



BRIEFING PAPER

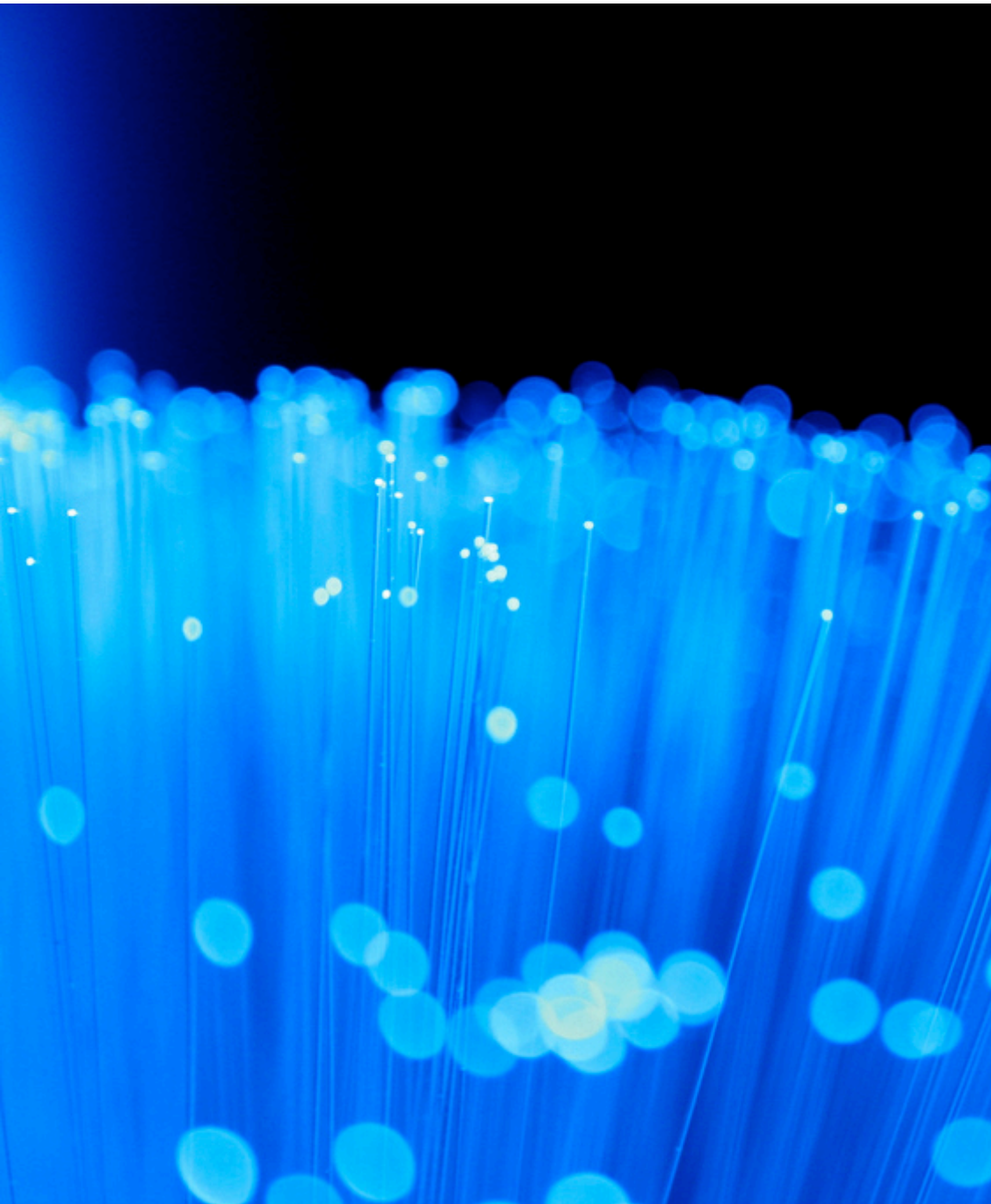
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A Universal Service Obligation (USO) for Broadband

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Summary

What is the broadband USO?

The UK Government is introducing a Universal Service Obligation (USO) for broadband. The new USO is a UK-wide measure to deliver broadband connections to the hardest to reach premises in the UK. It is intended to fill the gap left by the UK Government's existing broadband roll-out programs.

The USO will provide a legal right to request a broadband connection of at least 10 megabits per second (Mbps) download speed. Eligible consumers and businesses will be able to request a connection under the USO and a Universal Service Provider(s) will be required to fulfil all requests up to a cost threshold of £3,400. The USO will be funded by industry through a cost-sharing fund.

The USO is underpinned by secondary legislation made under the [Digital Economy Act 2017](#), and will be implemented by Ofcom. The *Digital Economy Act* allows for the Government to review the USO and to increase the minimum speed. There was broad cross-party and consumer support for the introduction of a statutory USO for broadband in general, but there were mixed views from industry stakeholders as to how universal access to broadband should be delivered.

Technical specifications

The minimum technical standards for connections made under the USO will be:

- Minimum download speed of 10 Mbps.
- Minimum upload speed of 1 Mbps.
- Additional quality parameters: medium response times, a minimum data cap of 100 GBs and a contention rate of 50:1 (which means a maximum of 50 users to share one bandwidth).

A mix of technologies that meet the minimum specifications will be used to deliver the service. In 2016 Ofcom advised that satellite connections will probably be the only option for some consumers (approx. 0.2%) but may not be able to fulfil the additional quality parameters.

When will the USO be implemented?

The Government is aiming for the USO to be in place by 2020 at the latest. Secondary legislation was laid in Parliament in March 2018, and came into force on 23 April 2018. Ofcom has responsibility to implement the USO and that process is expected to take up to two years. Several factors need to be finalised, such as the designation of a universal service provider, and the design of an industry cost-sharing fund. Ofcom's first document on the USO implementation is expected in summer 2018.

How many premises will be eligible?

Ofcom reported that as of January 2018, 925,000 premises in the UK (3%) would qualify for the USO based on the proposed technical specifications.

The USO will be available only to those consumers that do not have access to broadband connections that fulfil the minimum standards, not those who have such a connection available but choose not to subscribe to it. The number of premises covered by the USO will ultimately depend on the number of consumers that register.

1. What is the broadband USO?

The Universal Service Obligation (USO) will provide a legal right to request a minimum broadband connection of at least 10 Mbps download speed, up to a cost threshold. The [Digital Economy Act 2017](#) provides powers for the Government to deliver a USO for broadband via secondary legislation.

The USO is intended to be a 'digital safety net for all' and forms part of the Government's commitment in the [UK Digital Strategy](#) (March 2017) to ensure that the UK has world-class digital connectivity and inclusion.¹ The Minister of State for Culture and the Digital Economy, explained the Government's rationale:

The rationale of a USO is to act as a 'safety net' where market forces alone do not deliver affordable access to basic services for people, particularly those in remote areas or those with low incomes or disabilities. USOs aim to ensure that a minimum set of communications services are available to everyone at a fixed location, upon reasonable request, and at an affordable price, irrespective of where they live, in order to prevent social exclusion.²

Annex 1 provides a table charting the development of the broadband USO and relevant consultations.

1.1 What is a Universal Service Obligation (USO)?

Universal Service is already a concept used in telecoms regulation in the UK, and in the regulation of essential services generally. It refers to a system that ensures that basic services considered essential in current social and economic conditions, are available to all at an affordable cost. This is important for areas which lack commercial competitive markets to provide the service.

Universal service obligations have their foundation in EU law. The [Universal Services Directive \(USD\)](#) implemented in 2002,³ and revised in 2009,⁴ provides the framework within which the new UK broadband USO must operate. The USD requires Member States to provide users with a connection to the public communications network sufficient to permit 'functional internet access', on request, at an affordable price.⁵

'Functional internet access' is not defined in the Directive, and Member States have the flexibility to define a broadband USO according to their own national circumstances. The telephony USO was introduced in 2003 to meet the requirements of the Directive. It provides a right to a request a dial-up internet connection (28 kbps, 0.028 Mbps), up to a

¹ DCMS, [UK Digital Strategy](#), 1 March 2017.

² DCMS consultation, [A new broadband universal service obligation consultation](#), 23 March 2016.

³ [Directive 2002/22/EC](#) on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

⁴ [Directive 2009/136/EC](#).

⁵ European Parliament Briefing, [Broadband as a universal service](#), April 2016.

cost threshold of £3,400. The new broadband USO upgrades the existing telephony USO, but is not a mandatory requirement under the Directive. The new USO will also have a £3,400 cost threshold (see Section 2.3 below).

1.2 Why is the broadband USO being introduced?

The broadband USO complements the Government's existing and past programmes to deliver broadband connections across the UK, including:

- The Government's [Better Broadband Scheme](#), which provides subsidised broadband connections to premises unable to access download speeds of at least 2 Mbps.⁶ This scheme, referred to as the 'Universal Service Commitment', is a non-statutory voucher scheme that began in December 2015 and will end at the end of 2018.⁷
- The Government's [Superfast Broadband Programme](#) supports the Government's target that 95% of UK premises will have access to superfast broadband connections (download speeds greater than 24 Mbps) by the end of 2017.⁸ This target includes connections provided by commercial providers.

The Government has stated that it has met the 95% target, and expects that this coverage should reach 97% by 2020.^{9,10}

The USO is intended to fill the gaps left by these programmes, and provide access to connections for those premises that cannot access download speeds of 10 Mbps.¹¹

The Library briefing paper on [Superfast Broadband Access in the UK](#) (March 2017) provides more detail about Government's broadband roll-out programmes.¹²

1.3 Is there broad support for the USO?

During the progress of the *Digital Economy Bill* through Parliament there was broad, cross party support for the introduction of a broadband USO in general. The main areas of contention raised were whether 10 Mbps as a minimum download speed was ambitious enough. For discussion, see Section 2.3 below, and the Commons Library analysis of the [Digital Economy Bill - Committee Stage Report](#) (24 November 2016).

Amongst stakeholder and consumer groups, there is also in general, broad support behind the concept of delivering fast, reliable and affordable broadband UK-wide. During the consultations for the

⁶ DCMS, [Get better connected](#), [accessed 14 October 2017].

⁷ DCMS, [Better Broadband Scheme extended for another year](#), 28 November 2017.

⁸ DCMS, [Broadband Delivery UK](#), 27 February 2013.

⁹ DCMS, [Superfast broadband now available to more than 19 out of 20 UK homes and businesses](#), 29 January 2018.

¹⁰ PQ [HL4671](#), 30 January 2017.

¹¹ DCMS, [Universal broadband to reach every part of the UK](#), 30 July 2017.

¹² House of Commons Library, [Superfast Broadband Access in the UK](#), 9 March 2017.

planning for the USO in 2016 (see Annex 1) there were diverging views as to how this should be achieved.

Consumer groups tended to favour regulatory intervention for a highly specified USO, to ensure that vulnerable consumers and those in hard-to-reach areas were not 'left behind'. Industry stakeholders on the other hand, tended to favour commercial solutions, with minimal government involvement.

The design and delivery of the USO must therefore seek to balance:

- the delivery of universal fast, reliable and affordable broadband connections UK-wide;
- minimising the cost to consumers; and
- maintaining an environment favourable to commercial investment and minimise distortion in market competition.

Further discussion of stakeholder views in response to the implementation of the USO is provided in Annex 1, and in the Commons [Library analysis of the Digital Economy Bill](#) (Section 1.1, 9 September 2016).

1.4 How will the USO be implemented?

The UK Government was considering two options for the delivery of universal access to broadband connections with download speeds of 10 Mbps:

- A demand-led regulatory USO set by secondary legislation – as it was originally envisaged; and
- A voluntary offer made by BT in July 2017 to deliver the service outside a regulatory framework.¹³

BT's offer included the same technical specifications as the Government's regulatory USO but proposed a proactive network build that would not have required consumers to register to receive a connection. BT proposed to fund the network build on the condition that costs could be recovered through an increase in the cost to other providers using the Openreach network.¹⁴ BT's proposal may have been faster to deliver,^{15,16} however concerns were raised by various stakeholders about the impact the proposal may have had on market competition, as well as the oversight and accountability of BT under a voluntary agreement.^{17,18}

¹³ DCMS, [Universal broadband to reach every part of the UK](#), 30 July 2017; Openreach briefing, [Delivering universal broadband coverage](#), 6 October 2017.

¹⁴ Ofcom, [Wholesale Local Access Market Review: recovering the costs of network expansion](#), 9 August 2017.

¹⁵ DCMS, [Universal broadband to reach every part of the UK](#), 30 July 2017

¹⁶ [Virgin Media response](#) to Ofcom consultation, WLA – Recovering the cost of investment in network expansion, 29 September 2017.

¹⁷ [UK ISPs in Legal Threat Opposing £600m BT 10Mbps Broadband USO](#), *ISP Review* 23 October 2017.

¹⁸ [BT broadband offer 'risks extending rural monopoly' says government](#), *BBC News*, 8 August 2017.

The Government confirmed in December 2017 that it would adopt the regulatory approach in order to provide a legally enforceable right to request a connection. Digital Minister, then Matt Hancock MP, explained the Government's decision in a Written Statement to Parliament:

...we have decided not to pursue BT's proposal. We believe that only a regulatory USO offers sufficient certainty and the legal enforceability that is required to guarantee delivery of our manifesto commitment to ensure decent broadband access for the whole of the UK by 2020.¹⁹

The Government's consultation response published in March 2018 stated that responses received to the consultation showed strong support for the regulatory USO as opposed to the alternative proposed by BT, "particularly because of the improved transparency of the industry cost sharing process".²⁰

A BT spokesperson was reported to state that BT accepted the Government's decision and would work with the Government and Ofcom to deliver the regulatory USO.²¹

¹⁹ [HCWS 375](#), Delivery of Universal Broadband, 20 December 2017.

²⁰ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 52.

²¹ [UPD Gov Reject BT Voluntary 10Mbps UK Broadband USO and Goes Regulatory](#), *ISP Review*, 20 December 2017.

2. How will the USO operate?

The specifications for the USO are set out in secondary legislation, the [Electronic Communications \(Broadband\) \(Universal Service\) Order](#), which came into force on 23 April 2018.

The design of the regulatory USO was based on advice and modelling provided by Ofcom.²² The following sections outline the specifications for the USO chosen by the Government, which were set out for consultation in July 2017.²³ The Government published its [response](#) to the consultation and the final Impact Assessment for the USO on 28 March 2018.^{24 25}

It now falls to Ofcom to implement the USO. The first document from Ofcom on the implementation of the USO is expected to be published in summer 2018.²⁶

2.1 Who can request a connection?

The USO will be “demand-led”. This means that connections will be made after a request by a consumer. Only consumers who do not have access to connections that meet the USO standard will be eligible to register.²⁷ A Universal Service Provider(s) will then be required to fulfil all reasonable requests from households and businesses to be connected under the USO, up to a reasonable cost threshold (£3,400 per premises, see Section 2.3 for more information).

Consumers are expected to be given a timeframe (for example 6 months or more) in which to register to request a connection. Requests will be demand-aggregated, which means that requests in a local area will be pooled such that the cost-per-premises can then be combined across the area to reduce the individual cost burden and maximise efficiency. How the demand aggregation process will be organised is something that Ofcom will consider as part of its work to implement the USO.²⁸

How many premises will be eligible?

Ofcom’s [Connected Nations Spring 2018](#) update reported that, as of January 2018, 925,000 premises in the UK (3%) do not have broadband connections available that meet the proposed minimum specifications for the USO (10 Mbps download, 1 Mbps upload).²⁹ The breakdown of

²² Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

²³ DCMS, [A new broadband Universal Service Obligation: consultation on design](#), 31 July 2017.

²⁴ DCMS, [Government’s response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018.

²⁵ DCMS, [Final Impact Assessment](#), 28 March 2018.

²⁶ Ofcom, [Connected Nations Update: Spring 2018](#), 30 April 2018, para 1.8.

²⁷ DCMS, [Government’s response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 46.

²⁸ DCMS, [Government’s response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018.

²⁹ Ofcom, [Connected Nations Update, Spring 2018](#), 30 April 2018.

the number of premises in each nation that would be eligible as of January 2018, is provided in Box 1 below.

The number of premises will decrease as commercial and public roll-out of superfast broadband reaches more premises, so the number of eligible premises in 2020 is expected to be lower than these figures. Due to the demand-led structure, ultimately the number of premises to which the regulatory USO will be delivered will depend on the number of consumer requests for connections.

Box 1: Number of premises that would qualify for the USO in each nation as of January 2018

2018	
England	677,000 (3%)
Scotland	134,000 (5%)
Wales	63,200 (4%)
Northern Ireland	50,000 (7%)
Total UK	925,000 (3%)

Source: Ofcom, [Connected Nations Update, Spring 2018](#). The data was collected in January 2018 and refers to premises that cannot access 10 Mbps download and 1 Mbps upload speeds.

Discrepancy between take-up and coverage

It should be noted that availability of broadband connections does not necessarily translate to the take-up of those connections. For example, in its 2016 [Connected Nations](#) report, Ofcom reported that the uptake of superfast broadband in the UK was then only 31%.³⁰ This means that many premises do not subscribe to superfast broadband services, despite having superfast connections available to them.

The USO will be available only to those consumers that do not have broadband connections that fulfil the minimum standards available, not those who have a higher speed connection available but choose not to subscribe to it.³¹

Choosing a universal service provider

When Ofcom called for providers to express interest in becoming a designated service provider in 2016, few industry stakeholders expressed a desire to be designated. Therefore, Ofcom's advice was to directly designate a provider (after consultation), rather than to pursue a competitive process such as a procurement or a reverse auction. Noting that the high initial cost burden for delivering the USO may be challenging for small providers, Ofcom suggested in December 2016 that the most efficient outcome may be for BT and KCOM Group Plc to

³⁰ Ofcom, [Connected Nations 2016](#), 16 December 2016.

³¹ DCMS, [A new broadband Universal Service Obligation: consultation on design](#), 31 July 2017.

be designated as universal service providers because they have the most extensive networks and are the universal providers for telephony.³²

The Government's consultation response published in March 2018 indicated that four operators had expressed an interest in being designated as a Universal Service Provider on a local or regional basis. The Government expressed support for smaller providers to play a role in the delivery of the USO, if they can demonstrate they have the capability and capacity to do so:

We remain of the view that it is worth identifying what scope there is for smaller providers to play a role in the delivery of universal broadband, if they can demonstrate that they have the capability and capacity to do so. We have informed Ofcom of the known interest in provider designation, given that it will ultimately be for Ofcom to determine which designation approach to take. We would be supportive of Ofcom running a competitive process for provider designation, if Ofcom determines that is the best approach. As noted in our consultation, the Government is keen to ensure that smaller providers have the opportunity to take part in the delivery of the USO.³³

2.2 Technical specifications

Box 2: Technical specifications proposed for the USO

The additional specifications proposed for the USO are:

- **Download speed of 10 Mbps (minimum)**
10 Mbps is the download speed that Ofcom has said is necessary to deliver an 'acceptable user experience', allowing for users to stream films, carry out video conferencing and browse the web at the same time.³⁴
- **Upload speed of 1 Mbps (minimum)**
Reasonable upload speeds are necessary for applications such as video conferencing and uploading large files to social media. For example, Skype recommends a minimum upload connection speed of 0.5 Mbps for a high-quality video call.³⁵
- **Medium response times (latency)**
Latency is the round-trip delay in transmission data. This is important for live applications such as live video streaming and video calls. Ofcom stated that a delay of around one second has a noticeable impact on user experience.³⁶
- **Contention rate of 50:1**
Contention is the degree to which bandwidth is shared between different end users at the same network node. A contention ratio of 50:1 means that up to 50 broadband users may be sharing the same bandwidth at any one time.
- **A minimum data cap of 100 GBs per month.**
This is the limit which service providers can impose on the amount of data that users can download. In 2017 Ofcom reported that on average, UK households consumed 190 GB of data per month.³⁷

³² Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

[KCOM Group Plc](#) is the main provider for the Hull area

³³ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 63.

³⁴ Ofcom, [UK Home broadband performance: a consumer summary](#), 24 March 2016.

³⁵ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

³⁶ Ibid.

³⁷ Ofcom, [Connected Nations 2017](#), 15 December 2016.

The Government's decision on the technical standards was informed by technical advice provided by Ofcom. The Government asked Ofcom to model 4 technical scenarios for the USO:

- A standard broadband service: 10 Mbps download only ("scenario 1");
- A more highly specified service: 10 Mbps download, 1 Mbps upload ("scenario 2");
- A superfast broadband service: 30 Mbps download, 6 Mbps upload ("scenario 3"); and
- An intermediate scenario: 20 Mbps download and 2 Mbps upload (this scenario was added in July 2017, with updated cost estimates).³⁸

Ofcom modelled the number of premises which would not meet the minimum specifications in each scenario and provided cost estimates for a USO delivering each service to those premises.³⁹

Having considered Ofcom's work, the Government took the view that "scenario 2" (10 Mbps download, 1 Mbps upload with additional quality parameters) would best achieve the balance between consumer satisfaction, cost, length of time to deliver and the level of market distortion.⁴⁰ Additional quality parameters are proposed alongside the download speed, in order to deliver an acceptable broadband experience in terms of both speed, response times and overall data capacity.

Is 10 Mbps enough?

Although there was broad cross-party support for the introduction of a broadband USO generally, debate has centred on whether 10 Mbps represents a satisfactory standard.

The Scottish National Party (SNP) argued strongly for a more highly specified USO during the progress of the Digital Economy Bill through Parliament. For example, SNP Shadow Westminster Group Leader for Digital, Callum Kerr MP, stated during the second reading debate (September 2016):

To return to the other point I mentioned, do we really think 10 megabits will be considered sufficient by 2020? Why do the Government think the bar should be set so low? The SNP challenges the thinking that sees 10 megabits as adequate.⁴¹

Then Shadow Minister for Digital Economy, Louise Haigh MP, also called for a more ambitious service during the Public Bill Committee stage debate (October 2016), arguing that a 10 Mbps service would become outdated by 2020:

³⁸ Ofcom, [Technical advice on a broadband USO: updated cost estimates](#), 31 July 2017.

³⁹ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016. Updated cost estimates were published in July 2017: Ofcom, [Technical advice on a broadband USO: updated cost estimates](#), 31 July 2017.

⁴⁰ DCMS, A new broadband Universal Service Obligation: consultation on design, 31 July 2017.

⁴¹ [HC Deb, 13 September 2017, c787](#).

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[W]e believe that there is coalition of support for a much more ambitious USO. That is why we were pleased to hear that the USO can be amended in secondary legislation later when it becomes outdated. However, I fear that, by the time it is introduced, it will already be becoming seriously outdated and, indeed, by 2020, it may feel like a relic of a bygone age when superfast and ultrafast broadband, even in rural areas, will be readily accessible.⁴²

During a Westminster Hall debate on [Superfast broadband: rural communities](#) in February 2017, the Shadow Minister and the SNP again made calls for a more highly specified service in the secondary legislation.⁴³

The Government has maintained that based on technical advice from Ofcom, 10 Mbps is enough to satisfy current demands.⁴⁴ Secretary of State for Digital, Culture, Media and Sport, then Karen Bradley MP, justified the 10 Mbps choice to the House of Commons DCMS Select Committee in October 2017, stating that it would not be feasible to deliver universal coverage of speeds greater than 10 Mbps by 2020:

We have looked at the different speed options. 10 Mbps is a number that experts will say is sufficient for people to do what they need to do. Today, it means you could download a film, people can do their research for homework, they would be able to access friends and family at 10 Mbps. It is a sufficient speed for people in the short term. I want to be clear, this is a short term. We need to get people to have access to sufficient speeds of broadband as quickly as possible. Going for a number above 10 is not feasible to do by 2020.⁴⁵

The need to balance a ‘future proof’ USO specification against a safe and reasonable investment was highlighted by Ofcom in its report to the Government on the design of the USO.⁴⁶ Ofcom noted that it was important to consider the fast growth in broadband usage and future projections when choosing the USO specification, in order to ensure a value-for-money investment.

However, Ofcom also highlighted that a more highly specified service, in addition to increasing the costs of implementation now, could risk displacing private sector investment. The regulator also noted the difficulties in choosing the best long-term technology in a rapidly advancing sector, and indicated that the level of service may need to increase over time, whichever scenario was chosen.⁴⁷

Government’s consultation response

The Government’s Final Impact Assessment for the USO found that the technical specifications modelled by Ofcom all had very similar cost benefit ratios predicted (in terms of Gross Value Added to the UK economy). However, the Government stated that a more highly specified service would impose a greater burden on industry (which

⁴² [PBC Deb 18 October 2016 cc120–121](#).

⁴³ HC Deb, [Superfast broadband: rural communities](#), 21 February 2017, c346WH.

⁴⁴ DCMS Committee, Oral evidence: The Work of the Department for Digital, Culture, Media and Sport, [HC361](#), 11 October 2017.

⁴⁵ DCMS Committee, Oral evidence: The Work of the Department for Digital, Culture, Media and Sport, [HC361](#), 11 October 2017.

⁴⁶ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁴⁷ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016

would lead to greater market distortion) and would take longer to deliver.⁴⁸

The Government's response to the consultation on the USO design noted that there were differing views on whether the proposed quality parameters had been set at an appropriate level. The Government maintained that the technical specifications chosen (10 Mbps download, 1 Mbps upload) achieved an appropriate balance between a service that meets typical household needs while taking into account the cost of delivery of the service and potential impacts on industry competition:

The specification will allow access to services such as web browsing, and email and effective delivery of HD video streaming and multiple users on a broadband connection. It would also support simultaneous access to various services, such as online news, banking, buying and selling goods and services, accessing public services and so on. It will also make a real difference to small businesses stuck on lower speeds. Therefore, this specification balances the needs of consumers benefiting from the USO with the impact on consumers generally.⁴⁹

Regarding the specification of a 10 Mbps download speed the Government's response stated:

i) Download speed - this has been set at 10Mbps to meet a typical household's use of digital services, and because consumers on connections of less than 10Mbps tend to use less data, suggesting that internet usage is constrained below this speed.⁵⁰

Regarding the 100 GB data cap, the Government's response noted that several respondents were concerned that the 100 GB cap was too low given that Ofcom's Connected Nations 2017 data reported that the average residential usage at 10 Mbps download speed was 120 GB per month. In response, the Government argued that median data usage speeds were a better measure of typical usage, and on that basis 100 GB was a reasonable limit:

iv) Data cap - Ofcom's Connected Nations 2017 reported that the median monthly data usage at speeds of between 10Mbps to 30Mbps was 84GB, which would indicate that the 100GB minimum data allowance is set at a reasonable level. Connected Nations 2017 also reported that most consumers use less data than the reported average, and that average data usage increases are driven by a small proportion of heavy users. Therefore, average monthly data use figures are not a useful guide for a monthly data allowance under the USO.⁵¹

Devolved Administrations

The power to legislate for telecommunications is reserved to the UK Government. However, the practical delivery of broadband roll-out is led by local bodies in England and the devolved Administrations in Scotland,

⁴⁸ DCMS, [Final Impact Assessment](#), 31 January 2018, page 55.

⁴⁹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 22.

⁵⁰ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 20.

⁵¹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 21.

Wales and Northern Ireland.⁵² This means that the local bodies in England and the devolved Administrations can develop their own broadband strategies to guide the network build in their region, and set roll-out targets that are more ambitious than those set at the UK Government level.

The Scottish Government has set its own targets for the roll-out of superfast broadband, using a combination of UK Government, EU and commercial funding. It has stated a commitment to provide superfast broadband (30 Mbps) to 100% of properties in Scotland by 2021.⁵³ The Scottish Government has raised concerns about the compatibility of a 10 Mbps service with its plans for universal superfast broadband delivery.⁵⁴

The Scottish Government are committed to providing 100% superfast broadband coverage across Scotland by 2021. The USO should be designed to ensure that, if our goal is achieved prior to the USO being in place, Scotland is not disadvantaged as a result of taking early action and still benefits from it.⁵⁵

The Welsh Government and Northern Ireland Executive also consider 30 Mbps download speed to be a benchmark minimum standard and have also called for a USO with a higher specification than 10 Mbps.^{56,57}

Can the USO be upgraded in the future?

The *Digital Economy Act 2017* sets out two mechanisms which enable the UK Government to initiate a review of the USO:⁵⁸

- A discretionary power that allows the Secretary of State to direct Ofcom to review the USO at any time (after consulting with Ofcom).
- A requirement that the USO be reviewed when the uptake of superfast broadband (30 Mbps or more) reaches at least 75% of UK premises.

The Government's consultation response stated that monitoring and reporting of the progress of the USO would be through Ofcom's Connected Nations report.⁵⁹

What technology will deliver the USO?

The USO will be technology neutral. This means that the technical quality parameters are set and any technology capable of delivering

⁵² Broadband Delivery UK, [Broadband delivery programme: delivery model](#), September 2011

⁵³ Scottish Government, [Realising Scotland's full potential in a digital world: A Digital Strategy for Scotland](#), 22 March 2017.

⁵⁴ [Scottish Government response to DCMS Broadband Universal Service Obligation Consultation](#), 18 April 2016.

⁵⁵ [Scottish Government response to Ofcom's call for inputs](#) on designing the USO, 16 June 2016.

⁵⁶ [Welsh Government response](#) to Ofcom's call for inputs on designing USO

⁵⁷ [Advisory Committee for Northern Ireland's \(ACNI\) response to Ofcom's Designing the broadband universal service obligation \(Call for inputs\)](#).

⁵⁸ *Digital Economy Act 2017* s1(7) amends the *Communications Act 2003* to add s72A and s72B as provisions to review the USO.

⁵⁹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 65.

those parameters could be considered to deliver the service. It is likely that a mix of solutions, both fixed and wireless, will be required.

Ofcom reported in 2016 that technologies then available that would meet the specifications were:

- Fibre-to-the-Cabinet (FTTC);
- Fibre-to-the-Premises (FTTP);
- fixed wireless; and
- mobile broadband networks.

The Government's consultation response explained several different views about the suitability of various technologies to deliver the USO, particularly regarding the suitability of satellite technology to deliver USO connections, and the role of hybrid technologies.⁶⁰ The Government also noted that there may be alternative technologies developed in the future that could be used to deliver the service. The technology choice will ultimately be for the Universal Service Provider(s).

2.3 Cost and funding

Who will fund the USO?

The Government's view is that the USO should be funded by industry. A cost-sharing mechanism will be developed by Ofcom to share the cost across various industry players.⁶¹ The universal service provider will then be able to claim compensation for any unfair net cost burden associated with providing USO connections retrospectively from the industry fund.

Ofcom will design and consult on the cost sharing mechanism, including which providers should contribute.

How much will the USO cost?

Ofcom modelled the cost of delivering the USO according to 4 technical scenarios (see Section 2.2).⁶²

For the Government's preferred technical specifications (10 Mbps download, 1 Mbps upload), Ofcom projected that the cost of deployment to all eligible premises would £1.0 billion for an implementation target of early 2020. The cost of deployment reduces over time as the roll-out of superfast broadband reaches a greater number of properties. The demand-led structure of the USO means that cost of delivering the USO will depend on the number of people that actually request connections.

⁶⁰ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 26.

⁶¹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 54.

⁶² Ofcom, [Technical advice on a broadband USO: updated cost estimates](#), 31 July 2017.

Cost threshold

The USO will be subject to a 'reasonable cost threshold'. Ofcom modelled the impact that three cost thresholds (£3,400, £5,000 and £10,000) would have on reducing the cost of the USO.⁶³

Based on these estimates, the Government chose a cost threshold of £3,400.⁶⁴ Ofcom's estimates found that this cost threshold would be expected to provide coverage to 99.8% of premises and reduce the cost of USO deployment by £400 million.

The Government's rationale for a cost threshold is to ensure the cost of delivering the USO is proportionate. This is because the costs for delivering the USO to the final 1% of premises is especially high. For example, Ofcom estimated that the cost serving the most expensive premises to be around £45,000. It is not unusual for universal service obligations to include a cost threshold. For example, the telephony USO has a cost threshold of £3,400 and Digital Terrestrial Television (DTT) coverage is set at 98.5% of UK homes.⁶⁵

The Government's consultation response sets out a wide range of views received regarding the cost threshold, with some respondents arguing that there should be no cost threshold, and others suggesting that it was too high.⁶⁶ Several respondents called for a publicly funded voucher scheme for those premises falling above the cost threshold.⁶⁷

The Government summarised the decision on the cost threshold as follows:

The decision about the level of the reasonable cost threshold involves a trade-off between the policy objective of reaching as many households and businesses as possible, and the burden on any costs to be recovered through a universal service fund, which it would be reasonable to assume would be passed on to some degree to consumers. As the range of responses to our consultation have made clear, there are divergent views on this.

[...]

In our consultation, we proposed a cost threshold of £3,400 as the most proportionate threshold, as it would achieve 99.8% premises coverage while avoiding the exponential costs of the most expensive to reach premises. Our rationale was that a threshold set at this level strikes a proportionate balance between providing widespread coverage and limiting the amount of funding required for the broadband USO. We think this balances achievement of the policy goal with deliverability, including impacts on industry.⁶⁸

The cost threshold is £3,400. This means that the universal service provider will only have to build connections which cost less than £3,400.

⁶³ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁶⁴ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 54.

⁶⁵ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁶⁶ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, pages 34-35.

⁶⁷ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, page 53.

⁶⁸ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, pages 36-37.

Implications of the cost threshold

Ofcom estimated in 2016 that 59,000 premises would be left unserved over this cost threshold (approx. 0.2%).⁶⁹ A higher cost threshold would lead to greater coverage but higher overall costs for the deployment of the USO, and possibly a greater impact on consumer bills.

Where the cost of delivering the USO lies above the cost threshold, consumers will still be able to request a connection, but may have to pay for costs above the threshold. Alternatively, these premises may be left with satellite connections as the only option. While satellite connections may potentially provide 10 Mbps download speeds, they typically have high latency and limited data capacity, so may not meet the additional quality parameters proposed for the USO.⁷⁰

Requests for connections will be aggregated to share the burden of the cost threshold across a number of premises where possible.⁷¹

Impact on consumer bills

Given that the USO is expected to be funded by an industry fund, Ofcom expects that the industry will pass at least some of the costs of the broadband USO onto consumers through retail price increases.

Ofcom provided an upper estimate of the impact of the USO on consumer bills in its [December 2016 recommendations](#) to the Government:

For example, assuming a seven-year cost recovery period and costs recovered from fixed broadband providers, on average consumers might see increases in household bills ranging from just under £11 per annum to deliver a standard broadband universal service to just under £20 per annum to deliver a superfast broadband universal service. Including mobile operators in any industry fund might reduce the average effect on household bills by just under 15%.

Whether and how to actually pass on any costs to customers would be a commercial decision for contributors. This analysis is therefore illustrative only. Communications providers offer a range of services across different sectors, and some may seek alternative ways to recover contribution costs, for example across a range of services they provide.⁷²

The Government's impact assessment published in March 2018 stated that it is difficult to assess the impact on consumer prices because it depends on a number of factors, such as the number of properties affected, the level of take up and the technologies used to deliver connections.⁷³

Uniform pricing and affordability

A fundamental part of the USO is delivering broadband connectivity to as many people as possible. Therefore, pricing and affordability are

⁶⁹ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁷⁰ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁷¹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018.

⁷² Ofcom, [Technical advice on a broadband USO: updated cost estimates](#), 31 July 2017.

⁷³ DCMS, [Final Impact Assessment](#), 28 March 2018, page 62.

important requirements for the design of the USO. The first DCMS consultation on the USO (March 2016) explained:

The rationale for a USO is to act as a 'safety net' where market forces alone do not deliver affordable access to basic services for people. USOs aim to ensure that a minimum set of communications services are available to everyone at a fixed location, upon reasonable request, and at an affordable price, irrespective of where they live or work, in order to prevent social and economic disadvantage.⁷⁴

Uniform pricing

Although the USO promises to deliver a broadband connection up to the cost threshold, consumers will still have to pay a tariff to subscribe to the connection. The [USO regulations](#) require that the designated universal service provider(s) provide connections and services at prices that are affordable and uniform throughout the UK (unless Ofcom have determined that there is a clear justification for not doing so).⁷⁵

The purpose of the uniform price requirement is so that those obtaining connections in more expensive areas do not have to pay more.⁷⁶ In general, broadband retail prices are not regulated.

Affordability

The current telephony USO includes a social tariff available to consumers who are on low incomes.⁷⁷ Ofcom in their [December 2016 recommendations to the Government](#) stated that a social tariff for the new broadband USO is likely to be appropriate for those consumers where the price of connection and/or ongoing service would otherwise be unaffordable.⁷⁸

The Government's consultation response to the USO design noted that several respondents argued for a regulated social tariff.⁷⁹ For example, the Communications Consumer Panel's response called for a social tariff to protect vulnerable consumers:

We also believe the proposals could go further to protect consumers in vulnerable circumstances, by specifying a legal requirement for a social tariff. The consultation document appears to rely on providers' existing provisions.⁸⁰

The Government stated that it does not intend to make a social tariff a regulatory requirement for the new broadband USO. The July 2017 consultation document set out the Government's rationale:

⁷⁴ DCMS, A new broadband Universal Service Obligation: consultation on design, 31 July 2017.

⁷⁵ [The Electronic Communications \(Universal Service\) \(Broadband\) Order 2018](#), Schedule 2, subsection 2.

⁷⁶ DCMS, A new broadband Universal Service Obligation: consultation on design, 31 July 2017.

⁷⁷ Ofcom, [Designation of BT and Kingston as universal service providers, and the specific universal service conditions](#), 23 April 2014.

⁷⁸ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016.

⁷⁹ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, pages 47-51.

⁸⁰ Communications Consumer Panel and Advisory Committee for Older and Disabled People, [Response to DCMS's consultation on the design of a new broadband universal service obligation](#), 9 October 2017.

For the new broadband USO, our primary rationale is to ensure that network coverage exists so that people can get online if they want to. We therefore do not propose to make it a regulatory requirement for a social tariff to be included in the broadband USO at this time. We expect BT and KCOM, the Universal Service Providers for the telephony USO to continue to provide a social tariff for broadband as they do currently.⁸¹

The latter reference to the social tariffs offered by BT and KCOM refers to the voluntary schemes offered by those providers to give consumers the option to add a lower-priced fixed broadband connection and service.⁸²

The Government's response to the consultation re-stated the position that no social tariff would be included, adding that a social tariff "would add to the costs of delivering the USO which would need to be covered by industry and consumers."⁸³

⁸¹ DCMS, A new broadband Universal Service Obligation: consultation on design, 31 July 2017.

⁸² BT's scheme is called [BT Basic](#) and is offered to consumers meeting certain eligibility criteria relating to the receipt of certain social security benefits. KCOM also has an equivalent telephony scheme called [Social Access Package](#).

⁸³ DCMS, [Government's response to consultation on design of a new broadband Universal Service Obligation](#), 28 March 2018, pages 51.

3. Annex 1

3.1 Timeline: Planning for the USO

The following table sets out a timeline summary of key events and consultations that have occurred during the planning phases for the USO and the stakeholder responses at each stage.

Event	Document	Key messages
2015		
November First Government announcement that a new broadband USO would be introduced	DCMS and Prime Minister's Office press release, Government plans to make sure no-one is left behind on broadband access . ⁸⁴	David Cameron first announced plans for the introduction of the broadband USO with 10 Mbps download speed.
2016		
March First DCMS consultation regarding the USO	DCMS consultation, A new broadband universal service obligation consultation , 23 March 2016. ⁸⁵	<p>This first consultation set out the Government's rationale for the introduction of a demand-led broadband USO and a proposed 'roadmap' for implementing it.</p> <p>The proposed first step was to clarify in primary legislation the power to implement a broadband USO, with details to be set out in secondary legislation.</p>
April Ofcom call for inputs on the design of the USO	Ofcom, Designing the Universal Service Obligation: call for inputs , 7 April 2016. ⁸⁶	<p>DCMS requested technical advice and recommendations from Ofcom on the design of the broadband USO.⁸⁷</p> <p>Here, Ofcom sought input from stakeholders to guide its response to the Government.</p>

⁸⁴ DCMS, Prime Minister's Office, [Government plans to make sure no-one is left behind on broadband access](#), 7 November 2015.

⁸⁵ DCMS, [Broadband universal service obligation](#), 23 March 2016.

⁸⁶ Ofcom, [Designing the Universal Service Obligation: call for inputs](#), 7 April 2016.

⁸⁷ Ofcom, [Designing the Universal Service Obligation](#), 7 April 2016.

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May

Responses to the DCMS consultation (March 2016) published

DCMS, [Summary of responses and Government response](#), 17 May 2016.⁸⁸

The summary of responses showed considerable support for universally available, fast, affordable broadband access, but with some divergence of views on how best to achieve this.

Industry players felt that a commercial solution would be more appropriate than regulatory intervention and raised concerns about impact of the USO on competition and market distortion.

Overall the proposal to implement the USO was welcomed by a majority of respondents.

The Government stated its intention to set out in primary legislation the power to enable the Secretary of State to bring in a broadband USO through secondary legislation and to require Ofcom to review the USO as appropriate.

June

The *Digital Economy Bill 2016-2017* was introduced to Parliament.

[Digital Economy Bill 2016-2017](#)

The *Digital Economy Bill 2016-2017* was introduced to Parliament to introduce the power to enable the Secretary of State to bring in a broadband USO. There was broad, cross party support for the introduction of a broadband USO in general. Debate centred on what minimum criteria for the USO should be specified.

For discussion, see Library briefing papers:

- [Library analysis of the Digital Economy Bill](#) (9 September 2016).
- [Digital Economy Bill - Committee Stage Report](#) (24 November 2016).

⁸⁸ DCMS, [New Broadband Universal Service Obligation consultation: Summary of responses and Government response](#), 17 May 2016.

August

Ofcom publishes a summary of responses to the April call for inputs on the design of the USO.

Ofcom, [Designing the broadband universal service obligation, summary of responses to the call for inputs](#), 16 August 2016.⁸⁹

Ofcom noted there was strong support for increasing the coverage and quality of UK broadband services, but that there was a wide variety of views received as to how this should be achieved. The responses could be broadly categorised into two different views:

- 1 A more expansive view of the USO, calling for a highly specified service with speeds greater than 10 Mbps. This view was largely supported by public sector respondents and consumer groups
- 2 A view that the USO should be a ‘safety net’ to complement existing public- and private sector-led broadband deployments.

Some respondents, in particular from industry, saw the USO scheme as unnecessary and voiced concern that it risked creating market distortions. There was limited appetite from industry stakeholders to be designated a universal service provider.

October

Government publish “statement of intent”

DCMS, [A new broadband Universal Service Obligation Statement of Intent](#), 11 October 2016.

The statement of intent set out the Government’s plans for the broadband USO, explaining what a broadband USO is and outlined seven principles that would guide the design of the USO.

December

Ofcom publishes its technical advice to the Government on the design of the USO

Ofcom report, [Achieving decent broadband connectivity for all: technical advice to advice to UK Government on broadband universal service](#), 16 December 2016.⁹⁰

Ofcom’s report to the Government on the design of the USO following the April 2016 call for inputs

Ofcom modelled 4 technical scenarios for the USO in terms of the number of premises affected and the cost of

⁸⁹ Ofcom, [Designing the Universal Service Obligation](#), accessed 14 October 2017.

⁹⁰ Ofcom, [Achieving decent broadband connectivity for everyone](#), 16 December 2016. [Updated cost estimates](#) were published on 31 July 2017.

delivery. Ofcom also modelled several cost thresholds and the impact of each scenario on consumer bills.

2017		
April	<i>Digital Economy Act 2017</i>	<i>Digital Economy Act 2017</i> receives royal assent. Section 1 of the Act provides the primary legislative power to establish the USO.
July Second DCMS consultation regarding the USO	DCMS consultation <i>A new broadband Universal Service Obligation: consultation on design</i> , 31 July 2017. ⁹¹	<p>Taking into account Ofcom’s recommendations and advice, DCMS proposed a model for a demand-led regulatory USO to be implemented by secondary legislation.</p> <p>Key features of the proposed regulatory USO framework include:</p> <ul style="list-style-type: none"> • minimum technical specifications of 10 Mbps download, 1 Mbps upload and additional quality parameters • a reasonable cost threshold of £3,400; • uniform pricing; and • an industry cost-sharing funding arrangement.

⁹¹ DCMS, [A new broadband Universal Service Obligation: consultation on design](#), 31 July 2017.

<p>July</p> <p>DCMS announces BT voluntary proposal</p>	<p>DCMS press release, Universal broadband to reach every part of the UK, 31 July 2017.⁹²</p>	<p>DCMS announcement of BT's proposal to voluntarily deliver the 10 Mbps service.</p> <p>Details of the offer are also available in the Openreach briefing, Delivering universal broadband coverage (October 2017).⁹³</p> <p>DCMS will consider both the regulatory option and BT's proposal in parallel.</p>
<p>August</p> <p>Ofcom publishes its report on proposed pricing arrangements</p>	<p>Ofcom, Wholesale Local Access Market Review: recovering the costs of network expansion, 9 August 2017.⁹⁴</p>	<p>Ofcom response to BT's offer with details of how it will amend wholesale local access pricing, should the Government enter into an agreement with BT. Ofcom invites comments from stakeholders, which are individually published on the Ofcom consultation webpage.</p>
<p>December</p> <p>DCMS announces decision to adopt the regulatory USO.</p>	<p>DCMS press release, High speed broadband to become a legal right, 20 December 2017.</p>	<p>Secondary legislation and a detailed consultation response are expected in early 2018.</p>
<p>2018</p>		
<p>March</p> <p>Government publishes response to the July 2017 consultation on USO design</p>	<p>DCMS, Government's response to consultation on design of a new broadband Universal Service Obligation, 28 March 2018.</p>	<p>The response provided a summary of consultation responses. There were no changes to the proposed approach indicated in the response.</p>

⁹² DCMS press release, [Universal broadband to reach every part of the UK](#), 31 July 2017

⁹³ Openreach briefing, [Delivering universal broadband coverage](#), 6 October 2017.

⁹⁴ Ofcom, [Wholesale Local Access Market Review: recovering the costs of network expansion](#), 9 August 2017

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March

Secondary legislation laid in Parliament

[Electronic Communications \(Broadband\) \(Universal Service\) Order](#)

Statutory Instrument forming the legislative basis for the USO was laid in Parliament 28 March 2018. Came into force 23 April 2018. Last day for prayers: 23 May 2018.

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