Connected Nations Update

Spring 2021

Connected Nations Update: Spring 2021 – Welsh available

REPORT:

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1. Overview

This is the first interim update to our December 2020 annual Connected Nations report. It is based on mobile coverage and fixed broadband availability across the UK as of January 2021, when the UK continued to deal with the impact of the coronavirus outbreak.

Key Findings

Number of homes able to get gigabit capable broadband is up to over 10.8 million homes (37%), up from 7.9 million (27%) since our last update.

Full fibre coverage continues to increase at pace, up to 21% from 18% in the four months between September 2020 and January 2021, with just under six million homes covered.

Superfast and ultrafast broadband coverage continues to expand across the UK, although to a lesser extent, with superfast broadband coverage remaining at 96%, but ultrafast broadband rising to 61% (from 59% in September).

Mobile coverage remains stable but mobile operators have now started rolling out coverage to new areas through the **Shared Rural Network** scheme, agreed with the UK Government in 2020. As a result, nationwide coverage is set to increase in the coming years.

As with previous updates we are publishing a [dashboard and an interactive chart] alongside this report that has both the latest and historical data.

The data from this update has also been used to refresh our coverage checker site.

Key findings – Fixed Broadband

Gigabit capable broadband: availability of broadband capable of delivering Gigabit[1] speeds for consumers continues to improve at a rapid pace, with nearly 11 million UK homes[2] (37%) now able to access these faster services, up from 7.9 million homes (27%) in September 2020. This increase has largely been driven by the continued rollout of Virgin Media's DOCSIS3.1 technology to an additional 2.8 million homes, along with companies extending their full fibre networks.

Full fibre deployment: Full fibre coverage is now at just under six million homes (21%), up from 5.1 million (18%) reported in our full Connected Nations report on September 2020 coverage. This is driven predominantly through deployments by the larger fibre infrastructure operators but supported by an increasing number of smaller providers across the UK serving individual communities and regions.

[1] Gigabit capable networks include full fibre networks as well as any network that is able to offer at least 1Gbit/s download speeds (such as the latest version of cable network technology – DOCSIS 3.1)

[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 nearly half a million homes to 17.7 million homes (61%). This has been driven predominantly by extensions to Virgin Media's cable network, as well as fibre deployments by Openreach and other full fibre operators. In some, predominantly urban areas, new fibre networks are being deployed in areas that have existing ultrafast coverage, and hence the increases in full fibre availability do not necessarily result in a corresponding increase of ultrafast coverage.

Superfast broadband (download speeds of at least 30 Mbit/s): superfast broadband continues to be rolled out across the UK, with an additional 65,000 properties covered since our last report, although coverage remains at 96% of homes.

Decent broadband (10 Mbit/s download and 1 Mbit/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 650,000 (remaining at just over 2%)[4]. This number has changed due to a change in the way we measure broadband availability at sites with multiple properties e.g. blocks of flats and shopping centres.

As noted in our report in December, we expect that the growing availability of Fixed Wireless Access (FWA) will further reduce the number of premises unable to get a decent broadband connection. At that time, we estimated that the number of properties unable to get decent broadband, even with the inclusion of FWA networks, was around 189,000. We are in the process of gathering updated coverage information from FWA networks and will report on this in a subsequent report.

The above figures show the availability of broadband services across the UK; we shall report on take-up of broadband services in more detail in our annual Connected Nations report in December 2021.

Developments supporting investment in broadband networks

In March 2021 Ofcom published its Wholesale Fixed Telecoms review,[5] setting out a number of measures to incentivise investment in network infrastructure – giving regulatory certainty and allowing companies to make a fair return whilst ensuring consumers continue to have access to affordable broadband as new networks are rolled out.

UK: On 19th March the UK Government announced "Project Gigabit"[6]; the £5bn infrastructure project fund to support rollout of gigabit capable broadband to homes and premises in hard to reach

[3] Ultrafast broadband can be delivered through a variety of technologies such as G.Fast, DOCSIS (Cable) and full fibre.
[4] In our last report we stated that the number of premises unable to receive a 'decent' broadband connection via a fixed line was around 583,000. This figure included around 100,000 properties for which we have no operator coverage data but were closely associated with adjacent properties, so we cautiously included these premises in our figures. We have since refined the way that these properties are identified and 'address-matched' to operator data to more precisely provide estimated speed data for individual apartments and similar premises. In doing so, the number of properties for which we have no operator data increases, which results in the higher figure given here. Given the geographical location of these buildings, we do not expect that the number of premises unable to get a decent broadband connection and eligible for the broadband USO has changed, due to the availability of fixed wireless access from mobile networks.
[5] Statement: Promoting investment and competition in fibre networks – Wholesale Fixed Telecoms Market Review 2021-26 - Ofcom
[6] Government launches new £5bn 'Project Gigabit' - GOV.UK (www.gov.uk)

places. The first areas to benefit from the funding were announced and additional £210million worth of gigabit vouchers released.

The UK Government has announced that almost 500,000 premises across the UK have been connected to gigabit-capable broadband since summer 2018 as a result of a £1 billion government funding commitment that runs until the end of 2021.

Scotland: The Scottish Government published a new Digital strategy[7] and a Green datacentres[8] report in support of the recovery from the pandemic. Existing programmes, including Reaching 100% (R100) and Scottish 4G Infill (S4GI), continue to deliver benefits.

Wales: The Welsh Government continues to provide top-up funds[9] , through a new voucher scheme, for those rural premises qualifying under the UK Government Gigabit Capable Broadband scheme. In addition, Access Broadband Cymru[10] provides funding and grants for all premises to double broadband speeds.

Northern Ireland: In Northern Ireland, the first premises to get a new full-fibre connection as part of Project Stratum, a £165m broadband investment programme, are now being connected[11].

Virgin Media has upgraded its network in Northern Ireland, further boosting the availability of gigabit capable broadband. The operator's network of nearly 400,000 homes across the region can now get Virgin Media's Gig1 broadband which offers average download speeds of 1,140 Mbit/s[12].

Openreach recently announced it will add a further 100,000 premises to its full-fibre network in Northern Ireland over the next 12 months[13].

Key findings – Mobile

We measure mobile coverage in a way that reflects the likely experience of people using their mobile phones.[14] There has not been a significant increase in coverage since our last report, but we expect the Shared Rural Network, agreed between the UK Government and industry in 2020, to drive forward coverage improvements over the coming years.

4G: Coverage of 4G mobile networks across the UK has not seen significant changes over the last reporting periods. More than 91% of the UK landmass has good 4G coverage from at least one operator, and this area includes nearly all of the premises in the UK. Coverage for both Scotland and Wales is significantly lower. It should be noted that individual MNOs are committed to achieving between 85% and 88% coverage in Wales by 2026 under the SRN, and between 82% and 85% in

[7] Digital - gov.scot (www.gov.scot)
[8] Green datacentres and digital connectivity: vision and action plan for Scotland - gov.scot (www.gov.scot)
[9] Wales – Gigabit Vouchers (culture.gov.uk)
[10] Access Broadband Cymru | GOV.WALES
[11] https://www.bbc.co.uk/news/uk-northern-ireland-56325843
[12] https://www.virginmedia.com/corporate/media-centre/press-releases/virgin-media-brings-gigabit-broadband-to-its-entire-northern-ireland-network
[13] https://www.bbc.co.uk/news/uk-northern-ireland-56724991
[14] 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

Scotland thanks both to SRN investment and benefitting from the Scottish Government 4G infill programme.

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 4% 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. 80% of the UK landmass is 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%. As with 4G, there are marked variations for individual nations; for example, geographic not-spots across Scotland remain higher than the rest of the UK (at around 11% compared with 5% for the UK as a whole).

5G: We are still 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.

Data collection and reporting

We continue to increase the number of operators from whom we collect coverage data to improve the accuracy of the data we publish. We also continue to gather coverage data on a 4-monthly basis and usage information once a year. In addition to our regular reporting, in the full report at the end of the year, we also intend to publish information about the coverage of Fixed Wireless Access (FWA) networks.

2. Dashboards

Fixed broadband

Access to full fibre	May 2020	September 2020	January 2021
UK	14%	18%	21%
England	13%	16%	19%
Northern Ireland	49%	56%	63%
Scotland	13%	17%	20%
Wales	15%	19%	21%

Access to Gigabit capable services	September 2020	January 2021
UK	27%	37%
England	25%	36%
Northern Ireland	56%	69%
Scotland	42%	44%
Wales	19%	28%

Access to Ultrafast services	May 2020	September 2020	January 2021
UK	57%	59%	61%
England	59%	61%	62%
Northern Ireland	57%	64%	69%
Scotland	50%	52%	54%
Wales	34%	37%	38%

Access to Superfast services	May 2020	September 2020	January 2021
UK	95%	96%	96%
England	96%	96%	96%
Northern Ireland	89%	89%	90%
Scotland	93%	94%	94%
Wales	94%	94%	94%

Access to 10 Mbit/s services	May 2020	September 2020	January 2021
UK	98%	98%	98%
England	99%	99%	99%
Northern Ireland	94%	94%	94%
Scotland	97%	97%	97%
Wales	97%	97%	97%

Number of homes and businesses unable to access a decent broadband service, that is at least 10 Mbit/s download speed and at least 1 Mbit/s upload speed.

Unable to receive 10 Mbit/s download and 1 Mbit/s upload services (potentially USO eligible)	May 2020	September 2020	January 2021 (Note 5)
UK	2%	2%	2%
England	1%	1%	1% - 2%
Northern Ireland	6%	6%	5% - 6%
Scotland	3%	3%	3% - 4%
Wales	3%	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: Since our last data collection, we have refined our methodology to include data on individual apartments and other sub-dwellings within larger buildings where this data is available which increases the number of premises for which we have no operator coverage data (see footnote 4).

Note 5: The range of figures shown provides the range including and excluding premises for which coverage data is not available. For the UK and individual Nations the consequences of this methodology change are around 0.2% (but may appear higher due to rounding). These effects may also be evident in figures at more granular levels such as Local Authorities or postcode.

4G coverage

Premises (outdoor) covered by all operators	May 2020	September 2020	January 2021
UK	97%	98%	98%
England	98%	98%	98%
Northern Ireland	94%	94%	94%
Scotland	96%	96%	96%
Wales	93%	93%	93%

Geographic area covered by all operators	May 2020	September 2020	January 2021
UK	67%	69%	69%
England	82%	84%	84%
Northern Ireland	77%	79%	79%
Scotland	43%	44%	44%
Wales	58%	60%	60%

Geographic area not covered by any operator	May 2020	September 2020	January 2021
UK	9%	9%	9%
England	3%	3%	3%
Northern Ireland	3%	3%	3%
Scotland	20%	19%	19%
Wales	10%	10%	10%

Coverage of all roads by all operators	May 2020	September 2020	January 2021
UK	57%	59%	59%
England	64%	66%	66%
Northern Ireland	46%	48%	48%
Scotland	44%	46%	46%
Wales	46%	49%	49%

All roads not covered by any operator	May 2020	September 2020	January 2021
UK	5%	4%	4%
England	3%	2%	2%
Northern Ireland	7%	7%	7%
Scotland	9%	8%	8%
Wales	10%	10%	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.

Voice and text coverage

Premises (outdoor) covered by all operators	May 2020	September 2020	January 2021
UK	99%	99%	99%
England	99%	99%	99%
Northern Ireland	97%	97%	97%
Scotland	98%	98%	98%
Wales	98%	98%	98%

Geographic area covered by all operators	May 2020	September 2020	January 2021
UK	80%	80%	80%
England	92%	92%	92%
Northern Ireland	87%	87%	87%
Scotland	59%	59%	59%
Wales	78%	78%	78%

Geographic area not covered by any operator	May 2020	September 2020	January 2021
UK	5%	5%	5%
England	1%	1%	1%
Northern Ireland	1%	1%	1%
Scotland	12%	11%	11%
Wales	5%	5%	5%

Coverage of all roads by all operators	May 2020	September 2020	January 2021
UK	77%	77%	77%
England	83%	83%	83%
Northern Ireland	64%	64%	65%
Scotland	63%	63%	63%
Wales	70%	70%	71%

All roads not covered by any operator	May 2020	September 2020	January 2021
UK	2%	2%	2%
England	1%	1%	1%
Northern Ireland	3%	3%	3%
Scotland	4%	4%	4%
Wales	5%	5%	5%

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