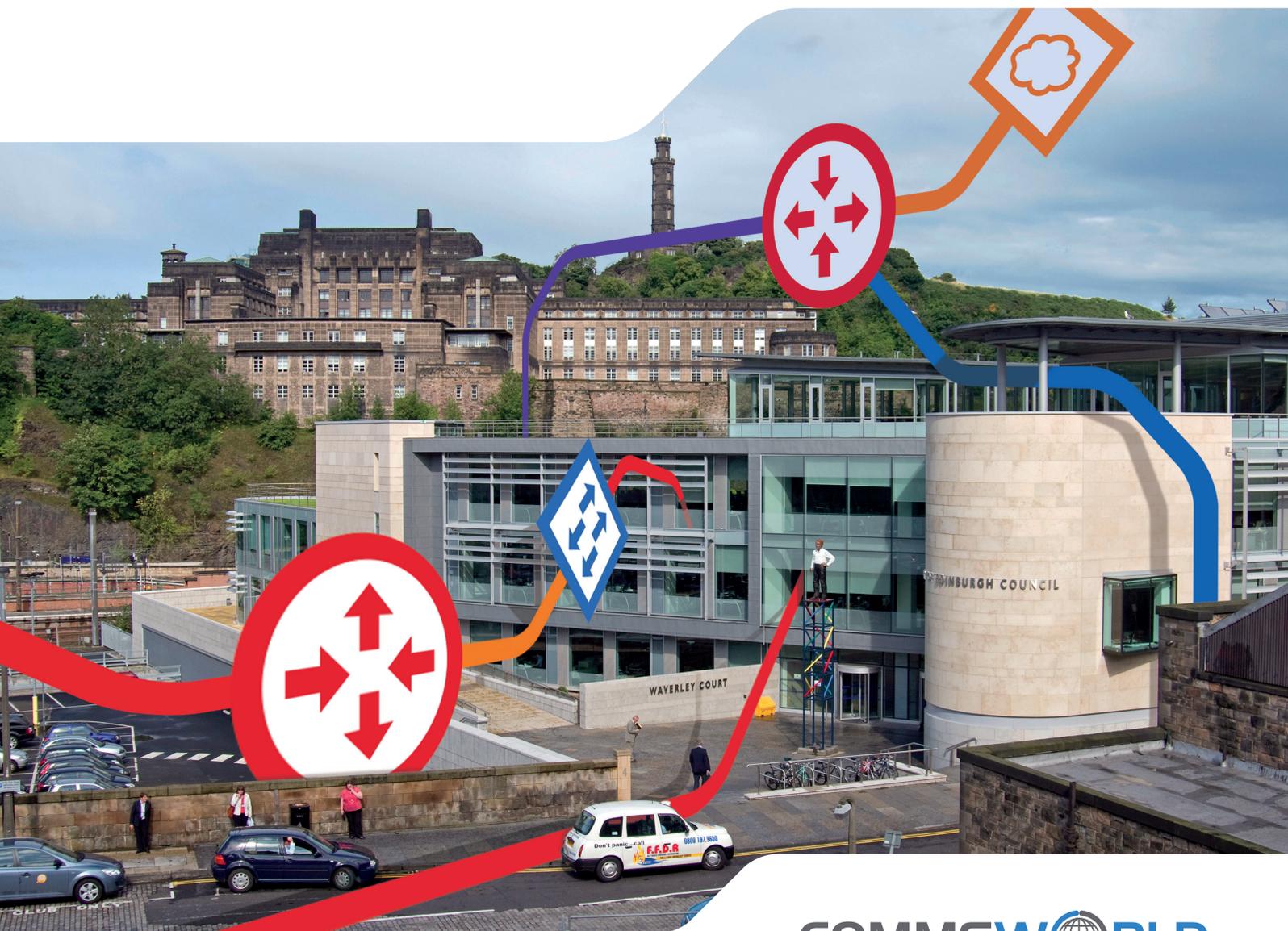


Commsworld, CGI and CityFibre

Connecting Edinburgh and beyond



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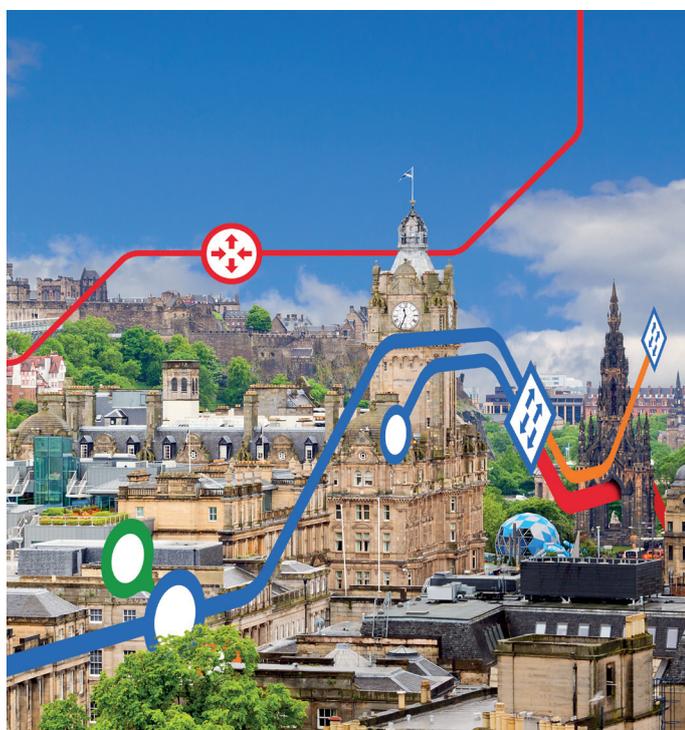
Connecting Edinburgh and beyond

The Challenge

Edinburgh's ageing, predominantly copper network was creaking under the strain of increased usage as more and more devices and services moved online.

The old network was no longer fit for purpose, let alone for future generations in the years to come.

While the attractions of Edinburgh Castle and Princes Street or the capital's many landmarks would continue to contribute to the local economy, it was clear that investment in a new, future-proof network would be essential in order to safeguard the city's future prosperity.



Poor digital infrastructure makes it hard for any city to attract and retain businesses.

Edinburgh's legacy copper infrastructure, was restricting the city's aims to become one of the UK's best connected digital cities – and was stifling progress among its many offices and schools.

Edinburgh is one of the fastest growing and most productive cities in the UK, with a flourishing reputation as a global tech hub, bolstering its already well established financial sector.

However, 29% of organisations consider cloud computing and mobile internet central to their success* – meaning the city was potentially facing a crisis – and an exodus of talent – if it didn't act with urgency to improve the ageing network.

The city's schools were also suffering with poor connectivity to the internet and access to relevant, media rich content all of which is required to ensure our nation's future workers are best prepared.

Commsworld's vision was to make Edinburgh one of the best connected cities in the world, providing gigabit connectivity that will help both the commercial and public sector and engaged CityFibre to provide an initial 45km new Fibre Network.

At the same time, The City of Edinburgh Council was going out to the market to procure a new ICT provider to replace the previous contract. A major aspect of that project was to deliver a significantly upgraded and future-proofed Wide Area Network (WAN).

In 2015, The City of Edinburgh Council appointed CGI, one of the largest independent IT and business consulting firms in the world, to revolutionise Edinburgh's digital offering. As part of the vision, Commsworld worked with CityFibre to extend the network to a ground-breaking 150km fibre optic network across the city which established Edinburgh as the UK's flagship 'Gigabit City'.

The work has future-proofed one of the UK's largest local authorities by connecting 324 council-owned sites – with over 130 schools benefitting from speeds up to 100 times faster than before and 17,000 businesses also having the opportunity use the network.

Once a Gigabit City's ultrafast, full fibre connectivity goes live, it overnight becomes a magnet for world-leading businesses, attracted by access to digitally advanced connections.

Paul Soutter CGI infrastructure lead in Scotland, said:
"It was great to be part of a winning team, to be able to support the digital enablement of the City of Edinburgh and to work with Commsworld and its partner CityFibre. The combination of CGI programme management coupled with Commsworld's deep network expertise enabled this successful transformation and creation of a solution that can be easily transferred to other cities in the UK."

Connecting Edinburgh and beyond

What was the vision of the project?

As part of the £186million outsourced ICT procurement for The City of Edinburgh Council awarded to CGI, Commsworld was to help deliver a fast, reliable private WAN. The challenge was to ensure the new network was fully in place and all sites migrated over within nine months. A task that others in the telecoms marketplace said was impossible and would take two years.

The major component of this delivery was the high-speed roll out of 150km of new Gigabit City network by CityFibre.

The two key aspects for The City of Edinburgh Council were to enhance the delivery of educational content across the City and boost the economy by both retaining the businesses it was already home to, while attracting new inward investment and growing its digital economy. The new network is highly scalable, being able to increase bandwidth from 200Mbps through to 10Gb within a few days.

The three-way partnership between CGI, Commsworld and CityFibre was perfect to take on this work and to challenge the traditional and often expensive methods of legacy providers, as the partnership could react quickly to issues and provide agile solutions.

The market-disruptive partnership has helped to connect schools, libraries, businesses and council offices with gigabit speed and ultra-resilient internet connections.

The new Portobello High School opened in 2016 is a good example of this. Thanks to the new fibre network, it is at the cutting edge of technology and was one of the first to be able to connect to the Council's new, ultra-fast 1Gb fibre optic network.

This meant high-speed Wi-Fi was available everywhere in the building which in turn means that tablets and laptops are now central to the education delivery. A good application example is that lunch payments can be made via fingerprint, removing the stigma or risk of bullying for those who receive subsidised meals.

The gigabit speed internet, married to cutting-edge technology, allows for better collaboration between teachers and pupils as work can be completed online while ideas can be shared on cloud-based systems such as Microsoft Office 365 – which can be accessed anywhere.



Portobello High School



This provides a tangible example of where pupils' and teachers' lives have been transformed. This can now be experienced across the city, where that same digital infrastructure has been rolled out across Edinburgh to all council-run sites.

Libraries enjoy speeds of 100Mbps while council offices are now connected to the ultrafast fibre optic WAN. In most buildings, bandwidth is now 100 times greater than it was before – changing every aspect of people's lives.

Economically, thanks to The City of Edinburgh Council-initiated expansion, more than 70% of Edinburgh's businesses could now be reached with cost effective fibre, operating around 100 times faster than average UK network speeds – and enabling Edinburgh to compete with some of the best-connected cities in the world.

Ricky Nicol, CEO of Commsworld, said: *"Politicians and industry leaders all recognise the need for digital investment."*

Both the Education Secretary, John Swinney and Stephen Boyle the Chief Economist at RBS make the same point at different events - digital technology is the key to a successful economy. Cities and countries that do not invest now for the future will be left behind.

The leaders of The City of Edinburgh Council recognised this when they set out the terms of the contract that CGI and its partners will deliver over the next few years. We are delighted to be playing our part and I would encourage every city in Scotland to follow their example."

Connecting Edinburgh and beyond

The Future

CityFibre's network – which is around 10 times the length of Edinburgh's tram network – has also allowed Commsworld to utilise the additional fibre capacity to expand its highly successful Fluency network; the largest privately funded optical core network in the UK.

Such has been the success of the partnership in Edinburgh, it is now regarded as a tech hub, with famous brands developing and emerging.

The partnership has taken this model to other cities, such as Glasgow City Council where an even larger network is being deployed.

Works are underway by CityFibre to construct a new citywide full fibre network which will – via Commsworld - connect over 500 public sector sites with ultrafast speeds, ultimately reaching every premises in the city including homes for the first time.

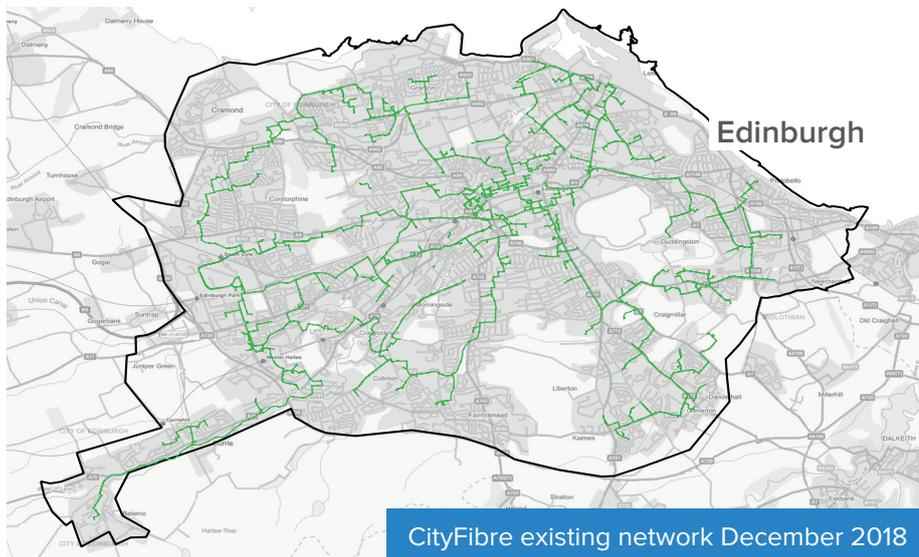
Full fibre infrastructure brings with it core economic and employment impacts associated with the network build, while existing businesses exploiting full fibre applications will generate productivity improvements and also utilise them to innovate and open new markets.

It will also promote the development of new business start-ups, able to operate at a lower cost and workers can enjoy greater flexibility enabled through the gigabit cloud which makes file transfer and home-working easier.

Greg Mesch, CEO at CityFibre, said: *"This project is living proof of the Gigabit City model and what can be achieved when city leaders and local service providers embrace a new generation of infrastructure. The full fibre age is taking hold across the UK with CityFibre and its partners leading the charge."*

Claudette Jones, former CIO with The City of Edinburgh Council, said: *"Whilst the delivery of the Wide Area Network is a relatively smaller proportion on the whole ICT outsourcing contract, it is a vital building block upon which everything else depends. With this deployment the Council and therefore Commsworld were always up against an immensely difficult time barrier to bring the new infrastructure live but it was successfully delivered on time and on budget. Other suppliers stated that this would take two or three years as opposed to the nine months within which Commsworld successfully delivered."*

Commsworld were extremely fleet of foot and demonstrated excellent levels of technical knowledge and expertise throughout the project."



*Digital Economy Business Survey 2017:
<https://www.gov.scot/binaries/content/documents/govscot/publications/research-finding/2018/03/digital-economy-business-survey-2017/documents/00533153-pdf/00533153-pdf/govscot%3Adocument>

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