



MILLER TECHNOLOGY SERVICES  
**WIRELESS  
SOLUTIONS**  
TESTING, DESIGN & INSTALLATION



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**MILLER ELECTRIC COMPANY**  
*Powering the Possibilities*

# MILLER TECHNOLOGY SERVICES ABOUT US

Founded in 1928, Miller Electric Company has grown from a local electrical contractor to a technological integration powerhouse with a nationwide footprint.

Over our 93-year history, we have acquired a unique and immense collection of skills that allow us to tackle any project, no matter the scale. With over 2,900 employees, we provide a diversified range of services to a vast number of markets. We have worked hard to preserve our founder's principles of quality and customer service while expanding our reach and capabilities. In today's rapidly changing environment, we remain grounded in our core values and committed to our mission.

The convergence of information, energy, and facilities creates infinite opportunities. At Miller Electric Company, we continually enhance our capabilities to be our clients' ideal facility and business partner. We can optimize your information and technology infrastructure, allowing you to leverage powerful wireless connectivity to drive performance and revenue. Whether you are embarking on a new project or upgrading an existing facility, we are committed to bringing you quality and innovation at every turn.

We are in the business of powering the possibilities of a more connected future. Let us bring those possibilities to you.



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# WIRELESS SOLUTIONS

## Cellular DAS

A cellular distributed antenna system (DAS) is an in-building wireless system that helps boost cellular reception inside a structure. Poor cellular connectivity is a widespread problem inside many buildings and facilities. Most often, disruption is due to the construction material used in buildings. Metal, concrete, and Low-E glass can all reflect cellular and radio signals, resulting in low signal or dropped calls. Additionally, the immense amount of data required by numerous users can drastically slow down or interrupt cellular performance.

Our wireless team can solve this issue by installing a network of small antennas to function as cellular signal repeaters. These antennas are physically linked to a central control module that integrates with the wireless carrier's network, thus delivering seamless coverage. A cellular DAS will help you maximize your facility's user comfort, operational efficiency, and revenue potential by providing uninterrupted signal- a must-have in today's world.

## 4G/5G Small Cells

Small cells are wireless transmitters and receivers designed to provide network coverage to smaller, specific areas. These low-powered radio access nodes increase signal range and capacity in densely populated areas. The advantage of small cell networks for indoor applications includes enhanced coverage, a minimal footprint, reasonable pricing, and outstanding flexibility. While tall, high-powered "macro" towers keep the network signal strong across long distances, small

cells excel at boosting coverage in densely populated environments like cities. Ultimately, small cell technology improves the cellular experience for end-users in areas where devices might otherwise compete for bandwidth by enhancing coverage and data transfer speeds. Additionally, small cells extend the battery life of devices by reducing power draw.

## Private LTE

Private LTE is a cellular network much like that of those maintained by large telecommunications providers. The difference is that Private LTE is independent of large provider networks, outfitted on a much smaller scale, and implemented for a particular localized area. Like large LTE networks, Private LTE networks are engineered to support the connectivity of a unique organization's mission-critical needs. The organization can optimize the network to bolster applications that require low latency and independence from the possibly overcrowded and inconsistent public wireless spectrum.

The control and customization in implementing a Private LTE network make it ideal for a wide range of business environments— office buildings, healthcare facilities, education centers, arenas, airports, factories, and public transportation. Private LTE is the most robust and economical wireless solution to offer scalability and security for critical infrastructure.

## WiFi Networks

Your wireless network is crucial to your business. Mobility and instant access to information are required to compete in today's business climate. A robust enterprise WiFi solution will encourage employee productivity, bolster security, and allow your company to leverage business data and intelligence to its advantage. All of these features mean boosting your company's revenue.

Your organization needs a wireless network optimized to suit your unique requirements and position. Our teams can assess, engineer, install and maintain your enterprise WiFi network to ensure your organization's connectivity and success. After determining your needs, applications, and settings, we recommend a wireless network solution that supports your current and future needs.

## Job Site Communications

Reliable communication is an absolute necessity for construction job sites. A CBRS based wireless network from Miller Electric ensures that secure communications and networking with internet capability will flow uninterrupted and help jobs finish on time and under budget.

Our wireless solutions professionals have the experience and skill needed to help businesses and organizations design and implement the best video, voice, and data connectivity solutions for on-site labor environments.



## ERCES (PUBLIC SAFETY DAS)

An Emergency Radio Communication Enhancement System (ERCES) is a two-way radio signal booster used to enhance the radio frequency bands used by first responders and safety professionals. The ERCES (also known as a Public Safety DAS) uses Bi-directional amplifier (BDA) technology to enhance two-way radio service via an antenna system. A BDA is installed in a facility and brings wireless signals from an outside source into the building. Once inside, a booster amplifies the signals and disperses them equally via a distributed antenna system (DAS). This system guarantees that our first responders can maintain reliable wireless communications within a structure during fires, natural disasters, and other life-threatening situations.

The need for better emergency communications became apparent during the terrorist attack of 9/11. During the tragedy, police officers and firefighters had great difficulty communicating with their team members inside the World Trade Center. This tragedy prompted changes to the NFPA and IFC building codes, which significantly improved first responder wireless communications.

### ERCES Mandates

Many states have adopted the NFPA and IFC codes; some have even passed ordinances mandating enhanced in-building coverage for first responders. Every new building must meet a minimum level of emergency communication reliability. Many jurisdictions require existing structures to undergo testing to determine if an ERCES is needed.

In Florida, a recently passed law (Florida Statute 633.202) requires that Hi-rise commercial and residential buildings be tested, designed, and permitted by 12/31/2022 with compliance by 12/31/2024. Building owners and operators are responsible for having their facility tested by a certified professional and, if required, have an ERCES installed.

To help our clients meet various state requirements, we are offering an end-to-end solution that will satisfy the NFPA and IFC codes by providing:

- Communication with AHJs
- RF Design
- Permitting
- Installation & Testing
- Commissioning with AHJs

## MARKETS

Buildings and their occupants in every industry can benefit from enhanced wireless connectivity.

Dropped calls and interrupted service are frustrating. Poor connectivity can also disrupt the delivery of goods and services - ultimately damaging a company's reputation and bottom line. A wireless solution from Miller Electric can solve poor coverage issues and guarantee stable connectivity - improving productivity, efficiency, and safety.

### Healthcare

Every day, healthcare providers and patients depend on strong wireless connectivity. Laptops, tablets, smartphones and other mobile devices serve a critical role in patient care and administrative tasks. Patients and their loved ones rely on mobile devices to stay connected and informed. Reliable WiFi and cellular signal (for all carriers) are an absolute necessity to the entire healthcare process and improve the experience for all involved.

### Schools & Higher Education

Education and connectivity go hand in hand. Students rely on their wireless devices to perform academic assignments and educators use them as indispensable teaching aids. Strong cellular signals also ensure that first responders are informed

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## FINANCING OPTIONS

as fast as possible in the event of an emergency. Uninterrupted signal in an educational environment fosters academic progress and peace of mind.

### Commercial & Office

It goes without saying that a powerful, consistent signal in an office environment isn't optional. In today's business climate, the speed and reliability of a network is a core element of success. Additionally, building tenants and visitors have come to expect strong coverage for their mobile devices. Miller Electric can be the partner you need to give you a competitive edge.

### Manufacturing & Distribution

Modern manufacturing processes demand robust wireless networks. Automation, production flexibility, predictive maintenance are only possible when secure and reliable connectivity is available. In the event of a workplace crisis, it is also crucial to rapid emergency response times. Improve your bottom line and team safety by choosing us as your wireless technology partner.

### Additional Markets Served

- State/Local Government
- Sports & Entertainment
- Transportation
- Data Centers
- Hospitality

Reliable wireless solutions have never been more accessible, thanks to our excellent in-house financing options. Our process is simple, convenient, and predictable. More importantly, it allows our clients to conserve cash and proceed with business as usual, all while improving the safety and connectivity of their occupants and employees.

Finance options are especially beneficial for building owners who must rapidly comply with state-enforced ERCES laws. We know these fast-approaching deadlines come as a surprise to many building owners and operators, and we can help relieve those financial pressures.

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## CONTACT US

For a consultation to craft a custom wireless network solution designed to keep your building, campus or venue connected.

Call:

**1-800-554-4761**

or email:

**DAS@mecojax.com**



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