

Case Study

Rural Private Residence



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

A large rural property, situated far from the nearest base station and with very low external signal, was being renovated and extended in line with the original house's design. Featuring large open spaces, high ceilings, and a high-quality interior, the building also had added insulation to improve heat retention and achieve a higher energy rating.



The Challenge

The solution needed to be discreet, with antennas hidden from view to preserve the property's aesthetics. Indoor mobile signal was almost non-existent, preventing the homeowners from making or receiving calls. Wi-Fi calling was insufficient, as incoming calls went directly to voicemail, and messages were only received when the owners left the property and entered a signal area.

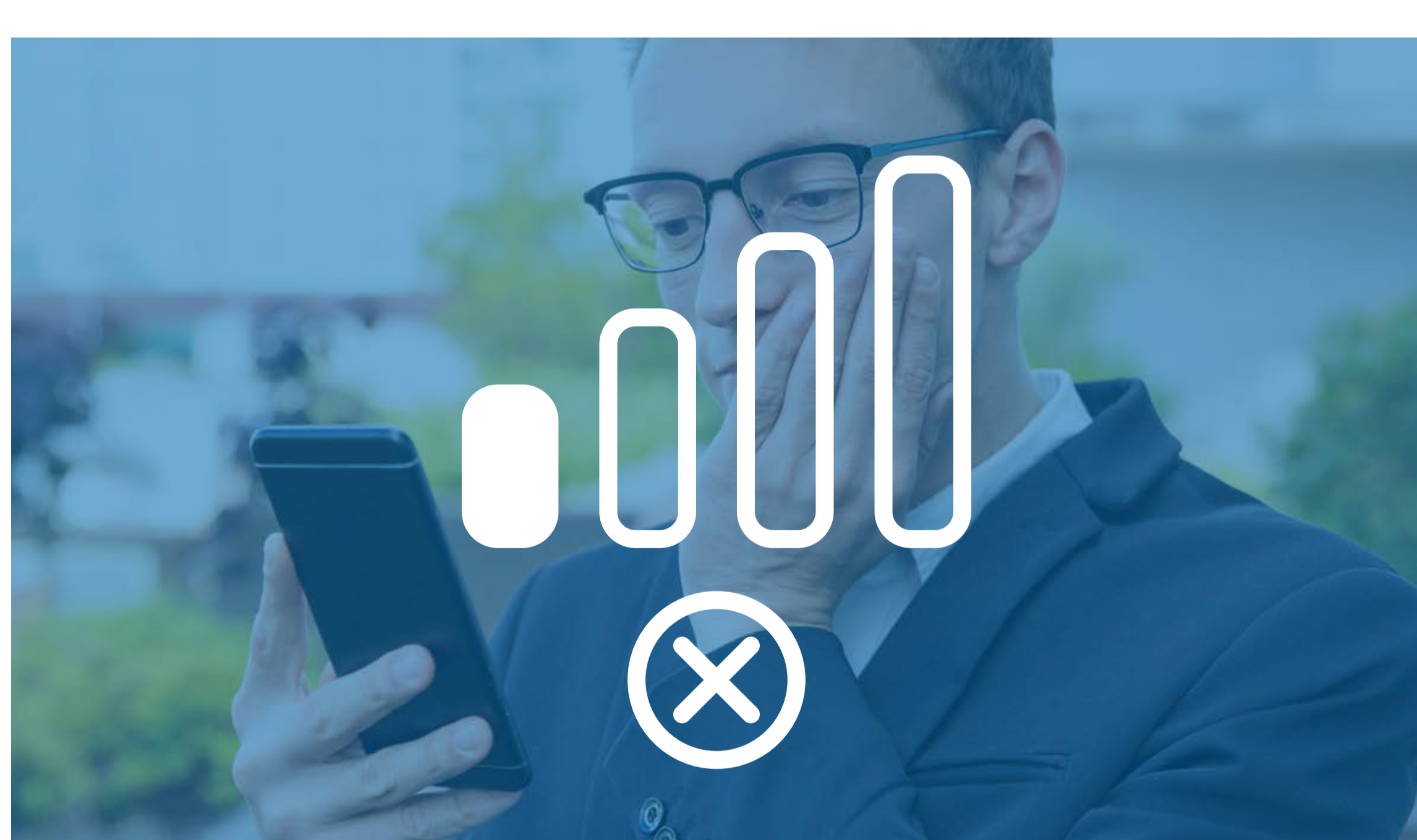
The Solution

Mobile Signal Solutions engineers used a high-level spectrum analyzer to align a high-gain donor antenna at roof level to the strongest available frequencies. A commercial-grade booster system was installed to simultaneously amplify five channels, addressing the poor signal issues. The amplification power was increased to the maximum allowed in the UK, minimizing the number of internal antennas needed.



The Results

Once activated, the system provided 100% coverage throughout the home across all major UK networks, using only three antennas. It ensured reliable voice and 4G connectivity, delivering excellent results with minimal disruption to the homeowners.



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.

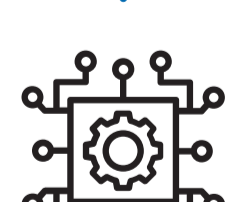
Need A Solution?

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.

"Colin visited our site and patiently talked us through the whole process and made us feel comfortable and he clearly had great knowledge in this sector.

Adam the engineer who came on site was very prompt and professional, doing a thorough job. Our phone signal has gone from static to completely clear, which is amazing for us. Cant thank them enough."

Home Owner, UK.

