

CRITICAL ISSUE G: TECHNOLOGY



Initiative 1: Adapt to and leverage rapidly evolving technology to improve service delivery.

Strategies:

1. Anticipate that artificial intelligence, smart technology, and robotics will shape future service delivery dramatically in the next 30 years and will change response methods requiring a new skill set and strategic processes for fire and emergency services agencies.
2. Leverage technology developed for other applications, professions, and purposes for use by emergency responders (e.g., robotics for the military, training simulation tools for the gaming industry, aviation flight simulation) to provide for better response and training.
3. Develop data sharing between departments/agencies that could benefit from shared applications and hardware, thus reducing the silos of data information in order to improve services.

Initiative 2: Develop a change mindset to help anticipate and support appropriate use of emerging technology and encourage the development of new technologies.

Strategies:

1. Champion the United States Fire Administration, in concert with other national organizations, to develop a fire advanced research challenge to promote application of technology developments for use in the emergency services through proof of concept and competitive challenges, similar to the Defense Advanced Research Projects Agency (DARPA) challenge utilized by the Department of Defense.
2. Coordinate national organizations to recognize and celebrate successful applications of emerging technology and help to spur future innovation at a more rapid pace for the fire and emergency services.

Case Study: City of Lenexa Fire Department (LFD)

Location: Lenexa, KS

Coverage Area: 50,000 residents over 34 square miles

No. of Employees: 96

Annual Calls for Service: 6,300

On the cutting edge of technology adoption, LFD received a FAA Certificate of Waiver or Authorization (COA) for Unmanned Aircraft Systems (UAS) in 2014. The COA permits LFD to use several UAS for aerial viewing and videography of both apparatus and personnel. LFD has utilized UAS for such varied activities as wildland hot-spot recognition, fire investigation, incident mission, and recruit training review. LFD requires interconnected smoke detectors in all new home-based day cares and permits Bluetooth detectors in older properties. Both configurations result in faster alerting of LFD to fire incidents in these high-risk properties. To protect its personnel, LFD has experimented with a waterproof arm band transmitter for its recruits monitoring their biometrics and pushing notifications during adverse situations.

