



WaveLink Secure leverages AT&T IoT technology to revolutionize water safety

Business needs

A way to monitor dangerous electrical activity in water and warn homeowners and marina managers

Networking solution

AT&T Internet of Things (IoT) connectivity helps WaveLink Secure clients monitor and detect electrical issues in water

Business value

Access to information that supports water safety

Industry focus

Safety

Size

Hundreds deployed today, scaling toward thousands of monitored locations

About WaveLink Secure

The WaveLink Secure hub monitors and detects potentially dangerous electrical issues in lakes, rivers, and swimming pools. Linking to the WaveLink Secure mobile app enables individuals to remotely monitor electrical conditions that may impact water safety and respond before anyone enters the water.

The situation

WaveLink Secure engineers needed a way to communicate potentially lifesaving information from its devices to dock owners and marina managers.

Solution

WaveLink Secure chose AT&T CAT-M (LTE-M) connectivity, a low-power, wide-area network technology, to continuously monitor bodies of water for electrical issues. Thanks to the AT&T IoT solution, WaveLink Secure hubs can remotely notify homeowners or marina managers of dangerous situations, so they can address problems before anyone enters the water.

Protecting lives with real-time monitoring

Statistics on electric shock drowning are challenging to track precisely because incidents are often recorded as drowning rather than drowning due to electric shock. A report funded by the U.S. Coast Guard lists more than 190 drownings or electricity-related incidents at marinas from July 1986 to August 2025.¹ The true numbers are likely much higher.

Electricity is most hazardous in fresh water because the body is a better conductor of dangerous electricity than the surrounding water. When this happens, electric shock can lead to muscle paralysis and drowning.

Fitzgerald is an engineer and a lifelong problem-solver. After several tragic electric shock drowning deaths in the U.S. Southeast, he and his colleague Arnar Thors worked with Master Electrician, Roger Miller, to create a solution. “The deaths were tragic. We understood that it was a problem we could work on to help prevent these types of fatalities. We could help lakeside homeowners and marina managers address electrical issues proactively—before anyone gets in the water,” Fitzgerald said. “Developing a system that would help protect and save lives became really important to us.”

The team created WaveLink Secure, the first smart device that continuously monitors client structures and the surrounding water. It uses machine learning to increase sensitivity without generating false alarms. The solution’s patented technology detects electrical activity in water throughout the swimming area and issues visual and audible alerts to notify people on the dock of dangerous conditions.

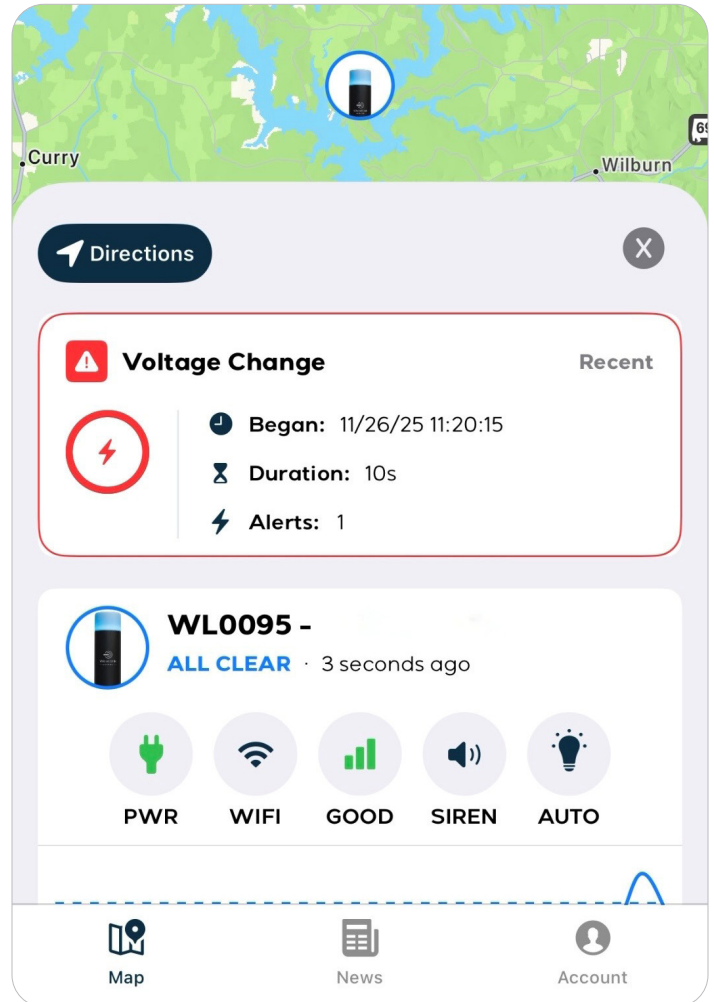
A way to deliver potentially lifesaving information

WaveLink customers include residential homeowners with waterfront property. “Unfortunately, every year, there are fatalities on freshwater lakes, often at residential docks where there’s an electrical issue. The other application would be public marinas with a few hundred boat slips and distributed electrical power to connect to lighting, any electrical service that would be of concern to the public, and people who park their boats in a marina,” Fitzgerald said.

One of the founders’ goals was to continuously monitor the water to detect when a situation needed to be addressed.

But monitoring was only one facet of the company’s mission. WaveLink Secure engineers began looking for a reliable way for the company’s devices to deliver information to its homeowner and marina manager clients.

They created a device that sends an alert when it detects a measurable amount of electrical power in the water. “We can push that to the homeowner and let them know, then begin working with them and their electrician to address the issue,” he said.



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Matt Fitzgerald
Co-founder, WaveLink Secure

¹ James D. Shafer and David E. Rifkin, Electric Shock Drowning Incidents – Marinas (In Water Electrocutation Fatalities Included), rev. 8/15/2025 (Quality Marine Services, 2025).

Reliable connectivity

WaveLink Secure chose AT&T to provide the connectivity to help deliver critical water safety information to its clients. “AT&T was one of the first providers we looked at because of its connected IoT platform. It works well for the type of data we’re sending,” Fitzgerald said. “We can work with AT&T at a small scale now and have the tools and ability for scaling that connectivity package as we grow and deploy more units in the field.”

AT&T IoT devices can operate for years on a single battery, and the AT&T LTE-M network provides excellent signal penetration. Also, the technology is cost-effective for devices that only need to transmit small amounts of data.

The reliable connectivity of WaveLink Secure devices surprises some clients, who have come to expect difficulties in remote locations. “A lot of people initially question whether they would have service, because often the lakes are in remote, rural areas. But we’ve had great connectivity,” he said.

“The technology can use Wi-Fi, but if people lose power or if there’s some situation where they don’t have a Wi-Fi signal, we’re able to push critical safety information through a cellular network to our users. That’s extremely valuable.”

A simple, scalable solution

Fitzgerald said it’s a simple matter to install AT&T SIM cards into the WaveLink Secure devices. The company uses the cloud-based AT&T Control Center to manage and monitor its devices. “That’s where we manage the SIM connectivity of the units as they’re being deployed,” he said.

The AT&T Control Center provides tools for deploying, automating, and scaling connected solutions. It includes features for managing SIMs, analyzing usage, and improving performance and security. “We can validate that they are connecting, the data is flowing as it should, and that’s where we can manage our data plans effectively,” he said.

Fitzgerald appreciates the AT&T solution’s flexibility, which was key to supporting his company’s growth. “When we started this, we didn’t have thousands of units deployed. We started with something small and low-cost to prove out the core functionality and technology. Then we built on that with a very scalable system. I think working with AT&T representatives was very favorable.”

Connectivity and expert support

Fitzgerald said he has heard good things from colleagues about the expertise of the AT&T account representatives. “The folks on our team who have engaged and worked with them said it’s been great, very responsive. It always feels like we matter. That’s important. We’re not the biggest company right now, but anytime we have an issue, there’s a responsive team to help us.”

He said AT&T was beneficial as WaveLink Secure was starting up. “A lot of that benefit was on the front end as we were trying to get some understanding of what this would look like as we grow and scale. Having team members from AT&T to help talk through the structure and how we manage costs while growing has been very helpful.”

Company officials are confident the technology can serve more markets. “In the near future, we are looking to help provide remote connectivity and monitoring of swimming pools,” he said. And while the company currently focuses on freshwater applications, it may expand to saltwater uses. In any case, Fitzgerald expects that AT&T will be involved. “The remote connectivity, the cellular aspect of it, is just so valuable. We like creating products that impact people’s lives. And when someone invests in this product, they obviously take it very seriously,” he said.

“It’s essential for us to have reliable information going out to our clients and to give them peace of mind that the technology is monitoring and if there’s an issue, they will be notified. That’s really the core value we provide to our clients. AT&T is an essential part of that in our ability to get that information in a timely, reliable manner to our clients.”