Altnets
Telecoms Infrastructure Specialists

How Internet Service Providers are Solving the UK's Digital Divide

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Introduction

This article examines the issue of the Digital Divide and digital poverty in the UK, showing why addressing it is important both socially and economically. Research has categorically proven that practical skills, critical skills, and digital access to devices and services are essential, and nationwide access to reliable broadband and mobile connectivity is also crucial for social inclusion, economic development, digital innovation, and personal and professional development. Internet Service Providers (ISPs) have a key role to play, as they drive forward upgrades to telecoms infrastructure in some of the UK's most rural and hard-to-reach areas.

Earlier this Spring, Altnets team members attended the annual ISPA UK Parliament & Internet conference in London, which focused on 'Policy Priorities For A Digital Future' and gave us insights into the trends that will govern the UK's digital landscape. One of the key themes was the importance of ISPs addressing the Digital Divide, highlighting

the collaborative efforts that are needed within the industry to work towards digital equality.

There are four major barriers to connecting households to gigabit broadband and addressing the digital divide:

a) Building the full fibre networks in a cost-efficient way that will generate returns for an ISP
b) Ensuring that the correct government support and funding is available to promote the expansion of networks and nationwide connectivity
c) Funding and other sector support to provide the device necessary to connect those currently in need of connection
d) Converting consumers to sign up to a full fibre internet connection

Many ISPs are making great strides in both of these areas; we will look at these in more detail below.

What is the Digital Divide?

The launch of the UK government's Project Gigabit came with £5bn of funding to deliver gigabit-capable networks to 99% of the nation's domestic and commercial premises by the year 2030 (it's impossible to ever achieve 100% connectivity due to the remoteness of some properties).

Although the UK as a whole surpassed 80% gigabit coverage in January 2024[1], the data revealed that in England only about 40% of rural premises were gigabit capable. In Scotland this drops to approximately 29% and in Wales to 38%. Additionally, figures gathered by USwitch found that there is a 26% difference between average internet speeds in urban and rural areas of the UK (70.3Mbps vs 56.0Mbps)[2].

But why is the Digital Divide such a problem for the UK? In a world that is becoming ever more reliant on technology and the internet for working and living, those left behind simply don't have access to the same economic and/or social opportunities of people who have access to superfast broadband. A report by the Centre for Social Justice published in April 2023 estimated that households without full connectivity pay up to 25% more on average for their essential goods and services[3].

[1] https://labs.thinkbroadband.com/local/
[2] https://www.uswitch.com/broadband/compare/fibre-optic/fibre-broadband-statistics/
[3] https://www.centreforsocialjustice.org.uk/wp-content/uploads/2023/08/CSJ-Left-Out.pdf

Additionally, closing the Divide will benefit the UK as a whole as well as individuals and households. The Covid-19 pandemic showed how crucial broadband is for businesses to function. Businesses will relocate from areas with poor internet connectivity, meaning some regions will fall behind economically and remaining businesses will struggle. For example, HMRC is phasing in digital-only tax returns this decade. Additionally, we are increasingly becoming a cash-free nation, but taking card payments requires reliable broadband.

A 2022 report from economists Cebr, supported by Capita and launched by Good Things Foundation, found that an investment of £1.4bn could reap economic benefits of £13.7bn for UK plc. This means a return of £9.48 for every £1 invested[4].

Independent ISPs are leading the way in building full fibre networks in hard-to-reach areas

Independent ISPs are operating across all four nations of the UK, in some of the most remote and hard-to-reach areas from the rural depths of Cornwall to the remote Shetland Islands. Some ISPs, such as B4RN, are focusing exclusively on the hardest-to-reach communities. BDUK has awarded 32 procurement contracts worth £1.3bn to independent ISPs to build over the next few years, meaning they should reach a further 760,000 premises. Additionally, BDUK recently announced its voucher programme which supports ISPs to build in hard-to-reach areas has been extended to 2028 due to positive uptake of the scheme.

Independent ISPs are often keen to target rural or hard-to-reach areas as often there is less, or even no, competition for full fibre networks. Generally, the bigger telecoms players are less active in such regions which paves the way for alternative networks to supply these properties and sell their gigabit broadband service after installation. However, this may be set to change as the likes of Openreach look to train their focus on more hard-to-reach and rural builds for the remainder of the decade. It is therefore key for smaller ISPs to develop their networks and acquire take-up quickly before the larger players get there.

Barriers to builds in these areas include challenging terrain, geography and geology, the cost of the required infrastructure to undertake the builds and supply chain delays or issues. One of the biggest problems ISPs face, which was raised in INCA's 2024 'State of

[4] https://www.goodthingsfoundation.org/insights/the-economic-impact-of-digital-inclusion-in-the-uk/

the Altnets' report, is getting wayleaves and planning. In rural areas or MDUs (Multi-Dwelling Units), there are often multiple landowners and/or landlords to engage with and obtain permission to install networks.

A solution to this issue is for the ISP to apply to Ofcom for electronic communication code powers. This is a costly and often complicated process requiring the submission of lots of information. In order to address the Digital Divide in line with government targets, streamlining and speeding up this process would support ISPs in their MDU or hard-to-reach area builds. Less bureaucracy would be a real incentive - lawyers specialising in supporting ISPs with code power applications said the process can take up to six months in some cases[5].

Another issue with hard-to-reach builds is gaining permission from local councils to undertake street works. There are over 350 councils across the UK, each with its own planning officers. Difficulties can arise when engaging with councils to obtain street works permits, in particular if the build is across more than one council's land. A more uniform approach across local councils, perhaps with better guidance from higher government, would mean that both ISPs and councils approach the process in a more informed manner and builds are not held up while obtaining permits.

Planning these kinds of builds is of course much more complex for ISPs than easily accessible areas, or those that already have fibre infrastructure in place. Procurement teams must ensure they are purchasing what's required for the build, using the most appropriate solutions available on the current market. Quality products and efficient buildouts become of even more importance in hard-to-reach areas, where the Capex investment required is often high. Working closely with suppliers, ISPs can ensure they are installing the most cost-effective equipment without compromising on standards.

We need ISPs to build full fibre connections in the more difficult areas of the UK in order to address the Digital Divide. By supporting them to do so, the nation will achieve greater equality and economic prosperity.

Converting end users to a full fibre network is crucial for future success

While building networks for underserved communities is one challenge, there is little point in providing the connections if consumers do not use them. There are a number of additional challenges for ISPs in converting end users to take up their full fibre

[5] https://trencheslaw.co.uk/how-do-you-apply-for-code-powers

broadband packages, and one of these is digital poverty. If consumers do not own the technology required to use the internet, or lack the knowledge of how to use these devices, there is little point in offering them a superfast broadband connection.

A collaboration led by the University of Liverpool, Loughborough University, Good Things Foundation, and others, with funding from the Nuffield Foundation, Nominet, and Welsh Government, published research in March 2024 looking at the minimum digital living standard (MDLS) for families with children. The MDLS includes having accessible internet, adequate equipment, and also digital skills and knowledge. The research found that 4 in 10 UK households with children (3.7 million) fall beneath the required standard.

Many ISPs have done great work within the communities they are building in to address the issue of digital poverty and support people to 'level up'. As mentioned previously, households without internet access are much worse off financially than those that are online. This includes Wildanet, an ISP operating in Devon and Cornwall. Wildanet introduced the KIT|24 scheme, which is helping to re-home unused devices donated by local businesses to people who need them. They, alongside many other ISPs, also offer a social tariff to individuals who need support to pay for their broadband service.

Providing fast and reliable internet access can be transformational for households. Mother-of-one Ellen Morris lives in Lanivet, Cornwall was connected to full fibre broadband by Wildanet. She says: "We were getting a 30 to 40Mbps service previously over copper wires, but with fibre, we're now getting speeds of about 200Mbps. More than that, the new service is more reliable and also offers complete coverage within our home, whereas previously we were pretty much limited to the front room for good internet... It's made a huge difference for us."

Dr Emma Stone, Head of Research, Evidence and Engagement at Good Things Foundation, commented on the issue of the MLDS: "A huge 45% of households with children are falling short of what are only the minimum standards we should expect. It is clear from the Foundation's research that the Digital Divide is still yet to be addressed in many regions and neighbourhoods across the UK. The country as a whole, but more importantly these individuals and households, are being left behind.

"We are grateful for the efforts of ISPs in tackling the issue, particularly those that are taking action to provide households with the necessary devices to get them online and offering social tariffs."

Alongside a lack of access or skills, the way that broadband packages have been sold to consumers has also been a stumbling block. Past advertising by ISPs regarding the types of connections they are offering has also been criticised for being unclear, leading consumers to believe they have a gigabit broadband connection when in fact it is only fibre to the cabinet, for example. Smaller, independent ISPs tend to only build gigabit connections, so this arguably has the greatest impacts on their businesses in terms of customer numbers.

Ofcom has now sought to address this after a consultation, publishing new guidance in December 2023 regarding the language used in advertising, but there is still a way to go in educating consumers regarding the different speeds of broadband connections, and why this matters.

Conclusion

The Digital Divide exists for a number of reasons, and shortening the gap is a challenge facing ISPs over the next few years. The remaining parts of the UK that do not yet have a gigabit broadband connection are largely classed as hard-to-reach. On top of the complexity, expertise and financial investment required to undertake such builds, there remains the problem of converting end users, many of whom are living in digital poverty without the required devices or skills to make use of a full fibre connection.

Many ISPs are doing what they can to support the communities they are connecting, but much more could be done to ease the approach to the builds themselves and address the issue of digital poverty nationwide. It is not just the ISPs and the individuals themselves who will benefit, but the nation as a whole.