



CELLULAR ASSET MANAGEMENT

Tower 42, London

Description: **Cellular coverage throughout Tower 42.**

Requirement: **2G, 3G and 4G coverage across all floors.**

Solution: **A robust system that delivers seamless coverage and capacity, flexible enough for every UK Mobile Network Operator.**

◆ Overview

Tower 42 is a landmark building in The City of London, close The Bank of England and Liverpool Street Station. This impressive tower was originally commissioned by NatWest Bank and then extensively refurbished under its new owners. Now redesigned for multiple occupancy, Tower 42 incorporates 324,000 square feet of high quality office space as well as restaurants, bars, a health club, pool, spa, barber and high tech medical centre.

Whilst some local cellular coverage could be accessed from within the building, Tower 42's owners wanted to ensure that coverage and capacity reached optimal levels, making communication easy for both business and leisure. Vodafone commissioned CAM to deliver a comprehensive system that would guarantee a high-quality user experience.

◆ What did the Project Involve?

Designed by architect Richard Seifert, Tower 42 is a slim building with windows on each side, providing plenty of natural light and exceptional views of London. As the previous headquarters of the NatWest Bank, many have suggested that the structure imitates the company's logo when seen from above.

From a wireless communications perspective, this style of building can present challenges, as the large number of windows can create interference from external networks, where coverage and capacity may not be as extensive.

We needed to measure levels of coverage from outside the building and to design a system that would help mobile devices prioritise the bespoke, internal system. The project needed to accommodate 2G, 3G and 4G.



The building has multiple tenants, so our project managers had to liaise with over 90 companies within the tower, in addition to the property owner who was responsible for the common areas. The tower was fully occupied throughout the installation process and work had to take place at night.

◆ Why was the Project so Successful?

Our designers delivered a successful plan which minimised costs and maximised capacity and coverage. The system that we designed covered 2G, 3G and 4G and was flexible enough to work across different mobile networks.

Whilst lean in implementation, the project was large in scale, utilising three Base Transceiver Stations (BTSS), 371 antennas, 6km of coaxial cable and 2km of optical fibre.

