

Case Study

Retail Point of Sale Units



About Us

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

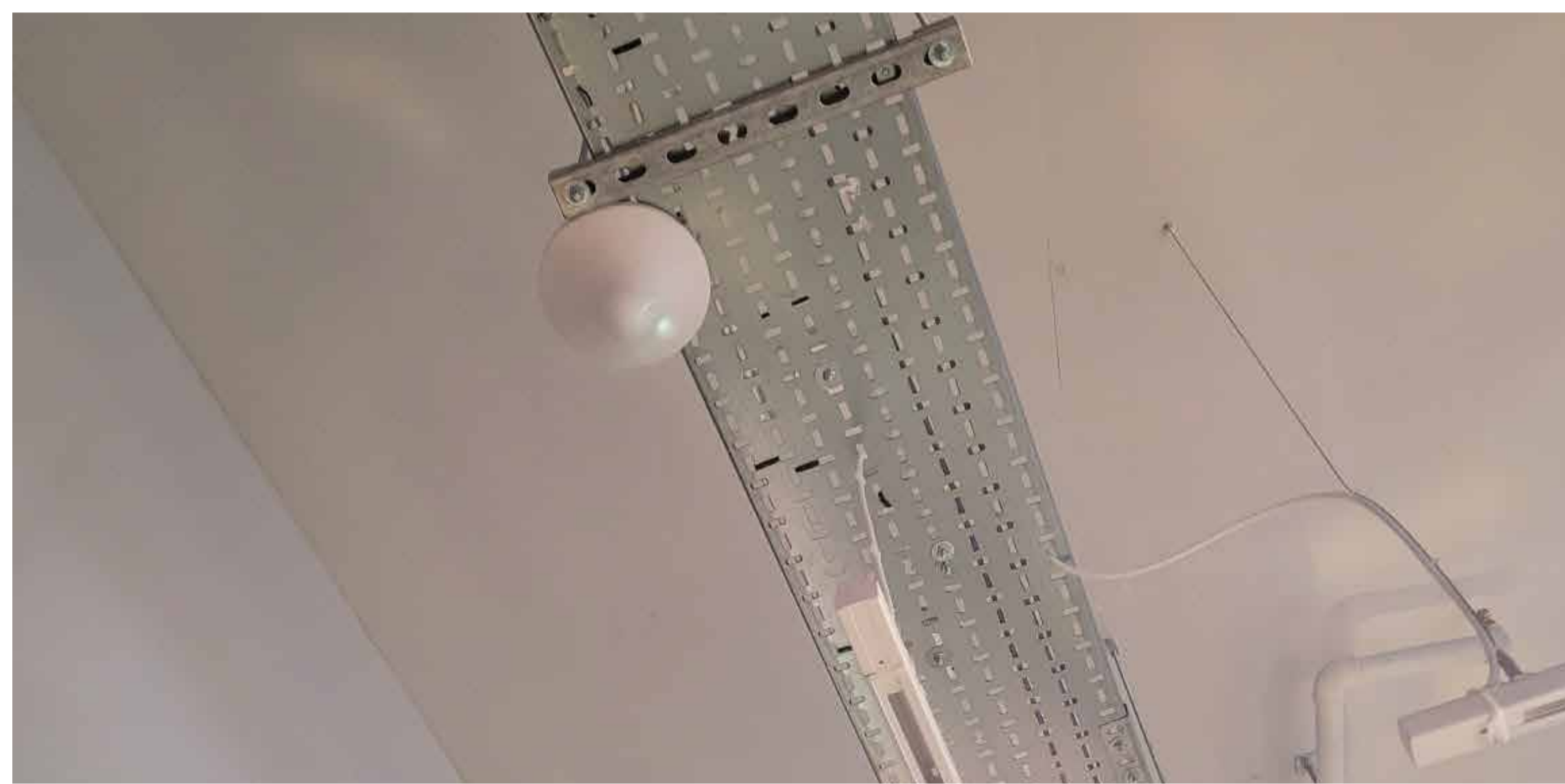
Our professional team are approved installers of carrier grade equipment compatible with all UK networks. We work with the client from site survey to installation and offer maintenance & support contracts. Working together we ensure 100% network coverage, no budget overruns, and we offer upfront payment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

London based ground floor retail unit operating in a listed property which had multiple floors above it, all occupied by other tenants. The location has a high volume of walk-in customers each day, mainly paying via debit or credit card. The visa card payment terminal worked off a sim card and had intermittent issues caused by a poor data connection.

There was a potential loss of revenue and goodwill with their customers due to being unable to process card payments from clients in a fast fashion retail store causing delays at checkout.

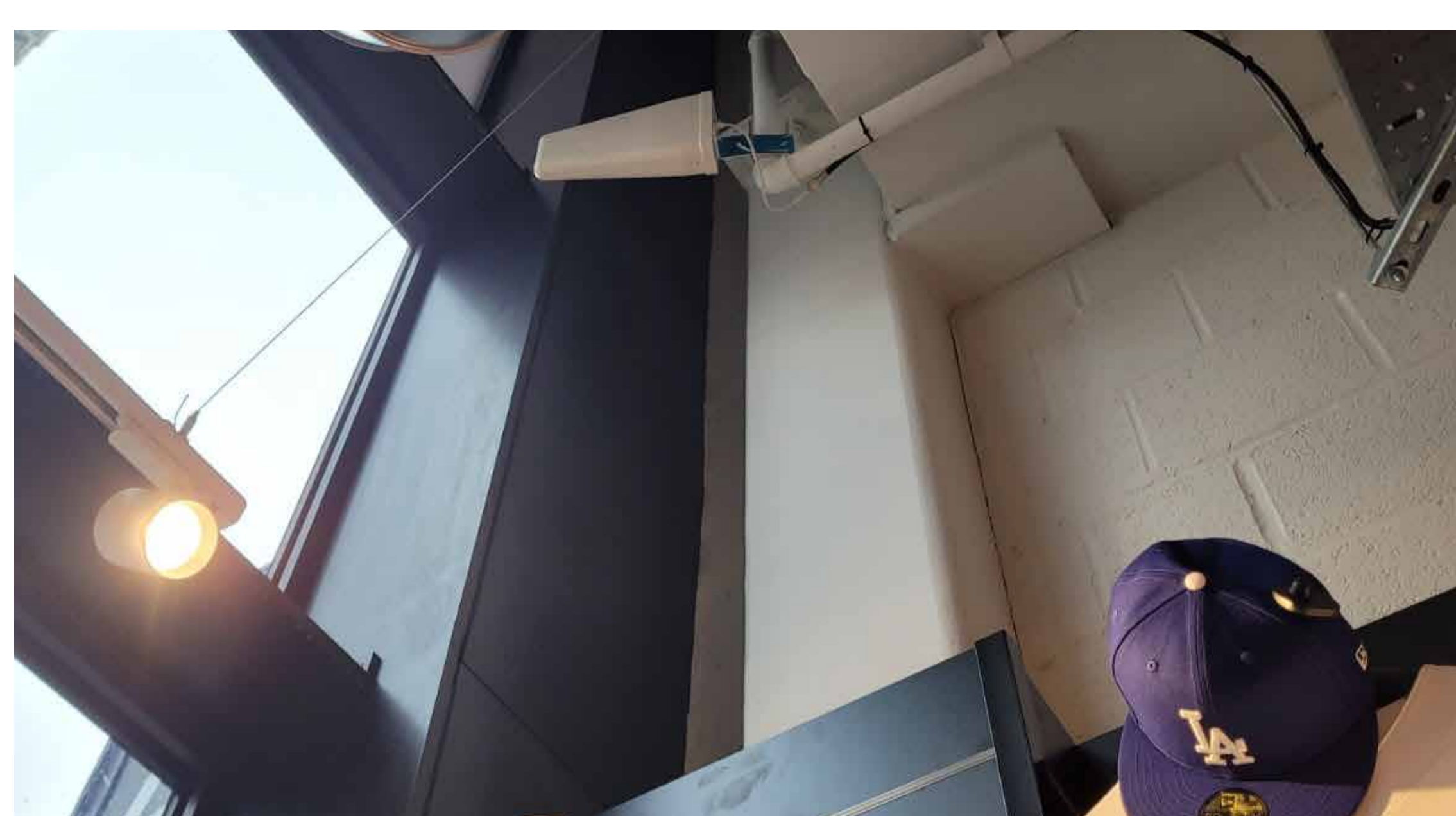


The Challenge

The project had to be discreet and stable, the roof was inaccessible as there was no riser from the ground to the roof, in order to place an aerial high up. The outdoor ground floor signals fluctuate constantly throughout the day so a steady input signal was impossible. An outside donor antenna was not feasible either, due to the property being a listed building.

The Solution

Our Mobile Signal Solutions engineers used a high level spectrum analyzer to take multiple measurements over time to find the best location for a donor antenna inside the shop. They then installed a booster for the system, that would simultaneously boost 5 channels to overcome the fluctuating signal issues, rather than using a traditional 2 channel Cel-fi booster



The Results

When the signal would drop across one channel e.g. 4G the booster would simultaneously make the 5G channels or alternative 4G channels available for the visa card machines to use. The built-in redundancy meant there was always a signal available for the card payments. This allowed the store to operate more efficiently and successfully with their Point of Sale machines.



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.

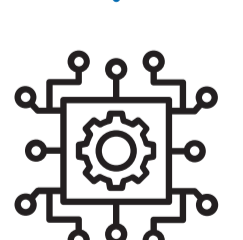
Need A Solution?

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

