

Coverage for E-Comm Distribution Center

Case Study / Warehouses & Industrial

Case Study courtesy of **NET Coverage Solutions**, Camberley, England



Summary

Challenges

Global e-commerce company renovating a two-story warehouse and distribution facility with a combined 40,000ft². Impenetrable building materials blocked cellular signals from reaching warehouse space and ground-floor offices. Needed to secure indoor 3G/4G coverage prior to becoming fully operational to support general communication of management team and staff.

Solution

CEL-FI QUATRA Cellular Coverage Solution (2 NUs and 7 CUs)

Results

Immediate cell signal improvement to a large indoor area. Network-safe and economical to install. Customer was happy with the simplicity of the deployment.

Challenge

A brand-name, e-commerce giant was renovating its more-than 40,000 square foot warehouse located in England. Like many other distribution centers, the building was constructed primarily with metal, steel I-beams, and impenetrable cladding on the outside. Combined with a metal roof, a minimal number of windows located in the few existing offices, and a property largely obstructed by trees, bringing a cellular signal indoors had been next to impossible.

The company initially contacted its mobile network operator for an X cellular solution. The operator contacted their partner integrator NET Coverage Solutions to evaluate the situation. After careful consideration, NET Coverage Solutions decided to select **CEL-FI QUATRA**, an active DAS hybrid that can be automatically configured and managed using the CEL-FI WAVE cloud-based management platform.

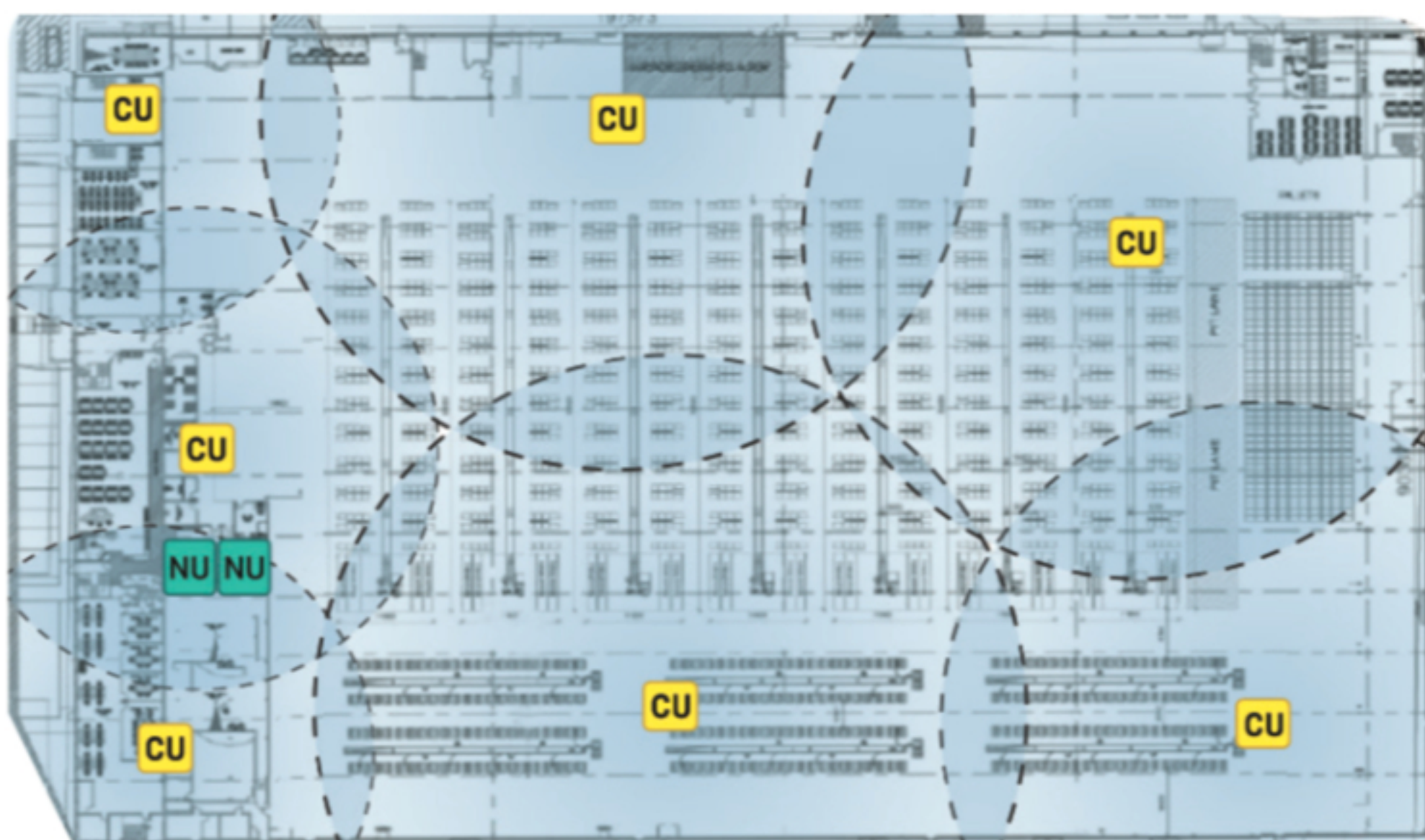


Solution

NET Coverage Solutions went to the facility to perform a site walk test, assess the building's cellular environment and determine how much equipment was needed. The two Network Units (NUs) that are the head ends of a CEL-FI QUATRA system receive cellular signals via coaxial cable that runs to a MIMO antenna affixed to the outside of the warehouse. This donor antenna is located at the southeast side of the building – one of the few areas not obstructed by large trees. The donor antenna is attached to a pole that is just under three meters high, clearing the roof line and increasing the line of sight to the nearest cellular tower.

NUs are connected with category cable to remote internal antennas called Coverage Units (CUs). Four CUs were conveniently placed in the mostly open, ground-floor space which also houses a few offices and meeting rooms; while the large, open warehouse with low-level equipment and storage was outfitted with three CUs. Because CEL-FI QUATRA leverages Power-over-Ethernet, no additional power outlets were required, enabling optimum CU placement wherever signal was required.

The CEL-FI QUATRA system was installed and commissioned using the CEL-FI WAVE Portal authentication and activation system. The installation was further optimized with antenna pointing tools available in the CEL-FI WAVE App, and the ready reading and optimization of SINR, RSRP, and RSRQ. After successful install, remote access was available to manage and provide updates.



Results

Immediately following installation, the e-commerce giant experienced clear and reliable cellular connections inside its offices, operations area and warehouse. NET Coverage Solutions Director Dave Stephens stated, "CEL-FI QUATRA is exactly the type of solution the market has needed. It's safe for the operator, economical, and very simple way to deploy, bringing IT-level ease-of-use interfaces to the RF industry. The expectation is that cellular shouldn't be any more complicated than Wi-Fi, and Nextivity has accomplished that illusion by its innovative design and simplified user interfaces."

Case Study courtesy of

NET Coverage Solutions UK

- Founded in 2004
- Headquartered in Camberley, England, UK
- One of the UK's largest systems integrators in the cellular industry
- Cellular solutions in-house: from closed access domestic femtocells to multi-sector, multi-operator, multi-technology macro/pico cells
- Provides services to operators, landlords, property developers, and private clients