

**CASE STUDY**

Nebraska Statewide Radio System  
Lincoln County



# NEBRASKA STATEWIDE RADIO SYSTEM: Lincoln County: Officer Safety Improved Tenfold



## SITUATION

With a population of 36,000 people and covering approximately 2,600 square miles, Lincoln County is located in south central Nebraska. The Lincoln County Sheriff's Office has jurisdiction to provide law enforcement within the boundaries of Lincoln County. Staffed by sixteen full-time professional deputies and two criminal investigators, the Lincoln County Sheriff's Office is a group of highly-trained law enforcement professionals that pledges to protect the life and property of the county's citizens through enforcement of regulations, ordinances and laws.



Lincoln County vehicles equipped with new subscriber equipment.

Daily responsibilities range from investigating crimes and making arrests to performing routine traffic stops. Clear, reliable communications are vital for them to safely, efficiently and effectively perform their duties. With an outdated analog UHF radio system, the Lincoln County Sheriff's Department had more than a handful of issues to address.

### ISSUES AT HAND

- Limited radio coverage
- Background static
- Dead spots
- Weak radio signals hard to understand
- Outdated equipment
- Limited budget
- Poor officer safety

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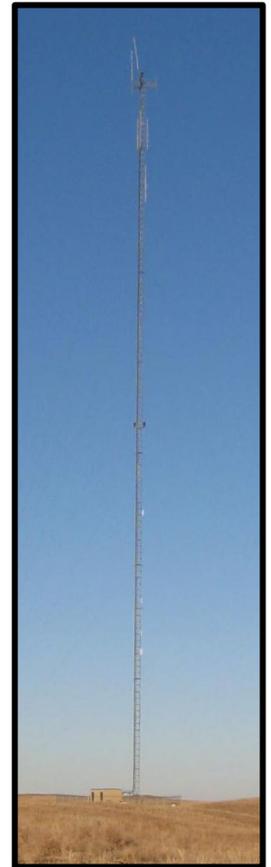
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The Sheriff's Department had their own low-band 39.9 radio system that had been updated to an ultra-high frequency (UHF) system several years ago. This type of radio system worked only when users were "in-range" of the tower and had the correct frequency on their radio. Communications were often hampered by background static, interference, weak signals and dead spots that resulted in the inability to understand the other party. Many times, deputies were forced to use their cell phones to communicate. Depending on the location of the call, officers often found themselves in areas with little or no coverage due to the geography or their proximity to a tower. In the easternmost part of Lincoln County which is hilly, deputy sheriffs would notify dispatchers in advance that they were entering the canyons and would have no radio coverage. Unfortunately, these areas were also lacking cell phone coverage, making officer safety a definite concern.

While outdated equipment was a major problem for the Lincoln County Sheriff's Office, they also faced the challenge of the affordability of purchasing new subscriber equipment as well as funding and supporting more infrastructure. Lincoln County, like many other counties in Nebraska, could not afford to do both.

## SOLUTION

After finally realizing that they couldn't keep operating on an aging, inadequate communication system for which it was becoming more and more difficult to obtain replacement parts and service, Lincoln County Sheriff's officials moved forward on their search for the best solution for a new radio system. They weighed all the options available to them. Officials seriously considered implementing their own digital VHF system, but it would not have been trunked and would have required the County to build and support more towers that still would not have provided the ideal coverage area. In fact, their current subscriber equipment was ordered with that system in mind. However, after further deliberation, the decision was made to move to the Statewide Radio System (SRS) because the infrastructure was already in place which greatly reduced the county's initial investment expense. Additional benefits to be gained were: communications throughout the desired coverage area; the advantages of a digital, trunked communication system; and the assistance of the State Office of the Chief Information Officer's (OCIO's) communications experts with the transition and ongoing support.



The Statewide Radio System tower at North Platte in Lincoln County.

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A series of detailed conversations began with the Office of the Chief Information Officer's (OCIO) Public Safety Communications Team as they evaluated the needs of the Lincoln County Sheriff's office and briefed them on the unique advantages of a statewide trunked radio communications system. This team helped set up talkgroups, fleetmaps and code plugs based on the specific requirements that Lincoln County identified. In addition, the OCIO Public Safety Communications Team provided superior hands-on training to the deputies and dispatchers to help make the transition to the new system go as smoothly as possible. Sergeant Casey Nelms of the Lincoln County Sheriff's Office said, "We didn't know anything about talkgroups and fleetmaps. OCIO gave us guidance, education and training vital to make our code plugs and fleetmaps come together."



Cory Simmons from OCIO-Public Safety Communications training some officers at Lincoln County Sheriff's Office.

As a current user of the Statewide Radio System, the Lincoln County Sheriff's Office stays updated about the SRS in several ways. There is a System User Group (SUG) for all user agencies that meets monthly to discuss lessons learned, best practices, system improvements, system upgrades and administrative policies. Users are provided with a unique password to view documentation, meeting minutes and agendas on the SRS SharePoint site. In addition, users can obtain answers to their specific questions via e-mails and phone calls with the OCIO Public Safety Communications Team.

## RESULTS

Lincoln County Sheriff's Office is enjoying many benefits from switching to the Statewide Radio System. Most importantly, officer safety has improved because they now have better coverage in lowland areas. Sergeant Casey Nelms reported, "Officer Safety has improved tenfold with the Statewide Radio System." In addition, users report clear communication with no static or background interference. And because the SRS is a statewide system, sergeants and administrators traveling out of the county for conferences and other business can still communicate with their dispatchers and deputies on the radio system. That capability was not available to them on their old system and would not have been available to them on any system they could have purchased and

*"Officer Safety has improved tenfold with the use of the Statewide Radio System."  
- Sgt. Casey Nelms  
Lincoln County Patrol  
Division*

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Sergeant Casey Nelms and Lieutenant Dan Newton at a hands-on training session.

maintained on their own. Looking back, Sergeant Casey Nelms says he wishes they would have switched to the Statewide Radio System earlier before purchasing their equipment so the OCIO Public Safety Communications team could have recommended specifications for their equipment to be more compatible with the other users on the system. The transition to the SRS eliminated the need for the constant repairs and frequency retuning that they faced with the subscriber equipment on their old system. It also improved Lincoln County's cost-effectiveness.

The SRS provides the additional benefit of interoperability between Lincoln County and the Nebraska State Patrol because the Patrol is also a user on the SRS. If Lincoln County deputies need to talk to a State trooper, they just switch to a regional talkgroup on the radio. Before, communications involved a temporary patch between dispatchers on both ends relaying information between the two parties. Now it is easy, quick and simple. Interoperability with local city and nearby county agencies that are not on the SRS is coordinated through the Lincoln County dispatchers. The dispatchers are able to use their dispatch consoles to patch the different agencies together so they can all talk to each other as needed.

## FUTURE PLANS

Lincoln County Sheriff's Office future plans involve budgeting to upgrade their portable radios with additional options that will allow them to more fully utilize all the features available to users of the SRS. When talking to other counties throughout the state about their communication issues, Sergeant Casey Nelms recommends the Statewide Radio System to them as an affordable high-value solution that will improve their communication abilities without breaking their budgets. OCIO is now focusing their efforts on counties and regions throughout the state to inform and educate them about interoperability on the Statewide Radio System so counties and regions of all sizes can communicate with the State Patrol and other full-time users of the system. He tells them to, "Call the OCIO Public Safety Team to ask your questions." Their contact email is [stateradioadministrator@nebraska.gov](mailto:stateradioadministrator@nebraska.gov) or just call Mike Jeffres at 402-471-3719.

### Results:

- Ability to speak directly to State Patrol Troopers
- No static or background noise
- Clear communications
- Better coverage area
- Improved officer safety
- Cost-effective
- Invaluable expert training and on-going support

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The county's initial investment is minimized because the infrastructure is already in place and being maintained by the OCIO. He continued to say that "Word is getting out!" Overall, switching to the SRS has helped Lincoln County achieve their communications goals while leveraging their communications budget to take full advantage of the benefits of digital, trunked technology's future advancements.

## TO LEARN MORE

The State of Nebraska, Office of the Chief Information Officer, and the Nebraska Public Power District jointly own and operate the Nebraska Statewide Radio System. We are here to answer questions and assist your agency.

To find out more information, go to:

[http://cio.ne.gov/network\\_serv/wireless/homeland.html](http://cio.ne.gov/network_serv/wireless/homeland.html)

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