Flint Energies Expands Coverage Across 17 Counties with a Motorola PassPort® Trunking System

Flint Energies, a nonprofit electric cooperative, chose an affordable Motorola PassPort Trunking system to expand coverage, enhance talkgroup efficiency, and improve operational effectiveness.

BACKGROUND

Since its founding in the late 1930s, Flint Electric Membership Corporation (doing business as Flint Energies) has grown to serve approximately 255,000 Georgia residents throughout 17 counties. The company's 6,100 miles of distribution lines and 48 substations provide more than 1.5 billion kilowatt hours of electricity to its consumers, who are also part owners of the not-for-profit electric cooperative.

CHALLENGE

The electric utility industry in Georgia has become very price competitive and as a result, cooperatives strive to increase efficiencies, leverage resources, and maintain a technological edge to offer their members excellent service at a competitive price.

Several years ago, Flint's aging two-way radio communications system was no longer able to meet the growing demands of the business. "Our service area is geographically very large and it was hard to cover all of the areas effectively with the conventional repeaters we had," says Mike Wallis, Flint Supervisor of Communications. The lack of RF coverage made it difficult to address and restore power outages in a certain portion of Flint's system.

"We also had problems with voice traffic," Wallis says. "We had originally installed two separate systems, 150 MHz and 800 MHz, to separate out our workforce so they weren't constantly talking over each other. But that was no longer working for us."

The Flint communications team began researching new trunked solutions that would meet Flint's needs and considered systems in the 220 MHz range as well as traditional SmartNet technology. "The licensing requirements for channel loading, as well as the systems themselves, were cost prohibitive for us," recalls Wallis. "We needed to find an affordable, multi-site trunking system that gave us the coverage we needed. Then we learned about the Motorola PassPort® system and it seemed to fit right in that niche."

SOLUTION

Flint contacted Macon Communications, an authorized two-way Motorola dealer since 1987, to discuss the feasibility of a 5-site UHF PassPort® trunking system with 250 subscriber units for main group and selective call dispatch. "We've always had a good relationship with Flint," says John McCall, owner of Macon Communications. "Their technical people knew exactly what they needed and we worked with them to come up with the best solution."

Working closely with Flint's own radio technicians, Macon Communications performed engineering path studies and range coverage studies at each site to ensure that PassPort® would meet Flint's requirements. Macon Communications also stepped in to assist with licensing requirements and other obstacles, including tower site approval on the Ft. Benning Military Base in Columbus. "Macon stayed very involved," says Wallis. "Not being extremely familiar with the technology, we relied on their expertise to set up Fleet Mapping and all of the engineering behind that."

Once the preparation work was completed, Macon began to install the PassPort® system on a schedule that kept the momentum going, but ensured that Flint employees would never be out of communications. "They need communications 24 hours a day," says McCall. "We kept their legacy system operating in their trucks until the new system was completely operational before we took the old one out." says McCall.

Macon Communications turned on the first four sites while still waiting for paperwork to go through on the fifth site, located at Ft. Benning. That strategy, combined with Macon's phased implementation approach, enabled Flint to take advantage of the expanded coverage without delay. As a result, the installation was completely transparent and business continuity was unaffected.

BENEFITS

When Flint Energies began searching for a new two-way radio communications system, they wanted expanded coverage, reduced voice traffic congestion, security and privacy, and ease of maintainability, all at an affordable price. Their new PassPort® Trunking system fits the bill, providing the following benefits:

> "PassPort fills a much-needed niche for smaller customers. It gives us the coverage we need, the features we need, and it's the most affordable form of trunking I know of."
>
> **Mike Wallis,**
> **Communications**
> *Director, Flint Energies*

Expanded Coverage – Automatic signal switching between networked sites provides wide area coverage and seamless roaming. Today, Flint has nearly 100 percent portable radio coverage over its entire 17 county distribution area.

Improved Audio Quality – Received Signal Strength Indicator (RSS) technology maintains signal strength without losing audio quality as users travel throughout the network, critical to Flint field technicians responding to outages and emergencies.

Rapid Channel Access – PassPort® automatic site registration/deregistration feature reduces busy channels. "Our Systems Operations Center used to have to listen to meter readers calling in readings to central dispatch," says Wallis. "Now, they don't have to monitor those channels and can still get a radio channel whenever they need it. It's cut down a lot on congestion."

Talk Group Efficiency – Each talkgroup is automatically assigned to its own channel, allowing multiple talkgroups to transmit and receive messages concurrently, while helping to ensure privacy.

Operational Efficiency – Direct frequency assignment allows Flint to add channels and sites over the air without taking radios out of service. "The database is inside the system to track serial numbers, so Flint can activate/de-activate radios as needed," McCall says.

Easier to Maintain – Although the technology is more advanced, PassPort® is easier to service and maintain because it is software driven.

Enhanced Security – Electronic serial number protection keeps system resources available by preventing unauthorized radio cloning.

RESULTS

Flint's PassPort system provides the company with efficient, cost effective trunking that enables expanded coverage, fast channel access, privacy, and high user and talkgroup capacity. With its new trunking communications system in place, Flint's co-op membership can rest assured that Flint will continue to quickly respond to power outages and emergency situations, providing users with continuous total energy solutions.

CASE STUDY Motorola PassPort Trunking System