



Case Study | AKIMA Headquarters

Akima's Corporate HQ Enhances Connectivity: MCA Delivers Nextivity's Advanced In-Building Wireless Solutions

OVERVIEW

Evaluating New Spaces for Adequate Coverage

Akima, an Alaska Native Corporation, commands a significant presence in the global business landscape with its diverse portfolio encompassing over forty operating companies and employing more than 9,000 people.

Headquartered in Herndon, Virginia, their expansive 85,000 square foot corporate office spans four floors. Prior to settling into their new headquarters, a thorough analysis revealed that the building's mobile device coverage for cell phones, tablets, and laptops was suboptimal, posing a critical challenge for a company whose operations hinge on robust communication.

As a key provider of agile solutions across federal, military, and civilian markets, Akima's portfolio spans multiple industries including

furniture, fixtures & equipment, construction, commercial aviation, protective services, systems engineering, mission support, facilities and ground logistics, information technology, and aerospace solutions.

Recognizing the severe implications of potential dropped calls, dead zones, and unreliable service, Akima sought a proactive solution to ensure seamless communication within its headquarters.

To this end, Akima engaged Communications Electronics Incorporated (CEI), which is now a part of the MCA family of companies, to develop and implement a powerful yet cost-effective in-building wireless coverage solution, ensuring uninterrupted connectivity for its sprawling corporate complex.

Ensuring Comprehensive Office Coverage Over 85,000 Square Feet

Deploying Nexivity Cellular DAS Solutions for Enhanced Coverage in Corporate Offices

Improved Clarity & Coverage

Easy Deployment of Cat 5e/6

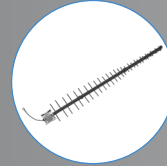
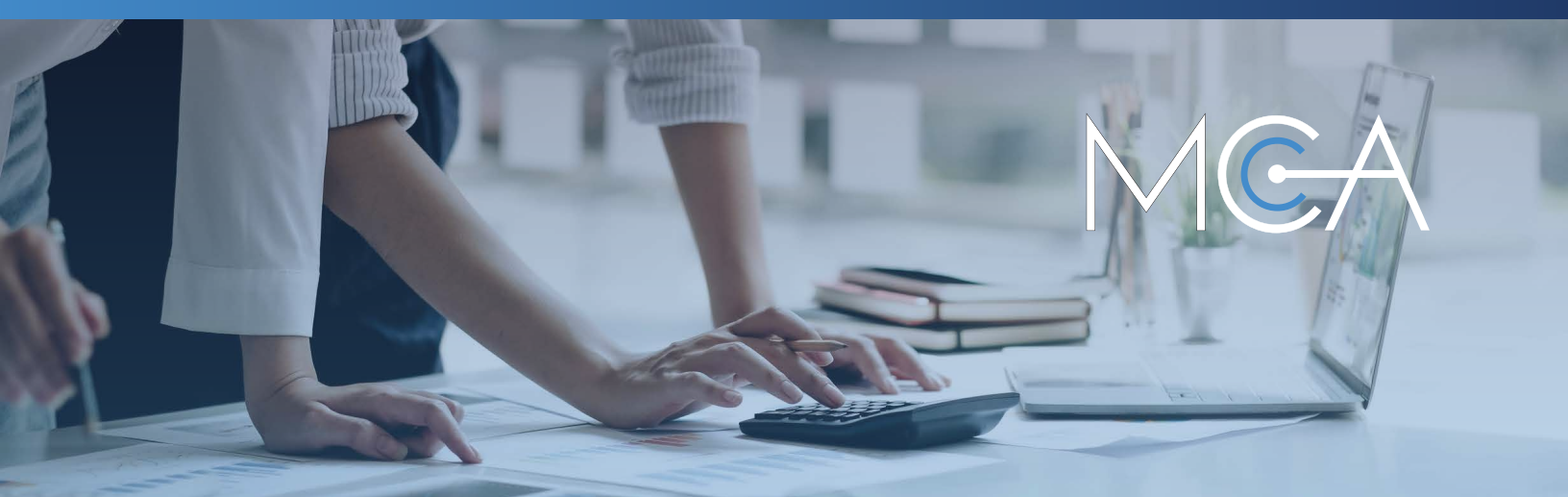
Cloud-Based System Access

Independence from Primary ISP

Cost-Effective Implementation

System Flexibility and Scalability

Improved Network Security



“We shopped around quite a bit, and CEI was able to deliver exactly what we needed without the additional cost and installation of competitive in-building solutions. We can access our portal through the cloud at any time to monitor and resolve issues.” — Deputy Chief Technology Officer, Akima

CHALLENGE

Addressing Inadequate Cellular Coverage Within Akima's New Corporate Headquarters

As Akima transitioned to a new, state-of-the-art building in Herndon, Virginia, they were presented with a modern and flexible workspace designed to liberate their employees from traditional desk setups.

However, before relocating, Akima's IT professionals identified significant challenges with in-building cellular coverage that could potentially disrupt their operations.

The company was determined to resolve these issues swiftly to prevent the productivity pitfalls associated with unreliable mobile service, such as:

Missed Calls and Messages

An Over-Reliance on IP-Based Wi-Fi

Complete Service Dead Zones

Dropped and Incomplete Calls

The architectural design and location of high-rise buildings often result in compromised RF signal quality. For instance, the upper floors might suffer from poor RF reception due to competing nearby cell towers or the materials used in the building's construction.

Conversely, the lower floors can experience reduced service due to obstructions like neighboring buildings, natural foliage, and urban infrastructure, often referred to as “ground clutter.”

Additionally, structural features such as stairwells, elevators, and energy-efficient materials can further inhibit signal penetration, creating severe service shadows, particularly noticeable on the lowest floor of Akima's headquarters.

Despite these obstacles, Akima's relocation was imperative for fostering a dynamic work environment conducive to innovation and productivity. Recognizing the urgency of the situation, Akima enlisted the expertise of CEI to implement a sophisticated in-building coverage solution. This strategic move ensured that all employees could effectively utilize their mobile devices and computers, maintaining high levels of connectivity and collaboration throughout their expansive new office space.

SOLUTION

Implementing Nextivity Quatra for Enhanced In-Building Cellular Coverage

To address the coverage issues at their new HQ, CEI introduced Akima to the Nextivity Quatra system, a state-of-the-art "middleprise" distributed antenna system (DAS). This hybrid active DAS solution provided a cost-effective, scalable, and timely remedy perfectly aligned with the needs of Akima's mid-sized environment.

Nextivity Quatra represents a cutting-edge advancement in in-building cellular coverage technology. This system amplifies cellular signals up to one thousand times more effectively than traditional mobile boosters and passive DAS technologies. It utilizes Cat 5e or Cat 6 cabling for RF and Power over Ethernet (PoE) distribution, ensuring a uniform and high-quality mobile signal across the entire building. Nextivity Quatra's proprietary digital distribution architecture guarantees consistent and reliable performance for mobile devices, supporting all desired service providers.

The installation of the Nextivity Quatra system at Akima was completed within a few days, aligning seamlessly with their critical move-in timeline. The new system eradicated issues related to dropped calls, missed messages, and connectivity dead zones, providing robust mobile coverage across all occupied spaces.

Moreover, when Akima expanded its operations to include an additional floor shortly before relocating, the Quatra system's scalable design allowed for quick extension of coverage to this new area. This ensured that employees on the new floor experienced uninterrupted high-quality cellular service, mirroring the connectivity found throughout the rest of the headquarters.

A significant advantage of the Quatra system is its blanket rebroadcasting agreement, which simplified the implementation process by eliminating the need for lengthy negotiations with individual mobile operators.

This feature allowed Akima to focus on their core operations without the hassle of securing separate rebroadcasting permissions, streamlining the entire setup and ensuring a smooth transition into their new space.

RESULTS

Rapid Deployment and Comprehensive Coverage Enhance Workplace Flexibility and Security

CEI's implementation of the Nextivity Quatra system at Akima's headquarters delivered substantial benefits, primarily the freedom for employees to move around the building while maintaining full cellular connectivity. This capability ensures that Akima's workforce remains productive in various settings within the facility, not just at their desks. The Nextivity Quatra system stands out for its streamlined installation process and scalability, contrasting sharply with the cumbersome setups required by traditional analog boosters and passive DAS technologies. This modern solution can be rapidly deployed and easily expanded, aligning perfectly with Akima's growth objectives.

Key benefits realized by Akima include:

Consistent Connectivity

Employees enjoy uninterrupted phone service and full signal coverage across all 85,000 ft².

Enhanced Network Security

Dedicated mobile networks enhance security, allowing staff to depend less on external Wi-Fi connections.

Infrastructure Flexibility

Utilizing Cat 5e and Cat 6 cabling simplifies deployment and integration into existing IT infrastructure.

Ease of Management

Cloud-enabled access facilitates efficient system monitoring and maintenance from anywhere.

Scalability

The system's design accommodates future expansion seamlessly, ensuring longevity as Akima's needs evolve.

Cost-Effectiveness

Despite its advanced features, the Nextivity Quatra system remains more affordable than many DAS solutions.



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The installation of the Quatra hybrid active DAS not only resolved Akima's initial cellular coverage issues but also provided a robust platform that supports an array of operational improvements. The enhanced mobile coverage and system scalability have positioned Akima to continue thriving in their innovative work environment without the constraints of previous technological limitations.

Our In-Building Wireless Team

20+ Years of Experience with 10,000 +Successful DAS Deployments

At MCA, our In-Building Wireless Solutions (IWS) team excels as a top-tier integrator of in-building and expansive campus wireless solutions. We offer unparalleled engineering design, project management, implementation, commissioning, and maintenance services. Our expertise encompasses engineering and installing Commercial Distributed Antenna Systems (DAS), Private LTE/5G systems, Public Safety ERRCs, Wi-Fi, and both multi- and single-operator systems within diverse public and private venues.

Our team's deep knowledge and innovative approach empower us to design customized, future-ready solutions that effectively address our clients' wireless coverage and capacity requirements. Leveraging a carrier-neutral strategy, we deliver cutting-edge, multi-operator DAS networks for corporate offices, hospitals, universities, airports, shopping centers, and more throughout the United States.

MCA | Your trusted advisor for a safe, secure, and efficient workplace.

"The solution we deployed provides the freedom for employees to move around the building while maintaining full cellular connectivity. This capability ensures that Akima's workforce remains productive in various settings within the facility, not just at their desks"



MCA

About MCA

MCA is one of the largest and most trusted technology integrators in the United States, offering world-class voice, data, and security solutions that enhance the quality, safety, and productivity of customers, operations, and lives.

More than 65,000 customers trust MCA to provide carefully researched solutions for a safe, secure, and more efficient workplace. As your trusted advisor, we reduce the time and effort needed to research, install, and maintain the right solutions to make your workplace better.

Our team of certified professionals across the United States delivers a full suite of reliable technologies with a service-first approach. The MCA advantage is our extensive service portfolio to support the solution life-cycle from start to finish.

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The MCA logo is rendered in a white, sans-serif font. The letter 'C' is stylized with a blue circular graphic element inside it, consisting of a solid blue ring and a central blue dot. The background of the entire page is a dark blue gradient with abstract white line art patterns, including a network of nodes and lines in the upper right and a grid-like pattern in the lower right.