



The Communications Market in Northern Ireland

5 Telecoms and networks

5.1 Telecoms and networks

5.1.1 Recent developments in Northern Ireland

BT awarded next-generation broadband contract

In 2009, the Department of Enterprise, Trade and Investment (DETI) awarded BT the contract to deliver DETI's next-generation broadband project across Northern Ireland, following a competitive government tender process. The total investment in the project will be £48m.

BT is investing close to £30m in the project, with an additional £16.5m coming from DETI (under the European Regional Development Fund European Sustainable Competitiveness Programme) and a further £1.5m from the Department of Agriculture & Rural Development (under a European Agricultural Fund for Rural Development programme).

The project is designed to meet a target set in the Northern Ireland Executive's Programme for Government in 2008, of ensuring that 85% of businesses in Northern Ireland have access to next-generation broadband speeds by 2011. It is aimed at areas across Northern Ireland, both urban and rural, which will deliver the greatest economic benefit from receiving high-speed broadband, but which may not be suitable for private sector investment.

The project involves upgrades at 166 telephone exchanges and the deployment of fibre to 1175 new street cabinets. Businesses within defined urban areas are set to receive minimum broadband speeds of 10Mb/s, with businesses in defined rural areas receiving minimum broadband speeds of 2Mb/s. However, it is expected that many businesses in these areas will receive speeds in excess of these minimum thresholds.

Northern Ireland Broadband Fund

The Northern Ireland Broadband Fund, which is co-financed under the European Regional Development Fund Sustainable Competitive Programme 2007-2013 and delivered by DETI, was launched in August 2008. It offers financial support to organisations undertaking innovative broadband technology trials.

During the 2009/10 year DETI issued two calls for project proposals, and subsequently provided funding totalling £246,000 to four successful applications, bringing the total number of projects supported under the fund to six.

The supported projects will see delivery of fixed wireless networks across the Foyle Basin/North Sperrins, along the County Fermanagh/South Tyrone border and across the North Antrim Coast. A fourth project will deliver a fibre-optic ring around Enniskillen town centre using the existing waste water infrastructure.

Two further projects were completed in 2009/10: the installation of a fixed wireless network across the rural West, which is now operational and delivering commercial broadband services to businesses and residential customers; and the completion of trials to expand 3G coverage in Ballinamallard and Ballintoy using satellite backhaul services.

Project Kelvin

Project Kelvin is part of the Northern Ireland Executive's Programme for Government and is designed to improve Northern Ireland's international connectivity by connecting into an

existing transatlantic telecoms cable. The €30m project (a cross-border endeavour with the Republic of Ireland, co-financed under the INTERREG IVA programme 2007-2013) now provides Northern Ireland with fast connectivity to North America as well as improved connectivity from Northern Ireland to mainland Europe.

The new submarine telecoms cable linking Northern Ireland to North America and Europe was brought ashore at Portrush in June 2009 and by December 2009 the new fibre optic network was operational, connecting eight towns and cities in Northern Ireland and five locations in the border regions of the Republic of Ireland.

Atlas, a local communications provider, has announced plans to add Newry to the Project Kelvin network.

Logon-ni

This £3.9m DETI project, co-financed under the European Regional Development Fund Sustainable Competitive Programme 2007-2013, provides businesses with free broadband advice and guidance from a mobile facility and a demonstration centre in Omagh, Co Tyrone.

BT rolls out ADSL2+

As part of its 21st Century Networks programme, BT announced plans to introduce ADSL2+ to 13 exchange areas: Ballymena, Balmoral, Bangor, Belfast City, Coleraine, Foyle, Lisburn, Lurgan, Malone, Newry, Newtownards, Portadown and Whiteabbey. It is expected that 200,000 homes and businesses in enabled areas will experience a potential increase in download speeds of up to 20 Mb/s and upload speeds of up to 1Mb/s.

Super-fast broadband for Bangor

BT has announced that its Bangor exchange is one of 63 locations in the UK to be upgraded to fibre-based broadband. Around 30,000 homes and businesses in Bangor are expected to benefit from fibre-to-the-cabinet (FTTC) technology by the autumn.

Bangor will follow the Balmoral and Lisburn exchanges, which have already been upgraded to FTTC. BT is offering other communications providers access to FTTC services on an open, wholesale basis.

Rainbow enters mobile market

Rainbow Telecom, Northern Ireland's largest independent telecommunications provider, has purchased mobile phone specialist Red Sky Communications. The deal, for an undisclosed figure, saw Red Sky re-brand its Ballymena office as Rainbow Mobile.

Eircom infrastructure investment

In autumn 2009 Eircom Northern Ireland launched its Enterprise MPLS network. The network has been deployed with an optical core network with open-ended bandwidth design, suitable for carrying MPLS and multi-gigabit/s traffic, which offers business users high quality voice, data and video network services, supported by Eircom's network operations centre in Belfast. The network is based on Cisco MPLS technology and provides both private cloud and internet services.

Clarity introduces SIP trunks

Clarity Telecom has introduced a technology called SIP trunks to deliver telephony services over an IP exchange. It can deliver new services which work on all existing phone systems and making hardware investment unnecessary.

Investment in broadband

Northern Ireland has benefited from a number of public investments in broadband infrastructure in recent years.

In January 2006, Northern Ireland became the first region in Europe to have 100% broadband availability. Following the award of a DETI contract to BT after a competitive tender process, all BT exchanges in Northern Ireland were upgraded to deliver broadband on a wholesale basis over existing phone lines at a minimum speed of 512Kb/s and at a maximum retail price of £27.99 per month. BT also provided a satellite broadband alternative (at the same speed and price) where phone lines could not deliver the service. The BT contract ended in March 2009 and DETI appointed Avanti Communications to provide the satellite broadband infill service in order to maintain 100% availability.

In December 2009, DETI led a further initiative aimed at delivering next-generation access to 85% of businesses in Northern Ireland. Following another competitive tendering process, BT won the contract to implement the project, which will involve upgrades at 166 BT exchanges (out of a total of 191) and the deployment of fibre-to-the-cabinet in urban and rural areas across Northern Ireland which the market-led roll-out is unlikely to reach. Access to this next-generation network will be on an open-access basis, allowing other providers to provide super-fast broadband services to customers. Businesses in urban areas are set to receive minimum broadband speeds of 10Mb/s, with businesses in defined rural areas receiving minimum broadband speeds of 2Mb/s. The total investment in the project will be £48m; £30m from BT and the remainder from European funds via DETI and the Department of Agriculture and Rural Development. The project will deliver on a commitment by the Northern Ireland Executive, made in its Programme for Government in 2008, to ensure that 85% of businesses in Northern Ireland will have access to next-generation broadband speeds by 2011.

Project Kelvin, another commitment in the Northern Ireland Executive's Programme for Government, now connects Northern Ireland into an existing transatlantic telecoms cable giving greater connectivity to North America and mainland Europe. This €30m cross-border project was jointly awarded to Hibernia Atlantic in 2008 by DETI and the Department of Communication, Energy and Natural Resources in the Republic of Ireland. Project Kelvin's new fibre network has also established Points of Presence in eight towns and cities in Northern Ireland and five locations in the border regions of the Republic of Ireland.

In September 2007 Eircom was awarded a contract, after competitive tender, to manage the communications network of the Northern Ireland Civil Service. The contract, which runs for 6-10 years and is valued at up to £70m, re-established Eircom in the Northern Ireland market where it is now offering its network services to the wider public sector and business markets.

5.1.2 Availability of telecoms services

Fixed voice telephony and narrowband internet availability

Fixed voice telephony over the public switched telephony network (PSTN) is available to all of the UK population under the universal service obligation (USO) which is provided by BT and Kingston Communications, the incumbent operator in Kingston upon Hull. Under the USO BT and Kingston Communications are required to provide a connection to the fixed telephony network upon reasonable request, meaning that all households have access to a fixed line, although where installation will cost over £3,400 the customer is required to pay the excess costs (plus the standard connection charge).

The USO means that there are no significant issues regarding the provision of basic voice telephony in the UK, although there may still be a small number of remote dwellings where there are difficulties in connecting to the PSTN, or where the cost to the user of doing so is prohibitive.

A narrowband internet connection is defined as one which has a connection speed of less than 128kbit/s, which is not 'always on' and which does not allow simultaneous voice calls. The USO also includes the provision of a narrowband connection capable of 'functional internet access', i.e. a connection speed of at least 28.8kbit/s.

As the requirements to connect to the internet using a narrowband connection are a standard fixed telephony line, a suitably-equipped PC and a narrowband account with an internet service provider, the availability of narrowband internet access is virtually identical to that of fixed telephony services, and there are no significant issues regarding the availability of narrowband internet services in the UK.

Broadband internet availability

Narrowband internet connections have largely been superseded by higher bandwidth broadband connections, and we estimate that at the end of 2009 around 92% of UK residential internet connections were broadband, compared to 42% five years earlier. In the UK the two main technologies for supplying broadband internet services are digital subscriber line (DSL) over a standard copper telephone line connected to a DSL or LLU-enabled local exchange or via cable modem over a cable provider's hybrid fibre-coaxial network. The first UK fibre deployments are currently being rolled out, but these account for only a small proportion of total UK broadband connections, as do those using satellite and fixed wireless technologies, which are typically used in remote areas, or to fill coverage not-spots.

DSL broadband availability

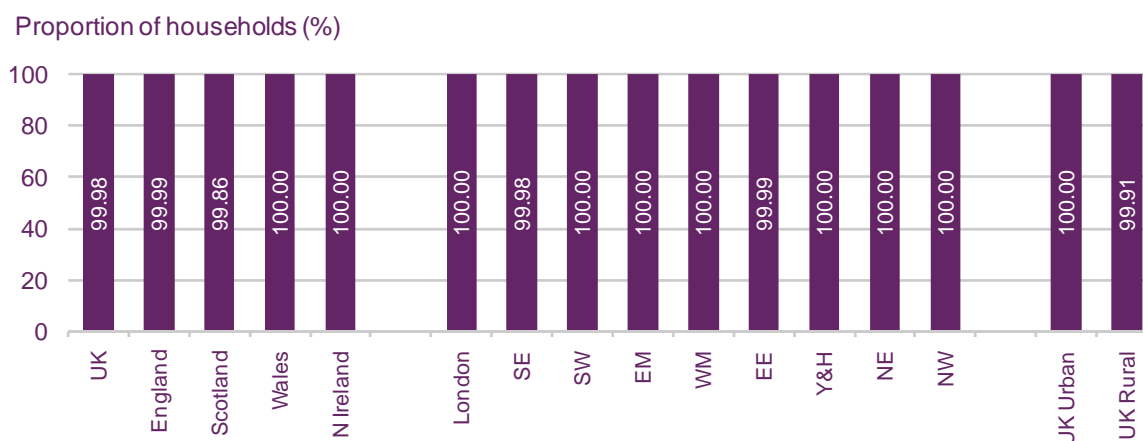
All homes in Northern Ireland are connected to a DSL-enabled local exchange, but not all homes are able to receive broadband

As the UK availability of DSL broadband is higher than that of cable-based services, it provides a good proxy for overall broadband availability. At the end of December 2009 over 99.9% of UK households were connected to a DSL-enabled BT local exchange (Figure 5.1), and only 27 of BT's 5,587 local exchanges were not DSL-enabled (down from 28 at the end of 2008).

In Northern Ireland all homes were connected to a DSL-enabled local exchange at the end of 2009, a higher proportion than the UK average of 99.98%. Wales and Northern Ireland were the only nations where all local exchanges were DSL-enabled, and Scotland had the lowest proportion of households that were connected to a DSL-enabled exchange.

However, not every household served by a DSL-enabled exchange is able to receive broadband services, or may only be able to do so at low speeds. This is due to factors such as the distance from the exchange, poor network quality and local technicalities. People living in these areas (known as 'not-spots') will not be able to benefit fully from the rapidly growing number of online services that require higher connection speeds, such as the streaming of audio-visual content. Not-spots are considered in more depth in section 1.4 of this report.

Figure 5.1 Proportion of households connected to a DSL-enabled BT exchange



Source: Ofcom / BT, December 2009 data

LLU broadband availability

Under LLU an alternative provider sites its own equipment in the BT (or Kingston Communications) local exchange. This is then connected to the LLU provider's core network and to the end-user's premises using the local loop, which is leased from either BT or Kingston Communications and is used to provide DSL broadband services (and fixed voice services in the case of full LLU). There are three main benefits to LLU are:

- it allows the LLU provider to take advantage of economies of scale that are not available to it when using wholesale services from BT or Kingston Communications which are purchased on a per-unit basis;
- it enables LLU providers to be more innovative with their products and tariffing; and
- it increases the choice of services available to the end-user.

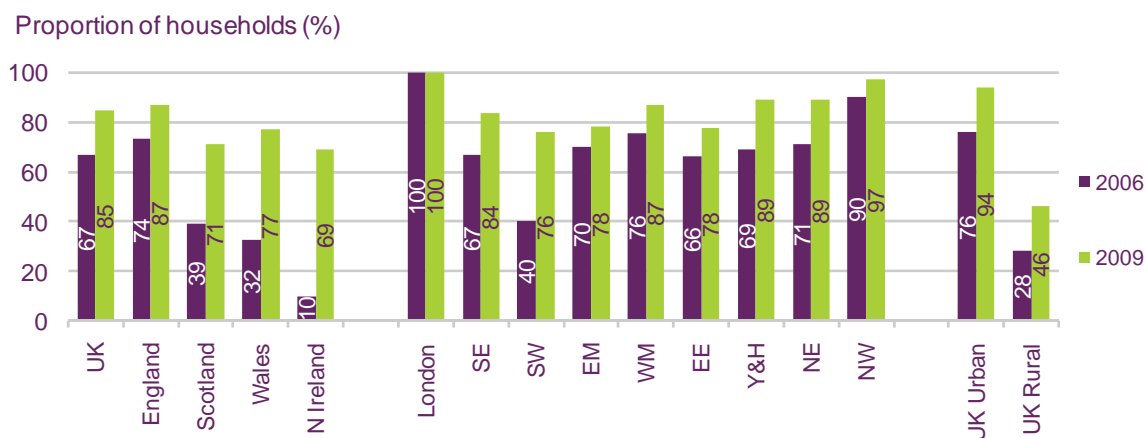
At the end of 2009 LLU-based connections accounted for 35% of all UK non-corporate broadband connections, up from 32% a year previously, and in 2009 LLU accounted for 90% of net non-corporate broadband additions.

85% of UK homes are connected to an LLU-enabled local exchange

At the end of December 2009, 85% of UK households were connected to an LLU-enabled local exchange (Figure 5.2), less than one percentage point higher than the figure at the end of 2008 and up from 67% three years previously. Northern Ireland had the lowest proportion of households connected to an LLU-enabled exchange among the UK nations

at the end of December 2009, at 69%. However, this represented a 59 percentage point increase since the end of 2006, the highest growth among the UK nations over the period.

Figure 5.2 Proportion of households connected to an unbundled exchange, 2006 and 2009



Source: Ofcom / BT, data as at December of each year

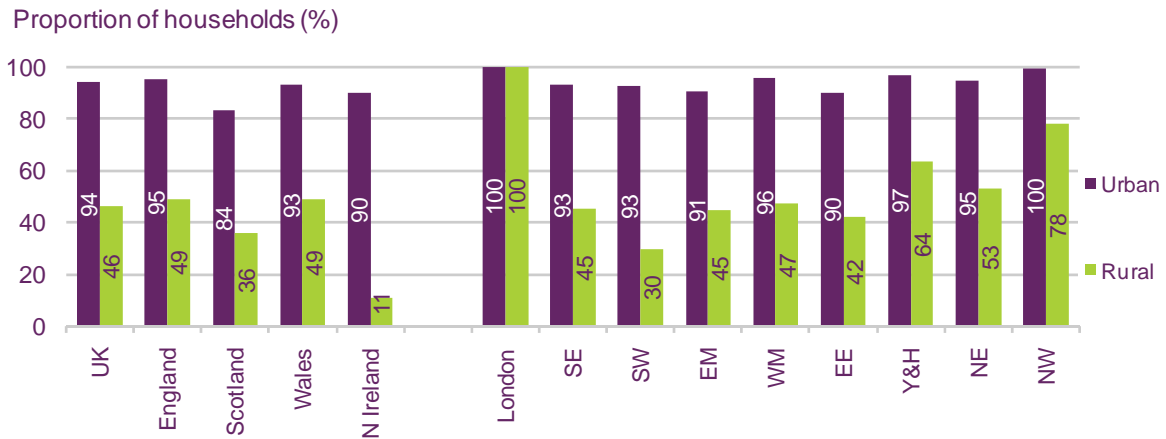
Urban households more than twice as likely as rural ones to be able to access LLU broadband services

The availability of LLU-based DSL broadband services is higher in urban areas than rural ones. This is for two reasons: firstly, LLU deployment is characterised by high up-front costs and low per-unit costs, so operators have targeted exchanges with a large number of delivery points (which tend to be in urban areas). Secondly, the maximum distance over which LLU broadband equipment can be backhauled to an operators' core network is approximately 40km (around 25 miles). The results of this can be seen in Figure 5.3, which shows that at the end of December 2009 homes in urban areas were more than twice as likely as those in rural ones to be able to get LLU-based broadband services, with 94% of urban UK homes being in an unbundled area, compared to 46% in rural areas.

The availability of LLU broadband services is higher in urban than rural areas in all of the UK's nations and regions with the exception of London. The analysis used in this report designates an exchange area as being urban or rural according to where the exchange is cited, and in some cases this designation will differ from that of the area covered by the exchange. This is why several urban areas of London are classed as being rural in our analysis.

Among the UK nations, the proportion of urban homes connected to an LLU-enabled exchange ranged from 84% in Scotland to 95% in England, while in rural areas the proportion was lowest in Northern Ireland at 11% and highest in England and Wales at 49%. Northern Ireland also had the third-highest urban LLU availability at the end of December 2009, with 90% of homes being connected to an LLU-enabled local exchange.

Figure 5.3 Proportion of households in urban and rural areas connected to an unbundled exchange

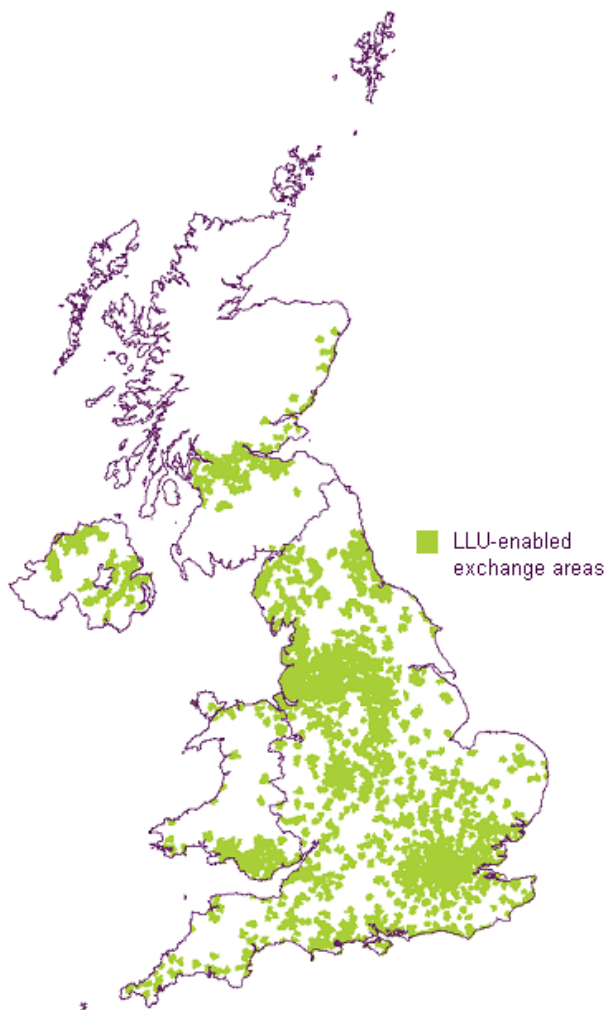


Source: Ofcom / BT, December 2009 data

Map of LLU DSL availability reflects higher availability in urban areas

The map in Figure 5.4 shows that the areas served by unbundled local exchanges tend to be in urban locations.

Figure 5.4 Map showing areas served by unbundled local exchanges



Source: Ofcom / BT, September 2009 data

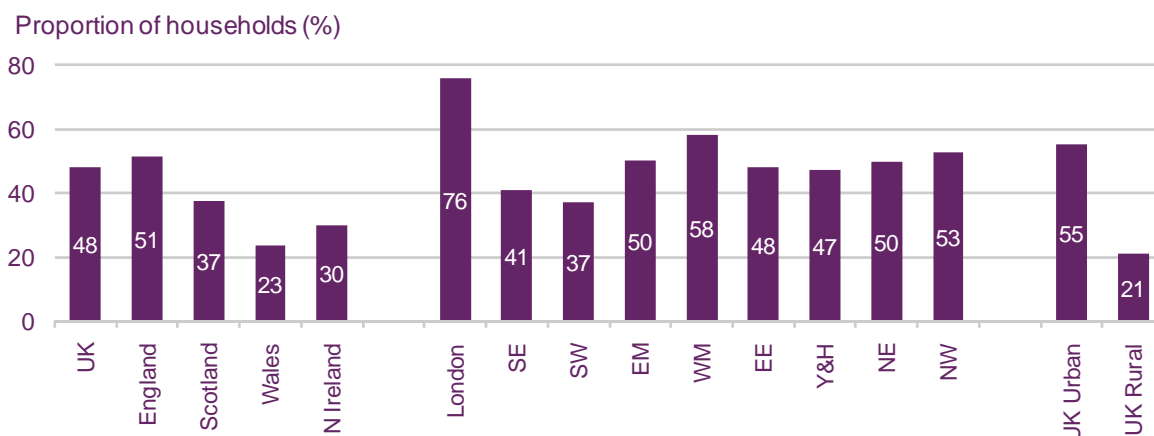
Cable broadband

Northern Ireland has the third highest cable broadband availability among the UK nations

Just under half of UK households (48%) were passed by Virgin Media's broadband-enabled cable network at the end of December 2009 (Figure 5.5). This figure has remained relatively stable over the past few years as Virgin Media has concentrated its efforts on upgrading its existing network and increasing take-up within cabled areas rather than embark on costly further cable network roll-out.

Among the UK nations, Northern Ireland had the third highest proportion of homes passed by Virgin Media's broadband network at the end of 2009, at 30%, while the proportion was highest in England at 51% and lowest in Wales at 23%.

Figure 5.5 Proportion of households passed by Virgin Media broadband



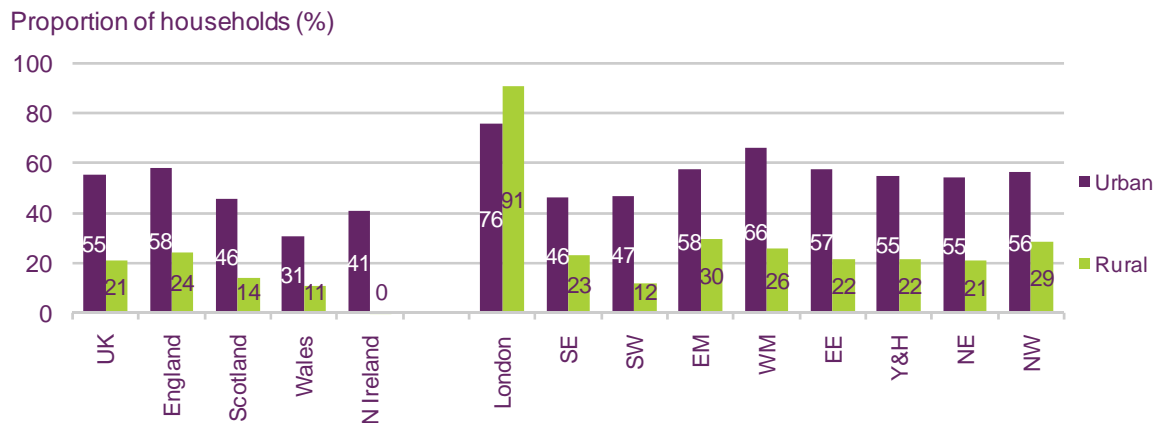
Source: Ofcom / Virgin Media, December 2009 data

Northern Ireland has the third-highest proportion of urban homes passed by Virgin Media's cable broadband network, and the lowest proportion of rural homes

The majority of cable network roll-out in the UK took place in the 1980s and 1990s and was concentrated in urban areas to maximise return on investment. This is reflected in Figure 5.6, which shows that while 55% of UK households in urban areas were passed by Virgin Media's broadband network at the end of 2009, it passed only 21% of those in rural areas.

Among the UK nations the proportion of urban households passed by Virgin Media's cable broadband network was highest at 58% in England and lowest at 31% in Wales. Similarly, the proportion in rural areas ranges from 24% in England to 0% in Northern Ireland. Northern Ireland also had the third highest proportion of urban homes passed by Virgin Media's cable broadband network at 41%.

Figure 5.6 Proportion of households in urban and rural areas passed by Virgin Media broadband

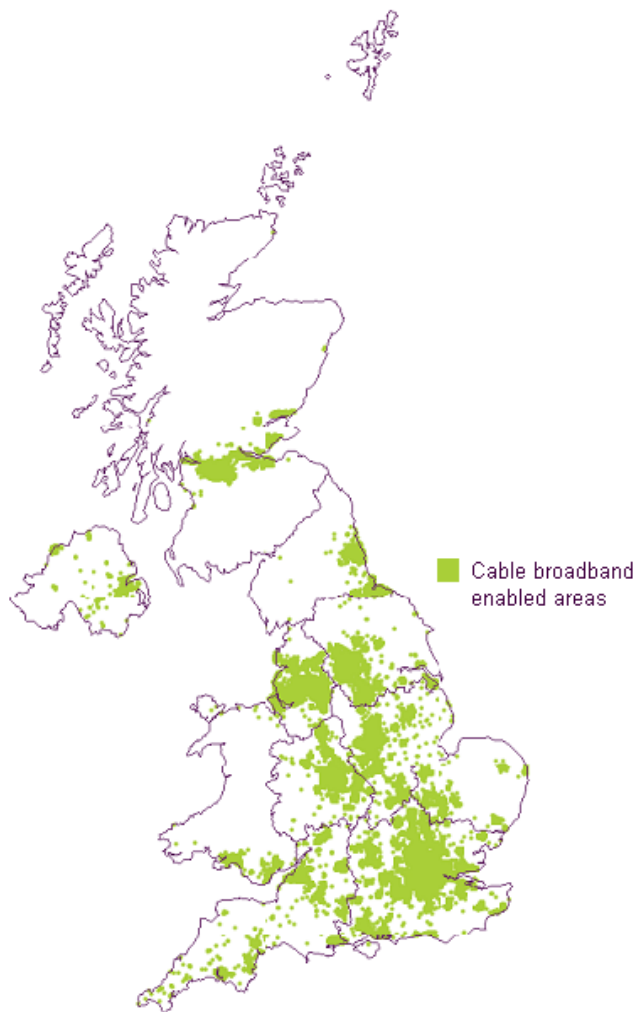


Source: Ofcom / Virgin Media, December 2009 data

As with LLU DSL, cable broadband availability is concentrated in urban areas

The map in Figure 5.7 below shows that cable availability is concentrated in urban areas.

Figure 5.7 Map of the availability of Virgin Media cable broadband



Source: Ofcom / Virgin Media, September 2009 data

Mobile

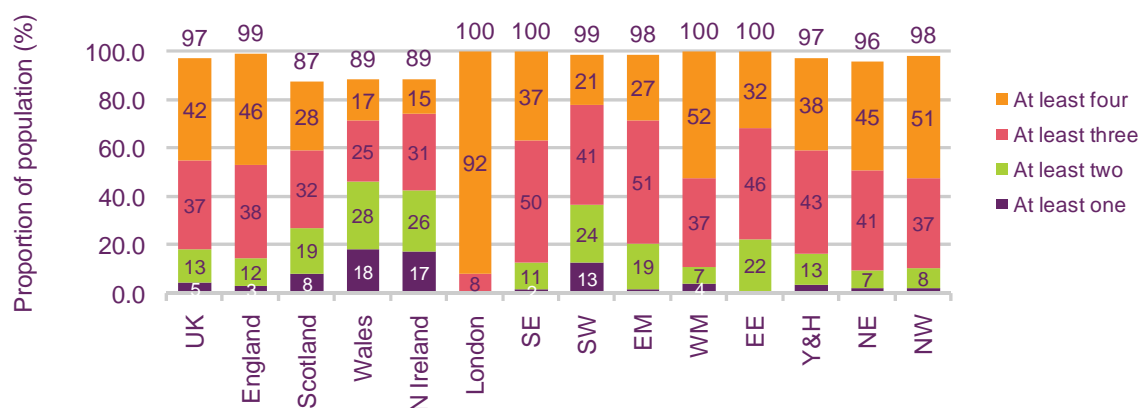
2G

As discussed in our coverage of not-spots on page 31, in this report we evaluate the availability of mobile telephony across the UK by examining the number of mobile networks with second-generation (2G) and third-generation (3G) coverage in each postcode district.

Figure 5.8 shows that 89% of the population in Northern Ireland lived in a postcode district with at least 90% 3G area coverage from one or more of the mobile networks in Q2 2010. This is lower than the UK overall (97%) and England (99%) but higher than Scotland (87%).

Within those areas in Northern Ireland with at least 90% coverage, over half (52%) have the choice of three or four operators providing area coverage above the threshold, while the remainder are limited to one or two operators.

Figure 5.8 2G mobile phone population coverage, by number of operators



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010

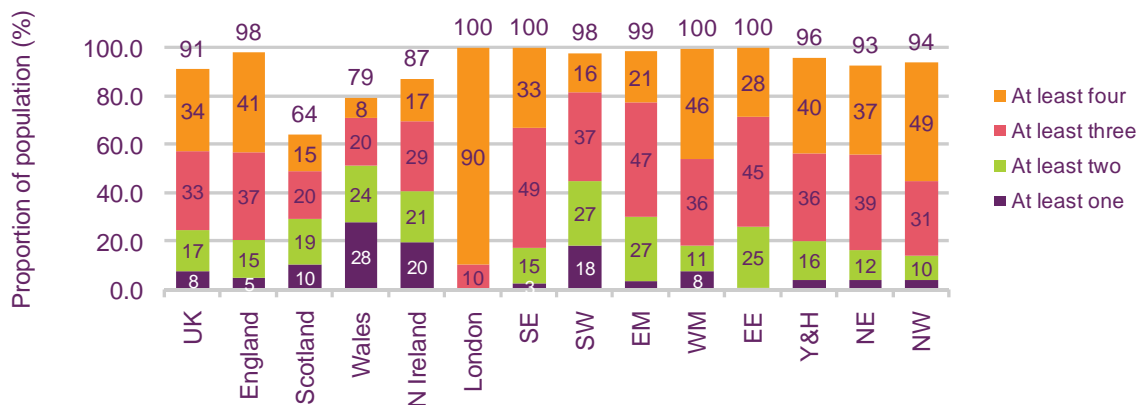
Note: Figures show the percentage of population within postcode districts where at least one, two, three, four or five operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2009 report.

Figure 5.9 shows the geographic coverage of 2G services (using the same 90% area coverage threshold) with 87% of postcode districts within Northern Ireland covered by one or more mobile networks; two percentage points lower than population coverage.

Northern Ireland had the second-highest 2G geographic coverage among the nations, above Wales (79%) and Scotland (64%) but below England (98%).

Just under half (47%) of postcode districts with 90% area coverage in Northern Ireland were served by one or two providers, with the remaining 53% receiving 2G area coverage from three or four providers.

Figure 5.9 2G mobile phone geographic coverage by number of operators



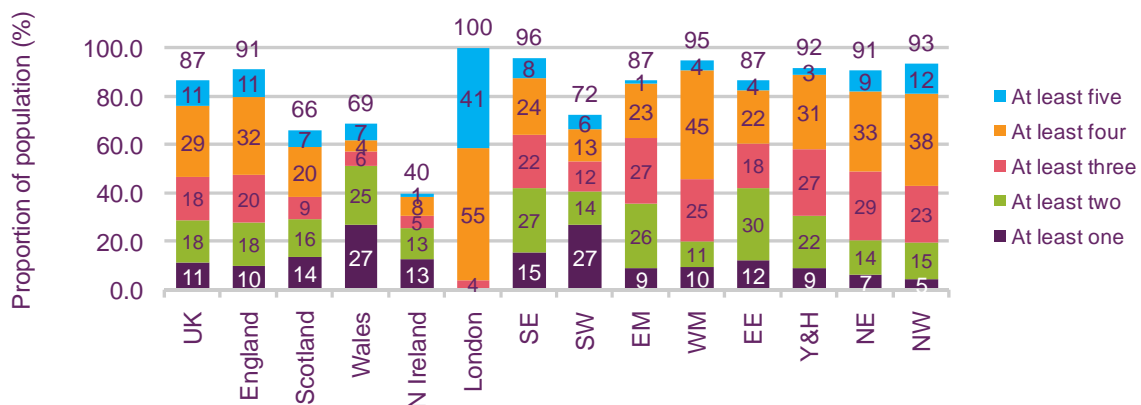
Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010

Note: Figures show the percentage of postcode districts where at least one, two, three, four or five operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2009 report.

3G

Figure 5.10 shows that only 40% of the population in Northern Ireland lived in a postcode district with at least 90% 3G area coverage from one or more of the mobile networks in Q2 2010; lower than England (91%), Wales (69%) and Scotland (66%) Nearly two-thirds (65%) of those covered in Northern Ireland were limited to one or two providers exceeding the threshold, while the remainder were living in an area where three or more providers offered 90% 3G area coverage.

Figure 5.10 3G mobile phone population coverage, by number of operators



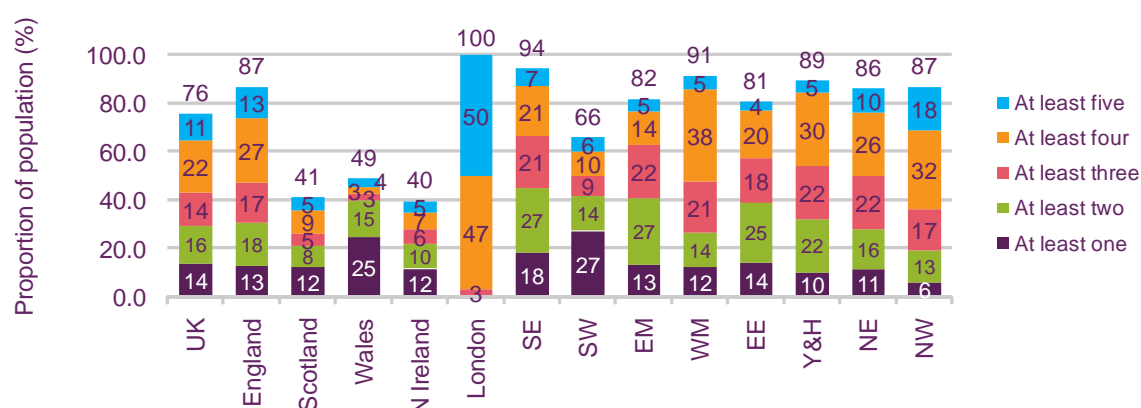
Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010

Note: Figures show the percentage of population within postcode districts where at least one, two, three, four or five operators had at least 90% 3G area coverage; data not directly comparable to those published in the 2009 report.

Figure 5.11 shows the geographic coverage of 3G services by one or more mobile networks above the 90% threshold. Forty per cent of postcode districts in Northern Ireland had 3G area coverage from one or more mobile networks, lower than the UK overall (76%), England (87%), Wales (49%) and just below Scotland (41%).

Just under a third (30%) of the covered districts in Northern Ireland had 3G coverage at a 90% area threshold from just one 3G network, while one in three had coverage from at least four operators or more.

Figure 5.11 3G mobile phone geographic coverage by number of operators



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010

Note: Figures show the percentage of postcode districts where at least one, two, three, four or five operators had at least 90% 3G area coverage; data not directly comparable to those published in the 2009 report.

5.1.3 Service take-up

Fixed line

Household take-up of fixed-line telephony in Northern Ireland (81%) is below that of England (86%) but consistent with Scotland and Wales (both at 79%) (Figure 5.12). There is a significant difference between fixed-line take-up between Northern Ireland's urban (79%) and rural areas (87%). This is consistent with the higher use of fixed-line telephony in rural areas, found across the UK, with a greater proportion of homes in urban areas being solely reliant on mobile telephony. In part this may be due to a greater proportion of rented and shared accommodation in urban areas, where residents are more likely to rely on mobile telephony alone (mobile telephony is typically an individual purchase, whereas fixed telephony is a household purchase). In general, younger households and households in lower socio-economic groups are more likely to be mobile-only, and a higher proportion of these households are in urban areas. A potential additional factor may be that mobile coverage is typically better in urban than in rural areas, meaning that rural consumers may be less willing to rely on mobile for all their telephony needs.

Mobile phone ownership, at 88%, is consistent with the UK average of 89%. Households in rural areas are more likely to have both a landline and mobile phone (82%) than those in urban areas.

Internet penetration in Northern Ireland is the same as the UK average, at 73%, and broadband penetration is also similar (70% versus 71%). Take-up of the internet is higher than in Scotland or Wales.

Within Northern Ireland, broadband and internet use are the same in both rural and urban areas. However, users in rural areas are more likely to use fixed broadband (68%) than those in urban areas (60%) and mobile broadband is more common in urban areas (16%) than rural (10%). Mobile broadband is most common in urban areas where 16% of adults live in a household where someone has access to mobile broadband. People in the Belfast metropolitan area are more likely to use fixed broadband (67%) than those elsewhere (59%) in Northern Ireland.

Figure 5.12 Take-up of communications services, 2010

		UK	N. Ireland	England	Scotland	Wales	UK Urban	UK Rural
Individual								
Voice telephony	Fixed Line	85%	81%	86%	79%	79%	84%	91%
	Mobile	89%	88%	90%	85%	89%	89%	90%
Internet	PC	76%	75%	77%	66%	70%	75%	80%
	Total Internet	73%	73%	75%	64%	66%	73%	77%
	Broadband (fixed and mobile)	71%	70%	73%	61%	64%	70%	75%
	Fixed Broadband	65%	62%	66%	54%	57%	64%	71%
	Mobile Broadband	15%	14%	15%	12%	16%	16%	11%

		N Ireland	NI urban	NI rural	Belfast Metropolitan area	Rest of NI
Individual						
Voice telephony	Fixed Line	81%	79%	87%	81%	81%
	Mobile	88%	87%	90%	87%	89%
Internet	PC	75%	73%	79%	78%	73%
	Total Internet	73%	71%	76%	76%	71%
	Broadband (fixed and mobile)	70%	69%	72%	73%	68%
	Fixed Broadband	62%	60%	68%	67%	59%
	Mobile Broadband	14%	16%	10%	12%	15%

Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 7511 UK urban, 1502 UK rural)

* Base size less than 100: Apply caution

QC1. Is there a landline phone in your home that can be used to make and receive calls? / QD2.

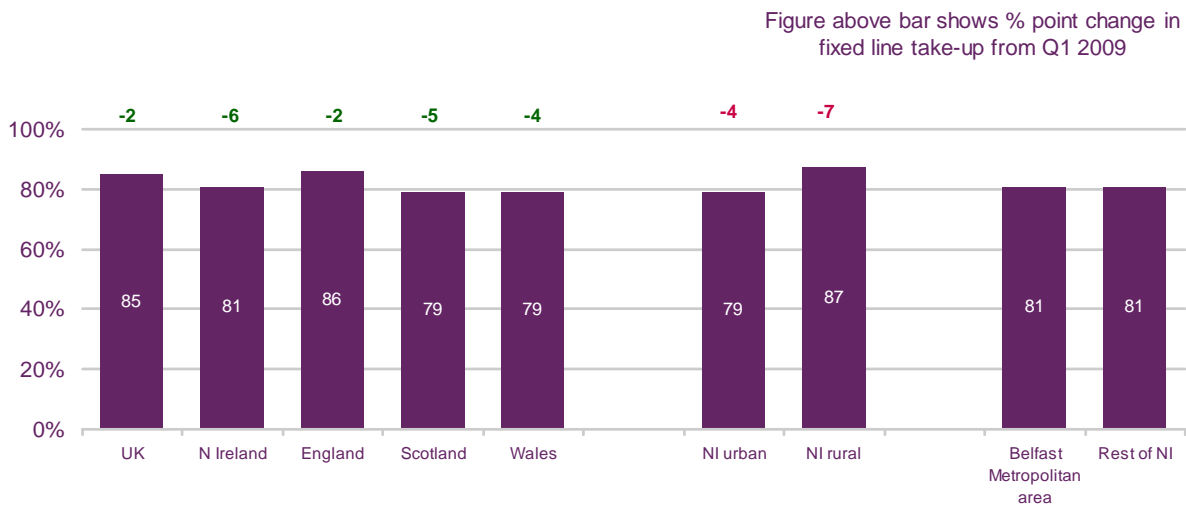
Do you personally use a mobile phone? / QE1. Does your household have a PC or laptop

computer? / QE2. Do you or does anyone in your household have access to the Internet/

Worldwide Web at home? / QE9. Which of these methods does your household use to connect to the Internet at home?

Within Northern Ireland, 21% of urban households do not have a fixed-line home phone, compared to 13% of rural households. This is a fall of 7% for rural households since Q1 2009. However, only 3% of households in Northern Ireland do not have access to either a mobile or a landline (see Figure 5.13).

Figure 5.13 Fixed-line take-up



QC1. Is there a landline phone in your home that can be used to make and receive calls?

Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 501 Northern Ireland urban, 260 Northern Ireland rural, 349 Belfast metropolitan area, 412 rest of Northern Ireland)

* Base size less than 100: Apply caution

Mobile

High take-up of 2G mobile services

Figure 5.14 shows personal use of mobile phones remains high, with 88% of adults in Northern Ireland using one. Although this represents a fall of 5% since Q1 2009, last year the same figure rose 8% to put Northern Ireland as the highest among the nations in terms of mobile take-up, whereas the 5% decrease in Q1 2010 brings Northern Ireland in line with the rest of the UK. Thirty-nine per cent of adults in Northern Ireland live in a household with three or more mobile phones, compared to 27% in Scotland and 28% in Wales.

Figure 5.14 Mobile take-up

Figure above bar shows % point change in use of mobile phones from Q1 2009



Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 501 Northern Ireland urban, 260 Northern Ireland rural, 349 Belfast metropolitan area, 412 rest of Northern Ireland)

*Base size less than 100: Apply caution

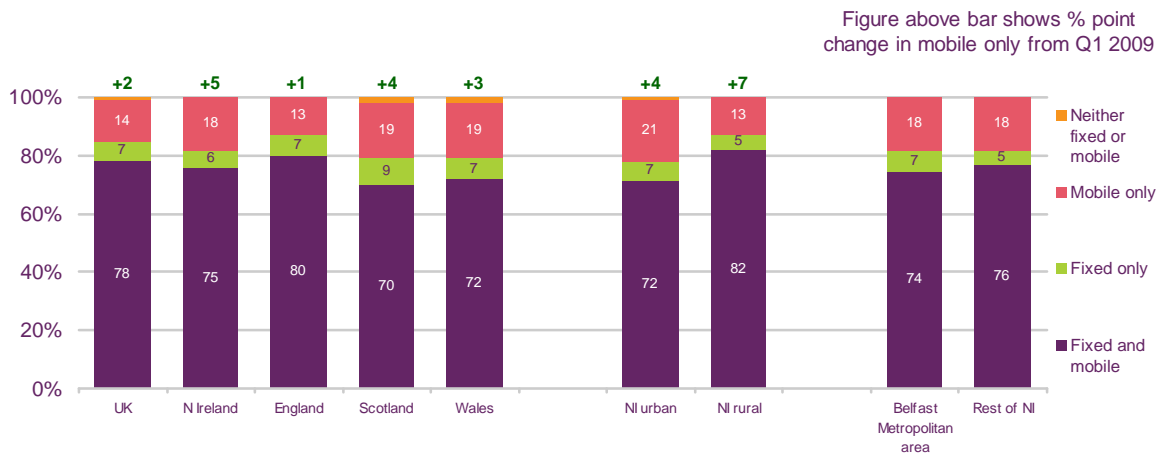
QD2. Do you personally use a mobile phone?

Rise in mobile-only households in Northern Ireland, to 18%

Three-quarters of households in Northern Ireland (75%) have both a mobile and a fixed-line phone connection (Figure 5.15). This is a fall of over 5% since Q1 2009, and there has been a corresponding increase of 5% in the number of mobile-only households. In these households, consumers do not have a landline and are dependent on mobile telephony for all their voice communications needs.

Landlines remain more common in rural areas, with 87% of households having a landline compared to 79% in urban areas. Twenty-one per cent of households in urban areas use only mobile telephony, compared to 13% in rural areas. However, mobile-only rural households have increased by 7% since Q1 2009.

Figure 5.15 Cross-ownership of household telephony services



Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 501 Northern Ireland urban, 260 Northern Ireland rural, 349 Belfast metropolitan area, 412 rest of Northern Ireland)

*Base size less than 100: Apply caution

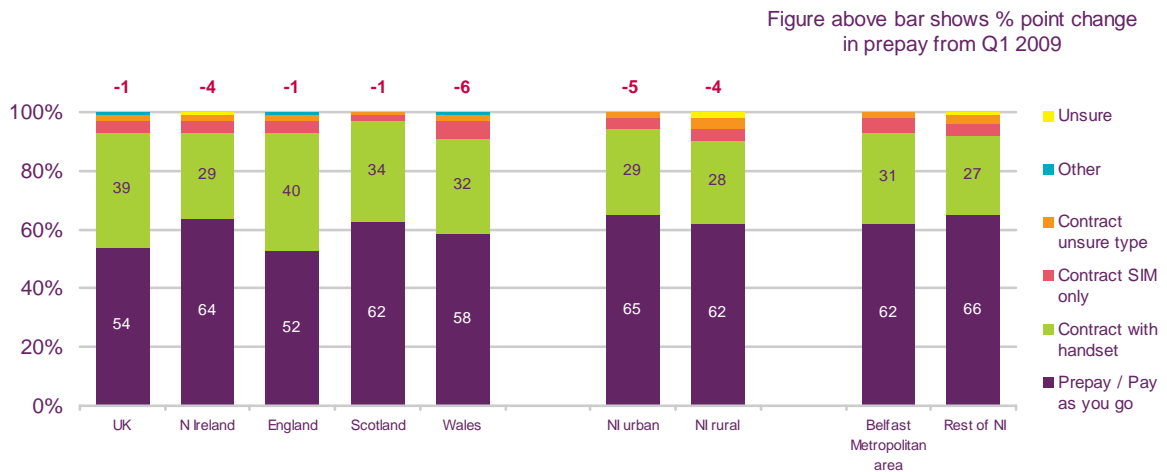
QC1. Is there a landline phone in your home that can be used to make and receive calls?/ QD1. How many mobile phones in total do you and members of your household use?

Pay-as-you-go mobile phones are more popular in Northern Ireland (64%) than in the UK as a whole

Pre-pay mobile phones are more popular in Northern Ireland (64%) and in the other devolved nations than in England (52%). However, the proportion of pre-paid mobiles in Northern Ireland has fallen by 4% over the last year (see Figure 5.16), compared to a 1% fall across the UK.

In Q1 2009, there was a 5% year-on-year increase in the proportion of mobile phone users on pay-monthly contracts across the UK, whereas in Northern Ireland there was no change. This may indicate that there was a lag in operators being successful in their efforts to convert people in Northern Ireland to pay-monthly contracts, compared to other nations.

Figure 5.16 Type of mobile subscription



Source: Ofcom research, Q1 2010

Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)

*Base size less than 100: Apply caution

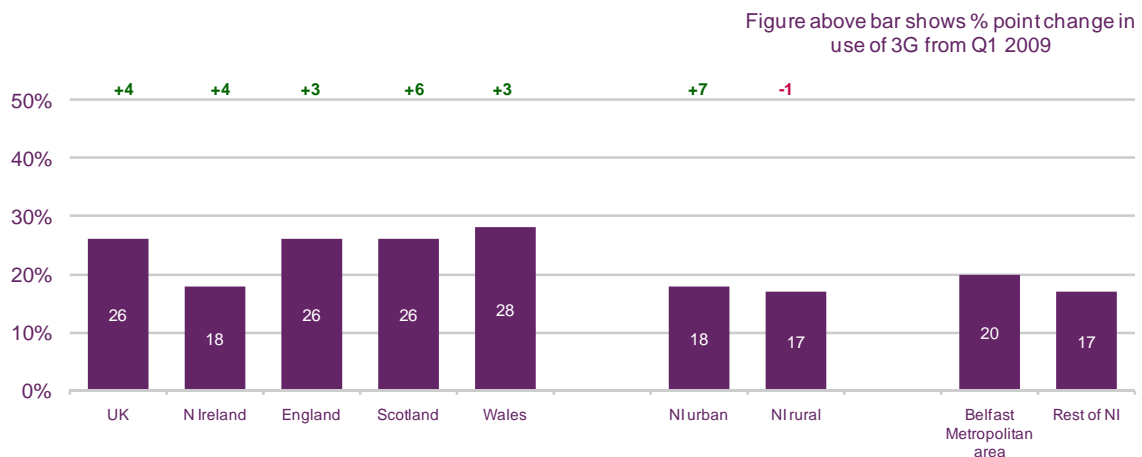
QD11. Which of these best describes the mobile package you personally use most often?

Take-up of 3G and broadband below the UK average

Figure 5.17 shows take-up of 3G phone services in Northern Ireland was below the UK average of 26%, at 18% of adults. This represents an increase of 4% since Q1 2009 and the rate of growth is consistent with the UK as a whole.

Growth in personal use of a 3G mobile phone was higher in urban areas (7%) than in rural areas, which saw a fall of 1%. Use of a 3G handset is now almost equal in both rural and urban areas. However, these numbers should be treated with some caution as it is uncertain whether consumers are accurately reporting the type of handset they have.

Figure 5.17 Take-up of 3G telephony services



Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 501 Northern Ireland urban, 260 Northern Ireland rural, 349 Belfast metropolitan area, 412 rest of Northern Ireland)

QD24B: Do you personally use a 3G mobile handset – third generation mobile phones allow you to send and receive data at high speeds, allowing you to carry out activities such as making and receiving video calls – this might be for business or personal use?

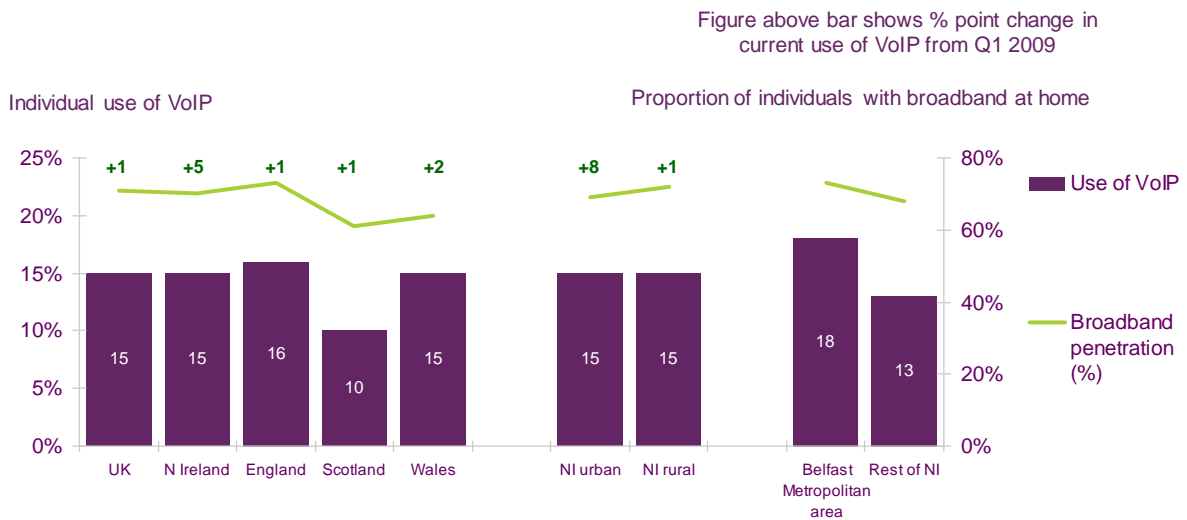
5.1.4 Internet and broadband

Use of the internet to make phone calls (VoIP) has grown most in urban Northern Ireland

Voice over Internet Protocol technology allows users to make cheap (or free) voice calls over fixed or mobile telephony networks. Recent entrants (e.g. Skype) and existing operators (e.g. BT and Orange) provide services that make use of VoIP technology.

Use of VoIP in Northern Ireland has increased by 5% to 15%. The overall penetration is now comparable with the rest of the UK and ahead of Scotland (see Figure 5.18). Growth in the use of VoIP has been focused more in urban areas than in rural ones, and use of VoIP is more likely in the Belfast metropolitan area than in the rest of Northern Ireland.

Figure 5.18 Proportion of adults living in a household that has used VoIP



Source: Ofcom research, Q1 2010

Base: All adults aged 15+ (n = 9013 UK, 761 Northern Ireland, 5709 England, 1468 Scotland, 1075 Wales, 501 Northern Ireland urban, 260 Northern Ireland rural, 349 Belfast metropolitan area, 412 rest of Northern Ireland)

*Base size less than 100: Apply caution

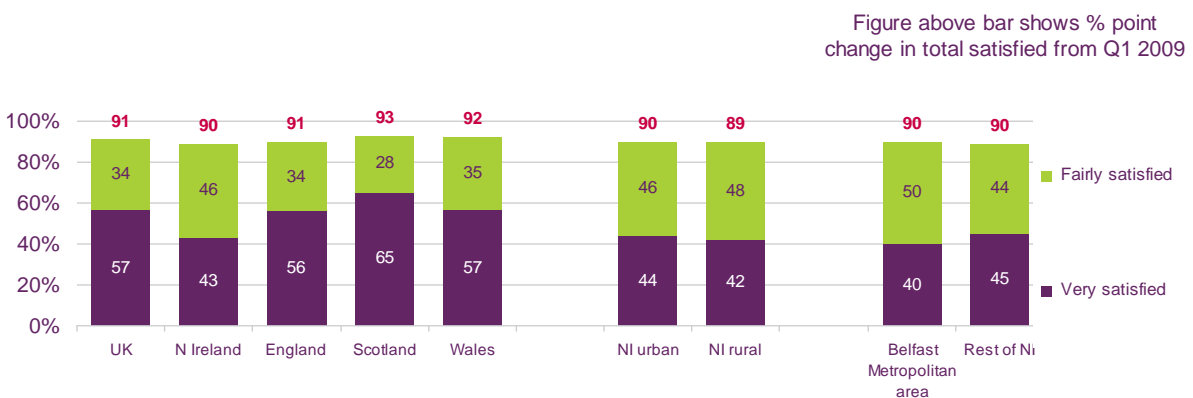
QE29. Before now, were you aware that you could make voice calls using the internet?/ QE30.

Have you or anyone in your household ever used one of these services to make voice calls using the internet?

5.1.5 Satisfaction with telecoms services

Overall satisfaction with fixed-line services in Northern Ireland stood at 90%, in line with the UK average. However, the proportion that claimed to be very satisfied with their fixed-line service was lower in Northern Ireland (43%) than the UK average of 57% (Figure 5.19). This is possibly related to lower satisfaction with value for money of fixed-line services, as shown below. Satisfaction with fixed-line services was broadly similar across the different regions of Northern Ireland.

Figure 5.19 Overall satisfaction with fixed-line services



Source: Ofcom research, Q1 2010

Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 628 Northern Ireland, 4851 England, 1141 Scotland, 874 Wales, 402 Northern Ireland urban, 226 Northern Ireland rural, 291 Belfast metropolitan area, 337 rest of NI)

*Base size less than 100: Apply caution

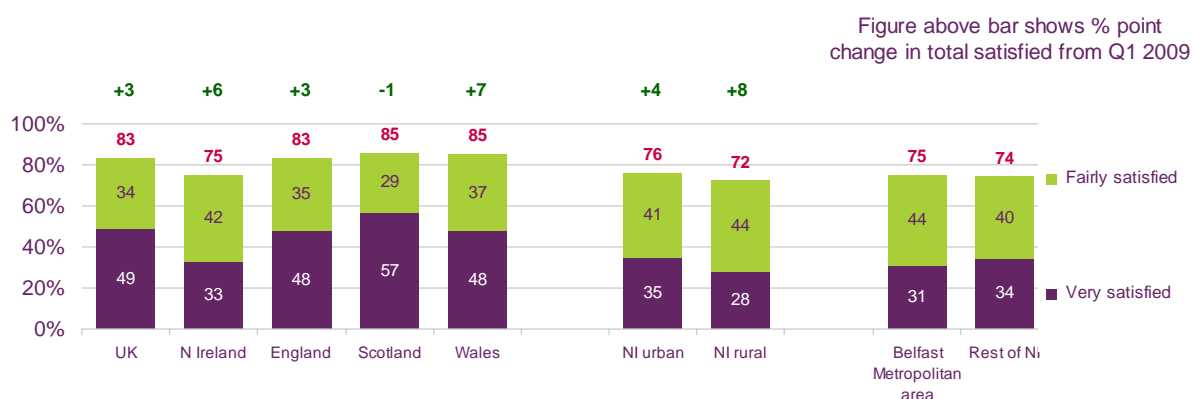
QC13a. Thinking about your home phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Fixed voice

Fewer fixed-line telephony customers in Northern Ireland were satisfied with the value for money of the service (75%) than in the UK (average 83%), as shown in Figure 5.20. However, satisfaction with value for money in Northern Ireland has increased by 6% since Q1 2009. There was no difference in satisfaction between rural and urban users, or by area, within Northern Ireland.

Customers in Northern Ireland claim to spend more (£75.70), on average, than rest of UK - England; £54.60; Wales £62.50 and Scotland £65.10 per quarter. Within Northern Ireland, rural customers claim to spend more (£86.80) than urban households (£69.50).

Figure 5.20 Satisfaction with value for money of fixed-line service



Source: Ofcom research, Q1 2010

Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 628 Northern Ireland, 4851 England, 1141 Scotland, 874 Wales, 402 Northern Ireland urban, 226 Northern Ireland rural, 291 Belfast metropolitan area, 337 rest of NI)

*Base size less than 100: Apply caution

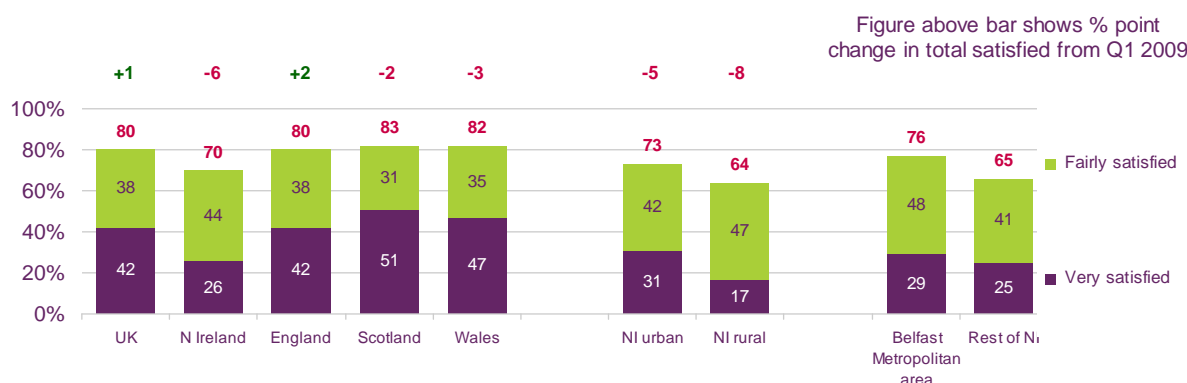
QC13b. Thinking about your home phone service only, how satisfied are you with (main supplier) for the overall value for money from your service?

Fixed broadband

Figure 5.21 shows that 70% of broadband users in Northern Ireland were either very, or fairly, satisfied with the speed of their broadband connection. This was lower than the UK average (80%) and represents a fall of 6% since Q1 2009.

Satisfaction with broadband speed in Northern Ireland was lowest in rural areas and outside the Belfast metropolitan area. This is possibly because the longer distances from the exchanges to consumer premises are affecting connection performance, and due to the lower availability of cable services in rural areas (such as Virgin Media's 50Mb/s cable broadband service).

Figure 5.21 Satisfaction with speed of fixed broadband connection



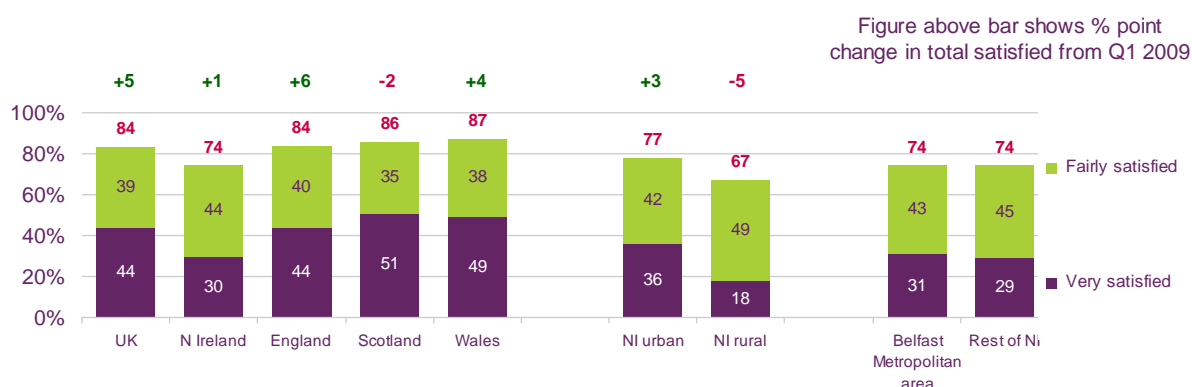
Source: Ofcom research, Q1 2010

Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 469 Northern Ireland, 3559 England, 778 Scotland, 604 Wales, 297 Northern Ireland urban, 173 Northern Ireland rural, 230 Belfast metropolitan area, 239 rest of NI)

QE8b. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the speed of your service while online (not just the connection)?

Levels of satisfaction with the value for money of broadband services were higher than levels of satisfaction with speed (Figure 5.22). However, consumers in Northern Ireland are less satisfied with the value of money of their broadband service (74%) than the UK average (84%), as shown in Figure 5.22, and consumers in rural areas are less satisfied (67%) than those in urban areas (77%).

Figure 5.22 Satisfaction with value for money of fixed broadband service



Source: Ofcom research, Q1 2010

Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 469 Northern Ireland, 3559 England, 778 Scotland, 604 Wales, 297 Northern Ireland urban, 173 Northern Ireland rural, 230 Belfast metropolitan area, 239 rest of NI)

*Base size less than 100: Apply caution

QE8c. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the overall value for money of your service?

Mobile broadband

Figure 5.23 shows seventy-three per cent of customers in Northern Ireland were satisfied with their mobile broadband service, significantly lower than the UK average (83%).

Figure 5.23 Overall satisfaction with mobile broadband



Source: Ofcom research, Q1 2010

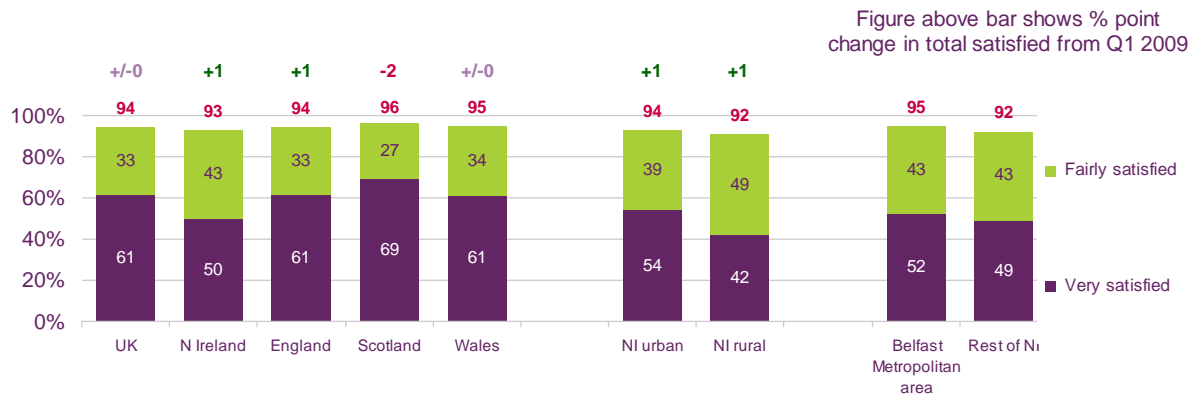
Base: Adults aged 15+ with a mobile broadband connection at home (n=1353UK, 105 Northern Ireland, 874 England, 208 Scotland, 166 Wales)

QE16. Thinking about your mobile broadband internet service, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Mobile

Overall satisfaction with mobile phone services among mobile users was high in Northern Ireland at 93%, consistent with the UK average figure (see Figure 5.24). A lower proportion of customers were very satisfied in rural areas of Northern Ireland, perhaps due to issues relating to coverage.

Figure 5.24 Overall satisfaction with mobile phone service



Source: Ofcom research, Q1 2010

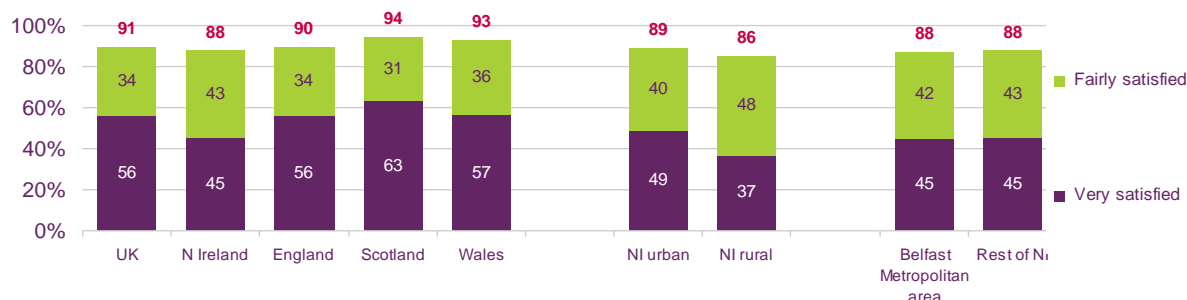
Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)

*Base size less than 100: Apply caution

QD21a. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Satisfaction with value for money of mobile services in Northern Ireland has increased by two percentage points (Figure 5.25), to 88%, in 2010, but it remains at the lowest level out of the four nations.

Figure 5.25 Satisfaction with value for money of mobile service



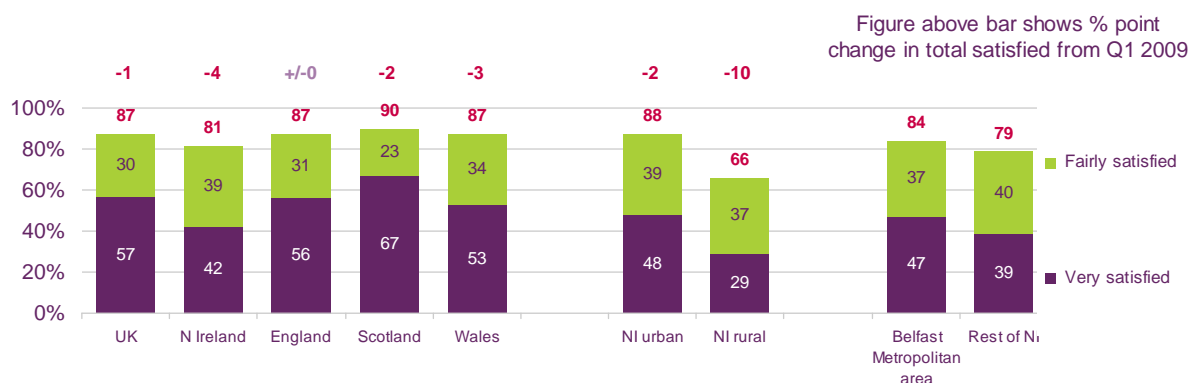
Source: Ofcom research, Q1 2010

Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)

QD21b. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall value for money from your service?

Satisfaction with mobile phone reception among users in Northern Ireland (81%) was lower than the UK average of 88% (Figure 5.26). The proportion of mobile users who were either very, or fairly, satisfied with their mobile reception was lower in rural areas (66%) and outside the Belfast metropolitan area (79%). This represents a fall of 4% across Northern Ireland and a fall of 10% in rural areas since Q1 2009.

Figure 5.26 Satisfaction with reception of mobile phone service



Source: Ofcom research, Q1 2010

Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)

*Base size less than 100: Apply caution

QD21c. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for reception/ accessing network?

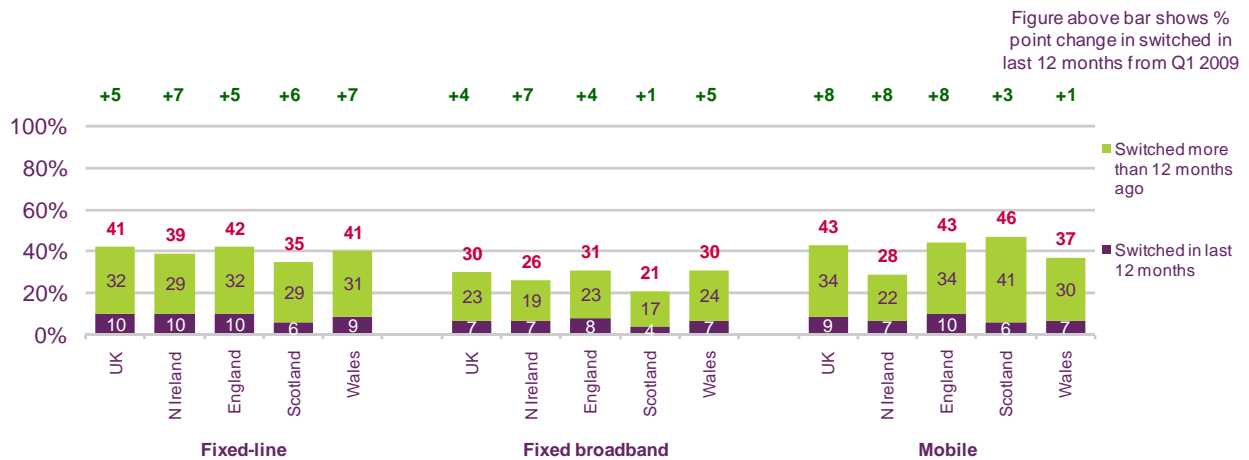
Switching

As shown in Figure 5.27, the proportion of fixed-line users who have switched provider was lower in Northern Ireland (39%) than the UK average (41%), and lower than in England (42%) and Wales (41%). However, more people in Northern Ireland switched their landline than in Scotland (35%). The proportion of users who have switched provider in the last 12 months was similar in Northern Ireland (10%) to the UK and England (10%) averages, and higher than Wales (9%) and Scotland (6%).

Fixed broadband switching is lower in Northern Ireland (26%) than the UK overall (30%) while the proportion of mobile users switching provider in Northern Ireland is significantly

lower (at 28%) than the UK average (43%) and England (43%), Scotland (46%) and Wales (37%).

Figure 5.27 Fixed line, fixed broadband and mobile supplier switching



QC14a. Apart from when you moved house, have you or your household ever changed the company that provides any of your home landline phone, broadband and mobile services?

Source: Ofcom research, Q1 2010

Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 628 Northern Ireland, 4851 England, 1141 Scotland, 874 Wales, 402 Northern Ireland urban, 226 Northern Ireland rural, 291 Belfast metropolitan area, 337 rest of NI). Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 469 Northern Ireland, 3559 England, 778 Scotland, 604 Wales, 297 Northern Ireland urban, 173 Northern Ireland rural, 230 Belfast metropolitan area, 239 rest of NI). Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)

Note: Figures above chart columns indicate the proportion of people with a personal mobile phone who have ever switched supplier.