

Ofcom Advisory Committee for Wales (ACW)

Digital Connectivity in Wales, Broadband Policies and Access to Broadband

Introduction

The Ofcom Wales Advisory Committee (ACW) was established by the 2003 Communications Act to provide advice to Ofcom about the interests and opinions, in relation to communications matters, of people living in Wales. We aim to respond to relevant Ofcom consultations and we are also consulted by the regulator on key policy issues relating to Wales. For example, the ACW has responded to Ofcom consultations on promoting competition and investment in fibre networks, Ofcom's Spectrum Management Strategy, setting out how the radio spectrum will be managed and regulated over the next decade and service provision in hard-to-reach areas.

We are a non-executive body and we have an 'arms-length' relationship with Ofcom, which is not formerly bound by any advice given by us. The views given in this paper are those of the Ofcom ACW and they do not represent the opinion of the Ofcom Board or staff.

The Market Context

Since its creation members of the Ofcom Advisory Committee for Wales have been greatly concerned with the need to improve digital connectivity across the country, particularly in more rural and sparsely populated areas. We support Ofcom's aspiration to make communications work for everyone, and in our view this means securing decent broadband connectivity for all citizens, at all premises in Wales. But in practice, this objective has had to take account of market economics and the difficulties faced by telecommunications providers in securing a return on investment, particularly when providing connectivity to hard-to-reach areas.

Securing fair and effective regulation has been central to the roll-out and development of broadband provision in Wales. In the early years Ofcom addressed the challenge of how to disaggregate BT's wholesale and retail activities by separating service delivery from the ownership of UK's main telecommunications networks. BT was by far the largest provider of telecommunications services and as such had significant market power. Regulatory intervention by Ofcom secured the creation of Openreach which, although a division of BT, operates at arms-length and enables a wide range of providers to secure wholesale access to BT's networks on equivalent terms to those available to BT Retail and its business services. Ofcom has also promoted and developed favourable regulatory conditions to enable other organisations to invest in their own physical infrastructure in competition with BT. A good recent example is the growth of the south Wales based broadband provider Ogi which is rolling out new fibre networks in many areas, for example in Abergavenny and Haverfordwest¹. The company has also obtained the South Wales Trunk Road Concession from the Welsh Government to build a fibre network by accessing ducts in South East Wales between towns and villages, data centres and exchanges across south Wales including the LINX Wales centre in Cardiff and the CWL1 Vantage Data Centre in Newport².

¹ <https://www.ogi.wales/>

² <https://www.ogi.wales/about/south-wales-trunk-road-concession/>

Wales' topography and sparse population distribution in rural areas have not been favourable factors in terms of attracting investment for the provision of telecommunications services. As noted in Ofcom's 2021 Connected Nations Report for Wales, the availability of superfast broadband and mobile services was for a significant period well below the UK average and "*featured as significant issues for consumers and elected representatives in Wales since Ofcom's creation*"³. However, although historically, both first generation and super-fast broadband roll-out in Wales has lagged behind the UK average, intervention by the Welsh and UK Governments, along with European funding has enabled broadband provision in Wales to improve steadily. For example, the 2021 report noted that superfast broadband is available to 94% of residential premises in Wales, providing speeds of at least 30 Mbit per second, around the UK average and that take-up had increased by 11% since the previous year. Similarly, 27% of residential premises in Wales have access to full fibre connections, which can deliver speeds of 1 Gbit/s or greater, only 1% behind the UK average by population, with take-up having increased by 6% from 2020. According to Ofcom, the increase in coverage in Wales is largely due to the continued investment in the rollout of fibre networks from Openreach and more recently Ogi as well as the continued progress in phase two of the Welsh Government's Superfast Cymru programme⁴.

However, despite these advances, the Digital Life and Broadband Connectivity 2022 report for Wales, published by the consumer organisation Which? suggests that there is still a long way to go. Its analysis of Ofcom data suggests that "despite improved broadband performance across the UK, average broadband speeds in Wales are still much slower than in the other nations. England has the fastest average fixed broadband download speed of 88.5 megabits per second. This is a little faster than in Northern Ireland (82.7 Mbps) and Scotland (73.7 Mbps). However, the average broadband speed in Wales is much slower at just 55.9 Mbps⁵." Which? claims in its annual survey that despite there being equal usage and a need for good broadband connections, consumers in Wales face significantly inferior performance to those elsewhere in the UK. This difference in consumer perceptions could be due to a range of factors such as affordability and take-up. Analysis by Which? also showed stark differences between urban and rural areas with download speeds in Cardiff and Swansea twice as fast as in rural areas in mid and north Wales. If the demand to work from home and greater use of broadband connectivity continues to increase, it will be essential to address these issues of speed and reliability in Wales.

Which? notes the UK Government's commitment to secure Gigabit connectivity across the UK by 2030. However, the organisation notes that while 70% of Wales will be forecast to have access to Gigabit broadband, this is far lower than the 90% forecast for London and Northern Ireland. Which? is calling for greater clarity for people living in hard-to-reach areas regarding when they can expect to receive improvements in their connectivity. The organisation currently chairs the Gigabit Takeup Advisory Group (GigaTAG), which has identified three broad categories of barriers to consumer adoption of gigabit-capable broadband: lack of awareness, limited perceived benefit, and practical barriers such as restricted opportunities to switch and affordability⁶.

³ 2021 Connected Nations Report for Wales, introduction,
https://www.ofcom.org.uk/data/assets/pdf_file/0025/229723/connected-nations-2021-wales.pdf

⁴ Page 8, Ofcom Connected Nations Report for Wales, 2021

⁵ <https://consumerinsight.which.co.uk/reports/consumers-in-wales-2022#digital-life-and-broadband-connectivity>

⁶ <https://consumerinsight.which.co.uk/reports/consumers-in-wales-2022#digital-life-and-broadband-connectivity>

‘Decent’ Broadband provision and the Universal Service Obligation (USO)

The Ofcom report notes that the cost of deploying fibre connections in some harder to reach areas in Wales will remain prohibitive. Currently, some 15,000 premises in Wales are not able to access broadband speeds of 10 Mbit/s, regarded as the minimum standard for ‘decent broadband’ and these areas qualify for connection under the universal broadband scheme, which is currently operated by BT and regulated by Ofcom⁷. However, we will continue monitor the effectiveness of this scheme, particularly in the case of those premises that will not benefit from the USO due to cost where customers are likely to receive installation quotes above the £3,400 implementation threshold⁸. Ofcom acknowledges that providing a broadband service in such areas may need alternative solutions such as, for example, Low Earth Orbit satellite⁹ (which overcomes the traditional problem of latency with geo stationary satellite systems) and fixed wireless access. We will also continue to monitor the availability of financial support initiatives provided by the Welsh Government such as the Access Broadband Cymru Scheme and the Local Broadband Fund.

Mobile Voice and Data

Wales’ topography has historically also been challenging for mobile roll-out, as well as for the availability of television and radio services. Radio frequency signals are significantly impeded by Wales’ mountainous terrain where operators need to install a greater number of base stations or transmitters at significantly greater cost, than in areas where there are fewer hills and valleys. However, despite these factors, mobile coverage of data and voice services have also improved in recent years and, for example, 4G geographic coverage (at 72% - 84%, depending on the mobile operator) is now only slightly behind the UK mobile average coverage range of 79% - 86%). But the broader picture, taking account of indoor coverage and the urban/rural split, still shows considerable differences in 4G mobile coverage across the nations. Developments such as the Shared Rural Network (SRN) are likely to significantly improve mobile coverage in Wales during the next few years. According to the Connected Nations report, the SRN is expected to improve 4G coverage in Wales provided by the mobile operators, increasing from 79% to 88%. 4G coverage from at least one operator will increase from 97% to 99% with the biggest increases occurring in rural areas of Mid, West Wales and North Wales¹⁰.

5G services are rolling out in Wales’ more populated areas, predominantly in Cardiff, Newport, and Swansea. According to Ofcom, coverage from at least one operator available outside in these areas stands at between 23% and 34% of premises. Currently however, the majority of consumers in Wales continue to rely on 4G, 3G and 2G for their daily mobile services.

PSTN Switch Off

Although not directly related to the provision of fixed and mobile broadband, it is also worth noting that the landline legacy copper telephone system (referred to as the Public Switched Telephone

⁷ Every home and business in the UK has the legal right to request a decent, affordable broadband connection. The broadband universal service order applies to premises that are unable to receive a download speed of 10 Mbit/s and an upload speed of 1 Mbit/s. An upgraded connection can be requested from BT and applicants do not have to be an existing customer of BT.

⁸ Page 19, Ofcom Connected Nations Report for Wales 2021

⁹ For example see <https://www.starlink.com/>

¹⁰ Page 30, Ofcom Connected Nations Report for Wales, 2021

Network, or PSTN) is reaching the end of its life and BT and other fixed line operators have announced that PSTN networks will be decommissioned completely by the end of 2025. Fixed line technology will be replaced by Voice Over IP systems (VOIP), where voice calls will be made over broadband connections. The ACW shares the concerns of the Communications Consumer Panel, the Wales CCP Hub and third sector voluntary organisations that PSTN switch-off has not been particularly well-publicised until now. It is essential that the ability to make emergency calls is not impeded. Unlike PSTN (where the copper line carries a voltage from the exchange), VOIP based systems need emergency back-up power, such as an Uninterruptable Power Supply (UPS), in the event of a power cut, so unless back-up is available, it would not be possible to make calls. This would be particularly critical in the case of emergencies. As the recent winter storms illustrated, the ability to make calls via a mobile phone might also be impacted if the local mobile base station has also lost power. We are particularly concerned that vulnerable consumer groups such as elderly people, for example those who rely on telecare systems, could be left behind. We will therefore continue to work with Ofcom to ensure that vulnerable consumers are protected and that disruption and inconvenience are minimised.

2G and 3G Switch-off

Ofcom notes that 2G and 3G networks, launched in the 1990/2000 are also due to be switched-off in the next few years. The Connected Nations report states that, "Switching off these networks affects a number of applications such as availability of mobile telephone calls, which rely either on these legacy services. In addition to emergency voice calls, other applications such as smart meters and e-call services, could be impacted without careful implementation." As with PSTN switch off this is an area of potential concern and will carefully monitor how the mobile companies handle this process in the coming years.

Broadband and the Environment

The pandemic illustrated the importance of broadband connectivity when many people had to work from home during lock-down periods. One positive outcome, following this period, is the willingness of organisations to make better use of video conferencing through services such as Zoom or Teams. In Wales, where often members of organisations work across the country, holding a meeting online makes far more sense rather than travelling to a central point in Wales such as Llandrindod Wells, in order to attend a meeting. The reduction in traffic during the pandemic also had an evident impact on air quality, particularly in towns and cities and going forward it is essential to retain the advantage of reduced travelling by facilitating meetings online through efficient broadband connections. Wales' topography also requires additional transmission infrastructure, for example to deliver mobile broadband and voice services and this has a consequential demand on energy use and this environmental impact also needs to be taken into account. New renewable energy technology, such as solar power, could be used to power remote transmitter sites.

Ofcom ACW

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