

Modernizing Crew Communication

How Southern Linc transformed Jackson EMC's push-to-talk network.



Keeping Utility Crews Connected

When severe weather knocks out power, entire communities can be affected in a matter of minutes. Homes go dark. Businesses close. Hospitals and emergency services shift to backup systems. As utility crews move quickly to restore power, reliable communication is essential to confirm that power lines have been de-energized and that work can safely begin.

Electrical membership cooperatives (EMCs) often power large rural territories where maintaining infrastructure, and reliable communication, can be particularly difficult. Jackson EMC, one of the largest EMCs in the nation and the largest in Georgia, had relied on its own land mobile radio (LMR) network for years. But the system was aging, and maintaining reliable coverage across five counties within its service territory had become increasingly difficult.

"We had a project team established to replace our push-to-talk system," said Jay Tooke, Director of Operational Technology at Jackson EMC. "It was an old system that we should have retired years ago, and we were just patching it along the way."

Replacing the existing system, however, was more complicated than installing new radios. The project team had struggled to find frequencies that would provide reliable coverage across their vast footprint. Achieving that level of coverage with a traditional LMR network would require building and maintaining additional towers—an investment that could ultimately cost \$20 million or more. The team soon realized they could partner with an external push-to-talk provider for a fraction of that cost.

Jackson EMC also recognized that owning and servicing their own network carried significant risks. As Tooke explained, if the organization lost a tower due to storm damage, it could be months, if not years, to rebuild and restore coverage.

"It's a different philosophy for the company to have more of a service-based push-to-talk versus owning the entire system," said Tooke. "We spent a good bit of time of time vetting people to make sure that we were making the right decision."

Turning to a Trusted Industry Partner

As one of the nation's largest utility companies, Southern Company understands the unique challenge and importance of mission critical communications in the electrical utility space. In the early 1990s, the organization made a bold decision to build its own wireless network across the Southeast to ensure its crews could stay connected even in remote locations. That network became Southern Linc.

Today, Southern Linc offers a suite of beyond reliable communication services, including Linc Mission Critical Push-To-Talk (MCPTT), LTE voice, mobile data services and interoperable LMR and LTE solutions.

"We reached out to Southern Linc because we knew they had a network, but we weren't sure about its coverage capabilities," said Tooke. "They came onsite and did a proof-of-concept demo showing they have coverage and would be a good fit."

Trey Roberts, Market Sales Executive at Southern Linc, helped facilitate the field test to evaluate coverage throughout Jackson EMC's service territory.

"We set up a base station at their location, got into a car together with our handheld radios and drove throughout their territory to see exactly how the coverage performed," said Roberts.

As they traveled through rural roads, substations and known problem areas, the teams documented how the system performed. For Jackson EMC, the results were eye-opening.

"We went to spots where we knew we had problems with our existing radios, and we didn't have those same problems with the Southern Linc radios. It communicated, it talked, clarity was there," said Tooke.

Building on the field test, Jackson EMC purchased several portables and mobiles for more extensive testing. The results reinforced their initial findings and gave the Jackson EMC team confidence that the system would perform across their entire territory.

"We banged on that demo system for a while and couldn't really find any holes," said Tooke.



Reliable Radios for Tough Conditions

Another key factor for Jackson EMC was the device portfolio offered by Southern Linc. The network supported a suite of interoperable LMR and LTE devices from L3Harris® and Catalyst Communications. Because Jackson EMC already used L3Harris devices for its existing LMR network, the transition was seamless.

“We didn’t want cell phones for the push-to-talk capabilities,” said Tooke. “Once we found out that Southern Linc supported L3Harris devices, it was an easier sell. Our crews were already familiar with them, and they’re a more rugged, hardened type of device.”

Ultimately, Jackson EMC deployed several hundred radios—nearly an even split between mobile units installed in service trucks and portable radios used by field crews. Consoles were also installed in Jackson EMC’s System Control Center to support the organization’s communications and operations.

Safety Where It’s Needed Most

For electrical utilities, connectivity during storms, outages and large-scale restoration efforts is truly mission critical—not only for operational coordination, but for worker safety.

Roberts explains: “How do they get the lines shut off and know they’re shut off without push-to-talk communication? That’s a life-or-death implication. If crews can’t communicate with each other and with system control while they’re working on the lines, people don’t go home at night.”

Reliable communication is also essential during severe weather events, when power must be restored as quickly as possible. During a recent ice storm, Southern Linc stationed cells on wheels across North Georgia to support Jackson EMC in the event of major outages.

“I reached out to the districts afterwards and heard nothing but good news on the performance of the radio system,” said Roberts. “And to me, that’s everything; [System control] didn’t miss a beat.”





A Partnership Based on Strong Communication

Beyond the technology itself, the relationship between Southern Linc and Jackson EMC played an important role in the project's success.

"The most powerful thing we can do for our customers is do what we say we're going to do," said Roberts. "We pick up the phone when they call. We show up when they ask."

For the crews restoring power across Jackson EMC's territory, the CriticalLinc LTE network from Southern Linc is much more than a helpful tool. It's how the job gets done.