

Case Study

Large Manufacturing Plant



About Us

Mobile Signal Solutions are UK based installers of commercial signal boosting systems, focused on improving mobile phone signals indoors.

Our professional team are approved installers of carrier grade equipment compatible with all UK networks. We work with the client from site survey to installation and offer maintenance & support contracts. Working together we ensure 100% network coverage, no budget overruns, and we offer upfront payment or leasing options.

Our main aim is that clients are happy to recommend us to others. Each system is voice and 4G compatible but we also future proof the design to carry other new mobile frequencies as they are launched e.g. 5G and 6G compatible systems.

The Property

Gestamp operates in a vast manufacturing facility. The challenge of extending cellular connection was concentrated within two primary areas: the two floors of the front office and the office area nestled within the manufacturing plant itself. The facility's design, characterised by dense mass concrete walls and steel shutters, significantly obstructed wireless signal, preventing it from effectively spreading from a singular central location throughout the building.



The Challenge

Given the extensive size of Gestamp's facility, providing seamless cellular coverage required a strategic deployment of multiple network and coverage units. This setup was crucial to circumvent the numerous internal signal blockages instigated by the facility's heavy-duty pallet racking systems and steelwork structures. By conducting detailed initial surveys, including heat maps and signal scans, the design team meticulously planned for overlapping signal distribution to guarantee unwavering connectivity across all designated areas.

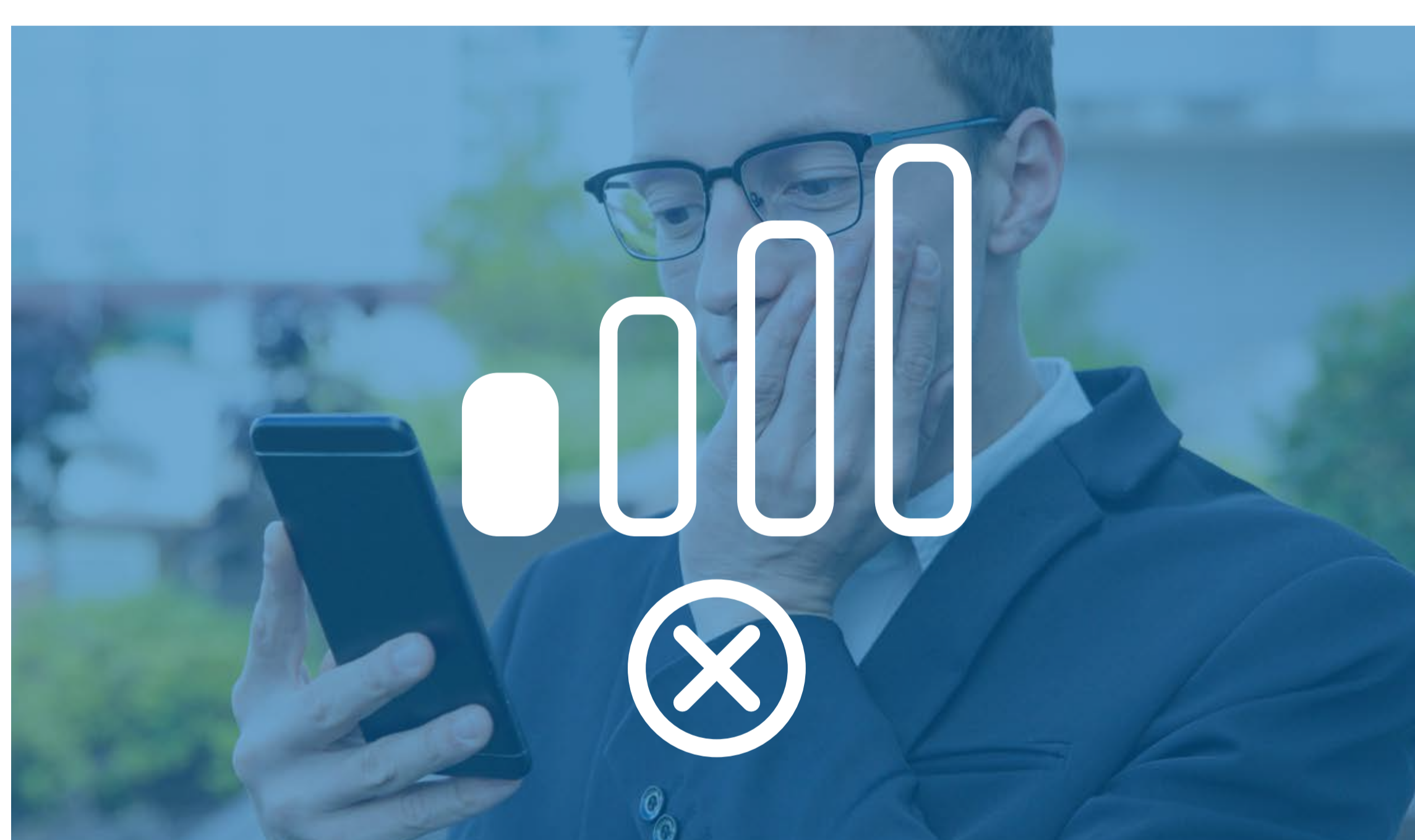
The Solution

On exploration of the site we identified an optimal location for signal reception on the flat roof, which facilitated the use of an existing aerial to mount an external antenna. A solid core coaxial cable was then fed across the ceiling tiles, making its descent through the riser down into the communications room. Here, the amplifier was installed onto the racking, acting as the heart of the operation by boosting the signal received from the external antenna. From the amp the cable will be distributed to omni antennas on the ground and first floor of the main offices, and across the gallery to serve offices in the plant itself.



The Results

The Vodafone signal strength across the entire facility was measured at an impressive 75dB or higher, providing maximum signal bars on devices and exceptionally clear call quality. Furthermore, data speed experienced a significant boost due to the use of 4G broadcasting from the signal booster system, providing all areas of the Gestamp manufacturing facility consistent, high-quality wireless access.



What Causes Poor Coverage?

Distance from the local base station or the construction of the outer walls are the main factors. Outer stone walls blocking signal is a common problem in many older buildings, due to the thickness of the walls signal finds it difficult to permeate indoors, especially in basements and areas with no windows.

In modern buildings, the high level of energy insulation also causes signals to be blocked. Buildings using foil backed insulation on roofs and walls, alongside variants of window panes where the glass contains metal particles to reflect the sun's rays means walls, roofs and windows all block the mobile signal.

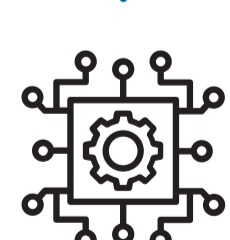
Need A Solution?

If you're looking to improve connection across your site but aren't sure where to start give us a call today. Our team are happy to talk through your options and set up a survey.



Step One: On-Site Survey

You will meet with our surveyor to discuss your needs in full. You can discuss areas of importance and agree on a design plan for the system you require.



Step Two: System Design

Our surveyor will then design the best possible system. The surveyor will then meet with the operations team to put a cost together for that system.



Step Three: Installation

Before you know it we will have a team of highly skilled engineers on-site and your system will be up and running and providing flawless mobile signal throughout.

"We had no mobile signal when we arrived at our new site 6 years ago. We have used Mobile Signal Solutions twice now and the equipment performance has been perfect. When we have had issues with mobile providers, mobile Signals Solutions has helped out straight away."

Chris, Gestamp



ZOTEFOAMS

FLUOR

TIDE



SAFRAN