

Technology

<i>LMR/LTE Coverage Testing & Simulation (LMR/LTE)</i>	
TA Delivery Method:	In-Person Workshop or Webinar
Recommended Participants:	SWICs and RF Communications System Management Agencies

Offering Overview

Technical assistance support provided by CISA will assist by evaluating the requesting agency's LMR systems in VHF high band (136-174 MHz), UHF (400-470 MHz), 700/800 MHz, and cellular (LTE) bands. On-site measurements can include received signals strength, analog audio quality, bit error rate, push to talk, and/or signal coverage measurements.

CISA's LMR and LTE coverage testing and analysis provides real-world data from wireless RF and cellular networks for indoor and outdoor coverage. This offering can be customized for socio/demographic heat maps to provide a GIS overlay to coverage data.

CISA can also simulate LTE and LMR coverage. This supports exploring coverage across wide areas, simulating failures of towers/systems, analyzing potential tower/system improvements, post-failure analysis and many other applications. The simulation can be combined with coverage testing results to produce more accurate simulations.

Customized support for this offering may vary to meet each state's unique needs. Potential design options, outcomes, and deliverables may include:

- Define and refine system coverage requirements
- Supplement baseline coverage studies
- Provide supplemental information related to network operator assurance testing of LTE devices
- Provide in-building and outdoor coverage measurements including assistance in locating interfering signals
- Assist with system optimization as well as maintenance