

# Case Study

## Emergency Button in Elevators



### About Us

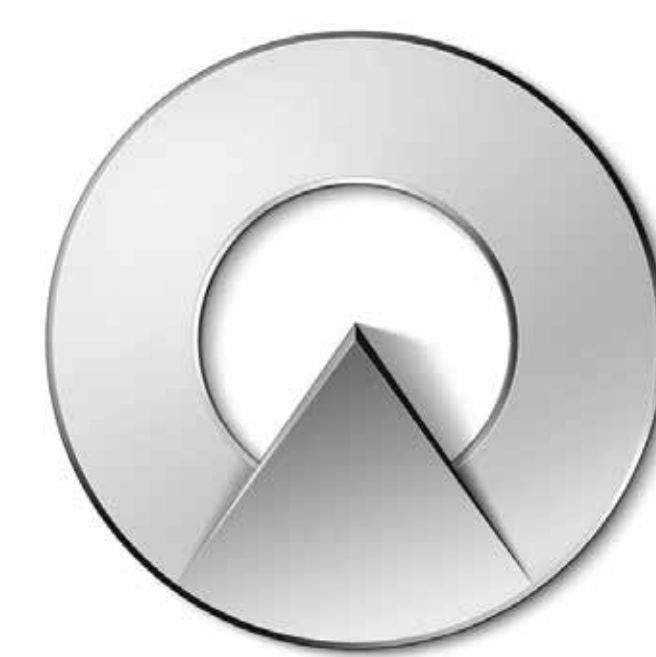
Mobile Signal Solutions are UK based installers of commercial signal boosting systems, focused on improving mobile phone signals indoors.

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

Lift shafts, ranging from 5-storey buildings to 60-storey skyscrapers, typically experience poor mobile signal reception. Following the removal of traditional copper phone lines by BT, the property needed to rely on mobile SIM connections for emergency communications within the lift shaft.



Schindler



### The Challenge

The rooftop aerial needed to be located at an optimal position in order to capture a strong enough RFRQ and RSSP signal to ensure the emergency communication system would function reliably in the event of an emergency. The communication line had to be continuously monitored, and a backup channel was essential to provide fail-safe redundancy in case of network failure.

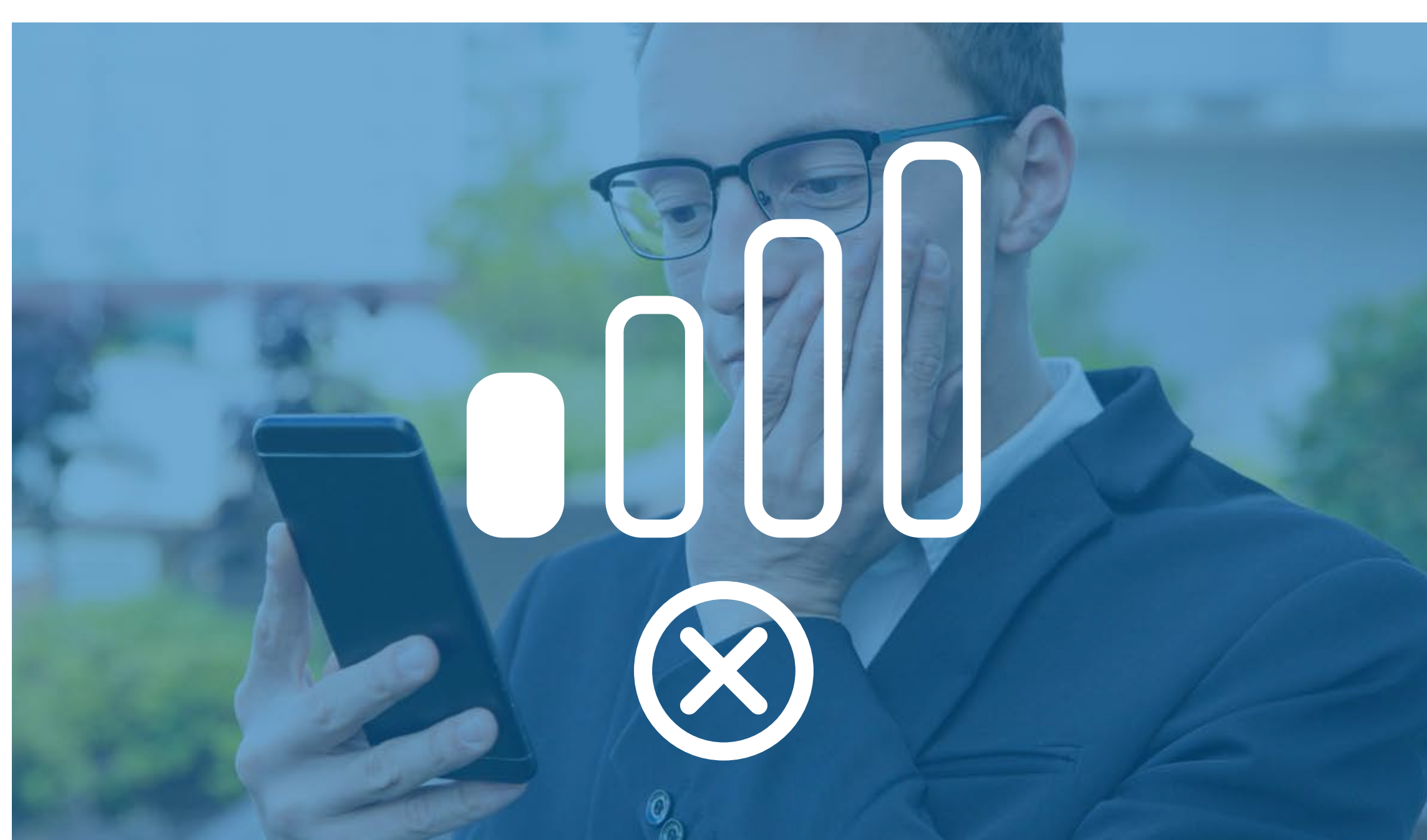
### The Solution

A digital network unit with 8 channels was deployed, broadcasting all UK mobile networks across two channels each. Engineers, trained in working at height and safety procedures, facilitated the installation and handled the necessary approvals for rooftop access. The system also featured 24/7 remote monitoring through an independent data connection, ensuring the emergency system's performance could be tracked without relying on the client's network.



## The Results

The installation ensured that the emergency system within the lift could now successfully connect to the mobile network via the installed SIM card. Multiple fallback channels provided redundancy, ensuring the system would remain operational even in the event of network issues, making the system both reliable and future-proof.



### 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.

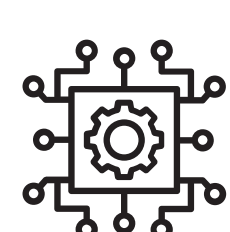
### Need A Solution?

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

