# **NEXT GENERATION 9-1-1**

## **Advancing Public Safety Communications** to Save Lives

**Emergency communications** centers (ECCs) are in need of transformation to bring 9-1-1 technologies into the 21st century.

## THE FUTURE IS NG9-1-1

- Enhanced emergency number services
- Creating a faster, more resilient system
- Voice, photos, videos, text messages to flow seamlessly from the public, through the 9-1-1 network, and directly to first responders.
- Transfer 9-1-1 calls to other centers, and assist with call overload during disasters, and other crisis events.



Office of Public Safety Communications National Telecommunications and Information Administration U.S. Department of Commerce NTIA.gov

### **Defining NG9-1-1**



Effective and efficient interfaces across all ECC platforms.



Enabling ECCs to receive and transmit multimedia content and data.



Engineering infrastructure that is redundant and reliable.



Ensuring cybersecurity and safeguarding of new networks and systems.

9-1-1 systems must evolve to collect critical information from the public and improve public safety response. The following information is a side-by-side comparison of the attributes of a legacy 9-1-1 system and what will be attained with a fully operational NG9-1-1 system.

### **LEGACY 9-1-1 LIMITATIONS**

- Analog systems prevent dynamic routing for call overflow during busy periods and network outages.
- · Vulnerable security protocols and exposed infrastructure allow opportunities for attack against the network and infrastructure.
- Analog technology is not capable of delivering multimedia and other data to ECCs.
- Legacy automatic location identification (ALI) and master street address guide (MSAG) databases lack the accuracy and speed of geospatial data.

#### **FUTURE 9-1-1 CAPABILITIES**

- Resilient system architectures ensure no single point of failure and enhanced reliability.
- Modernized security protocols are designed to combat the threats faced in today's technology environment.
- Internet Protocol (IP) technology delivers multimedia and other data.
- Enhanced call routing enabled by Geographic Information Systems (GIS) is more accurate and reduces the number of misdirected 911 calls.