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Connected Nations Update

Spring 2020

Connected Nations Update: Spring 2020 – Welsh available

REPORT:

Publication date: 13 May 2020

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1. Overview

This is the first interim update to our December 2019 annual Connected Nations report. It is based on mobile coverage and fixed broadband availability across the UK as of January 2020, prior to the coronavirus outbreak in the UK.

This update comes at a time when being connected has never mattered more. The coronavirus pandemic has brought unprecedented challenges for the telecoms industry, with a significant increase in demand on the networks.

For example, it has led to a surge in homeworking to allow businesses to continue operating during trading and travel restrictions. People have also relied on phone and broadband services – including video calling apps – to keep in touch with friends and family, and to continue learning during school closures. Ensuring people and businesses across the UK have access to decent, reliable connections is crucial and we welcome phone and broadband companies' efforts to keep people connected.

Key Findings

Full fibre broadband has increased significantly to over 3.5 million homes, up from 3 million since our last update. There has also been a significant increase in the availability of broadband, with superfast availability also improving.

The Universal Service Obligation has now launched across the UK, giving people a legal right to request a decent broadband connection.

Mobile coverage remains stable but is set to increase with the **Shared Rural Network** agreement between the UK Government and the four mobile network operators.

In addition to this report, we are publishing a dashboard and an interactive chart that has both the latest and historical data.

The data from this update has also been used to refresh our coverage checker site and app. We will be reviewing the functionality and accessibility of these services during 2020.

Key findings – Fixed Broadband

Full Fibre[1] **broadband**: availability of full fibre broadband in the UK continues to improve at a rapid pace, with over 3.5 million homes[2] (12%) now able to access faster, more reliable full fibre services, an increase of over half a million in the four months to January. This is a result of increased rollout from existing broadband networks and new entrants.

[1] We consider a property to have "full fibre coverage" only if: 1. fibre is deployed in close proximity to the premises, so only a dedicated fibre connection to the property is necessary to provide full (end to end) fibre connectivity, and 2.the end user would expect to pay only a published pre-agreed connection charge, if one was to be imposed

[2] Note that we report on residential properties (homes) for full fibre, ultrafast and superfast coverage, but report on both residential and commercial properties for 'decent' broadband

Ultrafast broadband (download speeds of at least 300 Mbit/s[3]): availability of ultrafast broadband has increased across the UK by over 700,000 properties since our December report, to 16.1 million homes (55%). This has been driven predominantly by increases in the availability of both Virgin Media's cable network and full fibre deployments.

Superfast broadband (download speeds of at least 30 Mbit/s): superfast broadband continues to be rolled out across the UK, with an additional 300,000 properties covered since our last report. This means a total of 27.7 million homes (95%) can now access superfast broadband.

Decent broadband (10Mbit/s download and 1Mbit/s upload speed): the vast majority of UK properties can now access decent broadband. The number of properties (both residential and commercial) that cannot receive a 'decent' broadband service from a fixed line stands at 608,000 (2%), broadly similar to the 610,000 reported in December. These properties may be eligible for the broadband universal service, which gives properties unable to get a decent connection the legal right to request one.

As reported in our report in December, we expect the growing availability of Fixed Wireless Access (FWA) will further reduce the number of premises unable to get a decent broadband connection (estimated in December to be around 189,000 premises). We are currently reviewing how we define and report on coverage of FWA deployments and will address this in our full report at the end of the year.

The above figures show the extent to which connections of these speeds are available, not the level of take-up of these services; take-up of fixed broadband services is examined in our annual report.

Supporting investment in broadband networks

On 8 January 2020, we set out proposals[4] for new, flexible regulation that will help to build a full-fibre future for the whole of the UK.

These proposals seek to transform the business case for fibre investment – for towns, cities and villages alike. We plan to vary our regulation for different parts of the country. This, combined with the UK Government's planned £5bn funding for rural areas, will help ensure people across the UK benefit from faster, better broadband. We will also protect customers during this transition, by transferring our regulation – including price protections – from copper to new fibre services.

On 20 March 2020 the Broadband universal service scheme, introduced by the UK Government, was launched[5] giving eligible homes and businesses the legal right to request an upgraded connection if they cannot get a download speed of 10 Mbit/s and an upload speed of 1 Mbit/s.

BT is responsible for connecting properties, except in the Hull area where KCOM is the designated provider.

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[3] Ultrafast broadband can be delivered through a variety of technologies such as G.Fast, DOCSIS (Cable) and full fibre.
[4] https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/supercharging-investment-in-fibre-broadband
[5] https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/broadband-uso-advice

We continue to support the work of the UK Government[6] and the investment of gigabit-capable networks in the UK, including those premises in harder to reach rural areas.

Key findings – Mobile

We measure mobile coverage in a way that reflects the likely experience of people using their mobile phones.[7] There has not been a notable increase in coverage since our last report, but we expect the Shared Rural Network, recently agreed between the UK Government and industry, will drive forward coverage improvements over the coming years (more details below).

4G: Coverage of 4G mobile networks across the UK has not seen significant changes over the last reporting periods. Two thirds of the UK landmass has good 4G coverage from all four operators, and this area includes 97% of the premises in the UK.

4G not-spots: Both geographic and road not-spots (that is, areas where good 4G services are not available from any mobile operator) remain at 9% and 5% respectively, although the picture in individual nations varies significantly particularly in Scotland and Wales.

Calls and text coverage: As with 4G, coverage remains largely unchanged over the previous reporting periods. Just under 80% of the UK landmass covered by all operators for calls and text services and this area includes 99% of premises in the UK.

Calls/text not-spots: Areas where people are unable to make a call or send a text from any operator (not-spots) is similarly unchanged, with UK geographic not-spots at around 5% and not-spots on the UK's roads at around 2%. However, as with 4G, there are marked variations for individual nations; for example, geographic not-spots across Scotland is higher than the rest of the UK (at around 12% compared with 5% for the UK as a whole).

5G: We are in the early stages of 5G rollout, so we will not be reporting on 5G coverage in this update. We continue to work with mobile network operators to establish how best to evaluate and report on 5G coverage.

Supporting investment and coverage

On 9 March, the UK Government announced[8] it had reached agreement with the four mobile network operators – BT/EE, O2, Three and Vodafone – to provide funding for the operators' 'Shared Rural Network' (SRN), in order to improve mobile coverage across the UK and particularly in rural areas. In exchange for funding, and Ofcom removing coverage obligations from the 700 MHz and 3.6 – 3.8 GHz spectrum auction, each company has committed to deliver good quality 4G coverage to at least 90% of the UK in six years through the SRN programme.

[6] https://www.gov.uk/guidance/building-digital-uk
[7] Details on definitions can be found in the associated methodology annex of the December 2019 report: https://www.ofcom.org.uk/__data/assets/pdf_file/0021/186411/connected-nations-2019-methodology.pdf
[8] https://www.gov.uk/government/news/shared-rural-network

The SRN will provide guaranteed additional coverage to hundreds of thousands of homes and businesses and thousands of kilometres of roads, and the operators have also each committed to delivering significant increases in coverage in Scotland, Northern Ireland and Wales.

Ofcom will report on the coverage delivered by the SRN in future Connected Nations reports.

We are also helping improve mobile broadband and supporting the rollout of 5G through the release of important airwaves (spectrum). On 13 March 2020, we announced[9] that we will release more mobile airwaves through an auction of two frequency bands (700MHz and 2.6-3.8GHz).

Data collection and reporting

We recognise the pressures that the coronavirus (Covid-19) is placing on the telecoms sector – with reduced workforces and greater demands on mobile and broadband networks. These are unprecedented times and we appreciate the industry's priority must be to keep the networks operating well so the nation can stay connected. However, the information that we collect and publish continues to be valuable to consumers, policy makers and industry, so we will be working with communications providers over the coming months to ensure that we are able to monitor and report on progress while recognising the challenges faced by the industry at this time.

[9] https://www.ofcom.org.uk/consultations-and-statements/category-1/award-700mhz-3.6-3.8ghz-spectrum

2. Dashboards

Fixed broadband

Access to full fibre services	May 2019	September 2019	January 2020
UK	9%	10%	12%
England	8%	10%	11%
Northern Ireland	25%	31%	41%
Scotland	7%	8%	10%
Wales	10%	12%	13%

Access to Ultrafast services	May 2019	September 2019	January 2020
UK	52%	53%	55%
England	54%	55%	58%
Northern Ireland	47%	49%	52%
Scotland	44%	45%	48%
Wales	30%	31%	33%

Access to Superfast services	May 2019	September 2019	January 2020
UK	95%	95%	95%
England	95%	95%	96%
Northern Ireland	89%	89%	89%
Scotland	92%	92%	93%
Wales	93%	93%	93%

Access to 10Mbit/s services	May 2019	September 2019	January 2020
UK	98%	98%	98%
England	98%	99%	99%
Northern Ireland	94%	94%	94%
Scotland	96%	97%	97%
Wales	97%	97%	97%

Unable to receive 10Mbit/s download and 1Mbit/s upload (potentially USO eligible)	May 2019	September 2019	January 2020
UK	2%	2%	2%
England	2%	2%	2%
Northern Ireland	6%	6%	6%
Scotland	4%	4%	3%
Wales	3%	3%	4%

Note 1: We consider a property to have "full fibre coverage" only if: 1. fibre is deployed in close proximity to the premises, so only a dedicated fibre connection to the property is necessary to provide full (end to end) fibre connectivity, and 2.the end user would expect to pay only a published pre-agreed connection charge, if one was to be imposed.

Note 2: This may exclude broadband services available from some smaller providers.

Note 3: Figures for potential USO eligibility are for all (both residential and commercial) properties. Figures for other speeds refer to residential properties only.

Note 4: Potential USO eligibility figure for Wales increased by 0.3% between Sept 2019 and Jan 2020, but due to rounding is reported higher. The increase is due to new premises being identified, for which the expected broadband speed for some is below the USO threshold or missing, and improved, but lower, copper speed estimates and upgraded FTTP coverage modelling from Openreach. These effects may also be evident in figures at more granular levels such as Local Authorities or postcodes.

4G coverage

Premises (outdoor) covered by all operators	May 2019	September 2019	January 2020
UK	97%	97%	97%
England	98%	98%	98%
Northern Ireland	92%	92%	92%
Scotland	95%	96%	96%
Wales	92%	93%	93%

Geographic area covered by all operators	May 2019	September 2019	January 2020
UK	66%	66%	67%
England	82%	81%	82%
Northern Ireland	78%	75%	75%
Scotland	40%	42%	43%
Wales	58%	58%	58%

Geographic area not covered by any operator	May 2019	September 2019	January 2020
UK	9%	9%	9%
England	2%	3%	3%
Northern Ireland	3%	3%	3%
Scotland	20%	20%	20%
Wales	10%	11%	11%

Coverage of all roads by all operators	May 2019	September 2019	January 2020
UK	57%	56%	56%
England	64%	62%	63%
Northern Ireland	48%	42%	42%
Scotland	44%	43%	44%
Wales	46%	45%	46%

All roads not covered by any operator	May 2019	September 2019	January 2020
UK	4%	5%	5%
England	2%	3%	3%
Northern Ireland	6%	7%	7%
Scotland	9%	9%	9%
Wales	9%	11%	10%

Note 1: Thresholds for 4G services: 4G (-105 dBm). This relates to nearly all connections being capable of delivering a connection speed of at least 2Mbit/s and reliable voice calls.

Note 2: As we noted in the annual report in December, coverage data includes predictions provided to us by EE using a newly developed coverage prediction model, which has seen some changes in the coverage it predicts for landmass and premises. This also applies to voice and text services in the dashboard below.

Voice and text coverage

Premises (outdoor) covered by all operators	May 2019	September 2019	January 2020
UK	99%	99%	99%
England	99%	99%	99%
Northern Ireland	96%	97%	97%
Scotland	98%	98%	98%
Wales	97%	98%	98%

Geographic area covered by all operators	May 2019	September 2019	January 2020
UK	79%	79%	79%
England	91%	91%	91%
Northern Ireland	87%	86%	86%
Scotland	56%	58%	59%
Wales	76%	77%	78%

Geographic area not covered by any operator	May 2019	September 2019	January 2020
UK	5%	5%	5%
England	1%	1%	1%
Northern Ireland	1%	1%	1%
Scotland	12%	12%	12%
Wales	4%	5%	5%

Coverage of all roads by all operators	May 2019	September 2019	January 2020
UK	77%	76%	76%
England	83%	82%	83%
Northern Ireland	66%	62%	62%
Scotland	62%	62%	63%
Wales	70%	70%	70%

All roads not covered by any operator	May 2019	September 2019	January 2020
UK	2%	2%	2%
England	1%	1%	1%
Northern Ireland	3%	3%	3%
Scotland	5%	4%	4%
Wales	5%	5%	5%

Thresholds for voice and text are: 2G (-81 dBm), 3G (-100 dBm), 4G (-105 dBm).