



Wembley Park

Alcatel-Lucent Enterprise
brings smart city technology
to next-generation living

Customer Story

Wembley Park

MARKET: CONSTRUCTION
DEAL IMPLEMENTED: 2019

COUNTRY: UNITED KINGDOM
NUMBER OF USERS: 20,000

COMPANY:
WEMBLEY PARK

Alcatel-Lucent 
Enterprise



The 85-acre Wembley Park development site involved one million square metres of mixed-use residential, commercial, and retail unit space and included Europe's largest smart build to rent (BtR) complex with more than 7,000 BtR apartments.

Next-gen technology delivers smart city

Quintain was challenged to create a smart city environment with next-generation fibre-to-premises technology. To do this they needed to build a resilient service provider network to provide high-speed internet services with up to gigabit speeds, to the 7000 new homes, retail, and office buildings. In addition, an outdoor transmission network was necessary to provide connectivity for Wi-Fi access points, digital signage, CCTV, and public announcement systems.

A holistic approach

Working together with Quintain, Velocity1 was responsible for the design, build and deployment of a fibre optic network across the 85-acre site.

Before choosing any technology vendor, Velocity1 undertook three broad considerations – technical, operational and commercial.

As a technology provider, Alcatel-Lucent Enterprise delivered solutions from the [Alcatel-Lucent OmniSwitch®](#) family of next-generation technology to meet the following requirements:

- **Technically** it had to meet Velocity 1 requirements and allow for easy service enablement, with easy upgrade paths and proven scalability
- **Operationally** it had to be robust. Given the critical importance of the in-building systems, broadband networks and public realm services this infrastructure supports, the product must perform in this demanding environment from a hardware and software perspective. It must fit into the OSS ecosystem so that issues are easily diagnosed and resolved.
- **Commercially** it had to deliver value for money, as well as deliver the right technical and operational features

About Wembley Park

Wembley Park is an exciting new urban heart for Brent and North West London. It is a far cry from the previous acres of car park that was only used on event days. Today, Wembley Park is a place to enjoy 365 days a year, thanks to our developers Quintain, who have invested over £2Bn in our neighbourhood to date. Since 2004, Quintain has been working on Wembley Park as one of London's largest development efforts, transforming the long-neglected space around the National Stadium into a vibrant new district of London. You can now live, work, shop and play in this world-famous cultural neighbourhood, a globally-significant and locally-loved London district.



“ We are privileged to be deploying infrastructure on behalf of Quintain in the largest urban regeneration project in the UK, if not Western Europe, and we treat the responsibility that comes with that very seriously. Alcatel-Lucent Enterprise has been an excellent fit for us in helping Quintain deliver on the Wembley Park vision. ”

JAMES CANTY, CTO, VELOCITY

A win, win, win

The Optical LAN network offers technology benefits for large campus network deployments like Wembley Park, for example:

- A simplified network topology with long fibre rings served from two central data centers provides geo-redundancy. Based on GPON technology and passive fibre splitters, distances of up to 20 km can be reached without any active intermediate node, and with a limited amount of fibre.
- Omniswitches were connected to the GPON using Nokia GPON SFPs and deployed on light poles, providing Ethernet connectivity for WiFi, CCTV, screens, audio and other services
- The network is currently managed from a single Optical LAN management platform (POL Command Center) making it easy to add new services and deploy across the area
- A future-proof solution provides an Optical LAN solution that can be upgraded to 10G without having to replace the existing network

From a financial perspective the Wembley Park development supports:

- A passive network yielding savings in space, power consumption, air conditioning and maintenance
- Green building initiatives; seamless same-shelf upgradeability for NG-PON
- Fewer active conditioned equipment racks with lower CAPEX/OPEX, and less floor space requirements

Users also benefit with:

- Comprehensive management and provisioning
- No maintenance and easy troubleshooting
- High throughput and low latency on fibre for Qos with rich end-user services
- Redundant fibre loops for high service availability
- Flexible topology to define and easily add customer services on the network

About the team

NOKIA

Nokia creates technology that helps the world act together.

As a trusted partner for critical networks, Nokia is committed to innovation and technology leadership across mobile, fixed and cloud networks. Adhering to the highest standards of integrity and security, Nokia helps build the capabilities needed for a more productive, sustainable, and inclusive world.



Velocity1 is a leading fibre optic broadband supplier.

Velocity1 has partnered to enable Wembley Park, the UK's primary smart city, with next-generation fibre-to-premises technology.



QUINTAIN

Quintain is the award winning development and asset management team behind Wembley Park, one of London's most exciting new neighbourhoods.

Quintain is also the third largest residential developer in Ireland, with 9,000 homes in the pipeline across 460 acres of prime development land.