiving facilities. Wi-Fi capability allows devices to directly connect to a variety of biomedical devices and also delivers highly accurate GPS information that feeds directly into computer-aided dispatch (CAD) and on-board navigation.



Interoperable Communications

3. FirstNet-enabled Land Mobile Radio (LMR): In augmenting your existing LMR, this technology delivers nationwide coverage and push-to-talk capabilities that allow for far greater interoperability. The FirstNet LMR also extends the capability of medical radio systems used for prehospital alerts and medical direction.

4. FirstNet mission-critical push-to-talk (PTT) solutions: Functional anywhere a paramedic or EMT has a network connection, these solutions are especially critical when outside the range provided by your local LMR system. PTT enables the sharing of video, images, data, text, voice (whether 1-to-1 or 1-to-many in talk groups), location and more — all of which improve operational effectiveness and patient and clinician safety. FirstNet PTT on your smart device or tablet allows you, too, to quickly set up communications for any group responding to a scene (including mutual- and automatic-aid situations) and frees up your LMR system for critical communication.

Mobile Operational Environment

5. Smart Device: EMS professionals can use their device in the field to communicate with a receiving facility to provide optimal patient care on-scene and en route to the hospital. This enhances communication by allowing the exchange of data and video.

6. Body-Worn Camera*: The camera can be used to record and transcribe patient interactions, medication delivery timing and more, making it easier for EMTs and paramedics to complete reports quickly and accurately. In the event of a difficult patient, the camera can capture the incident. This is increasingly important for risk management as a preventative safety measure and can be used as evidence in the event of a legal matter and for case review.

7. Radio Remote Programming*: Delivers the ability to remotely program a radio, eliminating the need to manually program individual radios. This saves valuable time and effort in mutual-aid situations with an immediate need to align with another jurisdiction's radio system.

Mobile Clinical Environment

8. Tablet: The FirstNet-supported tablet enables a range of biomedical communications, including ultrasound, mobile MRI, cardiac monitor defibrillator, 12-lead EKG, and other advanced assessment technologies and vital sign monitoring tools. It also allows EMS professionals to access patient data and records and see and share video for telehealth delivery of care. The tablet is useful, too, in completing common administrative and operational tasks such as closing patient care reports, submitting work orders, checking email, accessing and updating timesheets and ordering supplies. This translates to less time in the office completing admin work and more time on the street responding to calls. Staff can also access the agency's RMS (records management system) and CAD. And the tablet supports the use of electronic patient care reports (ePCRs) and live interactive patient care (telemedicine), allowing the physician to see patients prior to arrival at the ED.



Location and Situational Awareness

9. AVL/Telematics Fleet Management: Data from the ambulance's fleet management and telematics system provide operational insight into how well vehicles and equipment are functioning (the vehicle's computers can alert administrators of mechanical issues before a failure occurs, for example) as well as fuel usage, maintenance and idle time. With greater insight into their fleet, EMS leaders can save money and improve efficiency as to where and when they position ambulances, and adopt more intelligent routing.

10. Computer-Aided Dispatch (CAD)*: A connected CAD monitors hospital status and assists in call assignment and ambulance routing; this can be especially critical in areas with few trauma centers and in mass casualty incident situations, enabling EMS staff to more quickly determine where to take a patient. The CAD can also recommend and dispatch the most appropriate and closest unit. The Incident commander can also use the CAD to visualize the optimal movement of assets (including ambulances) at a scene as needed.

11. Dash/Rearview Camera*: Provides improved situational awareness, guidance for maneuvering the ambulance and visual information if after-action reporting is useful.

12. Drone*: Particularly on a scene that's dangerous, hazardous or simply difficult for EMS professionals to enter or have visibility, a drone can provide much improved situational awareness.

13. Response for FirstNet®: A low-cost, simple-to-use web and mobile situational awareness platform for day-to-day and emergency operations. In one deployable solution, users get near real-time mapping, information-sharing, team mobilization, integrated IAP creation, ICS reporting and push-to-talk communication.

**FirstNet does not sell all of the technologies outlined here. However, FirstNet Ready® and FirstNet Trusted™ devices sold by third parties have been through a rigorous device evaluation and testing process to provide first responders and those who support them with highly secure, high-performance devices ready for use on FirstNet.*

FirstNet Connected Responder for EMS

While there's a lot you can do with a connected vehicle, true connectivity means extending capability beyond the ambulance — enabling EMS professionals to serve safely and effectively no matter where a call takes them.

That's where the Connected Responder comes in: These 6 solutions help you:



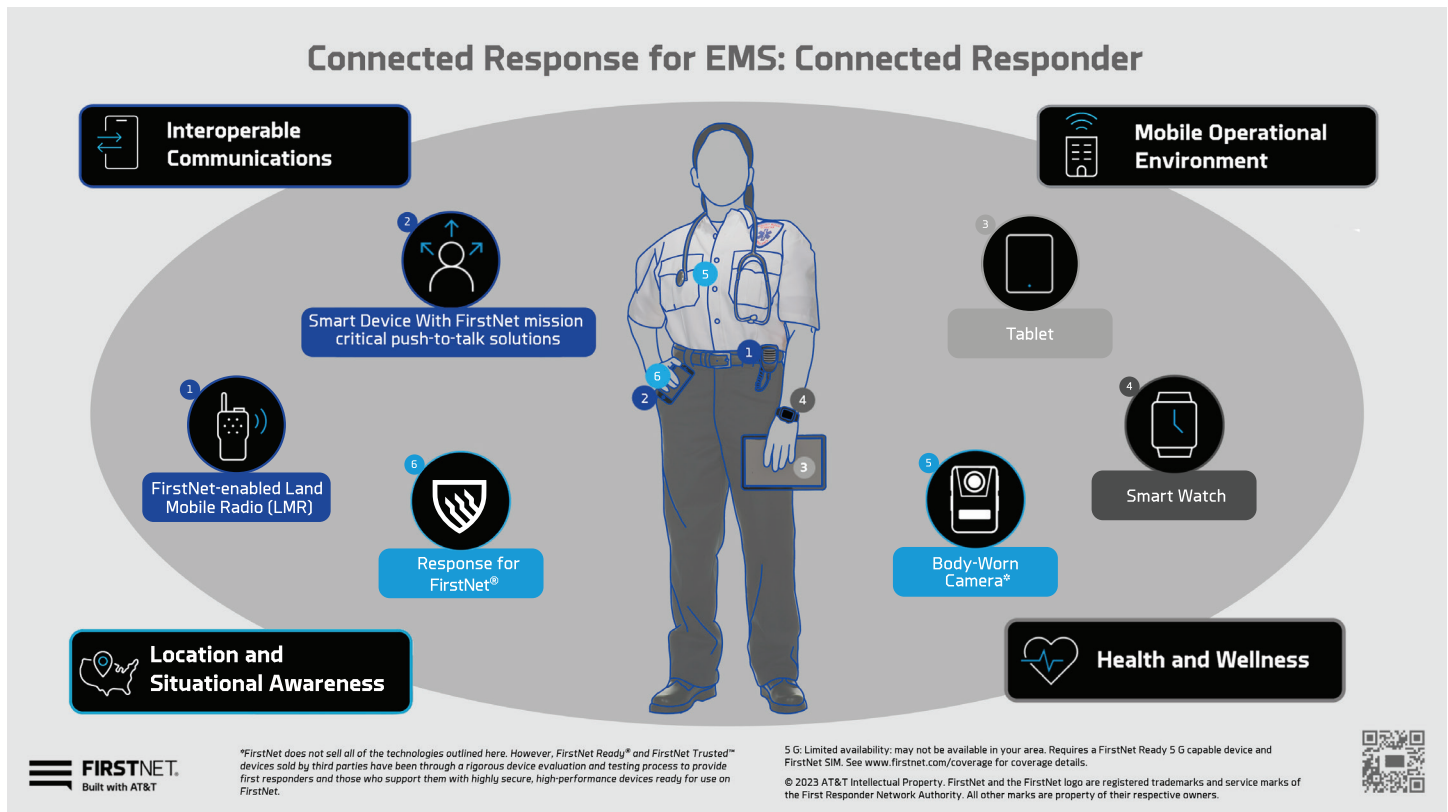
Deliver remote, prioritized connectivity to send and receive critical patient information in near real-time.



Use technology to keep EMS personnel safer, acting as a force multiplier in times of inadequate staffing or other resource limitations.



Make it easier for EMS professionals to do their job — from administrative duties to aiding a neighboring jurisdiction.



Interoperable Communications

1. FirstNet-enabled Land Mobile Radio (LMR): Allows the EMS clinician to leverage FirstNet network connectivity whenever and wherever they need to, including in times of mutual aid outside their service area.

2. Smart Device with FirstNet mission critical push-to-talk (PTT) solutions: Equips the EMT/paramedic with a reliable, robust communication tool that augments LMR and can transmit and receive text, voice, data and stream live video. PTT capabilities also include location-sharing and tracking of personnel when out of vehicle (improving awareness and safety), connecting with prehospital emergency care physicians and receiving dispatches.

Mobile Operational Environment

3. Tablet: As with the FirstNet-enabled Smart Device, the EMS clinician can take the tablet when entering a home or building to see a patient and use it to access ePCRs, document the visit and care given, complete and file the report, and facilitate telemedicine care.

Health and Wellness

4. Smart Watch: Enables EMS professionals to receive notifications, voice-to-text communication, and tracks their well-being, including blood pressure and heart rate, helping leaders identify health risks and improve wellness among their teams.

Location and Situational Awareness

5. Body-Worn Camera*: Though body-worn cameras aren't yet common in EMS, their use is increasing. The ability to document the incident can help increase safety for both EMS professionals and their patients. Personnel can also use this in training, and cameras can record and transcribe patient interactions, medication delivery timing and more, making it easier for EMTs and paramedics to complete reports quickly and accurately.

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To learn more, go to firstnet.com/connectedresponse,
or contact your **FirstNet Solutions Consultant**.