



Mobile signal improvement in a regional supermarket distribution centre



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Mobile reach in a regional supermarket distribution centre

Mobile blackspots in a supermarket distribution centre resolved with Cel-Fi mobile signal boosters.

During the construction of a new distribution centre in Peterborough, the customer identified that a robust and stable mobile connection would be imperative for the operational efficiency of the supermarket. [Pan RF](#) was involved from the onset which allowed them to schedule the installation of a cost-effective mobile signal solution in a short space of time.

The Business

A new 70,000m² regional distribution centre was built for a leading supermarket in Peterborough, UK. The warehouse includes a single level office on the 3rd floor which house meeting rooms, administrative areas, training rooms and a canteen. Office space, driver check-in desks and the goods out area are located on the ground floor.

The company provide their employees with EE operated mobile phones to speak to customers and suppliers. Employees often move around the building to quieter areas or meeting rooms to have telephone conversations. It was imperative to have a reliable and stable connection in place to prevent dropped calls as they moved about in the building.

The Challenge

The main building is 242m long x 185m wide x 20m high and constructed from large span fabricated steel trusses and metal cladding. To accommodate the 3rd floor mezzanine, long span steel beams with metal floor decking were installed. New building regulations introduced after the Grenfell disaster stipulate that all new buildings must include more fire-stop partitions. The use of metal cladding and steel effectively blocked any mobile

signal from penetrating through. A further challenge was posed by the cable trays which were located above the suspended ceiling and would make any cable installation problematic.

The Solution and Result

Recognizing that mobile connectivity was crucial for business operations, the customer had the foresight to involve [Pan RF](#) from the onset. Pan RF performed a site survey to establish the current level of EE mobile coverage. The site survey confirmed that there was adequate EE mobile coverage outside the building, but once inside, the signal strength declining significantly, particularly in the 3rd floor offices and goods out areas.

CEL-FI
QUATRA



The [Cel-Fi Quatra](#) mobile signal booster solution was presented to the customer to provide voice and data services on the EE network. The Cel-Fi Quatra is a hybrid, all-digital solution which combines the best of active DAS and Smart Booster technologies. Cel-Fi products have the additional benefit of being license-exempt and comply with all the OFCOM regulatory requirements in the UK.

After the acceptance of the proposal, the Cel-Fi Quatra solution was installed and commissioned using the Cel-Fi Wave Portal. Speed tests and walk tests were carried out using TEMs pocket software to provide further evidence of the improvement of coverage levels within the 3rd Floor Office and Ground Floor Goods Out areas.

This cost-effective, OFCOM licence-exempt solution was deployed in a short space of time and provided the warehouse employees with reliable voice and data services in the new facility.



Pan RF designs and deploys in-building public cellular mobile connectivity and private mobile radio (PMR) coverage solutions, providing the seamless coverage business demands, offering network solutions to support the IoT and realizing the commercial potential and environmental benefits this offers.

Web: www.panRF.com

Email: sales@panrf.com



Established in 2002, Frequency employs over 60 people, across the UK, Germany and the Netherlands. Frequency Telecom is the master distributor of Nextivity's Cel-Fi range of mobile signal boosters in the UK and Ireland. Cel-Fi products are licence-exempt and fully meets the regulatory requirements in the UK (Ofcom SI 2018/399) and Ireland (ComReg S.I.No.283 of 2018).

Web: www.frequencytelecom.com

Email: info@frequencytelecom.co.uk

Tel: +44 208 397 2222



Headquartered in San Diego, Nextivity Inc. develops the award-winning line of Cel-Fi products that optimize cellular coverage in homes, office and enterprise buildings. Cel-Fi products are self-configuring and leverage the advanced signal-processing and radio design of Nextivity's IntelliBoost chipset to deliver the industry's highest gain at the lowest cost per square foot. The Cel-Fi commitment is to protect the operator's network, deliver the best in-building mobile performance, and be the easiest solution to install.

Web: www.cel-fi.com