The Local Authority and Public Sector Guide to the PSTN Switch-Off

The UK is rapidly progressing towards fully digitalised infrastructure,

and part of that wider strategic developmental plan is the 2027 retirement of Openreach's legacy infrastructure: copper networks. Over £17bn has been committed to alt-net rollout of FTTP alone to help navigate this shift, but more needs to be done across the public sector landscape to ensure a smooth transition.

While much of the emphasis has been on the impact for the small business community, with an estimated 2 million copper lines left to upgrade, local authorities and public sector bodies also need to be prepared. They need to consider how the regional infrastructure within their area is set up to support the transition from PSTN lines to gigabit-capable networks with fibre and full fibre.

ITS is helping local authorities across the UK navigate this once-in-a-generation shift that provides public sector bodies across healthcare, blue light emergency response, education governance and community development a broader transformational toolkit that not only enhances public services but stimulates the growth of local businesses – crucial for sustainable community advancement.

Understanding the Copper Switch-Off

The PSTN switch-off, more commonly known as the copper switch-off, refers to the retirement of outdated copper or analogue networks. While this technology was once considered revolutionary and has served the UK for over a century, copper networks are some of the slowest and most unreliable connectivity infrastructure examples, offering little more than 24Mbps upload and 10Mbps download speeds.

But it's not just about speeds; copper networks also present local authorities with a significant cost-efficiency issue, with these networks offering a shorter lifespan, more signal degradation over longer distances, higher electricity costs and greater susceptibility to environmental damage. Over 0.6% of the UK's power is used to transmit signals over copper networks, presenting long-term concerns for energy usage.

All of this equates to higher maintenance, repair and replacement costs for authorities to consider, and with one in five councils currently at risk of bankruptcy in the UK, local authorities need to consider a cost-effective, sustainable connectivity solution to accommodate long-term cost-saving technology.

Why the Transition to More Resilient Connectivity Infrastructure is Crucial

The shift to a full fibre network is critical for local authorities for several key reasons, each directly impacting the efficiency, scope, and quality of public services:

Capacity and Speed

Enhanced Public Services

Full fibre provides the bandwidth necessary for high-definition video streaming used in remote education program and telehealth services.

Efficient Operations

High-speed connections enable swift and extensive data transfers crucial for administrative functions, emergency response coordination, and inter-departmental communication, ensuring seamless service delivery to the public.

Reliability and Maintenance

Consistent Service Delivery

Full fibre is significantly more reliable than copper, crucial for maintaining continuous operations in public sector communications, security systems, and data management.

Reduced Costs

With lower susceptibility to weather and electrical interference, fibre networks incur fewer maintenance issues, leading to cost savings that can be redirected to other critical public services.

Future Proofing

Readiness for Next-Gen Tech

Full fibre infrastructure is essential to support emerging technologies such as Internet of Things (IoT) devices, artificial intelligence (AI) applications, and smart city initiatives, which are becoming integral to modernising public services and enhancing community life through smart city and InfraTech initiatives.

Scalability

As the demand for digital services across communities in public spaces grows, a full fibre network provides the capability to scale up quickly and efficiently without the need for extensive physical upgrades, ensuring that local authorities can continue to meet the evolving needs of their communities without disruptive works.

The Cost of Doing Nothing

While the switch-off presents some hard-hitting immediate concerns for authorities to consider, there is also a hidden cost to the switch-off. In the case of multi-dwelling units, where lifts are commonly used to transport tenants to different floors, copper networks are used for internal alarm and communications systems, allowing trapped lift passengers to call for help.

> **The majority of UK lifts utilise emergency calls via an auto-dialler powered by PSTN lines. That means if authorities do not work with landlords and building owners within their region to migrate to Internet Protocol technology, there is considerable risk to the safety of tenants within MDUs and any public building containing lifts.**

This small example underpins the considerable risk associated with waiting to switch to migrate connectivity before the switch off deadline, with the safety of some citizens in the hands of how local authorities choose to navigate this shift.

How to Navigate the Transition With ITS

ITS is pioneering the move towards a fully digital Britain by providing bespoke 100% full fibre, gigabit-capable solutions to local authorities. With our open access infrastructure covering 25% of the UK's commercial premises and expert planning, we're working with our partners to enable the transition from PSTN to a full fibre network.

> **This investment enables local authorities to uplift public services with an entirely business-grade, 10 Gbps-enabled, flexible, scalable network with XGS-PON as a standard. We work across the private and public sector with a shared ambition with local authorities to bridge the digital divide and create a more sustainable future for regions across the UK. In London alone, we cover 32 out of 32 London boroughs, with an in-depth knowledge of the market dynamics and digital transformation priorities across regions throughout the UK.**

We specialise in...

Expertise in Full Fibre Solutions: ITS offers comprehensive services from planning to execution, ensuring local authorities can transition without disrupting essential services. Utilising code powers with essential PIA establishment, we ensure local authorities can migrate to future-ready connectivity without costly builds where possible by reusing existing Openreach infrastructure.

Public and Private Sector Collaboration: By fostering partnerships between various sectors, ITS ensures that the infrastructure meets both the needs of public sector bodies and the local community, but also fosters continual growth and engagement for local businesses to positively influence regional economic development.

Future-ready solutions: We're already ahead of the 2027 switch-off, as our network is 100% gigabit-capable full fibre. That means there's no copper anywhere across our footprint. But we don't stop there. We go further than the incumbents with an XGS-PON-ready solution that can facilitate the expanded use of bandwidth-hungry technology from the Internet of Things that's pivotal to the expansion of smart technology and smart city initiatives. A third of local authorities have active smart city initiatives (Cowley, R., Joss, S., & Dayot, Y. (2018), with the government committing £5bn in 2020, but resilient full fibre infrastructure from ITS is needed to underpin this expansion across local authorities.

How ITS is Poised to Help Local Authorities

Impact on Local Authorities

Local authorities will feel the impact of the switch to faster connectivity in their own offices, with faster upload and download speeds, allowing administrative professionals within councils to retrieve critical information on behalf of citizens in a fraction of the time. This will have a tremendous impact on document processing times, such as planning application notices, complaints procedures and payment registrations.

> **Currently, PSTN lines will be holding local authorities back from maximum efficiency and productivity, but with faster connectivity with ITS Technology group, authorities can experience a new age of speed.**

Health and Social Care

Telehealth

The shift to full fibre enables high-speed, reliable internet connectivity that is essential for telehealth services, including video consultations and remote diagnostics. This not only helps in extending healthcare services to patients unable to travel underserved areas but also enhances the ability to monitor patients remotely in real-time. This is also essential for overcoming lengthy wait times, with the median waiting times in the NHS currently at 14.5 weeks. Telehealth allows local authorities to diversify how they connect with patients and reduce waiting times for face-to-face appointments that can be conducted virtually.

Operational Efficiencies

With full fibre, healthcare facilities can leverage cloud-based applications for administrative functions, patient record management, and real-time access to medical resources, significantly reducing delays and improving the efficiency of healthcare delivery.

Education

Enhanced Digital Access

Schools and libraries will benefit from full fibre's high capacity and speed, which facilitate an enriched learning environment through interactive online resources, virtual classrooms, and multimedia content without buffering or connectivity issues.

E-Learning Opportunities

Full fibre connectivity allows for stable and fast internet access that is crucial for e-learning platforms and digital classrooms, enabling students to participate in online courses and access educational materials from anywhere. The COVID-19 pandemic showcased the value of access to connectivity to education, with around 90% of students receiving remote lessons. Without local authorities implementing modern infrastructure into public schools, educators can't diversify their education outreach, significantly limiting education access.

Public Safety and Emergency Services

Improved Security Systems

The reliability and bandwidth offered by full fibre are vital for operating sophisticated security systems, including high-definition CCTV networks that require constant, fast data transmission to monitor and respond to public safety threats effectively. This seamless transmission of data simply isn't possible without migrating from PSTN lines.

The Private and Public Sector Collaboration Case

The migration from PSTN to full fibre will be felt across the private and public sector, encouraging more engagement across the two sectors for continual economic growth.

As a strategic enabler of the Cooperative Network Infrastructure model, ITS is facilitating equal access to shared infrastructure for both private and public sector organisations, with low-cost build, asset aggregation and neutrality of shared infrastructure at the heart of the movement.

Upgrading infrastructure to more modern connectivity solutions with ITS...

Encourages inward investment

to attract SMEs to use different local authorities as their bases to start trading, contributing to the nurturing of local skills, economic growth, job expansion and decreased unemployment rates.

Enhances SME capabilities

Small and medium-sized enterprises benefit from improved connectivity, which allows businesses across the private and public sectors to utilise cloud computing applications and faster data transfer.

Making the Switch to Full Fibre With ITS

Getting ready for the 2027 switch off is all about choosing the right connectivity provider who can help you both understand why moving from copper to fibre is the right way to reach regional digital transformation objectives and facilitate continual economic growth, and why engagement across public and private sectors is essential to successful digital transformation within local authorities.

ITS' 100% full fibre footprint not only allows local authorities to migrate from copper now but also provides the necessary infrastructure to reach transformation goals, navigate budgetary restrictions and bridge the digital skills gap with social value initiatives built for a more digitally sustainable future.

ITS also offers educational support services for local authorities to reach out to the local business community and public sector institutions to help them understand the criticality of switching from a PSTN line to full fibre connectivity. With our market-leading partner portal, authorities can access:

White label posters to reach out to the local community

White-label emails to generate interest in the Faster Britain mission

Social media assets to spread the word on how local authorities are getting ready to switch

An animation to diversify your social media outreach

Training for your internal teams so they're switch-ready

Marketing collateral to use at events all about the fibre revolution

Our Existing Partnerships with Local Authorities Like Yours

ITS has extensive experience working with local authorities to help reach their digital transformation targets with gigabit-capable full fibre. Here are some examples of where we've collaborated with authorities to implement real and lasting change with full fibre...

Havering and Local London Partnership

London Borough of Havering and ITS Technology Group have successfully completed a transformative, full fibre installation project, positioning Havering as a connectivity leader. The initiative is set to draw significant inward investment opportunities, improve productivity, and achieve critical levelling-up objectives while benefitting both the initial public sector buildings and the local business community. The collaboration between public and private sectors, targeting 48 public buildings, has evolved into a scalable model, fostering digital confidence and inclusivity within Havering.

Hammersmith and Fulham

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.

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 investments, expanding the network across the city centre, and building out to cover many business parks and industrial areas.

The move from copper to fibre is ramping up, with the urgency to make the switch only increasing more and more. As local authorities prepare for copper lines to be switched off for good, trusting a network provider like ITS to design, build and manage a network built to manage this once-in-a-generation shift is critical. Trust ITS Technology Group to guide you through the change to FTTP, and away from connectivity of the past.

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

its.

Get in touch...

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