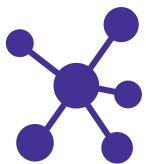


its.



**Digital innovation to
drive transformation
across the public sector**

CNI

Building a cooperative to deliver access to full fibre for all

The CNI – the Cooperative Network Infrastructure – was conceived back in 2016 with a vision to bring together private and public sector organisations in a way that would make full fibre available and more accessible to all through a shared digital infrastructure.

The CNI model allows its members to share digital infrastructure assets while retaining ownership and without the need for complex commercial structures. Public and private sector members can access the shared infrastructure on equal, non-exclusive terms, also helping to avoid overbuild.

It is built on three key principles:



Asset aggregation: members can provide passive assets – for example ducting – that they own or have built. They retain ownership and charge market rates to the cooperative for their use.



The CNI takes advantage of opportunities to build infrastructure at low cost, for example installing duct in developments and new road schemes ('dig once').



The cooperative model guarantees the neutrality of the shared infrastructure to create competition and an environment in which smaller and local firms can also thrive.

Tameside in Greater Manchester was the first area to benefit from this cooperative approach. As a founding member, ITS worked with Tameside Metropolitan Borough Council, playing a central role in developing the model, the design and rollout of the 50km Fibre Tameside network which was supported by £4.5m of the government's Local Full Fibre Network funding (LFFN).

Riding on the wave of Tameside's success, Blackpool was next to adopt the CNI model, taking advantage of the fact that a subsea cable was on track to land in the town, connecting the UK to the North Atlantic Loop which is responsible for powering a third of the world's internet connectivity.

The 23km Fibre Blackpool CNI network, which was installed along the world-famous tramlines on the Fylde Coast, is one of the outcomes of the £3.1m Blackpool Council was awarded as another beneficiary of the government's LFFN scheme. Launched in late 2019, the network has delivered improved broadband and gigabit capable connectivity to the public sector, residents, and businesses.

Connecting to more

Building on the CNI's footprint has helped to shape ITS' own network rollout. Not only has it built out across Blackpool and Tameside to benefit more organisations, but has since established a footprint across neighbouring towns and cities – ITS' national reach is currently c.25% of the UK's commercial premises.

In addition to the technological advantages ITS has delivered through establishing futureproof connectivity, this investment has supported wider community benefit through its Social Value Initiatives. Tailored to the needs of each local authority area, ITS curates a programme covering areas such as digital skills, job creation and training including apprenticeships, and creating internet access for all through, for example, installing WiFi into community hubs to benefit local communities.

Nationally, only 19% of technical roles are held by females – and in Blackpool only 14% of pupils opt to take computer science at GCSE level. To shift the balance, ITS has partnered with social enterprise group, InnovateHer, creating a digital skills programme to inspire and encourage young school-aged girls and non-binary young people across Blackpool.



Through work experience placements, 'Inspiring Assemblies' and 'Role Model talks' at schools, ITS and InnovateHer have successfully engaged 102 students (2023), inspiring them to enrol onto InnovateHer's platform and courses designed to nurture the STEM stars of the future, and build digital confidence.

Joint ventures

Digital Greenwich Connect

Long term partnership securing Royal Borough's digital future

The launch of the Digital Greenwich Connect full fibre network in February 2023 has transformed the digital landscape for businesses and organisations across the Royal Borough of Greenwich. The £2m corporate joint venture between DG Cities, the Royal Borough of Greenwich's Innovation Company, and wholesale full fibre experts ITS Technology Group, underpins the Council's Smart Cities strategy which sets out an all-inclusive digital future where modern infrastructure acts as a catalyst for economic, social, and physical regeneration.

Digital Greenwich Connect is the epitome of a model private public partnership that makes the most of its strengths – ITS has designed, built, operates and is commercialising Digital Greenwich Connect; while DG Cities supports the JV, helping to build awareness among stakeholders of the opportunities that this futureproof infrastructure creates. 50% of the JV's returns will be channelled directly to the Council to support its objectives.

The first phase, a 21 km network within Woolwich, passes c.1,500 business premises. It provides access to gigabit-capable services to equip businesses, schools, residents, and students with access to internet speeds that underpin modern living and working, while supporting the Council's digital ambitions including improved delivery and access to public services.

Anthony Okereke, Leader of the Royal Borough of Greenwich said: "Digital Greenwich Connect is one of many innovative ways we are ensuring residents and businesses have fast and reliable digital connectivity. By providing affordable connectivity, we can support our residents and businesses, we can support the delivery of Council services to residents and businesses further. As set out in our corporate plan, Royal Greenwich plays an active role in delivering positive changes in the most efficient and effective ways possible."



**Digital
Greenwich
Connect**

Connectivity access to a mixed economy

Digital Greenwich Connect embodies inclusivity and affordability, bridging the digital divide in the region by offering competitive and reasonably priced connectivity services, complementing other providers active in the area.

Trevor Dorling, Managing Director, DG Cities said:

“Digital Greenwich Connect is the culmination of many years’ work to ensure that the borough has the digital infrastructure in place that is essential to a modern economy. This phase of the network has been designed to reflect and meet the needs and aspirations of our business community. The public private partnership between DG Cities and ITS Technology Group is delivering more than the sum of its parts. In the few short months since it went live, Digital Greenwich Connect has already exceeded expectations and is ahead of plan in terms of take up and end-user connections.”

The initiative also encompasses social housing and community centres, ensuring that connectivity barriers are removed for everyone in the community. ITS is building out from and densifying the current network footprint working with its strategic partner, 4th Utility to connect approximately 5,000 social housing homes.

The JV board is committed to a comprehensive Social Value framework encompassing digital inclusion, job creation, skills development, and SME support—underpinning the project’s commitment to holistic community development.

Helen McIntosh, President of South East London Chamber of Commerce said: “One of the common denominators among our membership is the need for high quality connectivity to be able to collaborate, communicate, and operate. This homegrown network expands the choice of full fibre services available to local businesses and organisations, and is underpinning the borough’s digital future. Not only does it enable members to take advantage of the latest technologies such as cloud and automation, it will help to make them more competitive, and ultimately will boost our local economy.”



LCR Connect

Joint Venture with ITS brings to life digital ambitions across the Liverpool City Region

Chattanooga, a place once described as America's dirtiest city, was the unlikely inspiration behind LCR Connect. At a meeting in 2017, Andy Berke, the then Mayor of Chattanooga, shared with the Liverpool City Region's Metro Mayor Steve Rotheram, how investing in digital connectivity had earned it the nickname 'Gig City', turning around its fortunes having generated an estimated \$2.7bn in community benefit in its first 10 years alone. LCR Connect has brought to life the Metro Mayor's mission to see the Liverpool City Region become the UK's most digitally connected and inclusive place.

The 214km full fibre network connects the City Region's six local authorities, interconnecting key strategic locations, including town centres and major business parks – designed to reach 29,000 businesses – with national and international digital networks.

LCR Connect has been delivered by a first of its kind public private Joint Venture (JV) between the Liverpool City Region Combined Authority (LCRCA) in partnership with ITS Technology Group (ITS), the digital infrastructure project's strategic lead, working with construction partner NGE. LCRCA has retained 50% ownership allowing it to plough 50% of the JV's returns into initiatives that support the Combined Authority's objectives, creating additional benefit for the taxpayer.

The project's accelerated rollout stems from ITS' meticulous planning of the route and adopting a 'dig once' approach. LCRCA's forward thinking led to the integration of digital infrastructure into various Capital Works Programme schemes across all six local authorities. A £5 million Strategic Investment Fund facilitated the incorporation of ducting and dark fibre into existing works programs, also minimising disruption to local communities.

Steve Rotheram, Mayor of the Liverpool City Region, said: "The hallmark of any modern, 21st century city region like ours is how it connects people with opportunity. In an increasingly digital world, LCR Connect is making sure that our businesses can keep pace with the fastest internet speeds in the country. It's helping to attract new jobs and investment into the region and, best of all, it's half owned by us."

With a build plan taking a little over two years to complete, LCR Connect is now launched, and experts have estimated this will generate an initial £105m economic boost to the local economy – with a further £1bn in GVA to be generated over time.

Accessibility is key, a portfolio of connectivity and cloud services is offered through ITS' Faster Britain-approved partners, catering for businesses and organisations of all sizes, sectors, and budgets.



Operating on the world stage

LCR Connect showcased its world-class credentials when Liverpool played host to the 2023 Eurovision Song Contest at the M&S Bank Arena.

By using the network, the show was broadcast to the largest global audience in its history, and underpinned a week-long program of events, providing connectivity to media, audience members and visitors without fault despite it becoming a high profile target for cyber attacks.

Steve Rotheram, Mayor of the Liverpool City Region said:
“Staging a global spectacle like the Eurovision Song Contest to hundreds of millions of viewers around the world was a massive triumph for our area – and one that was made possible, in part, by our world-class infrastructure.”

LCR Connect for good

The importance of breaking down digital barriers and narrowing the digital skills gap continues to be a key goal for LCR Connect. A dedicated £120,000 Social Value fund underscores the commitment to drive digital inclusion and community support, and this has already reaped benefits and helped to make a difference for many local communities across the City Region.

Highlights include:

Through St Helens Chamber’s ‘Learning to Work’ Programme, schoolchildren have the opportunity to speak to local employers and find out more about the industries they work in. Staff from across JV Partners ITS and NGE attend these events in order to help young people understand the different career routes open to them, challenging gender stereotypes, and opening their eyes to what the world of STEM (science, technology, engineering, and mathematics) can offer to help them fulfil their ambitions.

Our partnership with InnovateHer is helping to inspire and nurture the Liverpool City Region’s next generation of girls and young women to follow a STEM career. As an InspireHer partner, ITS has been working with InnovateHer to help promote the wide range of opportunities there are in the digital and technology sector to teachers, parents, and most important, the students.

Make CIC is the first of many community hubs across the Liverpool City Region to benefit from an ultrafast connection as part of the Social Value Fund, known as ‘LCR Connect Community Hubs’. As a beneficiary of the scheme, Make’s gigabit-capable connection will be funded for 12 months. Make’s hubs range from affordable office space for small businesses, to workshops, event space, a café and shared garden. Make’s nurturing environments continue to be a launchpad for artists and craftspeople, turning their hobbies into businesses they can earn a living from, as well as a place that people from the local community can visit to get online.

SMLL

Innovation/Smart Cities (Greenwich)

ITS designed and built a full fibre network to support real-world testing of connected and autonomous vehicles at London's Smart Mobility Living Lab (SMLL) based in Greenwich and the Queen Elizabeth Olympic Park.



On behalf of SMLL, ITS operates a private fibre network to meet the complex needs of the testbed, building 20km of full fibre spine using its 'dig once' approach. By reusing existing ducting including ducts built for the 2012 London Olympic Games, ITS avoided disruptive civils digs.

The full fibre network connects 34 sensor sites across the testbed and provides critical connectivity and communications infrastructure to ensure connected autonomous vehicles (CAV) can make the vital decisions needed to navigate their way around the road networks safely – negotiating the many obstacles encountered on journeys including traffic lights, traffic jams, pedestrian crossings, roundabouts, and the unexpected.



Concession

Reusing Local Authority assets to build a full fibre future

In 2014, ITS Technology Group (ITS) and the London Borough of Hammersmith and Fulham signed a groundbreaking 10 year concession agreement that would see ITS reuse the council's 17km CCTV ducts to build a full fibre network to provide businesses with access to futureproof gigabit-capable services. By reusing the council's existing infrastructure, not only was ITS able to minimise disruption to local communities by avoiding road digs, but the council, or more accurately, the taxpayer, also benefitted from the recurring revenue the rent of the CCTV ducts provided.

Social and economic impact

The full fibre network has created both social and economic benefits from the council's asset, as well as equipped businesses and social housing across the borough with access to gigabit-capable full fibre services.

The agreement with ITS also supported part of the council's Industrial Strategy with Imperial College London, designed to make LBHF the best place to live, work and socialise in Europe, while creating one of the leading destinations for the biotech, creative, and digital industries.

This network was a catalyst for ITS to build out to benefit more businesses across the LBHF and neighbouring boroughs, while the success of the concession reuse approach led to ITS signing agreements with a number of councils including Nottingham and Herefordshire – in fact, reuse of existing ducts is ITS' preferred build methodology where possible across its entire full fibre footprint.

Nottingham

Nottingham City Council took a 'dig once' approach when building a 17km long extension to Clifton South and Toton Lane tramway, having the foresight to add cable ducts along the routes which ITS utilised to build a full fibre network. ITS has since made significant investment, expanding the network across the city centre, building out to cover many business parks and industrial areas including Nottingham Science & Technology Park, Bilborough, Glaisdale Industrial Estate, Lenton Industrial Park, and across the river to West Bridgford and the Nottingham Enterprise Zone.

Hereford

Herefordshire Council also ensured that cable ducting was included in the build of the Skylon Enterprise Park. ITS signed a concession agreement to use this ready-made infrastructure to build out a full fibre network to serve the businesses relocating to the park. ITS has since extended the network across the 100-acre enterprise zone owned by the Council, also covering Rotherwas Industrial Estate, through the city centre, spanning to Swainshill and Bobblestock, and along the A4103.

Supply

Local London Partnership

“ITS has delivered simplified, yet effective connectivity with plenty of scope for future growth for both ourselves and local businesses. Their experience, insight, and expertise has been invaluable in meeting our needs.”

**Havering Councillor, Cabinet Member for Regeneration,
Graham Williamson.**

A public private partnership delivering full fibre to futureproof Havering's local economy

In 2016, Havering Council was one of 9 London boroughs in the north east and south east of the capital to forge the Local London partnership. It has been established with the purpose of becoming a champion for the sub-region to ensure it benefits from current and emerging opportunities.

With much of the sub region served by an outdated copper telecommunications network, a digital infrastructure programme forms a key part of this partnership in order to improve, upgrade and futureproof connectivity. The benefits of this are far reaching; from stimulating inward investment, increasing local productivity and employment, to closing the skills gap, and enhancing the delivery of local services, including health, community safety, and transport.

Securing the funding to fibre up

Local London secured £7.7m through the Corporation of London's Strategic Investment Pot for the purpose of delivering full fibre across each of the 9 boroughs.

Havering's share was £800k, which combined with a further £222k from the Department of Levelling Up gave the council £1.022m to upgrade Havering's communications infrastructure and connect 48 public sector buildings to futureproof connectivity, enabling the delivery of much improved public services.



Creating a collaborative partnership to deliver digital infrastructure

Choosing the right full fibre partner to deliver this project was the next step. Local London created a framework to ensure that the preferred suppliers met their criteria. Full fibre provider ITS Technology Group was one of the successful bids that secured a place on this framework.

However, ITS is much more than a supplier. It creates partnerships for the long term, ensuring that the full fibre networks it designs, builds, and operates fulfil the local authority's ambitions for now and in the future.

In making its decision of which provider to work with, Havering identified a number of standout qualities from ITS:

- ✓ Its approach: ITS reuses existing assets where at all possible in order to more sustainably build out a full fibre network, avoiding disruption to local communities during this phase.
- ✓ Its commercialisation of the network: ITS not only fulfilled the brief in terms of providing connectivity to Havering's public sector buildings, but ITS has also built out further and densified the network (almost match funding the spend) in order to deliver connectivity to 1,600 businesses across the borough. This 'built for business' network will be launched in early 2024.
- ✓ Its choice and inherent competitiveness: ITS has forged partnerships with more than 500 resellers, internet service providers (ISPs) and managed service providers (MSPs) who can access the network to provide gigabit-capable connectivity services, and a plethora of cloud services. This allows local businesses to take advantage of digital applications to improve their operations, collaboration, and competitiveness.
- ✓ Its engagement with the business community: Working with local chambers of commerce, businesses, and the local BID to build awareness of the full fibre network to drive adoption, and increase the attractiveness of Havering for businesses looking to relocate.

ITS has also delivered infrastructure to Bexley and Barking & Dagenham. Because of ITS' footprint, there are benefits to a more joined up approach to delivery, including avoiding overbuild.

Creating social value

While the economic advantages of delivering the full fibre infrastructure to Havering are well understood, it's important to consider the social value it will bring. ITS considers the grass-roots social value of widespread high-speed services to be a fundamental benefit. Full fibre is a foundation for an inclusive, equitable community, which enables a forward-thinking society, enhancing lives.

Havering's Social Value programme has hit the ground running with a series of 'Digital Skill Workshops' held at local libraries. A comprehensive Social Value framework has been agreed covering digital inclusion, jobs & skills and SME business growth support.

Choose ITS and help us build
a brighter future with an agile,
well-connected public sector.

its.

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