



RURAL ELECTRIC CO-OP SWITCHES ON THE POWER OF MOTOTRBO™ BLUETOOTH® DATA

MOTOTRBO DIGITAL RADIOS AND NISC® GENERATE BIG GAINS IN SAFETY AND EFFICIENCY



Sometimes a giant leap in productivity and safety comes in a compact package. Just ask Callaway Electric Cooperative which distributes power to nearly 13,000 residential, agricultural and commercial customers across the rolling terrain of central Missouri.

With FCC narrowbanding approaching, this resourceful, member-owned cooperative looked at updating its fleet of analog radios. As they delved deeper and explored options, Callaway Electric's management discovered one solution that was truly tailor-made for utility companies: MOTOTRBO digital two-way radios with integrated Bluetooth® data and interfaced with National Information Solutions Cooperative's (NISC) Mobile WorkForce management software.

Not only was the adoption and integration of MOTOTRBO and NISC's software applications easy and affordable, it resulted in powerful improvements and positive results for Callaway Electric's workflow, mobile workforce and ultimately their members.

CUSTOMER PROFILE

Company

- Callaway Electric Cooperative, Fulton, MO

Industry

- Utilities

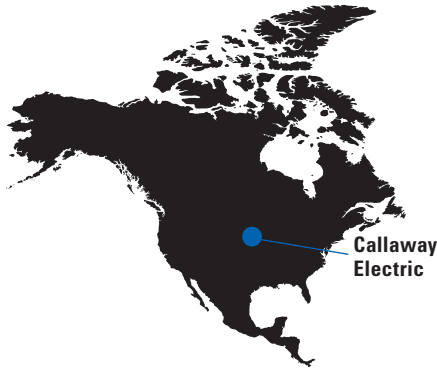
Motorola Solution

- MOTOTRBO XPR™ 5550 Mobile Radios
- MOTOTRBO XPR™ 7550 and XPR™ 3500 Portable Radios
- MOTOTRBO MTR3000 Repeaters
- NISC Mobile WorkForce integrated with NISC iVUE®

Solution Features

- Safe, reliable, continuous communications
- Enhances productivity and safety of field employees
- Virtually eliminates paper-based work orders
- Speeds response to outages and service requests
- Delivers clear voice and audio in noisy environments

CASE STUDY
CALLAWAY ELECTRIC COOPERATIVE



THE CHALLENGE
ENHANCE SAFETY AND RELIABILITY
IN THE FIELD

With the FCC narrowbanding mandate set to take effect in January 2013, Callaway Electric Cooperative took a serious look at their aging analog communication system. According to Greg Salmons, Manager of Operations, “We were going to have to upgrade about 60 percent of our radios that would not switch over to narrowband and had budgeted the money for replacing them.”

In addition to narrowbanding, the rural cooperative had concerns about the reliability of its communications. “We have coverage issues around the outside edges, including a couple of substations that are in rougher terrain. We have hills and bluffs and several dead spots with the analog system,” says Greg Salmons. “Whenever you try to contact your crews and cannot reach them, there’s the fear in the back of your mind of making sure they are okay. Having constant, reliable communications with those in the field is very important – especially their safety given the type of work they do.”

ELIMINATE WASTED TIME, EFFORT
AND ERRORS

Callaway Electric recognized opportunities to improve work processes, too. “Our customer service representatives generate work orders, get calls about outages, and talk to our trucks to send them out,” says Clint Smith, Manager of Administration. “In the past our linemen weren’t able to understand them, especially in portions of our service territory. In many places, a cell phone didn’t work. For an outage, our linemen either had to wait or leave the area and drive to the top of a hill to try to make a call.”

“We gave our drivers service orders on a piece of paper each morning,” explains Lesa Akers in Operations Support. “If anything comes up during the day, we send all kinds of information over the radios which they had

to stop and write down on a long sheet. At the end of the day, they turned in the sheet and it was manually transferred onto a service order in the front office.”

“The downsides were number transpositions as information was written down or when it was transferred onto the service order,” she explains. “It was a cumbersome workflow because you had to track papers all the way through.”

THE SOLUTION
MOTOTRBO WITH BLUETOOTH DATA
TRANSFORMS OPERATIONS

John Rayfield of Rayfield Communications, Inc., a local Motorola channel partner, explored many alternatives with the cooperative, including replacing their analog equipment with a MOTOTRBO digital two-way system.

“When I learned about MOTOTRBO digital radios,” recalls Greg Salmons, Manager of Operations, “what really shocked me was the price. The money we budgeted to replace part of the analog was enough to replace our whole fleet with the new MOTOTRBO digital radios. The big bonus on top of that was the data. You could send data applications over the MOTOTRBO radio. It worked beyond our expectations.”

“One of the advantages they looked at involved using MOTOTRBO for data for mobile computers,” explains John Rayfield. “The typical solution is to use cellular data, but cellular coverage is very poor here and in a large portion of rural Missouri. So using a radio that offers better coverage was very appealing as well as providing voice and data.”

TOGETHER, MOTOTRBO AND NISC
STREAMLINE WORK PROCESSES

Callaway Electric teamed MOTOTRBO digital radios with NISC Mobile WorkForce and their iVUE Work Management System, an integrated solution that



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- Greg Salmons, Manager of Operations

reduces errors and automates repetitive tasks. NISC Mobile WorkForce also enabled employees to access service order scheduling information from the field, alleviating lost paperwork since tasks are managed electronically.

According to Lesa Akers, “Service orders are transferred to the laptop in the truck via the MOTOTRBO radios. When our field employees start their day, they turn on their radios, power up their laptops and sign in. Then they connect the Bluetooth to their MOTOTRBO radios and sign in to NISC which communicates with MOTOTRBO via Bluetooth.”

“This Bluetooth connection enables us to push service orders out to them, including additional requests throughout the day, which they see on their iVUE screen,” she says. “They do not have to write down any numbers, they simply update tasks as they are completed. Everything is right in front of them via the MOTOTRBO radio.”

“The beauty of that is our customer service reps can complete and close those service orders. They do not have to wait until the end of the day to get a pile of papers,” says Greg Salmons. “Now our total service order process is paperless.”

THE BENEFITS INCREASING EFFICIENCY AND ACCURACY IN REAL TIME

With the new MOTOTRBO system in place, Callaway Electric is seeing significant improvements from one end of its service area to the other. Today the cooperative saves time and improves service by reacting faster to unscheduled events and by rapidly dispatching tasks to linemen in real time, right in the field. No longer are there inaccurate or lost work orders or second guesses on which worker is at a particular job.

“With MOTOTRBO, we have real time communication with our trucks now. Our linemen enter their data right into the computer instead of having to write it down on a service order. Everything is sent back to the office electronically,” says Lesa Akers. “We no longer have trouble reading their writing and actually get much better information from them.”

“The Bluetooth has worked very well,” she adds. “We connect in the morning and have no issues losing the connection throughout the day. Even moving computers from one truck to another has been effortless. There are no cables to get in the way.”

RESPONDING RAPIDLY TO RESTORE POWER

When Mother Nature turns nasty, MOTOTRBO shines, according to Greg Salmons, Callaway Electric’s Manager of Operations. “We just went through a storm of 10 to 12 inches of snow. Half of our customers were without power at one time. The MOTOTRBO radio system was flawless. The voice coverage never had any issues, even with the bad weather,” says Salmons.

“We brought in four other utilities to help us – a lot of radio traffic. There were two of us dispatching all the time. To have that reliable contact is priceless. I cannot imagine what would happen if the radio system was down. We could not run in a storm like that.”

GAINING GREATER COVERAGE AND COST-SAVINGS

“MOTOTRBO has given us the avenue to send data out without any cellular cost or monthly expense,” says Greg Salmons. “It has exceeded what phone service would have done because we knew there were going to be dead spots in cell phone service. We are not seeing that today with the digital radio.”



CASE STUDY
CALLAWAY ELECTRIC COOPERATIVE



John Rayfield underscores its cost efficiency, too. “The interface with the NISC software is very simple and very easy to implement, especially with MOTOTRBO Bluetooth data. It has been remarkable how well it has worked. Coverage has been excellent, and instead of spending up to seventy dollars per month for air card service, Callaway Electric doesn’t have any monthly fees. The cost savings alone are well worth it.”

ENHANCING WORKER SAFETY AND SERVICE

“Safety is the main thing—the importance of our people being able to call into the office when they are away from the truck, way out in a blind section,” says Greg Salmons. “Whether they need to notify the office or co-workers on what they need or to bring supplies, it is very important.”

Clint Smith points out that the snowstorm is a great example of how MOTOTRBO helps keeps workers safer and streamlines restoration. The ability to send data in real time over MOTOTRBO means they can use voice for safety issues. “We used to be calling our outages out and be receiving them in. The radio was tied up and our people had to wait just to restore a breaker or a fuse. The safety aspect is much greater than in the past. By freeing up the radio, it took less time to turn the lights back on,” he says.

Whether crews are working in a severe storm or on a simple meter change, CEO Thomas W. Howard believes “MOTOTRBO is the lifeline for our linemen’s safety, health and well-being. It allows them to do their jobs safely and efficiently, and get service to our members restored as quickly as possible.”

ABOUT NISC

National Information Solutions Cooperative (NISC) is an information technology company that develops and supports software and hardware solutions for utility cooperatives and telecommunications companies nationwide. NISC’s integrated IT solutions include consumer and subscriber billing, accounting, engineering and operations.

ABOUT RAYFIELD COMMUNICATIONS, INC.

A valued Motorola channel partner since 1999 and service partner since 2008, Rayfield Communications is recognized by their customers for their commitment to service excellence and industry-leading Motorola products they use to develop and implement unique communication solutions for Missouri-area customers.

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- Thomas W. Howard, CEO/General Manager

To switch on the power of MOTOTRBO, visit motorolasolutions.com/MOTOTRBO or contact your local Motorola representative.

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