

Case Study

Heriot Audio Visual



About Us

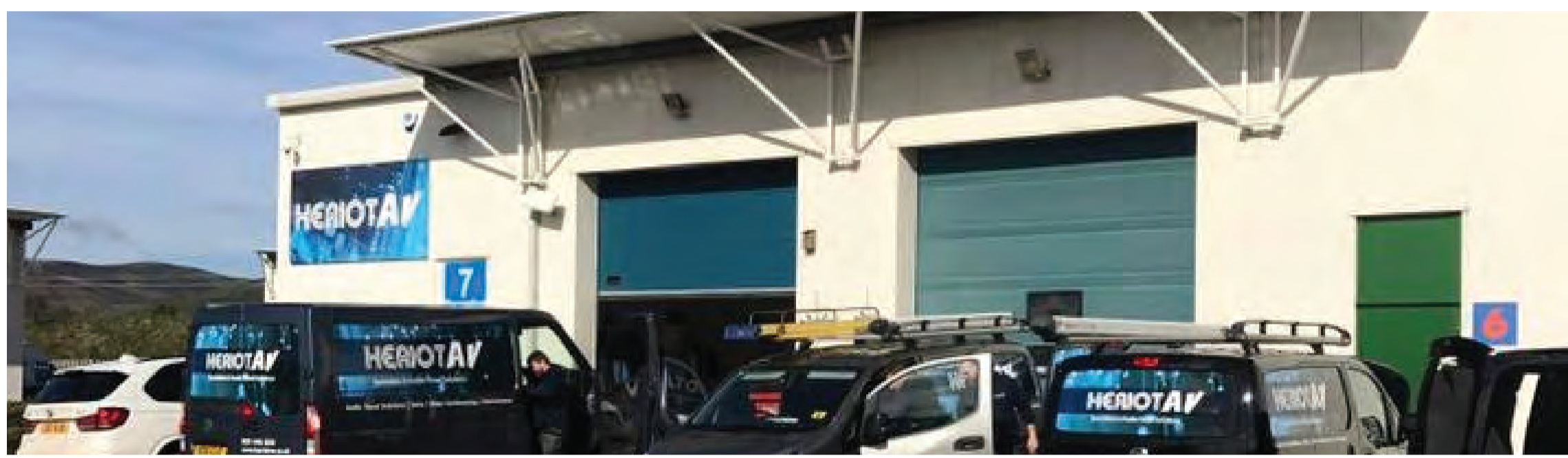
Mobile Signal Solutions are UK based installers of commercial signal boosting systems, focused on improving mobile phone signals indoors.

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

To cater to the electric cars, a government courthouse in the city of Edinburgh installed AV chargers in a spacious basement parking area. However, due to the basement location in a large listed building and the complexity of cable routing, this posed a challenge. Our engineers conducted a thorough site survey and identified a solution, taking into consideration the multiple floors above and the availability of a strong signal outside from at least one network.



The Challenge

In order to enable EV charging and facilitate payment, the charging machines required connection through a roaming SIM operating on a specific frequency band. Unfortunately, the basement of the property had no signal coverage in that particular frequency band, resulting in the inability to establish a connection.

Why A System Was Required

After conducting our survey, we identified the specific frequency band required to be broadcast in the basement. Collaborating with the landlord's agents, we prepared a site-specific Risk Assessment and Method Statement (RAMS), which gained approval for implementing a Distributed Antenna System (DAS) in the basement. To ensure accurate broadcasting of the designated frequency, we utilised a spectrum analyzer, guaranteeing comprehensive coverage for all EV chargers throughout the basement.



The Results

The AV Chargers came online promptly, utilising their SIM card to connect to the boosted frequency. This enabled seamless connectivity for accepting payments and charging clients' cars. To further address any changes made by the local network, the client has the option for remote monitoring.

Additionally, we have incorporated backup frequency bands to ensure that the system is not solely reliant on a single network.

0131 448 2312
heriotav.co.uk



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.

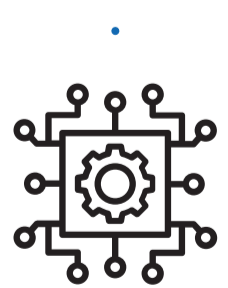
Need A Solution?

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.

"From Start of survey to installation in a very old complex government building in Edinburgh new town with walls 3m thick at points, The team from MSS delivered Mobile Signal for basement dwelling EV chargers that can now Poll to the EV charger company for payment recording. Very good service Provided by Colin, Graeme and team."

Lesley Beaton
Director, Heriot AV

