

DESI Report 2018

Telecoms chapter

United Kingdom

Market developments

1. Competitive environment

There is a vibrant telecom market in the United Kingdom, with strong competition both on the fixed and mobile markets. During 2017, there was no consolidation among the major fixed and mobile players.

In the mobile market the established players are launching new, innovative products. There is significant competition from OTTs (Google, Facebook, WhatsApp) as well.

The number of fixed lines (including ISDN channels) decreased in 2016 following a sustained period of growth, falling by 0.6% to 33.5 million at the end of the year. The number of mobile subscriptions (incl. M2M) increased by 0.1% to 92.0 million during the year, due to increasing M2M use. 96% of households had a mobile phone in 2017, while 82% had a landline.

Overall fixed voice call volumes continued to decline in 2016 in comparison to 2015 both in absolute terms (by 11.9% to 65 billion minutes) and relative to mobile calls (which grew by 5.7% to 151 billion minutes in 2016). The decline in fixed voice calls was driven by consumers increasingly using mobile and internet-based voice and messaging services instead of traditional fixed-line calls.

The analysis of the Q4 2016 data collected by Ofcom's mobile research app reinforced the importance of non-traditional communication services to Android smartphone users, with eight of the top 20 apps accessed by the panellists being used for messaging and/or social networking (WhatsApp, Messenger, Facebook, Twitter, Instagram, Gmail, Google+ and Google Hangouts). These apps were also among the most frequently used, with panellists using Facebook almost 12 times a day, on average. WhatsApp also had very high levels of use, averaging ten sessions a day.

Use of SMS and MMS continued to decline, down by 5.5% to 96.4 billion messages in 2016, despite a slight increase of 1.9% in pre-pay mobile messaging, which may be related to the availability of 'add-on' pre-pay services that offer an inclusive allowance of messages. The main reason for declining traditional message volumes is the increasing take-up of smartphones, which provide easy access to alternative communication methods such as email and instant messaging.

Regarding bundles, just over eight in ten households (81%) reported purchasing at least two of their communications services together in a bundle in 2017. Dual packages of landline and broadband, and triple-play packages of landline, broadband and TV were the most popular (at 34% and 33% of households respectively). Communications providers have been more focused on selling bundles rather than standalone services, with a reduction in the number of

operators offering standalone fixed telephony services and those offering standalone fixed broadband services.¹

Fixed broadband prices remained stable during the last year.

Fixed broadband prices	UK-2016	UK-2017	EU-2017
Fixed broadband price index [values between 0-100]	86	86	87

Source: Commission Services based on Fixed Broadband Prices in Europe (Empirica). Digital Economy and Society Index 2018.

Access remedies are in place for LLU (Wholesale Local Access Market Review), VULA (WLA Market Review), WFAEL (Narrowband Market Review), Physical Infrastructure Access (Wholesale Local Access Review) and Leased Lines (Business Connectivity Market Review).

a. Fixed Markets

Although the UK reached >99.5% fixed basic broadband coverage in 2015, there is still an urban-rural digital divide as regards fixed NGA coverage. As regards ultrafast broadband coverage, the UK performs less well than the EU average (51% versus 58% in 2017). Additionally, Ofcom estimates² that around 1.1 million UK premises (4%) cannot access decent broadband, i.e. a connection capable of delivering a download speed of at least 10Mbps and an upload speed of at least 1Mbps (additional information on the Government’s regulatory broadband universal service obligation is available in this report under chapter 4. Consumer matters/ d. Universal service).³

Coverage	UK-2016	UK-2017	EU-2017
Fixed broadband coverage (total)	>99.5%	>99.5%	97%
Fixed broadband coverage (rural)	>99.5%	>99.5%	92%
Fixed NGA coverage (total)	92%	94%	80%
Fixed NGA coverage (rural)	78%	82%	47%
Ultrafast coverage (total)	no data	51%	58%
4G coverage (average of operators)	93%	98%	91%

Source: Broadband Coverage Study (IHS and Point Topic). Data as of October 2016 and October 2017.

On the fixed market, the incumbent BT competes with alternative providers in the retail provision of fixed services. The main alternative operators are the cable operator Virgin Media, as well as Sky and TalkTalk that mostly (but not exclusively) rely on wholesale inputs from BT. There is also a large number of smaller niche networks and resellers.

Openreach is the only “wholesale only” operator in the UK. More than 580 communications providers are customers of Openreach. Openreach provides access and backhaul network and invests in FTTP, FTTC and in G.Fast. Virgin Media has no wholesale business. Cityfibre has a wholesale business operation as well. Cityfibre was also a partner in a joint venture with TalkTalk and Sky,⁴ although TalkTalk has since acquired Sky’s share. The joint venture sells wholesale to Sky in York. None of these providers has SMP in access markets.

¹ Data from Ofcom’s Communications Market Report (CMR) 2017, published on 3 August 2017 (<https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017>).

² Ofcom: Connected Nations report 2017, page 3 (<https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017>)

³ This is the specification for the Government’s proposed broadband Universal Service Obligation (USO).

⁴ <https://www.talktalkgroup.com/articles/talktalkgroup/2016/October/Ultra-Fibre-Optic-Trial-set-to-cover-the-whole-of-York>

New entrants' DSL subscriptions by type of access (VDSL excluded)	UK-2016	UK-2017	EU-2017
Own network	1%	1%	0.5%
Full LLU	77.3%	77.3%	72.8%
Shared Access	13.8%	13.8%	4.1%
Bitstream	1.1%	1.1%	14.7%
Resale	7.0%	7.0%	7.8%

Source: Communications Committee. Data as of July 2016 and July 2017.

In the context of FTTH/FTTP deployment increasing infrastructure competition versus low demand for higher speeds should be noted. There is growing infrastructure competition coming from Cityfibre, Gigaclear, Truespeed and Hyperoptic. BT Openreach is looking at new technologies such as G.Fast. However, deploying G.Fast could delay the deployment of FTTP. BT Openreach plans to roll out three million FTTP connections by 2020, and has been consulting with industry on a large scale rollout that could reach ten million by 2025. Virgin Media plans to expand its coverage to an additional four million households, split approximately equally between FTTP and HFC, i.e. FTTP covering two million households. Cityfibre, Hyperoptic and Gigaclear intend to use the passive infrastructure products of BT in order to build FTTP networks. As of July 2017, the share of fibre connections was very low compared to EU average (1% to 12.9%).

Fixed broadband market shares	UK-2016	UK-2017	EU-2017
Incumbent market share in fixed broadband	36.6%	36.7%	40.3%
Technology market shares			
DSL	80.1%	79.1%	64.2%
Cable	19.3%	19.9%	19.4%
FTTH/B	0.5%	1.0%	12.9%
Other	0.1%	0.1%	3.6%

Source: Communications Committee. Data as of July 2016 and July 2017.

b. Mobile market

On the mobile market, there are four mobile network operators (MNOs): BT/EE, Vodafone, O2 (Telefónica) and Three (H3G). There are also a number of mobile virtual network operators (MVNOs) and resellers.

Sky launched its MVNO offer on O2's infrastructure in January 2017 (1GB, 3GB and 5GB plans priced at £10, £15 and £20 per month respectively). TalkTalk (MVNO) plans to exit the mobile market⁵.

Mobile market	UK-2016	UK-2017	EU-2017
Market share of market leader	-	not available	35%
Market share of second largest operator	-	not available	28%
Number of MNOs	4	4	not available
Number of MVNOs	30	27	not available
Market share of MVNO (SIM cards)	-	not available	not available

Source: Communications Committee. Data as of October 2016 and October 2017.

⁵ <https://www.ft.com/content/6d042812-916b-11e7-a9e6-11d2f0ebb7f0>

Mobile broadband prices [EUR/PPP]	UK-2016	UK-2017	EU-2017
Least expensive offer for handset (1 GB + 300 calls basket)	€8	€6	€4
Least expensive offer for tablet and laptop (5 GB basket)	€6	€4	€7

Source: *Mobile Broadband Price Study (Van Dijk and Empirica)*. Prices expressed in EUR/PPP, VAT included. Data as of February 2016 and February (handset) 2017 - July (tablet-laptop) 2017.

As regards domestic data service, the average consumption per subscriber per month in the UK increased from 0.76GB (prepaid + post-paid) in Q2 2017 to 1.87GB in Q3 2017.⁶

Regulatory developments

2. Supporting measures for deployment and investment in high-speed networks

a. Spectrum

The UK has assigned 69.17% of the overall harmonised spectrum for broadband, compared to the EU average of 69%.⁷ No Wireless Broadband (WBB) licences have been renewed or extended beyond the original terms in 2017. All WBB licences are of indefinite term subject to a five-year notice provision.

There have been a few developments as regards spectrum use, mainly around sharing. Ofcom has processed one trade of WBB spectrum in 2017. UK Broadband agreed to transfer 448 MHz of spectrum at six sites to Arqiva. There are no additional conditions attached to the transfer as the licence transfer must only confer the same conditions and obligations that were present on the original licence on the new rights holder.

Ofcom decided in July 2017⁸ to award by auction 190 MHz of spectrum for mobile use, with a plan to run the auction in October – November 2017.⁹ The spectrum consists of 40 MHz in the 2.3 GHz band and 150 MHz in the 3.4-3.6 GHz band.¹⁰

In light of concerns that the auction could result in unduly asymmetric distribution of spectrum, Ofcom decided to apply two separate caps on the amount a single operator may hold: a cap of 255 MHz on the amount of mobile spectrum that is immediately useable (i.e. excluding the 3.4 GHz spectrum) after the auction and a cap of 340 MHz per operator on mobile spectrum holdings overall after the auction. This represents 37% of the mobile spectrum that is expected to be useable within the same timescales as the 3.4 GHz band.

⁶ BEREC CN (18) 13 International Roaming BEREC Benchmark Data Report, page 19.

⁷ Additionally, in April 2018, licenses were granted in the 2.3 and 3.4 GHz spectrum bands to all four MNOs (<https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/results-auction-mobile-airwaves>).

⁸ Ofcom: Award of the 2.3 and 3.4 GHz spectrum bands - Competition issues and Auction Regulations, 11 July 2017 (https://www.ofcom.org.uk/__data/assets/pdf_file/0022/103819/Statement-Award-of-the-2.3-and-3.4-GHz-spectrum-bands-Competition-issues-and-auction-regulations.pdf).

⁹ The plan was delayed by legal appeal processes, which were concluded in early February 2018, dismissing the appeals.

¹⁰ Uses of the spectrum in the two bands are likely to be distinct:

- The 40 MHz of spectrum in the 2.3 GHz band can be used immediately, because it is already supported by mainstream mobile phones.
- The 150 MHz of spectrum in the 3.4 GHz band is not currently supported by mobile phones in the UK but is expected to become useful in the period 2019 to 2020. Additionally, it is likely to be used for initial deployment of 5G services because it forms part of the wider 3.4-3.8 GHz which is the priority band in Europe for 5G.

Parts of the 3.4 to 3.6 GHz band are currently being used to provide fixed wireless broadband services,

These two caps prevent BT/EE from bidding for spectrum in the 2.3 GHz band. They also restrict BT/EE to winning no more than 85 MHz in the 3.4 GHz band and restrict Vodafone to winning no more than 160 MHz across the 2.3 GHz and 3.4 GHz bands together.

Ofcom consulted on a number of issues relating to WBB, as follows. Ofcom published a Call for input on 5G spectrum at 26 GHz and update on bands above 30 GHz. Ofcom confirmed their intention to expand spectrum access for mobile services in the 3.6-3.8 GHz band. This band has been identified by the UK and EU as the primary band for 5G. They also enabled access to additional frequencies for broadband fixed wireless access in the 5725-5850 MHz band, known as the 5.8 GHz band.

The UK position on the use of the 700 MHz band is set out in their 700 MHz Statements covering the duplex pair and the centre gap. Ofcom plans to make the duplex pair available for mobile data from mid-2020 (subject to the DTT clearance timetable). Ofcom reviewed progress against the plan and the clearance date in October 2017.¹¹

b. National and EU investment in broadband

On 1 March 2017, the government published the UK Digital Strategy,¹² an umbrella strategy to support the digitalization of the country. The strategy set out the government's aim of completing the roll-out of 4G and superfast broadband and of introducing a broadband universal service obligation (USO) by 2020 (additional information on the Government's regulatory broadband universal service obligation is available in this report under chapter 4. Consumer matters/ d. Universal service). It also reconfirmed the £1 billion programme of investment in full fibre broadband and 5G to stimulate private investment in full fibre connections by 2021.

Broadband Delivery UK (BDUK)¹³ is responsible for implementing the government's policy on superfast broadband rollout and on the deployment of local full fibre networks.¹⁴

The Government is implementing a Local Full Fibre Networks (LFFN) programme¹⁵ and a 5G Testbeds and Trials Programme¹⁶ to support full fibre and 5G rollout. The LFFN Challenge Fund is a Government capital grant programme of up to £200m, with £190m remaining for competitive Waves¹⁷, to help deliver fast and reliable digital communications

¹¹ 700 MHz clearance programme timescale review, Review of progress, risks and readiness, 12 October 2017, https://www.ofcom.org.uk/data/assets/pdf_file/0022/106933/700mhz-clearance-timescale-review.pdf

¹² <https://www.gov.uk/government/publications/uk-digital-strategy>

¹³ Part of the Department for Culture, Media and Sport.

¹⁴ <https://www.gov.uk/guidance/broadband-delivery-uk#superfast-broadband-programme>

¹⁵ The objectives of the LFFN programme are to: i) stimulate more commercial investment to deliver more gigabit-capable connectivity; ii) directly maximise the availability and benefit of gigabit-capable broadband services to public sector, business and residential users; and iii) improve commercial investment conditions in local areas.

¹⁶ Relevant in this context:

DCMS press release - 10 March 2018: £25m for 5G projects on the anniversary of the UK's Digital Strategy (<https://www.gov.uk/government/news/25m-for-5g-projects-on-the-anniversary-of-the-uks-digital-strategy>);

DCMS press release - 6 July 2017: Three universities to develop £16m 5G test network

(<https://www.gov.uk/government/news/three-universities-to-develop-16m-5g-test-network>);

DCMS press release - 30 March 2018: Search begins for a UK 5G city of the future

(<https://www.gov.uk/government/news/search-begins-for-a-uk-5g-city-of-the-future>).

¹⁷ The Challenge Fund periodically announces waves of funding available for local bodies to bid into, and bids are selected on a competitive basis (<https://www.gov.uk/guidance/local-full-fibre-networks-programme>).

networks.¹⁸ The Chancellor of the Exchequer announced on 22 November 2017 that local bodies could start applying for funding from the Local Full Fibre Networks (LFFN) Challenge Fund.^{19 20}

The Digital Infrastructure Investment Fund is making up to £400m available to support commercial financing for fibre investment that will unlock approximately £1 billion of private investment.²¹

Obstacles regarding the implementation of the national broadband plan include industry capacity to deliver and access to finance by commercial providers. Local implementation issues include wayleaves, power, and highways access.

Commercial overbuilding between commercial providers supports competition and allows greater choice for consumers. Publicly funded projects aim to avoid overbuilding through a process of Open Market Reviews and market consultations to ensure that public funding targets investment at 'white' premises, which would not otherwise gain coverage, in line with the EU State aid requirements, and to ensure good use of public investment.

On July 2017, the government introduced legislation,²² the Telecommunications Infrastructure (Relief from Non-Domestic Rates) Bill 2017-19, to incentivise full-fibre broadband deployment. Communications service providers building full fibre broadband networks will receive 100% relief on their business rates for new, lit fibre over five years, backdated to 1 April 2017 under this new legislation. On 8 February 2018, the Bill received Royal Assent.²³

c. Implementation of the Broadband Cost Reduction Directive

The Access to Infrastructure Regulations implemented much of the Directive²⁴ and came into force on 31 July 2016.²⁵ Article 8 of the Cost Reduction Directive was transposed separately in England, Wales, Scotland and Northern Ireland by a change to the building regulations.

The Broadband Cost Reduction Directive had almost no impact to date. The dispute resolution process has not been tested yet. Fair and reasonable pricing was reported as a problem, as the underlying cost assessment is unclear. The cost of coordination would be high because some of the infrastructure would not be primarily designed or used for telecoms

¹⁸ <https://www.gov.uk/government/publications/local-full-fibre-networks-challenge-fund>

¹⁹ This call for bids closed on 26 January 2018, with a subsequent announcement of 13 winning bids - worth £95.5 million of Government funding - on 13 March 2018.

(<https://www.gov.uk/government/news/95-million-for-local-full-fibre-broadband-projects>)

²⁰ In addition, in March 2018, the UK launched a £67m Gigabit Broadband Voucher Scheme. The voucher scheme is designed to further the strategic objective of the LFFN programme to stimulate commercial investment in full fibre coverage across the UK. The scheme follows a market test, which was launched in November 2017 in four areas across the UK. Under the Scheme, small or medium-sized business can apply for a grant of up to £3,000 to help upgrade their broadband to a gigabit-capable connection. Local communities can also benefit from the scheme - groups of residents can combine with local businesses to access gigabit speeds in community group projects. In a group project each residential user can access grants of up to £500 each to contribute towards the cost of connection. (<https://gigabitvoucher.culture.gov.uk/>)

²¹ <https://www.gov.uk/government/speeches/digital-infrastructure-investment-fund-launch-exchequer-secretary-speech>

²² <https://www.gov.uk/government/news/business-rates-boost-for-broadband>

²³ <https://services.parliament.uk/bills/2017-19/telecommunicationsinfrastructure/relieffromnondomesticrates.html>
<http://www.legislation.gov.uk/ukpga/2018/1/contents/enacted/data.htm>

²⁴ Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks (OJ L 155, 23.5.2014, p. 1).

²⁵ https://www.legislation.gov.uk/uksi/2016/700/pdfs/uksi_20160700_en.pdf

services. It is considered as an extremely invasive remedy by certain market players. Ofcom's duct and pole access remedy is more known to operators. In order to further simplify processes in a number of areas to ensure effective access to BT's ducts and poles, Ofcom has made several changes to the remedy in its recent Wholesale Local Access market review.

3. Regulatory function

One of the major reforms proposed by Ofcom in its Digital Communications Review²⁶ was the legal separation of BT and its network division, Openreach. On 10 March 2017, BT notified Ofcom that it had agreed to the legal separation of Openreach. This means that Openreach will become a distinct company with its own staff, management, purpose and strategy. Ofcom considered that BT's notification sufficiently addressed the competition concerns as set out by Ofcom. Ofcom established a dedicated Openreach Monitoring Unit²⁷, to monitor whether the new arrangements are implemented successfully. Since March 2017, BT and Openreach have taken positive steps towards implementing the new arrangements. Completing the reforms requires the transfer of staff. Necessary administration (such as a legal requirement to consult employees) will take much of 2018, before the formal transfer can be made.

Operators relying on wholesale input from BT reported that the legal separation of Openreach has not shown any impact in 2017 yet and they could not perceive any significant difference in practice in their interactions with Openreach since the separation. On 26 March 2017, in one significant investigation, Ofcom found Openreach cut its compensation payments for delays in connecting high-speed business lines. Openreach was fined £42m for this breach.²⁸

On 26 October 2017, Ofcom published its Statement regarding the Review of the market for standalone landline telephone services. Ofcom has been concerned that telephone line rental prices have risen, despite wholesale costs falling. Following a review of this market, Ofcom set out proposals²⁹ to cut monthly bills for BT's landline-only customers by between £5 and £7. In response, BT will be reducing voluntarily its monthly line rental price by £7, from April 2018, for its customers who take only a landline from BT (voice-only customers).

On 30 November 2017, Ofcom published the Statement on the Narrowband Market Review, which covered five wholesale markets concerning the delivery of fixed voice telephone services. Ofcom decided to regulate BT and (in the Hull Area) KCOM in three wholesale access markets: wholesale analogue fixed telephone lines and two markets that enable the delivery of digital telephone services to businesses. Ofcom will also continue to regulate BT and KCOM's wholesale provision of calls over those lines. Ofcom decided to reduce significantly the wholesale regulation that they currently impose in these markets and to continue to regulate wholesale fixed call termination rates (FTR) based on a pure long-run incremental cost (LRIC) approach. The regulation of FTRs at pure LRIC is consistent with the

²⁶ <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/digital-comms-review>

²⁷ <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/telecoms-competition-regulation/the-openreach-monitoring-unit>

²⁸ <https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2017/bt-to-be-fined-for-breaching-contracts>

A summary of Ofcom's closed investigations is available here: <https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases>.

²⁹ <https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2017/bts-landline-only-customers-set-for-cheaper-bills>

2009 EC Recommendation and with Ofcom's current and proposed regulation of MTRs. This regulation applies to all providers of calls to UK geographic numbers (numbers starting 01 and 02). Ofcom will be applying the same charge controlled rate to all fixed calls terminated in the UK regardless of country of origin.

Ofcom issued consultation for the Mobile Call Termination review on 27 June 2017. Ofcom proposed to continue to set MTRs on the basis of pure LRIC using a bottom-up 2G/3G/4G cost model, to impose this using a one-off adjustment rather than a glidepath, and to apply the rate symmetrically to all providers of mobile termination. In both the Narrowband and Mobile Call Termination Review Ofcom has consulted on a proposal that the same termination rate is applied regardless of whether the call originates inside or outside the EEA. The statement for the Mobile Call Termination market review was expected to be published in early 2018.³⁰

In spring 2017, in the context of the Wholesale Local Access (WLA) market review Ofcom consulted on their market analysis and remedies. Ofcom proposed to price regulate for the first time the fibre access product of Openreach, which is a 40 Mbps download/10 Mbps upload FTTC product. Ofcom proposed a 25% price reduction in 2018 and 40% in four years. Ofcom also consulted on quality of service issues on BT's fixed access network and on duct and pole access. The statement on the WLA market review was expected to be published in early 2018.³¹

Statements for the Wholesale Broadband Access (WBA) Market Review and a combined WLA/WBA Market Review in the Hull area will be published in the second half of 2018.

BT (Openreach) and Cityfibre appealed the dark fibre remedy of the Business Connectivity Market Review (BCMR).³² The issue highlighted by BT was the market definition, i.e. that BT is not having SMP on that market. In July 2017, the Competition Appeal Tribunal ruled in favour of BT. Consequently, Openreach did not launch a dark fibre product in October 2017. However, already in the summer of 2017, Openreach launched a consultation with the communications providers regarding their needs as regards FTTP.

³⁰ On 23 February 2018, Ofcom published its draft decision for regulating the Mobile Call Termination market from 1 Apr 2018 (https://www.ofcom.org.uk/consultations-and-statements/category-1/mobile-call-termination-market-review/_nocache). Ofcom designated 68 providers with significant market power in this respect. Ofcom imposed on all providers with SMP a network access obligation and a charge control, based on LRIC. From 1 April – 31 May 2018, the MTR cap will be 0.495 ppm and from 1 June 2018 – 31 March 2019 it will be 0.489 ppm. Ofcom also decided that the same charge control on MTRs should apply for the termination of all calls to UK mobile numbers, regardless of origin (i.e. to calls originated outside the European Economic Area as well).

³¹ On 23 February 2018, Ofcom published its WLA (Market 3a) draft statement in three volumes (<https://www.ofcom.org.uk/consultations-and-statements/category-1/wholesale-local-access-market-review>). Volume 1 sets out Ofcom's analysis concerning markets, market power determinations and remedies. Volume 2 provides more detail on the charge control designs and implementation. Volume 3 sets out proposals regarding the imposition of a physical access infrastructure remedy.

On the same day, Ofcom also published their draft statement for regulating the quality of BT Openreach's wholesale services (<https://www.ofcom.org.uk/consultations-and-statements/category-1/quality-of-service>). Key aspects of these two draft statements are:

- Charge controls on Openreach's basic 40/10 superfast broadband service (adjusted from £11.23 to £11.92).
- No wholesale price regulation of Openreach's faster broadband products.
- Physical infrastructure remedies that will require BT to make its passive infrastructure (ducts and poles) open to access seekers in order to make it easier for them to build their own full-fibre networks.
- Stricter requirements on Openreach to repair faults and install new broadband lines.

³² <https://www.ofcom.org.uk/consultations-and-statements/category-1/business-connectivity-market-review-2015>

In this context, on 20 November 2017, the Tribunal ordered Ofcom to revoke its significant market power (SMP) findings and regulatory conditions in respect of BT for all Contemporary Interface Symmetric Broadband Origination (CISBO) services.³³ Given these circumstances, on 23 November 2017, Ofcom decided to impose temporary measures in relation to business connectivity services,³⁴ due to be in effect until March 2019. Ofcom imposed temporary remedies in the Lower Bandwidth Contemporary Interface Symmetric Broadband Origination (CISBO) markets in which BT has SMP. The remedies came into effect on 29 November 2017, with the exception of the charge control and minimum quality standards, which came into effect on 1 December 2017.

The Digital Economy Act 2017³⁵ represents a major reform regarding (amongst other things) the powers attributed to Ofcom. It clarified Ofcom's powers to impose general conditions in respect of consumer switching and automatic compensation for consumers and gave Ofcom powers to impose financial penalties for breaches of conditions of spectrum licences; powers to make reports on the state of telecoms infrastructure in the UK; wider powers to request information from stakeholders; and powers to require communications providers to provide certain information relating to telephone numbers with which they have been allocated. The Digital Economy Act also changed the standard of review in appeals of Ofcom decisions. When hearing appeals of Ofcom decisions taken after 31 July 2017 and which fall within the scope of the EU Electronic Communications framework, the UK's Competition Appeal Tribunal is required to apply the same principles as would be applied by a court on an application for judicial review. This replaces the previous domestic legislative provision which required the Competition Appeal Tribunal to decide such appeals on the merits, following findings by the UK courts that judicial review is perfectly capable of ensuring that the merits of a case are duly taken into account in accordance with Article 4 Framework Directive.

4. Consumer matters

Ofcom's first annual Comparing Service Quality (CSQ) report was published in April 2017. It shows the quality of service experienced by customers of the UK's largest landline, broadband and mobile providers in 2016. Ofcom published a report on pricing trends³⁶ in March 2017, which outlines Ofcom's research into trends in the pricing of residential communications services in the UK. Ofcom continued to publish reports detailing complaints data³⁷ by provider received by Ofcom's Consumer Complaints Team. Such data can be informative for consumers when seeking to compare providers.

Ofcom's Consumer Contact Team (CCT) has received approximately 78 772 complaints about electronic communications services in 2017. (this includes pay TV complaints and nuisance call complaints as well). Ofcom does not investigate and resolve individual complaints; however, their CCT team provides advice to consumers about how to resolve their complaints, including details of the applicable alternative dispute resolution schemes where relevant. Silent and abandoned calls, quality of service (in particular fault repair, line installations and mobile coverage), issues around billing/prices and customer service were the main sources of consumer complaints in 2017.

³³ <http://www.catribunal.org.uk/237-9285/1260-3-3-16-British-Telecommunications-.html>

³⁴ https://www.ofcom.org.uk/__data/assets/pdf_file/0019/108019/BCMR-Temporary-Conditions.pdf

³⁵ <http://www.legislation.gov.uk/ukpga/2017/30/contents/enacted>

³⁶ <https://www.ofcom.org.uk/research-and-data/multi-sector-research/general-communications/pricing>

³⁷ <https://www.ofcom.org.uk/research-and-data/multi-sector-research/telecoms-complaints-data>.

In June 2017, Ofcom opened a monitoring and enforcement programme in relation to the Early Termination Charges (ETCs) imposed by communications providers (CPs) under the terms and conditions of their consumer contracts. The objectives for this programme are:

- To ensure that CPs are taking appropriate steps to make consumers aware of any applicable ETCs when they are signing up to a minimum contract period; and
- To ensure that terms and conditions imposing ETCs on consumers comply with GC9.3 and are fair for the purposes of the CRA.

Under this programme, Ofcom collects information from relevant sources, including CPs, in order to assess compliance and take any action, as appropriate. Ofcom was aiming to reach a view on next steps in the programme and investigation by December 2017, but extended the programme for another six months to 28 June 2018.

On 19 September 2017, Ofcom set out improvements³⁸ to the consumer protection rules, which apply to all UK communications providers under the general authorisation in areas including nuisance calls,³⁹ complaints, billing, debt collection, disabled people and vulnerable customers. The changes will offer new and stronger regulation to protect consumers (e.g. numbers displayed when receiving calls must be valid, dialable and uniquely identify the caller). The changes also require all communications providers to offer disabled users access to priority fault repair, third-party bill management and accessible bills. These measures previously applied only to disabled people's landline and mobile services, and will now be extended to broadband. Ofcom requires broadband and mobile providers to have fair, transparent debt-collection and disconnection practices in place. This requirement already applies to landline providers. Ofcom extends current rules on billing accuracy, which previously only applied to voice call services, to include broadband. All these changes will come into effect on 1 October 2018.

On 10 November 2017, Ofcom set out plans⁴⁰ for customers to be automatically compensated if the quality of service they receive from ISPs falls short of expectations. This is a voluntary arrangement involving the largest ISPs who serve about 90% of broadband customers. Due to the complex changes to IT systems, there will be a 15 months implementation period before the scheme comes into effect in 2019.

On 19 December 2017, Ofcom announced reforms that will make it quicker and easier to switch mobile provider. Under the new rules, mobile customers will be able to switch provider by simply sending a free text message. The changes will give customers control over contact with their existing provider. Mobile providers will be banned from charging for notice

³⁸ <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/rule-changes-to-protect-consumers-and-aid-enforcement>

³⁹ On 9 February 2018, Ofcom and the Information Commissioner's Office have published an update on their joint action plan to tackle nuisance calls and texts (https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/tackling-nuisance-calls-messages?utm_source=updates&utm_medium=email&utm_campaign=ico-joint-plan).

This update highlights progress made during 2017:

- 'blocking' measures have been routinely introduced by a number of communications providers which are helping to stop millions of nuisance calls from getting through to people;
- targeted enforcement action is ensuring companies making nuisance calls are identified and punished; and
- intelligence sharing and close collaboration with Government, domestic and international regulators, technical bodies, and law enforcement is helping identify new ways of tackling the problem.

⁴⁰ <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/automatic-compensation2>

periods running after the switch date. This will put an end to people paying for old and new services at the same time. There will be an 18-month implementation period, i.e. providers must comply by no later than 1 July 2019.⁴¹

a. Roaming

The new Roam-like-at-home⁴² (RLAH) rules came into force on 15 June 2017. MVNOs stressed that they are very exposed to the effects of this Regulation, due to the level of wholesale caps applied by MNOs.

Ofcom did not receive any sustainability derogation requests. There was no noticeable increase in domestic prices observed before or after 15 June 2017.

Following the introduction of RLAH in June 2017, UK subscribers consumed 2.6 times more voice and eight times more data roaming services when travelling in the EU in summer 2017 compared to summer 2015.⁴³

Since 15 June 2017 Ofcom has received complaints about various issues including: RLAH not being provided, non-RLAH tariffs not being applied, inadvertent roaming onto Turkish networks whilst in Greece/RLAH not being applied in Northern Cyprus, data speeds whilst roaming, the €50 data limit not being applied, changes to non-EEA tariffs, cost of non-EEA roaming, and international calls not being included in RLAH. Ofcom has also received some complaints about the data speeds received by UK subscribers whilst roaming.

Ofcom is actively monitoring roaming complaints and reviewing providers' roaming offers including their fair use policies and it has been engaging with providers to address the identified concerns. In October 2017, Ofcom opened a formal investigation into Lycamobile.⁴⁴

b. Net neutrality

In 2016, the UK laid down the rules on penalties applicable to infringements of Articles 3, 4 and 5 of Regulation (EU) 2015/2120⁴⁵ on open internet access in the Open Internet Access (EU Regulation) Regulations 2016.⁴⁶

On 23 June 2017, Ofcom published its first annual report "Monitoring compliance with the EU Net Neutrality regulation", which reflects their approach to monitoring and ensuring compliance with EU Regulation 2015/2120 from May 2016 to April 2017. In this timeframe,

⁴¹ https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2017/switch-mobile-provider-with-a-free-text?utm_source=updates&utm_medium=email&utm_campaign=mobile-switching

⁴² Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union (OJ L 172, 30.6.2012, p. 10), as amended by Regulation (EU) 2015/2120 and Regulation (EU) 2017/920.

⁴³ Figures compare Q3/2017 with Q3/2015 (no data for Q3/2016) retail roaming volumes according to the BEREC International Roaming Benchmark Report, April 2017-September 2017, published on 14 March 2018

⁴⁴ https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01207

⁴⁵ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (OJ L 310, 26.11.2015, p. 1).

⁴⁶ <http://www.legislation.gov.uk/ukxi/2016/607/contents/made>

Ofcom identified two zero-rating products offered in the UK market. The products related to zero-rating of music streaming and messaging services respectively.⁴⁷

There are also self-regulatory schemes in the UK under which fixed and mobile ISPs allow consumers to activate a ‘parental filtering service’ to restrict access to selected categories of content inappropriate for minors. The UK has notified its position to the Commission regarding this self-regulatory scheme under Article 10(3) of Regulation (EU) 2015/2120. Regulation (EU) 2015/2120 prohibits any blocking of internet traffic save for the three specific exceptions under Article 3(3) (a), (b) and (c) (compliance with Union legislative act or national legislation that complies with Union law, network security, exceptional congestion). The government has introduced provisions on “Internet filters” in the Digital Economy Act 2017⁴⁸ authorising ISPs to block access to content or services for child protection or other purposes, if this is in accordance with the terms of the contract with the end-user.

All of the UK’s largest ISPs serving residential consumers are signatories to a voluntary Broadband Speeds Code of Practice⁴⁹ which commits them to provide speeds information at point of purchase and give consumers the right to exit their contract if speeds are lower than a minimum guaranteed level. In 2016, a new voluntary Broadband Speeds Code⁵⁰ for Business services was introduced, which came into force in September 2016.

Ofcom has undertaken work to revise and improve its voluntary Broadband Speeds Codes.⁵¹

c. 112

Disabled end-users who have hearing or speech impairments can contact the UK emergency services via text relay or emergency SMS. These are both free at the point of use and available 24 hours a day.

Advanced Mobile Location (AML) is operational in UK on all Android handsets. Systematic statistical analysis of accuracy for all calls does not take place, but analysis of sample calls indicates that accuracies of 10-50m are typical.

The requirement in the General Conditions (reflecting the one in the Universal Services Directive) states that communications providers should take all necessary measures to ensure

⁴⁷ On 6 March 2018, Ofcom launched an own-initiative enforcement programme into fixed and mobile Internet Service Provider traffic management measures, and other practices covered by the EU Open Internet Access Regulation. The investigation focuses mainly on Three and Vodafone (Vodafone Pass) (https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01210).

⁴⁸ <http://www.legislation.gov.uk/ukpga/2017/30/contents/enacted>

⁴⁹ https://www.ofcom.org.uk/data/assets/pdf_file/0012/40431/broadband_speeds_code_june_2015.pdf

⁵⁰ https://www.ofcom.org.uk/data/assets/pdf_file/0034/85768/business_broadband_code_2016.pdf

⁵¹ On 1 March 2018 Ofcom published its statement “Better Broadband Speeds Information: Voluntary Codes of Practice”, which includes four improvement to the codes: more realistic speed estimates at the point of sale; always providing a minimum guaranteed speed and the right to exit connected to this speed at the point of sale; strengthening customers’ rights and extending the right to exit to bundled products; and ensuring all customers benefit from the codes, regardless of their broadband technology. The changes will also mean that the codes can apply fully to all networks, including cable. In addition, Ofcom has sought to align the speed information required under the codes with the speed information required in contracts by Article 4 of Regulation (EU) 2015/2120 (https://www.ofcom.org.uk/data/assets/pdf_file/0024/111696/statement-broadband-speeds.pdf).

The new codes will come into force on 1 March 2019, which provides an implementation period of 12 months. The existing codes will continue in force until that date, at which point they will cease to apply to any provider.

uninterrupted access to emergency services. Ofcom has further stated that it will assess providers' compliance with this requirement on a case-by-case basis. Ofcom plans to publish guidance on this requirement in 2018 which will take account the widespread use of mobile and cordless phones while recognising the continuing importance of landline telephony to consumers who are vulnerable or do not have access to mobile services.

d. Universal service

In July 2017 BT put forward an offer to voluntarily provide 10 Mbps broadband to 99% of UK premises by 2022, delivered by Openreach, and for the remaining 1% of premises either provide a service using a fixed wireless solution (delivered by EE) or by acting as a service provider for satellite broadband. In August 2017, Ofcom consulted on including the costs of network expansion (incurred by Openreach in delivering this voluntary commitment) within the proposed charge control for Wholesale Local Access services. Ofcom proposed to include the costs of Openreach's network expansion in the WLA charge control that would come into effect in April 2018. DCMS consulted on the design of a regulatory Universal Service Obligation⁵² (USO) in the summer of 2017 and decided in December 2017 not to accept BT's offer and consequently to continue with a regulatory USO that offers the advantage of certainty and legal enforceability "that is required to ensure high speed broadband access for the whole of the UK by 2020".⁵³ Designated operators will be legally required to provide high-speed broadband to customers, subject to a cost threshold.⁵⁴

5. Conclusion

There are several challenges regarding broadband deployment in the UK. 4% of the UK premises have no access to decent broadband of at least 10 Mbps. Regarding NGA coverage the urban-rural digital divide is still obvious (rural coverage was at 82%). The share of FTTH/B connections (1%) is one of the lowest in the EU. The regulatory USO and the measures set out in the UK digital strategy can bring improvements in this regard. The potential of the transposed Broadband Cost Reduction Directive to contribute to the deployment of high speed broadband connections is not fully exploited yet. The benefits of the legal separation of BT and Openreach, which is not fully completed, are not visible on the market yet. Ofcom's increased focus on consumer matters and targeted actions in this regard bring clear benefits.

⁵² Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (OJ L 108, 24.4.2002, p. 51).

⁵³ <https://www.gov.uk/government/news/high-speed-broadband-to-become-a-legal-right>

⁵⁴ The Government set out the design of the regulatory USO in secondary legislation laid on 28 March 2018. The specification for the USO design includes a download speed of at least 10 Mbps, a per premises cost threshold of £3,400 (enabling coverage to around 99.8% of premises), a requirement for demand aggregation, funded by the industry rather than publicly and uniform pricing (<https://www.gov.uk/government/news/countdown-to-high-speed-broadband-for-all-begins--2>).