

Cel-Fi salvages mobile connectivity for McLaren Construction HQ

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Cel-Fi SOLO provides coverage solution despite degradation in the local cellular network

Background

When cellular masts were removed from the Brentwood area in Essex, thousands were left with virtually non-existent mobile signal coverage. Driven by their strong corporate values, McLaren Construction were aware that without good mobile connectivity, their ability to exceed customers' expectations would be undermined. Frequency's Cel-Fi SOLO provided them with a quick and reliably carrier grade solution to an unforeseen problem.



The Business

McLaren Construction is part of the larger McLaren group of companies. Established in 2001, they operate in construction, property and development in the UK and UAE, servicing customers in the private and public sectors. Their core markets include commercial offices, mixed-use buildings, residential, retail, education, distribution and logistics, hotels and leisure. McLaren aims to exceed customer expectations, leave a positive legacy in the communities they serve, protect the environment for future generations and promote a safe and inclusive workplace.



The Challenge

McLaren's 3-storey head office is located on the Kings Road in Brentwood, Essex. In June 2020, cellular masts from all the main mobile network operators were removed from the Ewing building. These masts were used to provide 2G, 3G and 4G network coverage for the Brentwood and surrounding area. The removal left thousands of Brentwood businesses and residents with little to no phone signal.

Due to the network change, McLaren Construction's offices in Brentwood were adversely affected by the abrupt loss of mobile coverage and the surrounding area was now very much in a mobile network black spot. With the office now located further away from the nearest mobile phone tower it soon became apparent that the thick external walls that made up the façade of the HQ building, would only make the lack of in-building mobile signal more acute.

Moreover, with the mobile network operators and the local authority unable to agree on a new location for the masts, McLaren realized that the problem would unlikely be resolved in the foreseeable future and therefore an alternative solution had to be found and fast.

The Solution and Result

Having had first-hand experience of OFCOM licence-exempt Cel-Fi solutions through successful deployments at other project sites, the McLaren IT team contacted Frequency to enquire about a solution to improve the mobile coverage in their office despite the recent changes to the mobile networks.

Right from the initial discussions with their IT team, it was clear that a solution needed to be designed and installed quickly as poor mobile coverage was having a detrimental effect on business operations and morale.



Based on the urgency of the situation, Frequency were instructed to carry out a site survey after the requirements of the deployment were discussed. The site survey would examine all the external and internal factors of the building and determine whether a Cel-Fi solution would be able to resolve their HQ mobile coverage dilemma.

The survey confirmed that there was little to no signal inside the building, explaining why employees were unable to use their mobile devices. Crucially, however, the survey identified that the mobile signal for all networks on the roof was of good enough strength and quality, providing evidence that a reliable and robust solution could be achieved by installing a Cel-Fi solution with high gain antennas.

Frequency presented the client with the survey report together a proposal for a Cel-Fi SOLO solution. The Cel-Fi SOLO solution, Frequency's latest, best-in-class 3G & 4G mobile coverage solution would be the best fit and most cost-effective solution to resolve the mobile coverage issues for all networks throughout the 3-storey building. Due to the short lead times proposed, installation was agreed and completed within 3 days.

CEL-FI[™] SOLO



The all network Cel-Fi SOLO solution was installed by Zonewave, an accredited Cel-Fi installer partner of Frequency. The solution consisted of:

- 12 x Cel-Fi SOLO units
- 4 x External wideband panel antennas

In order to pick up the best available mobile signal from each of the networks, the donor antennas were positioned and pointed at the nearest towers. The donor alignment phase was an important part of the commissioning process to ensure that the system delivered the optimum coverage performance within the building.

From the donor antennas, the signal was distributed to the omni antennas via the Cel-Fi Solo signal boosters which were sited in the Comms office. The Solo with up to 100dB of system gain and echo cancellation software can significantly improve signal levels, thus enabling better call quality and faster data throughput speeds.

Following installation, the building now has full mobile coverage across all floors. Staff, contractors and visitors of the building can now use their mobiles for voice and data services with confidence in all areas of the building albeit much of Brentwood is still struggling with virtually non-existent phone signal in the area.





At Zonewave our combined experience spans over 50 years in the telecoms industry. Zonewave are proud to have provided signal solutions for prestigious clients such as The Royal Opera House, The Government Legal Department, and Warner Media.

Zonewave believes that the highest quality solutions deserve the highest quality installations. Point of sale connectivity, free to roam data collection, WHSE automation, IoT enablement, and patient data availability are just some of the reasons our clients have chosen our solutions.

Additional information is available at ZoneWave.co.uk, on [Twitter](#) and [LinkedIn](#).



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).

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.

Frequency has successfully installed indoor mobile signal solutions at the NHS, Pure Offices, BBC, Hotel Chocolat, Lincoln Epic Showground, Premier League and many others.

See our [product range here](#).

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