

# Case Study

## St Andrews Golf Course



## 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

Boasting a reputation to match the prestige of the St. Andrew's Golf course, the Castle Course Clubhouse stands as a bustling nexus of activity for staff, members, and avid golfers alike. Nestled in a scenic, remote location, the clubhouse offers a variety of dining options, a charming gastro pub, and comfortable changing facilities for members. Recognizing the importance of seamless communication for exemplary service, St. Andrews enlisted the expertise of Mobile Signal Solutions (MSS) to ensure robust mobile signal coverage for all networks within the clubhouse, thereby elevating the experience for clients with uninterrupted connectivity.



## The Challenge

The main obstacle encountered by the Mobile Signal Solutions (MSS) team stemmed from the weak outdoor signal, a direct result of the Golf Course and Club House's remote positioning far from cell towers. Additionally, the MSS team faced limited access for installing cables, necessitated by constraints such as scarce cable trays, risers, and the presence of fully plastered ceilings. This scenario demanded the creation of a clever solution tailored to navigate these specific installation challenges efficiently.

## The Solution

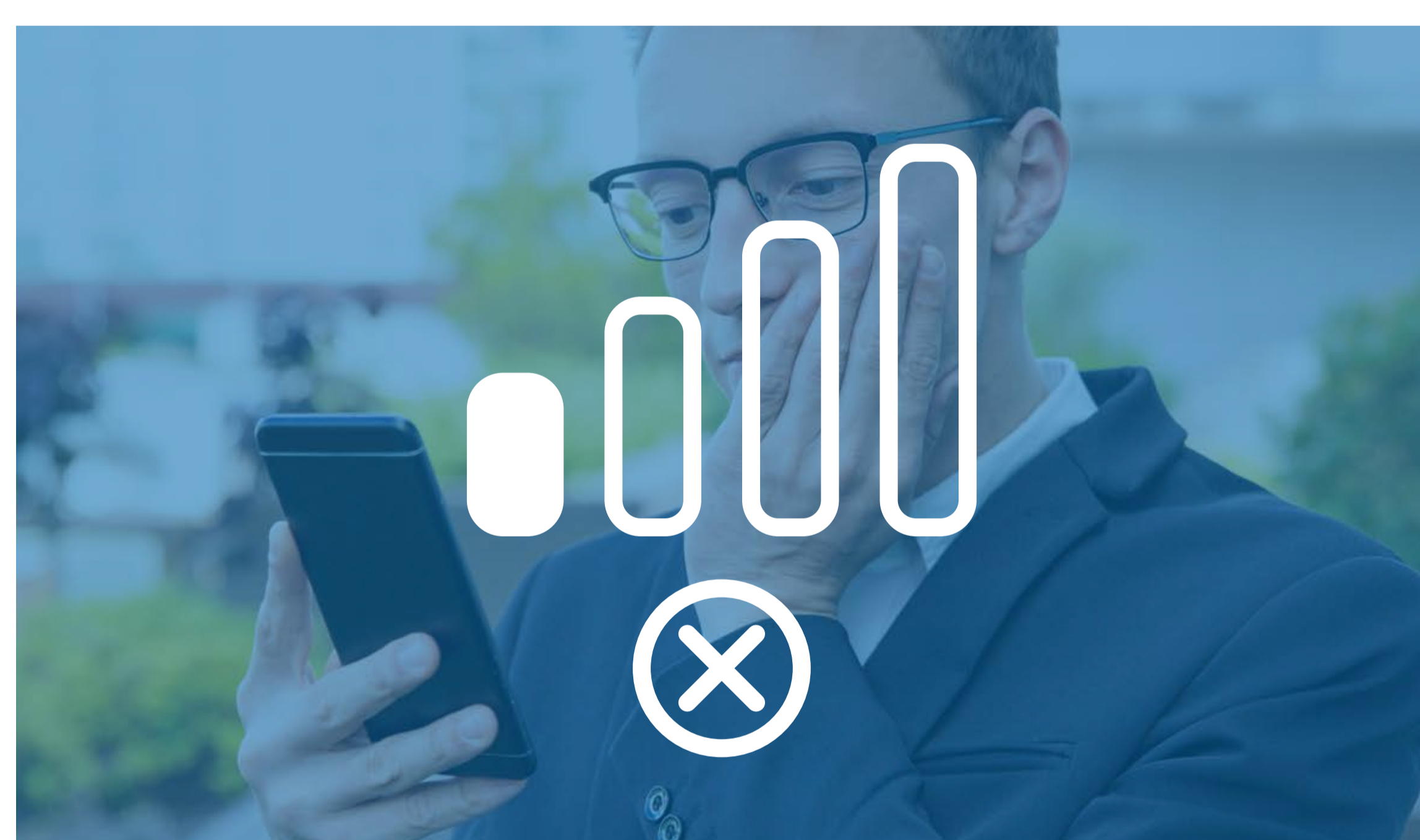
To counteract the poor outdoor signal, we deployed a high-gain directional aerial, aligned with precision using our sniper scanning technology and the deep expertise of our engineers. Our system operates across 15 channels, including the lower band 700MHz frequency which penetrates further. We incorporated a high-gain commercial amplifier to boost the weak incoming signal and rebroadcast it at significantly increased levels throughout the St. Andrews Clubhouse.

For indoor coverage, we opted for premium-grade 4G and 5G antennas, maximizing the reach of each antenna. Collaborating closely with the local maintenance team, our engineers skillfully navigated the building's layout to route cables efficiently, ensuring that the Distributed Antenna System (DAS) delivered complete coverage to every corner.



## The Results

The extensive coverage our solution delivers has significantly uplifted the clubhouse experience for both members and staff. Now, with seamless access to all networks, everyone can enjoy uninterrupted clubhouse visits, free from the worry of dropped or missed calls.



## 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.

*"One of our golf clubhouses had no mobile signal inside the building, but a signal survey report carried out by the MSS team put my mind at ease that a solution was possible. From survey, to planning, to implementation, everything MSS did was first class and gave me the confidence that they were the correct company to deliver the quality of solution expected at the Home Of Golf."*

Stephen Robertson  
St. Andrews Golf Club

