ROADMAP DOMAIN: USER EXPERIENCE
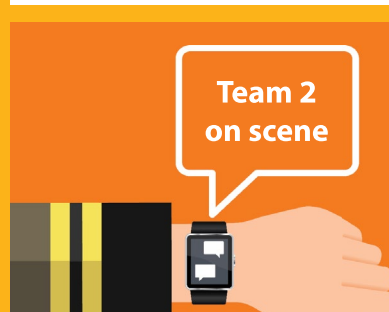
Augmented/Virtual Reality
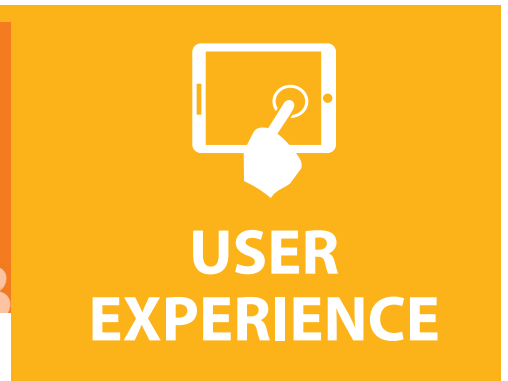
Devices

Applications

Team 2 on scene

Hands-Free Interfaces

USER EXPERIENCE

The Vision

The FirstNet Authority envisions a user experience driven by public safety operational needs that enables users to stay focused on their primary mission.

Domain Overview

The FirstNet network is specifically designed to meet the needs and requirements of public safety professionals. First responders need simple, easy-to-use devices and applications with the ability to communicate, collaborate, and access information during routine daily operations and emergency response incidents. Due to the critical nature of public safety communications, all the various ways that responders can and will interface with, or experience, the network must be considered. Device and application technologies utilized must be effective, reliable, and resilient, and they must enhance rather than hinder public safety operations.

The FirstNet Authority approaches the domain with both a near- and long-term technology evolution perspective. There are a variety of technology capabilities expected to emerge in the coming years to address operational gaps in new and unanticipated ways. Looking forward, first responders will experience the network and communicate via methods beyond today's traditional smart devices. Examples include hands-free interfaces, which will provide critical information and analysis to responders in a non-intrusive manner and mixed realities that will enhance responder effectiveness by creating more realistic training sessions and providing pivotal, real-time information in the field.

FirstNet® Authority

Roadmap Priorities for User Experience

The FirstNet Authority will prioritize the following areas in alignment with stakeholder contributions and the prioritized needs of other Roadmap domains.

- **Mission-Enabling Applications:** Promote the development and use of applications that are operationally sound, offer intuitive user interfaces, and support seamless collaboration for public safety.
- **Mission-Capable Devices:** Promote the development and use of devices that support the successful execution of public safety operations.

Key Technologies and Solutions that Impact User Experience

- **Devices:** User equipment relevant to public safety's use and mission, including commercial devices and those adapted to public safety operations and suitable for various environmental conditions.
- **Applications:** Software solutions and enabling technologies relevant to and designed for public safety use cases.
- **Augmented/Virtual Reality:** An enhanced version of reality created by the use of technology, which overlays digital information on an image of something being viewed through a device, such as a smartphone camera (augmented reality) or an entirely computer-generated simulation (virtual reality) that improves public safety training and operations.
- **Hands-Free Interfaces:** Non-intrusive delivery methods that enable users to interact with technology and consume information without the use of their hands (e.g., virtual assistant, heads up display, voice-to-text, haptics).

Public Safety's Take on User Experience

- Public safety agencies want a convenient avenue to learn about relevant applications that could provide valuable operational benefits and efficiencies.
- Users want the familiarity of commercially available devices as well as devices that are easy-to-use, ruggedized, and that enable the public safety mission.
- Device and application user interfaces must be tailored for, and evolve with, public safety's needs; they need to be intuitive, reliable, and non-intrusive as they communicate relevant information to all types of responders.

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

- By demonstrating the viability of the public safety marketplace, the FirstNet Authority can prompt industry to provide the public safety community with affordable, reliable software solutions that support various capabilities, including seamless collaboration.
- First responder disciplines have different operational needs and perform under different environmental conditions, which should be taken into consideration for device design. The FirstNet Authority can present a strong centralized voice for these device requirements to device manufacturers.

53
STATES AND TERRITORIES

574
ENGAGEMENTS

15,100
STAKEHOLDERS

Public safety engagements that addressed Situational Awareness (October 1, 2019 – September 30, 2020)

FirstNet® Authority