



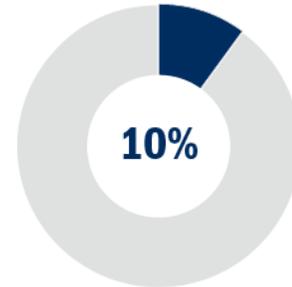
DEFEND TODAY,  
SECURE TOMORROW

# EMERGING COMMUNICATIONS TECHNOLOGIES

## Emergency Communications by the Numbers

### OVERVIEW

Emerging technologies offer advanced capabilities to enhance command and control and situational awareness for emergency responders. The [SAFECOM Nationwide Survey](#) (SNS)<sup>1</sup> showed that public safety organizations encounter significant challenges in adopting new technologies and integrating them into operations. As technology evolves, public safety organizations must update their governing bodies, standard operating procedures, training, and exercises to account for these new capabilities. Planning for all these touchpoints is key to implementing new technologies. If not, they risk significant challenges in adopting new technologies and integrating them into operations. However, only 10% of public safety organizations are planning for advanced interoperability solutions (Figure 1). This document summarizes the correlation between planning for emerging technologies and overall emergency communications progress found in the SNS. It also describes actions in the National Emergency Communications Plan (NECP) that organizations can take to better prepare for these advancements.



- Only **10%** of public safety organizations are planning for advanced interoperability solutions

**Figure 1: Public Safety Organizations Planning for Advanced Interoperability Solutions**

### BENEFITS OF PLANNING FOR ADVANCED INTEROPERABILITY SOLUTIONS

The SNS showed that public safety organizations who plan for advanced solutions see improvements in their emergency communications. The benefits for public safety organizations that plan for advanced solutions are:



**2.4X more likely** to have sufficient funding for network systems upgrades and **2.1X more likely** for equipment upgrades.



**3X more likely** to have advanced strategic planning processes.



Approximately **3.5X more likely** to have SOPs that enable interoperability and advanced SOP development and review processes



**2X more likely** to adapt future training to address the gaps and needs based on documented evaluations and the changing operational environment.



**50% as likely** to strongly agree that their infrastructure allows for communications continuity in out of the ordinary situations and **2X more likely** to strongly agree for out-of-the-ordinary situations.



Up to **67% more likely** to report significant improvement in strengthening emergency communications since 2011 for operability, interoperability, and continuity of communications in both day to day and out of the ordinary situations.

<sup>1</sup> The SAFECOM Nationwide Survey (SNS) is a nationwide data collection effort to obtain actionable and critical data that drives our Nation's emergency communication policies, programs, and funding. The survey is conducted every five years.

## EMERGING TECHNOLOGY IN THE NATIONAL EMERGENCY COMMUNICATIONS PLAN

The NECP includes recommendations that public safety organizations can achieve to improve lifecycle management of systems and equipment to share information efficiently and securely:



Support public safety requirements that drive research, development, testing, and evaluation of emergency communications technology



Ensure communications and information sharing systems meet public safety's mission-critical needs



Support data interoperability through the development of effective and sustainable information sharing and data exchange standards, policies, and procedures

## SUPPORT AREAS FOR THE IMPLEMENTATION OF EMERGING TECHNOLOGY

### Goal 1: Governance & Leadership

- ✓ Governance bodies include information management, network infrastructure, and cybersecurity representatives
- ✓ Governance bodies identify and address legislative and regulatory issues associated with emerging technology

### Goal 2: Planning & Procedures

- ✓ Develop and regularly update strategic plans to align with the NECP and address the integration of new emergency communications capabilities
- ✓ Public safety organizations develop and use lifecycle plans to inform agency funding decisions and implement new technologies while maintaining necessary legacy and backup systems

### Goal 3: Training, Exercises, and Evaluations

- ✓ Implement tools and trainings to address emerging technology impacts
- ✓ Include injects in exercises to test communications systems and personnel including emerging technology

### Goal 4: Communications Coordination

- ✓ Establish sufficient testing and usage observations of all operable and interoperable primary, secondary, and backup communications systems

### Goal 5: Technology & Infrastructure

- ✓ Foster an open, innovative, and standards-based commercial marketplace for solutions development to ensure requirements are addressed in emerging standards
- ✓ Cultivate sustained engagement between federal research, development, testing, and evaluation programs and public safety organizations to address resiliency, interoperability, and other challenges

## RESOURCES FOR PREPARING FOR THE INTEGRATION OF NEW TECHNOLOGIES

- [SAFECOM Nationwide Survey](#)
- [National Emergency Communications Plan](#)
- [Emergency Communications System Lifecycle Planning Guide](#)
- [Emergency Communications Technical Assistance and Planning Guide](#)

For more information on the SNS or NECP, contact us at [necp@cisa.dhs.gov](mailto:necp@cisa.dhs.gov).