

Knowledge Management Data Collection for Public Safety Priority Communications: A Project Management Journey Through Ohio's FirstNet Public Safety Broadband Network

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EXECUTIVE SUMMARY

Many of the tragedies of 9/11 could have been prevented if not for the failure of commercial cellular networks that were flooded with public calls. These calls caused a bottleneck in the first responder communication systems. Because of these failures, President Obama signed the Middle-Class Tax Relief and Job Creation Act of 2012. Part of the law designates the 700 megahertz band block D spectrum allocated to public safety. In June 2014, the State of Ohio issued a Request for Quotation (RFQ) seeking a vendor for OhioFirst.Net National Public Safety Broadband Network (NPSBN) State and Local Implementation Grant Program (SLIGP) Support. The winning vendors, Advocate Technical Services and Televate, were tasked with building a project plan for Ohio First and gathering data to help the state of Ohio develop a business plan for National FirstNet. This business case study follows the Ohio FirstNet Project from a knowledge management perspective.

BACKGROUND

September 11, 2001, is forever etched in the minds of many Americans. Not only did the tragic events unfold at the World Trade Center and the Pentagon, but also the casualties that could have been prevented had emergency communications been prioritized for first responders. Cellular networks were flooded

DOI: 10.4018/978-1-6684-5859-4.ch004

with public calls on that tragic day, causing a failure in first responder communication systems (Orr, 2021). Like freeway congestion during an emergency evacuation caused by severe weather, the calling overload crippled the communication networks. Although many first responder agencies could still communicate using traditional mission-critical Land Mobile Radio (LMR) narrow-band voice systems (Police Executive Research Forum, 2017). Although reliable, this radio technology operated on a different designated spectrum and was not interoperable with other networks. The departments using them could not communicate outside of their agency. Senior Law Enforcement Officer at the First Responder Network Authority (FirstNet) Harry Markley wrote: *OUT OF TRAGEDY, A PUBLIC SAFETY NETWORK IS BORN*, and explained how,

The tragedies of 9/11 revealed fundamental problems with communication systems used by our nation's first responders. The radios relied on by police, fire, and paramedics did not efficiently operate across different agencies. Land and mobile phone lines were overwhelmed by a high volume of calls. First responders struggled to communicate with each other. (Markley, 2021, para. 8)

On February 22, 2012, President Obama signed the Middle-Class Tax Relief and Job Creation Act of 2012, Public Law 112-96 (Compton, 2012). Title VI of the law designates 700 megahertz band block D spectrum allocated to public safety. The term 700 MHz D block spectrum refers to the portion of the electromagnetic spectrum between the frequencies from 758 megahertz to 763 megahertz and between the frequencies from 788 megahertz to 793 megahertz. The designates 700 megahertz bands and allocates the necessary spectrum for a nationwide interoperable broadband network for first responders. In addition, it provides \$7 billion for public safety broadband network build-out (Middle-Class Tax Relief and Job Creation Act of 2012, 2012).

The following is an excerpt from the legislative text of Section 6206 of the law [47 U.S.C. 1426] POWERS, DUTIES, AND RESPONSIBILITIES OF THE FIRST RESPONDER NETWORK AUTHORITY: STATE AND LOCAL PLANNING.—

- (A) **REQUIRED CONSULTATION.**—In developing requests for proposals and otherwise carrying out its responsibilities under this Act, the First Responder Network Authority shall consult with regional, State, tribal, and local jurisdictions regarding the distribution and expenditure of any amounts required to carry out the policies established under paragraph (1), including concerning the—
- (i) construction of a core network and any radio access network build-out;
 - (ii) placement of towers;
 - (iii) coverage areas of the network, whether at the regional, State, tribal, or local level;
 - (iv) adequacy of hardening, security, reliability, and resiliency requirements;
 - (v) assignment of priority to local users;
 - (vi) assignment of priority and selection of entities seeking access to or use of the nationwide public safety interoperable broadband network established under subsection (b); and
 - (vii) training needs of local users. (Camp, 2012, p. 61)

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