



# NORTH DAKOTA STATEWIDE INTEROPERABLE RADIO NETWORK

April 2016  
SIRN Newsletter

## What We Did in March 2016

### **Requirements Gathering and Online Surveys**

The SIRN Team conducted online surveys and requirements gathering interviews to collect feedback from stakeholders on a variety of topics including radio coverage needs, funding opportunities, and governing body structures. The majority of counties supported the concept of an integrated solution provided that the network is affordable, fosters fair representation, and addresses the radio coverage and feature requirements of county and municipal agencies. We will present findings from these efforts and solicit further input over the coming months prior to submitting recommendations to the 65<sup>th</sup> State Legislature.

As part of this effort, a business case evaluation will also be conducted to quantify historical expenditure on land mobile radio at the State and Local level. The objective of this effort is to assess the overall incremental cost of implementing a shared solution in comparison to maintaining the current ecosystem of independent radio networks.

### **SIRN Technical Designs Development**

Robust technical designs are a key component of the SIRN Feasibility Study. An in-depth assessment is required to ensure realistic solutions and budgetary estimates. We continue to advance the following technical studies:

- *Coverage Designs:* Develop coverage solutions that retain or improve the service provided by the hundreds of existing State and Local transmitters. Several parameters, such as technical merit, space availability, proprietorship (i.e., government-owned or leased), etc., will be used to prioritize assets.
- *Network Connectivity Alternatives:* Evaluate technologies such as fiber and microwave to inter-connect radio towers, dispatch facilities and system management terminals.
- *Frequency Planning:* Create a spectrum plan in accordance with technical and regulatory conditions.
- *Subscriber Device Evaluation:* Document all current radios in the state and identify upgrade requirements.

### **Dispatch Center Autonomy**

While SIRN is envisioned as an integrated radio network, each of the 22 dispatch centers would continue to operate as independent facilities. Dispatch consoles would be interconnected to the SIRN management system to support inter- and intra-county interoperability. Console upgrades have to be synchronized across PSAPS; however, dispatch centers can configure console equipment features as well as retain existing logging recorders, computer aided dispatch and paging applications.



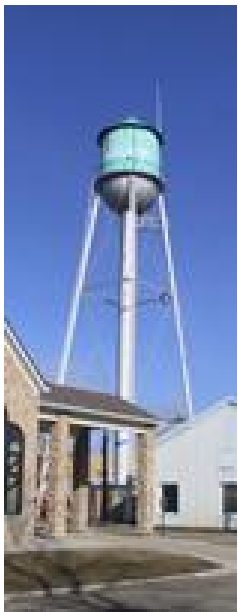


## PROJECT HIGHLIGHTS AND EVENTS

### Radio Infrastructure by the Numbers

The SIRN Team has been collecting information on radio network infrastructure used by public safety and public service agencies at the State and Local levels throughout North Dakota. An estimated 800+ different “transmit locations” currently exist to support first and second responder voice and paging communications. These transmit locations range from “booming” 400 ft. radio towers to one-story, building-mounted antennas and include:

- Approximately 220 radio leased and government owned towers
- Approximately 120 water towers, grain elevators and silos
- 100s of buildings (fire stations, police departments, courthouses, etc.)



### Ensuring Coverage Equivalence and Improvement

A key impetus for the SIRN Feasibility Study is to investigate opportunities for consolidating infrastructure, reducing duplication of services and improving interoperability. However, SIRN has to carefully consider the unique geographic areas serviced by the local radio networks and transmitters that have been implemented over the past several decades by the hundreds of public safety agencies in North Dakota.

A successful SIRN solution has to deliver adequate VHF coverage throughout the State, and ensure highly reliable coverage along roadways, populated areas and other critical locations. Delivering service in a manner that reduces the number of transmitters while ensuring equivalent or improved coverage is a key challenge of the SIRN study. We have our work cut out for us!!

### Introducing our Public Safety Programs Manager



The SIRN program welcomes *Public Safety Programs Manager* Derrick Walker. With over 18 years of experience in information technology, telecommunications, and wireless technologies, Derrick brings an accomplished background in management and implementation of land mobile radio solutions at the local, county, and state level to the SIRN 20/20 team. Just as important, he’s an experienced First Responder, having served as a Reserve Deputy Sheriff and has also been employed by a Fire Department. As a career public servant, Derrick has continually striven to bring interoperability to Public Safety and Information Technology worlds and has aided in establishing effective communications partnerships. Derrick holds a Masters of Communications Technology and is IS CET (International Society of Certified Electronics Technicians) Journeyman Level Certified. We look forward to supporting him.