FirstNet Authority Roadmap
SITUATIONAL AWARENESS

Domain Overview

Public safety agencies across the Nation have access to an unprecedented amount of information that is ever increasing as technologies evolve and sensors proliferate. Situational awareness refers to the ability to aggregate and synthesize that information in real-time from multiple sources (e.g., human, machine, sensors) and to derive and present actionable insights to public safety professionals. The FirstNet network should allow for and include capabilities that automatically collect and analyze data into actionable insights to be shared with public safety personnel in a manner that enables critical data to reach responders amid split-second decision-making conditions and other emergencies.

The Vision

The FirstNet Authority envisions real-time access, collection, and distribution of information concerning threats, hazards, and conditions in a manner tailored to public safety operations.

Roadmap Priorities for Situational Awareness

The FirstNet Authority assessed multiple factors to determine its Roadmap Priorities for Situational Awareness.

These priorities will be developed into a series of initiatives that will direct the FirstNet Authority's efforts and drive its investments.

Act as a catalyst in the industry for the creation and evolution of mapping and display technologies that allow easy consumption of geo-location information.

Collaborate with industry and advocate for the development of standards, devices, technologies, and systems that collect, synthesize, analyze, and share information regarding personnel, assets, threats, and hazards in a manner that improves public safety operations.

Key Technology Areas that Comprise Situational Awareness

- **Location Services:** Always and accurately locate people, vehicles, and assets on a day-to-day basis (including x, y, and z coordinates), both in- and outdoors, whether stationary or moving.
- **Mapping / GIS:** Access, integrate, and present geolocation information (including z-axis) from multiple sources (e.g., sensors, wearables, cameras) in an actionable manner, together with incident data, traffic and routing, hazard areas, and weather conditions.
- **Cameras / Video:** Gather and stream video in all situations (e.g., dash cameras, drones, body cameras, buildings).
- **Data Analytics / AI:** analyze massive amounts of collected data to assist in decision-making and response in real-time conditions.
- **Wearables:** Monitor personnel health (e.g., vital signs) and safety (e.g., environmental conditions).
- **Sensors:** Collect, process, and transmit data from various sources (e.g., smart buildings, weather sensors, traffic sensors) to provide insight into existing conditions for all scenarios.

Public Safety's Take on Situational Awareness

- Location services, including the z-axis, is the priority for public safety and it must be easy to use.
- Agencies need assistance to understand and leverage best practices for implementing and integrating sensors, wearables, and camera technologies into their operations.

197 ENGAGEMENTS

46 STATES

7,929 STAKEHOLDERS

Public safety engagements that addressed Situational Awareness
(April 1 – June 30, 2019)

Key Takeaways from the FirstNet Authority's Analysis of Learnings from Stakeholders

- The FirstNet Authority's public private partnership with AT&T has and will significantly advance the development of z-axis location services.
- Indoor mapping technologies (including z-axis) is not widely available to meet the needs of public safety.
- There is a robust camera and sensors market serving public safety today, however these disparate products are not easily integrated.
- Public safety's use of situational awareness tools is highly fragmented and there is limited sharing of best practices between agencies.