

# Case Study

## Expansive Operational Facility



## About Us

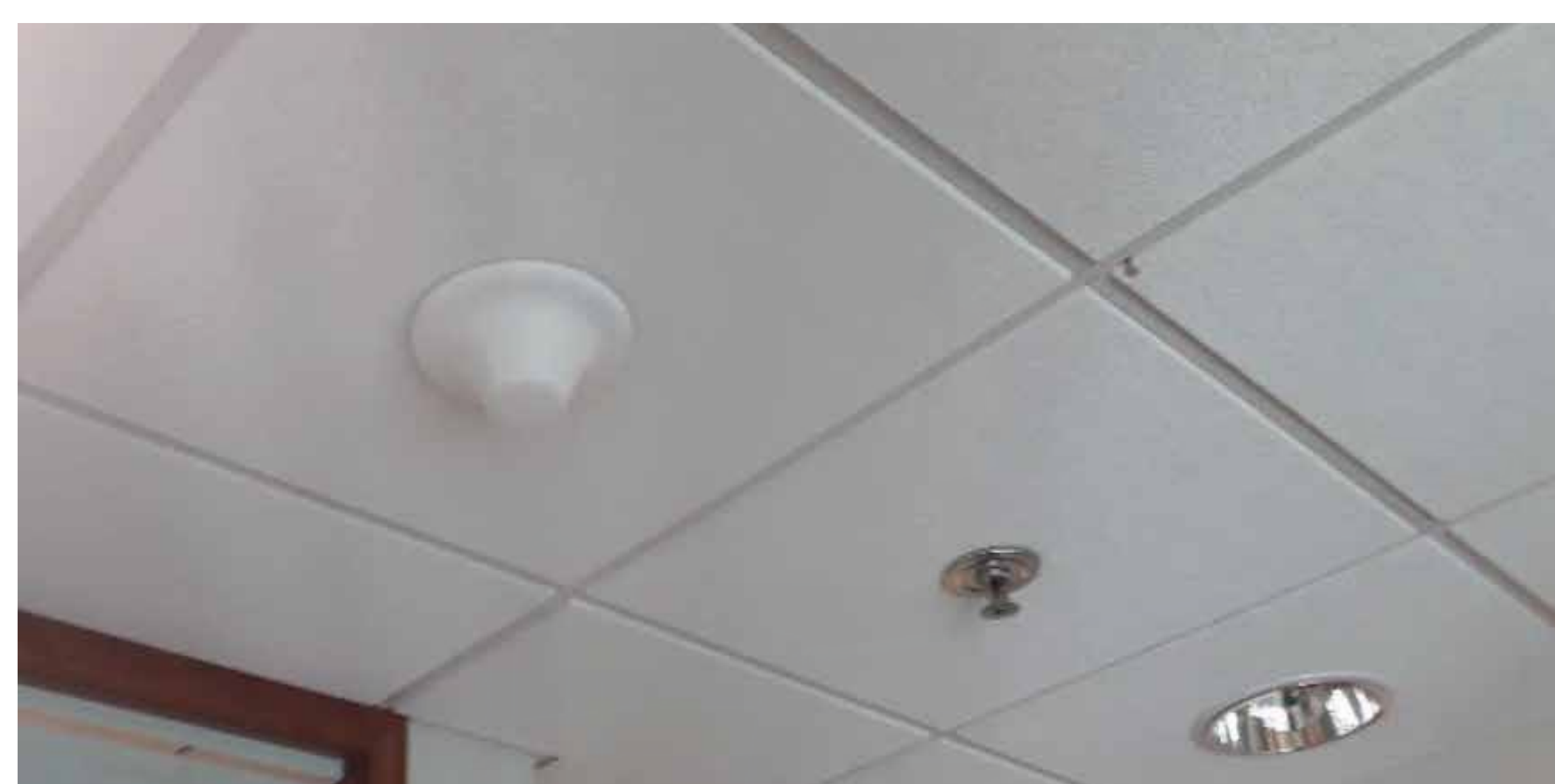
Mobile Signal Solutions are UK based installers of commercial signal boosting systems, focused on improving mobile phone signals indoors.

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

This extensive project covered 15,000 square meters of industrial space across multiple floors, each spanning 5,000 square meters. The building, a Faraday cage with metal-clad sides and roofing, had no signal beyond areas near windows. The facility included a mix of industrial and office spaces, mezzanines, secure locations, communal areas, and dining spaces, all requiring comprehensive signal coverage.



## The Challenge

The project had to be executed within an active manufacturing facility without disrupting operations or causing power and cable outages. With constant traffic and movement of people, minimizing noise, trip hazards, and disruptions during cable installation was crucial. Additionally, the existing O2 boost boxes, now outdated and unsupported by O2 engineers, required repair, and a new DAS system needed to be installed.

## The Solution

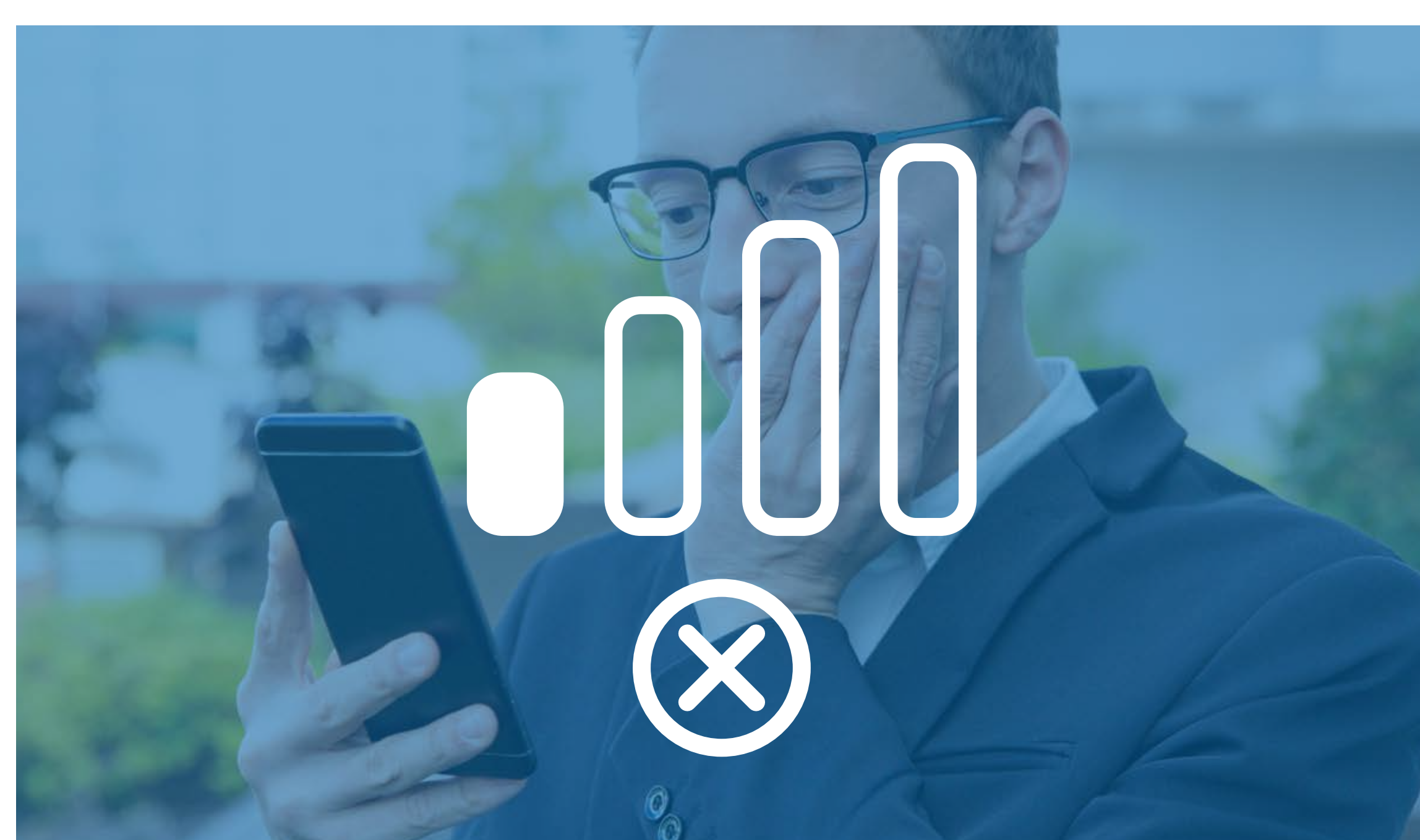
Engineers meticulously planned the project with site-specific method statements within the RAMS framework. Work was carried out during off-hours, weekends, and standard operating times (8 AM - 6 PM).

The client was able to provide supervised access to restricted and private areas, as our teams re JOSCAR-approved this ensured a smooth process in gaining this access. Our certified staff across multiple manufacturers repaired the existing O2 system and installed a new 4G and 5G system to future-proof the building.



## The Results

The old O2 boost boxes were successfully repaired and repurposed as a backup using 900MHz technology. The new system, incorporating both voice and data across 4G and 5G, significantly improved signal coverage throughout the entire building.



## 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.

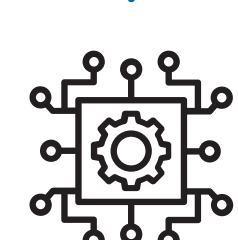
## Need A Solution?

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.

*"What a breakthrough! We have struggled with mobile phone signal in our metal box factory for years and Mobile Signal Solutions have fixed that! No more walking round the car park having phone calls. Very professional and attentive throughout. Highly recommended"*

Joanne Varney  
Safran UK Ltd.

