

Case study:

The Barbican Estate

barbican

Delivering the UK's fastest Internet to a landmark development

Developers, investors and landlords are looking for improved connectivity for their residents, and to provide infrastructure to enable smart building technology.

Using the latest technology, Optify from PCCW Global provides a true "full fibre" experience and is ideal for both new build or retrofit applications, delivering ultrafast speeds whilst remaining discreet and minimally disruptive to install.

Customer profile



The Barbican Estate, in the City of London, was built during the 1960s and 70s as part of the post-war redevelopment of the city.

The development is a prominent example of British brutalist architecture, comprising of three large residential towers and thirteen blocks. In total, the estate consists of over 2,000 homes, housing around 6500 residents.

The challenge

Barbican residents had previously endured slow connections with speeds of around 6 Meg. In 2014, the Corporation of London and Vision Fibre Media asked PCCW Global to design and build a fibre optic network across the entire estate. The requirement was to bring state-of-the-art broadband to every resident.

The Barbican Estate became listed as a site of special architectural interest in 2001, a title usually reserved for much older buildings. The construction of the building is largely reinforced concrete, much of which forms an important part of the unique look of the complex, but does have its challenges when undertaking a retro fit.

Tight rules surround any work carried out on listed buildings and any project requires close collaboration with the local authority and English Heritage to ensure that the material structure of the building is not damaged. It was therefore imperative that the solution was sympathetically installed with the minimum of fuss.

The design that the network architects drew up was based on GPON (Gigabit Passive Optical Network) technology. GPON uses optical wavelength division multiplexing (WDM), so a single fibre can be used for both downstream and upstream data.

The net result is a solution that is efficient in terms of cost and time to deploy as well as the ability to install discretely in a historic building, requiring fewer cables and drilling than rival technologies.

The PCCW Global solution

With fibre optic cabling and GPON technology deployed, PCCW Global was then able to make 1 Gigabit ultrafast broadband available to every resident on the estate. What was unique about the design of the fibre network at Barbican, however, was how far the fibre went into the property.

At the Barbican, the fibre reached all the way to the back of the end user's router in their home. This meant that as hardware improves, and bandwidths increase, there is almost no limit to the download speed achievable by the user. Today, users are able to get 1Gig speeds from their router.

In the future, without having to re-cable, causing inconvenience and damage to the property, PCCW Global can upgrade speeds across the network to 10 Gbps and beyond, by simply swapping out the GPON equipment and user's router.

The results

Currently, through PCCW Global, users are able to choose broadband packages with speeds ranging from 50 Meg up to 1 Gig, along with IPTV and telephony services, all delivered using GPON technology. In independent speed tests conducted by Think Broadband, the Barbican postcode frequently appears as one of the fastest speeds available in the UK.

The benefits



A trusted, supported offer that will enhance the value and desirability of your building



Put your property on the map, with the UK's fastest broadband speeds



Future-proofed network, designed to be easily upgraded



No financial outlay by the property owner or manager



Wireless solutions for common areas, like foyers, lounges and gyms



At around 68 times faster than the UK average broadband speed, PCCW Global's fibre broadband service delivers real benefits to building owners and their residents alike.

About PCCW Global

PCCW Global is one of the world's leading communication service providers, with a presence in major UK cities and high-speed links to Europe, the US and Asia. As a group, we believe in providing a technically advanced solution that can deliver today's top speeds, but also be easily upgraded for tomorrow's.

In the UK, we are a leader in supplying fast and reliable internet services to large multi-tenanted properties. Our range of managed internet solutions includes fibre and wireless broadband for homes and businesses, and our full fibre residential and business internet access can provide speeds of up to 10 Gigabits.

Optify your world.

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To learn more about PCCW Global's Connected Building Solutions, explore [optifyourworld.com/full-fibre](https://www.optifyourworld.com/full-fibre)

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