

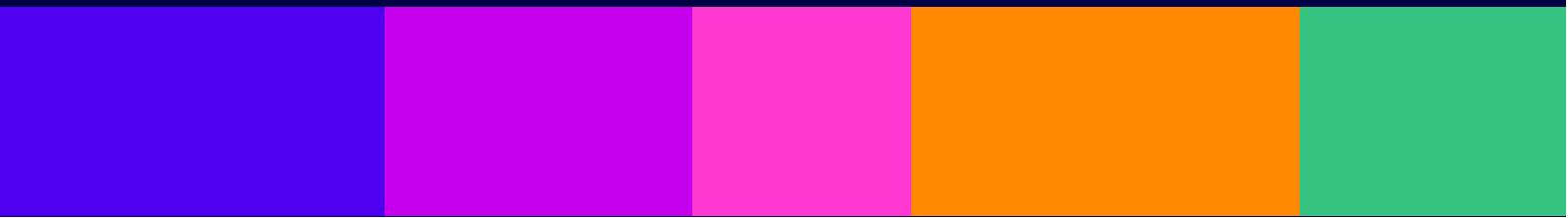


Connected Nations

Wales Report 2025

Published 19 November 2025

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Overview

Consumers and businesses in Wales rely on good connectivity – whether at home, at work or on the move. We want to ensure that UK consumers have access to high quality networks, to enable a wide range of digital services which drive economic growth. The Connected Nations report, prepared and published under the Communications Act 2003, helps us monitor the availability of these networks and provides data to help stakeholders understand the networks which are available in their area.¹

Ofcom's objective is to make communications work for everyone, including to promote reliable, widely available and high-quality networks. This year's Connected Nations report for Wales provides an update on the continued roll out of gigabit-capable fixed networks and 5G mobile networks, including for the first time reporting on 5G standalone coverage. It also includes an update on the take-up of full fibre and gigabit-capable broadband services and low Earth Orbit (LEO) satellite broadband services.

Alongside this Wales report, we also publish reports for each of the other nations and the [Connected Nations: UK Report 2025](#) report which includes further exploration of the data and technologies from this report, alongside updates on telecoms security and resilience monitoring.

More detailed data is available through our [interactive dashboards](#), allowing exploration of coverage in local areas and ability to compare trends over time. In addition, the coverage and take-up data is available for download as open data files.

Highlights

Broadband

- **78% of residential premises in Wales now have full-fibre coverage.** This is an increase of 10 percentage points from last year and represents an additional **100,000** premises with access to full fibre compared to July 2024.
- **Take-up of full-fibre broadband by consumers in Wales continues to increase.** Take-up rates rose from 39% of all Welsh premises in July 2024 to 49% in July 2025, an increase of 10 percentage points. Over 580,000 premises have taken up the full-fibre broadband available to them.
- **More Welsh households are using satellite connectivity, particularly in harder to reach areas.** The number of Starlink subscribers in Wales has risen to over 7,500 in 2025 from around 5,000 last year.
- **The number of Welsh premises unable to access decent broadband continues to fall.** We estimate that around 6,000 or 0.4% of premises in Wales remain without a decent broadband service from either fixed line or Fixed Wireless Access (FWA) - a decrease of 2,000 from the numbers reported last year.

Mobile

- **We are reporting 5G standalone (SA) mobile coverage for the first time.** In Wales, 5G SA coverage outside premises from at least one mobile network operator (MNO) is 59% at the High Confidence level and 56% at the Very High Confidence level. This is below the UK

¹ Sections 134A to 134B.

figures which are at 83% at the High Confidence level, and 74% at the Very High Confidence level.²

- **Overall 5G coverage has seen modest growth in Wales.** 57% of Wales' geography has coverage from at least one MNO at the High Confidence level.
- **Three-quarters (76%) of Wales' landmass now has 4G coverage from all MNOs.** 4G geographic coverage from all MNOs has risen by one percentage point from last year.
- **Indoor premises 4G coverage continues to be widely available** with 99% of indoor premises with 4G coverage from at least one MNO and 82% of indoor premises being covered by all four MNOs.

² By 'At least one MNO', we mean the combined coverage that would be available if the total coverage of each MNO was included in an aggregated coverage footprint.

Fixed broadband and voice

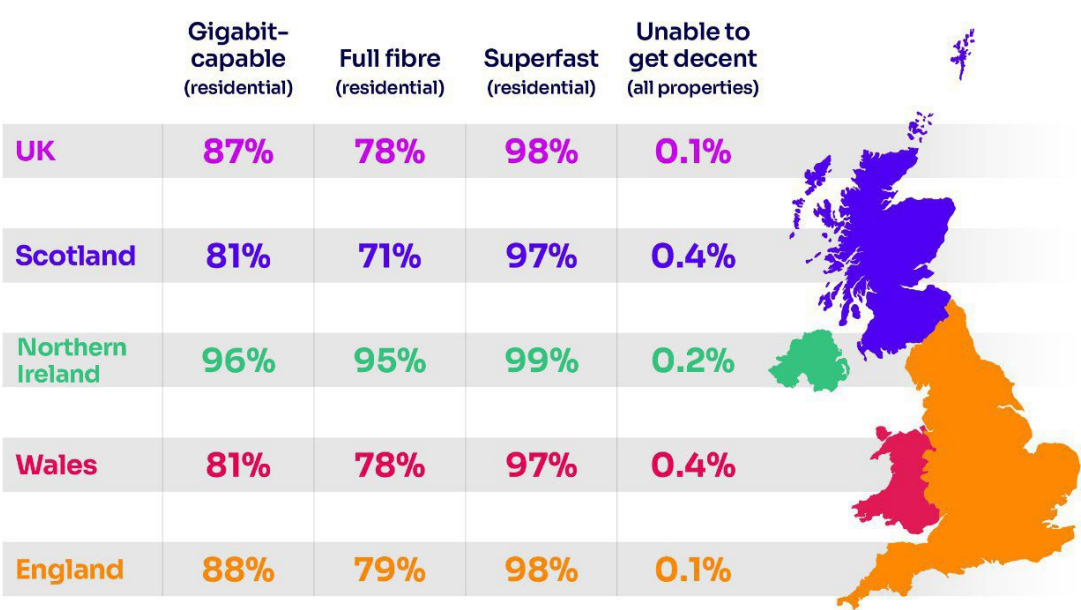
Introduction

Full-fibre fixed networks are continuing to expand across Wales, delivering faster and more reliable broadband and voice services to homes and businesses.

Growing connectivity across Wales and the rest of the UK is taking place in the context of broader changes to the fixed telecoms sector, including the migration to digital voice technology from the legacy public switched telephone network (PSTN). For more information on these developments, please refer to our [Connected Nations: UK Report 2025](#), or our [update](#) on Planned Network Deployments for very-high capacity networks in the UK for the next three years, published in May 2025.

Summary of broadband coverage

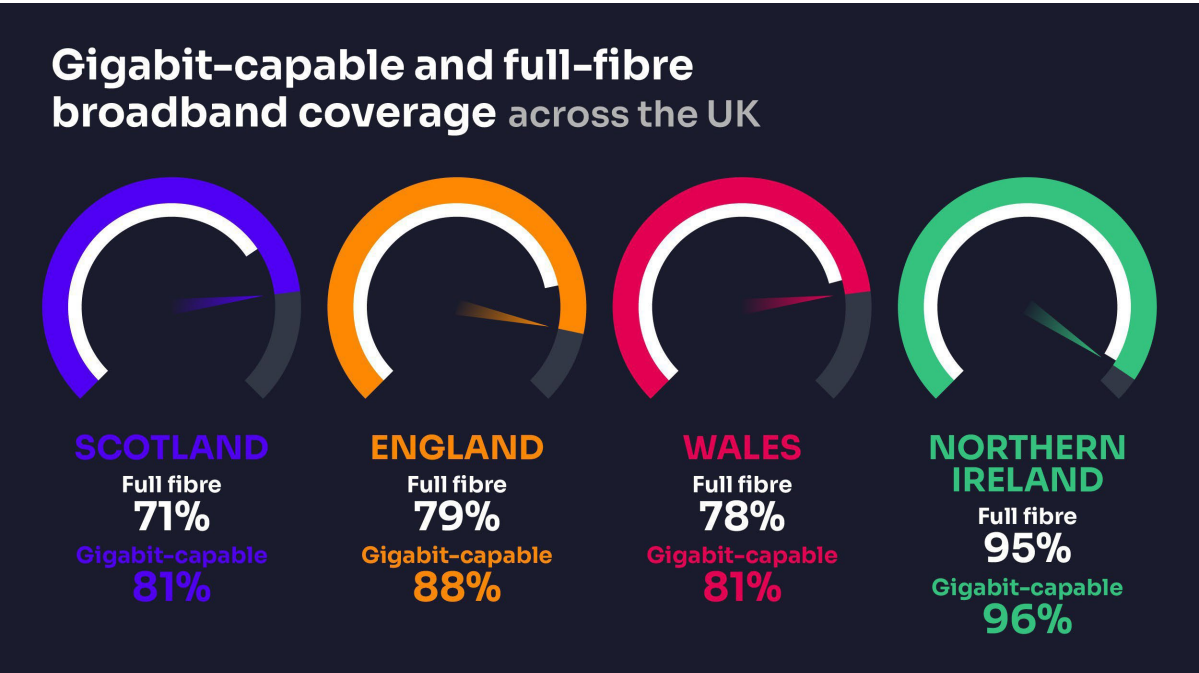
Figure 2.1: Overview of broadband coverage across the UK



Source: Ofcom analysis of provider data (July 2025)

Full-fibre and gigabit-capable coverage

Figure 2.2: Gigabit-capable and full-fibre broadband coverage by UK nation



Source: Ofcom analysis of provider data (July 2025)

Full-fibre broadband is now available to over 78% of residential premises in Wales

The availability of full-fibre networks in Wales continues to expand. As of July 2025, 78% or 1.1 million homes can access full-fibre broadband. This is an increase of 10 percentage points, or nearly 100,000 residential premises, compared to July 2024.

There remain differences in full-fibre coverage between rural and urban areas, with residential premises in urban areas in Wales more likely to have access to full-fibre networks (83% for urban areas, and 59% for rural areas). However, the gap between availability in rural areas and urban areas is closing, improving from a 26-percentage point gap to a 24-percentage point gap between July 2024 and July 2025. Residential premises in rural areas of Wales have seen an increase of 11 percentage points (40,000 residential premises) in access to full fibre.

However, there remain varying levels of average coverage between the local authorities in Wales:

Table 2.1: Highest and lowest levels of residential full-fibre broadband coverage by local authority areas in Wales

Rank	Local Authority	% of premises with full fibre coverage
1	Flintshire	91%
2	Bridgend	90%
3	Caerphilly	89%
20	Powys	58%

Rank	Local Authority	% of premises with full fibre coverage
21	Isle of Anglesey	57%
22	Ceredigion	51%

Source: Ofcom analysis of provider data (July 2025)

Further detailed coverage data for each local authority area in Wales – as well as Westminster and Senedd constituencies – can be found in our [interactive report](#).

Gigabit-capable broadband is now available to over 81% of residential premises in Wales

The increase in full-fibre coverage has also resulted in an increase in the number of premises able to access gigabit-capable broadband. By July 2025, 81% or 1.2 million residential premises in Wales had access to a gigabit-capable broadband network. This is an increase of seven percentage points, or an additional 100,000 residential premises compared to July 2024.

Table 2.2: Residential gigabit-capable and full-fibre coverage in Wales by rurality

	Gigabit capable	Full fibre
Urban	87%	83%
Rural	59%	59%
Total	81%	78%

Source: Ofcom analysis of provider data (July 2025)

Whilst much of the coverage delivered has been through commercial rollout, improvements in rural coverage have also been supported through public funds or intervention.

In July 2025, the Welsh Government announced further investment of £70 million in the Extending High Speed Broadband project. This project is aimed at delivering gigabit-capable coverage to areas not included in commercial build rollouts and will connect 44,000 homes and businesses in hard-to-reach rural communities in Wales. It is delivered in conjunction with the UK Government's wider Project Gigabit programme.³

We have seen an increase in the number of residential premises with access to more than one network in Wales. However, as shown in Table 2.3, the proportion of residential premises in Wales that have access to at least two, or at least three networks is significantly lower than the UK average or the proportion with access in the other nations.

³ Welsh Government, [Written Statement: Extending High Speed Broadband Project](#), 9 June 2025.

Table 2.3: Residential premises with access to multiple fixed networks by nation

	Access to more than one gigabit-capable network		Access to at least two networks (including non-gigabit capable networks)		Access to at least three networks (including non-gigabit capable networks)	
	July 2024	July 2025	July 2024	July 2025	July 2024	July 2025
Wales	28%	37%	42%	46%	7%	12%
England	47%	58%	74%	77%	25%	31%
Northern Ireland	74%	77%	82%	85%	13%	16%
Scotland	41%	49%	65%	68%	19%	22%
UK	47%	57%	72%	75%	23%	29%

Source: Ofcom analysis of provider data (July 2025)

Take-up of services on full-fibre networks

An increasing number of customers are using broadband services on full-fibre networks as their coverage expands. In July 2025, take-up of services on full-fibre networks at all premises in Wales (residential and commercial), where available, was 49% or 580,000 premises (Table 2.4). This is an increase of 10 percentage points in take-up over the last year.

Take-up of full fibre remains notably higher in rural areas than in urban areas (Table 2.4). Of premises with full fibre access in Wales, 58% of premises in rural areas have taken a full-fibre service, compared to 47% in urban areas.

Table 2.4: Take-up of broadband services on full-fibre networks (as a percentage of all premises where those services are available)

	Total	Rural	Urban
Wales	49%	58%	47%
England	41%	54%	39%
Northern Ireland	62%	65%	60%
Scotland	43%	60%	40%
UK	42%	56%	40%

Source: Ofcom analysis of provider data (July 2025)

Data usage over fixed networks

Average data usage across all connections in Wales, now stands at 560 GB per connection for the month of July 2025, an increase of 10% on the 2024 figure of 508 GB.

Wireless and satellite networks

FWA and satellite networks provide consumers with an alternative where they do not have access to a fixed access network or even where fixed networks are available.

FWA services from MNOs are provided over licensed 4G and 5G networks. Three of the UK's four MNOs currently offer FWA services in the UK. We estimate that 94% of premises in Wales have access to a fixed wireless service from a mobile operator, two percentage points lower than the UK as a whole.

Fixed wireless services can also be delivered over networks that communicate via a wireless link between a provider's mast site and an external antenna fixed to a customer's premises, by providers known as WISPs. Based on estimates from providers, around 24% of all premises in Wales have coverage from a WISP. This is significantly higher than the coverage available in other parts of the UK due to significant historic Welsh Government investment in FWA rollout in Wales.⁴

Further background on FWA and satellite technologies is provided in the [Connected Nations: UK Report 2025](#).

Table 2.5: Coverage of MNO and WISP FWA networks with at least decent broadband (all premises)

Nation	MNO FWA	WISP FWA
Wales	94% (1.5m)	24% (0.37m)
Scotland	95% (2.8m)	1% (0.02m)
England	96% (25.9m)	8% (2.2m)
Northern Ireland	85% (0.8m)	3% (0.03m)
UK	96% (30.9m)	8% (2.65m)

Source: Ofcom analysis of provider data (July 2025)

Satellite services

Satellite technologies continue to evolve, and LEO satellite constellations could potentially support connectivity in rural communities in Wales or where topography in urban areas acts as a barrier to connectivity. At present, Starlink is the only LEO operator currently offering direct to consumer broadband coverage across the UK including in harder-to-reach areas; however, this is set to change as we have recently licenced spectrum to Amazon who also have plans to serve UK consumers. We therefore expect to see development in this market in the coming years.

Take-up of Starlink continues to increase in Wales, with over 7,500 active connections in 2025, up from around 5,000 customers reported last year. Nearly 1,500 of these subscribers are without access to decent broadband through other means.

Satellite technologies are being trialled by the Welsh Government and partners to understand how the combination of LEO and cellular connectivity can assist transport systems in challenging environments. The 'Starbws' trial focuses on the rural 460 Carmarthen to Cardigan bus service,

⁴ The number of providers reporting to us this year has reduced to 16 (compared to 20 in 2024).

which operates four times per day with a journey time of 1hr 26 minutes. The bus is fitted with a specialist Integrated 5G/4G/Wi-Fi failover router – which auto switches (in less than 1 second) between Starlink/Vodafone/EE as connections allow. During the evaluation phase of the project, an uninterrupted video call and continuous 4k video streaming were successfully completed and included sub 1 second switching between providers.

Access to decent broadband in Wales is increasing

Decent broadband is defined as a connection which provides at least 10 Mbit/s download speed and 1 Mbit/s upload speed. Since last year, the number of premises not able to access decent broadband via a fixed-line connection in Wales has decreased by 3,000 to around 32,000, or 2% of all premises.

Of those premises that do not have access to decent broadband via fixed lines, a large share is able to access decent broadband via FWA services offered by MNOs or WISPs.

Taking account of the coverage available from FWA, we estimate that this leaves around 6,000 or 0.4% of premises in Wales without a decent broadband service from either fixed line or FWA.

This remaining number of premises without access to a decent broadband service has fallen by around 2,000 from the approximately 8,000 premises we reported last year.

Figure 2.3: Number of premises without a decent broadband connection in Wales

**Premises in Wales
without access to a decent
broadband connection
from a fixed or FWA service**



6,000

Source: Ofcom analysis of provider data (July 2025)

Broadband universal service obligation

The broadband universal service obligation (USO)⁵ provides the right to request a broadband connection with a download speed of at least 10 Mbit/s and an upload speed of 1 Mbit/s (as well as several other specific technical characteristics) to a home or business, subject to eligibility and

⁵ Where an affordable service with these characteristics is not available, or due to become available in the next 12 months under a publicly funded scheme, the customer is eligible for the USO if the costs of providing the connection are below £3,400. Where the costs are above £3,400, the customer has the option to pay the excess costs to get a USO connection.

affordability requirements.⁶ BT is the universal service provider for the UK (excluding Hull), and KCOM for the Hull area. They are required to provide the USO and to report at six monthly intervals on delivery.⁷

As of September 2025, BT had received over 250 USO orders in Wales since the launch of the USO in March 2020. Each order requires network build that can serve multiple premises, and therefore these orders have led to full-fibre connections being built that can serve over 1,400 Welsh premises.

⁶ In particular, these characteristics are: (i) a contention ratio of no more than 50:1; (ii) latency which is capable of allowing the end user to make and receive voice calls effectively; and (iii) the capability to allow data usage of at least 100 GB a month.

⁷ BT, [USO Reports](#). KCOM, [USO Reports](#). To date, we understand that KCOM has not received any eligible USO orders.

Mobile, data and voice

Introduction

Mobile connectivity plays a vital role in how people in Wales access services, communicate and stay connected.

In this section, we report on the rollout of 5G services, including for the first time an overview of standalone 5G coverage. We continue to track the availability of 4G coverage, both outdoors and indoors, across the Wales's geography. Finally, we also provide an update on mobile traffic growth.

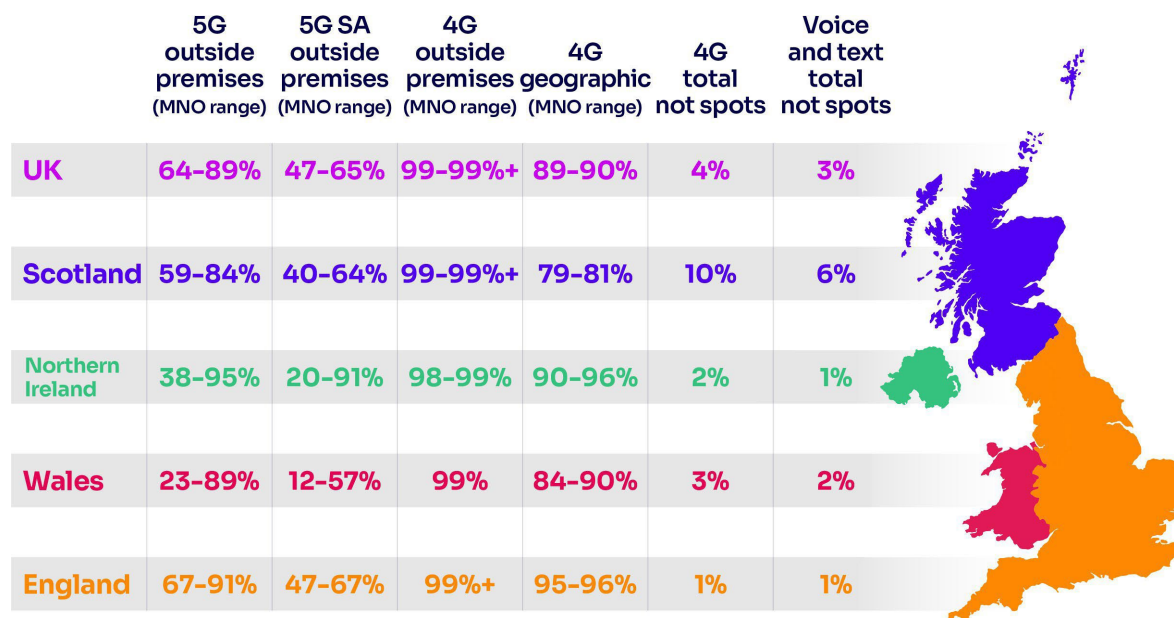
We also include selected statistics from our new consumer-facing web-based coverage checker tool, Map Your Mobile, which provides local coverage information.

Our reporting on mobile coverage in this report uses the same methodology as in previous Connected Nations reports. However, we continue to consider how to evolve our approach to mobile coverage reporting and we will explore this further with MNOs over the coming year, in relation to both coverage and performance reporting.

We recommend that this section is read in conjunction with the 'Mobile, data and voice' section in our [Connected Nations: UK Report 2025](#) which includes additional information on areas such as mobile investment and the 2G and 3G switch off.

Summary of mobile coverage

Figure 3.1: Overview of voice and data coverage across the UK ^{8,9}



Source: Ofcom analysis of MNO data (July 2025)

⁸ The MNO ranges in this figure refer to the span between the MNO with the least coverage and that with the most coverage on a given measure. For 5G and 5G SA outside premises the MNO range is based on our ‘High Confidence’ measure, rather than the ‘Very High Confidence’ measure which we also use in this report. Note that only three MNOs have deployed 5G SA services. References to 5G SA in this report therefore reflect the coverage and traffic reported by these operators only. Three does not currently deploy 5G SA services.

⁹ Further information on how we define and measure coverage can be found in our [Connected Nations Methodology](#)

5G coverage

5G standalone (SA)

The transition to 5G SA coverage (uses a new core 5G network) is underway in Wales and, although coverage levels in Wales lag behind the rest of the UK, overall 5G coverage has improved.

In Wales, 5G SA coverage outside premises from at least one MNO stands at 59% at the High Confidence level and 56% at the Very High Confidence level. This compares to 83% at the High Confidence level, and 74% at the Very High Confidence level across the UK.¹⁰

Further information on how we define and measure 5G coverage can be found in our [Connected Nations: UK Report 2025](#).

Outdoor premises coverage of 5G

Overall 5G coverage in areas outside of premises from at least one MNO increased by five percentage points compared to 2024 at the High Confidence level, reaching 91%, and by seven percentage points at the Very High Confidence level, reaching 86%. These figures are six and eight percentage points below the UK figures respectively, although growth trends are in line with the rest of the UK.

Figure 3.2: The MNO range for 5G coverage outside premises at the High Confidence level



Source: Ofcom analysis of operator predictions (July 2025)

Table 3.1 shows that, across the four MNOs, outside premises 5G coverage ranges from 23% to 89% at the High Confidence level (up from 16% to 80% in September 2024) and 21% to 84% at the Very High Confidence level (up from 15% to 74%). BT/EE is the MNO with the highest level of coverage by this metric.

¹⁰ By 'coverage outside premises', we mean coverage that is predicted in a 100x100m area in which a dwelling is located, which can be considered as a proxy for outdoor coverage of populated areas.

Table 3.1: 5G outside premises coverage in Wales by MNO

	Very High Confidence	High Confidence
BT/EE	84%	89%
Three	29%	54%
VMO2	21%	23%
Vodafone	25%	33%

Source: Ofcom analysis of operator predictions (July 2025)

5G geographic coverage

5G geographic coverage in Wales continues to progress at a modest pace. Fifty-seven per-cent of Wales' landmass has coverage from at least one MNO at the High Confidence level (up from 52% in 2024). The range of 5G geographic coverage between MNOs at the High Confidence level is 4 to 53% (up from 2 to 47% in 2024) and 3 to 44% at the Very High Confidence level (up from 1 to 39% in 2024).

These increases in coverage have been driven by additional 5G deployments, with over 29,100 5G sites now operational across the UK.¹¹ Distribution of these sites across the UK nations has remained consistent – with 4% located in Wales, broadly aligned with national distribution of mobile traffic.

4G coverage

4G geographic coverage

While 5G coverage is expanding, it is important to note that most people still use voice and data services over 4G. 4G geographic coverage levels in Wales increased by two percentage points between 2024 and 2025 with 97% geographic coverage by at least one MNO predicted in July 2025. 77% of the geography of Wales is now served by all four MNOs.

Table 3.2: 4G geographic coverage in Wales by MNO

	2024	2025
BT/EE	89%	90%
Three	88%	90%
VMO2	83%	84%
Vodafone	84%	87%

¹¹ These deployments do not necessarily equate to the total number of unique physical sites across UK. This is because multiple MNOs may be offering coverage from the same site. As such, the reported site count reflects the aggregate number of deployments across all MNOs, rather than distinct physical site infrastructure. Also, this encompasses the various 5G mobile deployment types i.e. 5G NSA, 5G SA and Dynamic Spectrum Sharing (DSS).

Source: Ofcom analysis of MNO data (September 2024, July 2025)

Wales remains the UK nation with the second lowest level of 4G geographic coverage, as outlined in Table 3.3. All four UK nations have seen broadly stable coverage over the last year.

Table 3.3: 4G geographic coverage from all MNOs by UK nation

Nation	2024	2025
Wales	75%	77%
Scotland	65%	67%
England	90%	90%
Northern Ireland	85%	85%
UK	80%	81%

Source: Ofcom analysis of MNO data (September 2024, July 2025)

The Shared Rural Network (SRN) has likely contributed to the rise in 4G geographic coverage in Wales following investment over the last few years. The MNOs met their 2024 obligations to deliver good geographic coverage to 88% of the UK landmass and have continued to maintain coverage at around this level over the past year.¹² Further obligations are in place for MNOs to rollout additional sites in “Total Not Spot” areas by 2027.¹³ Additional information on the SRN can be found in the [Connected Nations: UK Report 2025](#).

Outdoor premises 4G coverage

MNOs continue to provide a high level of 4G coverage outside of premises in Wales, with 97% of premises having outdoor 4G coverage from all four operators. However, this remains two percentage points lower than the UK figure and has not changed over the last year.

In rural areas of Wales, there is now 99% coverage outside premises from at least one MNO and Table 3.4 demonstrates that there are now high levels of coverage outside premises across all MNOs in rural areas of Wales.

Table 3.4: Outdoor premise 4G coverage in rural Wales (by operator)

MNO	% of rural premises with outdoor 4G coverage
BT/EE	97%
Three	96%
VMO2	95%

¹² Good quality coverage is defined as the ability to sustain a 90 second voice call and access data speeds of at least 2 Mbit/s, with a methodology to assess this based on a 4G signal of at least -105 dBm — consistent with the Connected Nations methodology for reporting 4G coverage.

¹³ “Total Not Spot” means geographical areas within the UK falling outside all the MNOs’ 2020 Baseline Coverage Footprints.

MNO	% of rural premises with outdoor 4G coverage
Vodafone	96%

Source: Ofcom analysis of MNO data (July 2025)

Indoor coverage continues to be widely available

Indoor mobile coverage can vary depending on factors such as wall thickness, building materials used in construction and where in a building people are using their phone. Consequently, there may be differences between MNOs' predicted indoor coverage data and the actual indoor experience.¹⁴ There has been a two percentage point increase in Wales in the percentage of indoor premises with 4G coverage from all four MNOs since September 2024:

Table 3.5: Indoor premises 4G coverage by UK nation

Nation	At least one MNO	All four MNOs
Wales	99%	82%
Scotland	99%+	89%
England	99%+	89%
Northern Ireland	99%	75%
UK	99%+	88%

Source: Ofcom analysis of MNO data (July 2025)

Map Your Mobile coverage checker

We have made changes to our web-based coverage checker with the introduction of Map Your Mobile (MYM). These changes include using higher signal strength thresholds, incorporating crowdsourced performance data and providing clearer explanations of the tool's purpose.

The MYM aim is to give consumers better insight into the availability of services at a local level, helping them make informed choices about providers.

In determining coverage, MYM applies outdoor thresholds of -95dBm and -105dBm, offering a technology-neutral approach to local predictions and using coverage data at a finer granularity of 50m x 50m pixels.¹⁵ These thresholds were not intended to replace those used in Connected

¹⁴ For Connected Nations reporting, indoor coverage is determined by applying an average building entry loss of 10dB across buildings. This approach provides only a simplified view of indoor coverage and the real experience depends heavily on the types of building material and insulation in a specific building.

¹⁵ The technology-neutral approach currently reports coverage using the combined footprint of 4G and 5G networks, simplifying the presentation of information and focusing on user experience rather than technology.

Nations, but rather to address known uncertainties in local-level predictions and reflect the requirements of the more demanding services used today.^{16, 17}

The tables below show a nations and UK level overview of coverage using MYM thresholds. Detailed data at these thresholds is available at Senedd and Westminster constituency and at local authority in our [interactive report](#).

Table 3.6: Geographic coverage using MYM thresholds

Nation	From at least one MNO		From all MNOs	
	-105dBm	-95dBm	-105dBm	-95dBm
Wales	97%	87%	77%	47%
England	99%	94%	91%	59%
Northern Ireland	98%	92%	86%	51%
Scotland	90%	78%	67%	39%
UK	96%	88%	82%	51%

Source: Ofcom analysis of MNO data (July 2025)

Table 3.7: Outdoor premises coverage using MYM thresholds

Nation	From at least one MNO		From all MNOs	
	-105dBm	-95dBm	-105dBm	-95dBm
Wales	99%+	99%	97%	83%
England	99%+	99%+	99%	90%
Northern Ireland	99%+	99%	97%	77%
Scotland	99%+	99%+	99%	90%
UK	99%+	99%+	99%	89%

Source: Ofcom analysis of MNO data (July 2025)

¹⁶ MYM uses a performance level defined as: ≥ 5 Mbit/s download, ≥ 1.5 Mbit/s upload, and ≤ 50 ms latency. There is no signal strength within a reasonable range above which performance is guaranteed or below which performance is zero. This highlights the need for exercising judgement in setting thresholds for our coverage reporting, including judgement about how consumers will interpret what is being portrayed.

¹⁷ [Map Your Mobile coverage checker methodology - August 2025](#)

Voice coverage

Mobile voice services from all four MNOs are available across 81% of Wales's geography, which is an increase of two percentage points from last year. Voice coverage inside and outside premises from all MNOs is at 89% and 98%, respectively.¹⁸

There also remains a disparity between urban and rural inside premises voice coverage from all MNOs, with urban areas at 95% compared to rural areas which are at 67%. However, 98% of rural premises in Wales do have voice coverage from at least one MNO. Further information can be found on our [interactive dashboard](#).

Mobile traffic

Monthly mobile traffic continues to grow in Wales, building on previous trends, with a significant increase of 10 PB¹⁹ (22%) to 54 PB between 2024 and 2025.^{20,21}

There has also been a notable increase in the absolute level of 5G traffic (rising from 6 PB to 12 PB) and its share of the overall total in Wales (rising from 14% to 22%) between 2024 and 2025.

Nonetheless, 4G remains the predominant carrier of mobile traffic, with 42 PB (77% of total traffic) in 2025.

Further information about these trends can be found in our [Connected Nations: UK Report 2025](#).

¹⁸ Mobile voice services through 2G, 3G and 4G.

¹⁹ One petabyte (PB) is equivalent to 1 million gigabytes (GB)

²⁰ These figures refer to monthly mobile traffic based on data collected from MNOs in the month of July 2024 and 2025.

²¹ The reported total monthly traffic includes all traffic across mobile networks, and therefore includes traffic generated by Fixed Wireless Access, where operators are offering domestic fixed broadband services over their wireless networks. Three MNOs offer FWA services with varying traffic splits, ranging from approximately 2% to 40%.