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Commercial Multi User Gateway Review Notice of proposed regulations

Statement & Notice

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About this document

This document sets out Ofcom's decision to exempt commercial multi-user 'gateway' devices, known as COMUGs, from the licensing requirements set out in the Wireless Telegraphy Act 2006.

A gateway is a device that uses SIM cards issued by mobile network operators (MNOs) to enable the transfer of calls from a fixed network to a mobile network. Gateways have typically been used to reduce the cost of making fixed-to-mobile calls, as calls made using these devices are treated by the recipient's network as 'on-net' and thereby take advantage of lower charges / free call bundles.

The use of COMUGs is currently illegal in the UK without the grant of a licence by Ofcom. We consulted on whether it would be appropriate to make regulations exempting these devices from the requirement to obtain a licence under section 8(1) of the Wireless Telegraphy Act 2006. After assessing the responses received we have decided to proceed with proposals to make regulations allowing the use of COMUGs on a licence exempt basis. Comments on the draft regulations are invited by 8 August 2017.

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Section 1

Executive summary

- 1.1 This document sets out our decision to permit the use of commercial multi user gateways (COMUGs) on a licence exempt basis. It also gives notice of our intention to make the Wireless Telegraphy (Exemption) (Amendment) Regulations 2017 (the “Proposed Regulations”) to give effect to our decision.
- 1.2 Under section 8(1) of the Wireless Telegraphy Act 2006 (the “2006 Act”) it is an offence to establish, install or use equipment to transmit except under and in accordance with a licence granted by Ofcom. Under section 8(3) of the 2006 Act, Ofcom may by regulations exempt from the requirement to hold a licence the establishment, installation or use of equipment of such classes or descriptions as may be specified in the regulations, either absolutely or subject to conditions. Under section 8(4) of the 2006 Act, Ofcom is required to make regulations exempting equipment of a particular description where it is satisfied that certain conditions, set out in section 8(5), are satisfied.
- 1.3 The conditions set out in section 8(5) of the 2006 Act are that the use of stations or apparatus of the relevant description is not likely to:
 - a) involve undue interference with wireless telegraphy;
 - b) have an adverse effect on technical quality of service;
 - c) lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
 - d) endanger safety of life;
 - e) prejudice the promotion of social, regional or territorial cohesion; or
 - f) prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 1.4 On 16 December 2016 we published our consultation “Commercial Multi User Gateway Review” (the “Consultation”). We sought evidence on whether it would be appropriate to make regulations exempting COMUGs from the licensing requirement under section 8(1) of the 2006 Act, and on what terms, by reference to the conditions set out in section 8(5) of that Act. We explained that we considered that the most relevant issue to our decision was likely to be whether the use of COMUGs would have an adverse effect on technical quality of service.
- 1.5 We received eight responses to the Consultation, five of which were in favour of exemption. These stakeholders all stated that COMUGs do not raise issues in terms of technical quality of service, and that the other conditions for exemption under section 8(5) of the 2006 Act were not relevant.
- 1.6 Both Vodafone and EE raised concerns that COMUGs would have an adverse effect on technical quality of service. This was on the basis that COMUGs could lead to high call volumes at particular locations, resulting in congestion on their mobile networks and a degradation in the quality of service received by mobile users.

- 1.7 Whilst we acknowledge that congestion on mobile networks can affect technical quality of service, we have concluded that these concerns are not sufficient to maintain the current restriction on the use of COMUGs. We note, in particular, that one of the main drivers for the use of COMUGs in the past was due to the cost savings they offered when calling from a fixed line to a mobile network. However, mobile termination rates having fallen significantly in recent years. We therefore consider COMUGs are less likely to lead to significant congestion. Indeed, Vodafone told us that the “*use case for COMUGs has now disappeared*”.
- 1.8 We also consider that the mobile network operators (MNOs) are best placed to manage any congestion effects created by COMUGs (e.g. through increased cell capacity and/or enforcing contractual arrangements). We note that this is the same approach adopted in other European countries (the Netherlands, Ireland and Germany amongst others have no legal restrictions on the use of COMUGs).
- 1.9 Some respondents to the consultation raised concerns that COMUGs do not transmit accurate Calling Line Identification (CLI). Their concerns were that instead of the originating CLI of the calling party being provided it was the CLI of the COMUG. As a consequence it was suggested that this might contribute to the endangerment of safety of life. However, we have concluded that the available evidence does not indicate that COMUGs give rise to a sufficiently direct and material risk to safety of life to justify maintaining the current restriction on their use.
- 1.10 It was also suggested that users of COMUGS would not be compliant with Ofcom’s General Conditions of Entitlement provisions. It should be noted that all providers of electronic communications networks and services must comply with the General Conditions and Ofcom will enforce these obligations.
- 1.11 During the Consultation, we also became aware that there is interest in using COMUG type devices to provide backhaul services (e.g. train WIFI backhaul, microcell backhaul). We considered that permitting COMUGs on a licence exempt basis may bring citizen and consumer benefits, by encouraging these types of use.

Notice

- 1.12 To implement our decision, we will need to amend the Wireless Telegraphy (Exemption) Regulations 2003 (the “2003 Exemption Regulations”). This document includes notice given in accordance with section 122(4) and (5) of the 2006 Act and sets out our proposed Regulations giving effect to the decision.
- 1.13 The Proposed Regulations set out how we intend to amend the 2003 Exemption Regulations in respect of the establishment, installation and use of prescribed apparatus. A draft of the Proposed Regulations is set out at Annex 2 and their general effect is set out at Section 5 of this document. A regulatory impact assessment is set out at Annex 3.
- 1.14 Comments or representations with respect to the proposed regulations are invited by **5pm on 8 August 2017**.¹ Comments should be sent to:

Eniola Awoyale
Ofcom

¹ Under s122(6) of the Wireless Telegraphy Act 2006, the time specified must be at least one month from publication of the notice.

Riverside House
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- 1.15 Following completion of this consultation process, Ofcom intends to make the final regulations as soon as practicable.

Section 2

Background

2.1 In our Consultation we asked stakeholders whether it would be appropriate to make regulations exempting COMUGs from the licensing requirement under section 8(1) of the 2006 Act, by reference to the conditions set out in section 8(5) of that Act. We also sought views on any conditions that should be attached to an exemption, should we have decided that it is appropriate to exempt COMUGs.

What is a gateway?

2.2 A gateway is a device which typically enables calls from a fixed handset or device to be passed from a fixed network to a mobile network in a way that is not recognised by the mobile network as being a fixed-to-mobile call. The call is first routed from the fixed network to the gateway, and then passed from the gateway over the mobile network to the mobile handset where the call is to be terminated.

2.3 A gateway operates in a similar manner to a mobile phone in that it uses SIM cards, created and issued by mobile network operators (MNO) to originate calls on each MNO's network. Unlike a mobile phone, however, a gateway will incorporate multiple SIMs and acts in such a way that when a user makes a call from a fixed line phone to a mobile phone number, that call is diverted from the fixed line through the gateway.

2.4 As the fixed line call passes through the gateway, it is converted into a call from one of the SIM cards in the device before being passed over to the network of the mobile phone used by the recipient of the call and on to that recipient's phone. The recipient's network treats the call as if it were made by a mobile phone using that SIM card in the gateway rather than as being made from the fixed line phone.² This means that when the call is terminated on that mobile network, it appears to the mobile operator terminating the call that the calling party and the called party are on the same mobile network (referred to as an 'on-net' call).

2.5 Gateways have typically been used in this way to try to reduce the cost of making fixed-to-mobile calls, by enabling the gateway operator to provide the capability to deliver an 'off-net' call, by purchasing an 'on-net call', and thereby take advantage of the traditionally lower retail rates offered by MNOs for on-net calls.

2.6 Gateways may be used in different ways:

- i) a self-use gateway - where a single end-user organisation or individual establishes, installs and/or uses the gateway for its own use; or
- ii) where a third party provides electronic communications services by way of a business. This allows the GSM gateway operator to provide the capability to deliver an 'off-net' call, by purchasing an 'on-net call'. This may be in the form of:
 - o a commercial single-user gateway (COSUG), so that all the calls diverted through the gateway come from one end-user; or

² Mobile gateways are also known as SIM gateways or GSM gateways. Since the first use of these with GSM networks, additional spectrum and technologies have come into use that might be accessed via a gateway.

- a commercial multi-user gateway (COMUG), so that the calls diverted through the gateway come from multiple end-users.

Legislative framework

- 2.7 We are responsible for authorising use of the radio spectrum and achieve this by granting wireless telegraphy licences under the 2006 Act and by making regulations exempting users of particular equipment from the requirement to hold such a licence.
- 2.8 Under section 8(1) of the 2006 Act, it is unlawful to establish or use a wireless telegraphy station or install or use wireless telegraphy apparatus except under and in accordance with a licence granted by Ofcom.
- 2.9 Under section 8(3) of the 2006 Act, Ofcom may make regulations exempting from the licensing requirement under section 8(1) the establishment, installation or use of wireless telegraphy stations or wireless telegraphy apparatus of such classes or descriptions as may be specified in the regulations, either absolutely or subject to such terms, provisions and limitations as may be specified. When making such regulations, section 122(7) of the 2006 Act enables Ofcom to make such exemptions and exceptions as it thinks fit and to make incidental, supplemental, consequential and transitional provisions.³
- 2.10 Section 8(4) of the 2006 Act provides that if Ofcom is satisfied that certain conditions, set out in section 8(5), are met as respects the use of stations or apparatus of a particular description, we must make regulations exempting the establishment, installation and use of a station or apparatus of that description from the need to obtain a licence.
- 2.11 The conditions set out in section 8(5) of the 2006 Act are that the use of stations or apparatus of the relevant description is not likely to:
- a) involve undue interference with wireless telegraphy;
 - b) have an adverse effect on technical quality of service;
 - c) lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
 - d) endanger safety of life;
 - e) prejudice the promotion of social, regional or territorial cohesion; or
 - f) prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 2.12 Before making regulations under section 8(3) of the 2006 Act, Ofcom is required to give notice of its proposal to do so.⁴

³ Under section 8(3B) of the 2006 Act, the terms, provisions and limitations specified in regulations made under section 8(3) must be: (a) objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate; (b) not such as to discriminate unduly against particular persons or against a particular description of persons; (c) proportionate to what they are intended to achieve; and (d) transparent in relation to what they are intended to achieve.

⁴ Section 122(4) of the 2006 Act.

The legal status of gateway use in the UK today

- 2.13 The legislative provisions that apply to the use of gateways are those in the Wireless Telegraphy (Exemption) Regulations 2003 (the “2003 Exemption Regulations”). Regulation 4(1) of the 2003 Exemption Regulations provides for an exemption in relation to the establishment, installation and use of ‘relevant apparatus’, being the prescribed apparatus defined in Schedules 3 to 10 of those Regulations. Gateways fall within the definition of prescribed apparatus connecting to networks defined at paragraph 3 of Part III of Schedule 3, namely cellular radiotelephone systems for use in certain specified services on relevant frequency bands.
- 2.14 Until April 2016, Regulation 4(2) of the 2003 Regulations provided an exception to the exemption set out in Regulation 4(1). Under that provision, relevant apparatus was not exempted if it was “established, installed or used to provide or to be capable of providing a wireless telegraphy link between electronic communications apparatus or an electronic communications network and other such apparatus or system by means of which an electronic communications service is provided by way of business to another person”. Consequently, prior to April 2016, gateways were exempted from the obligation to obtain a licence only where they were used for self-use, but not for commercial use.⁵ Therefore, any use of COSUGs or COMUGs required a licence from Ofcom.
- 2.15 The 2003 Exemption Regulations were amended in April 2016 to ensure that COSUGs fell within the exemption. This change arose as a result of the judgment of the Court of Appeal in *Recall Support Services Limited and Others v Secretary of State for Culture Media and Sport* (the ‘Recall case’). In that case, both the High Court and the Court of Appeal found that the restriction on the use of gateways in the 2003 Exemption Regulations, insofar as it applied to COSUGs (only), was in breach of the Authorisation Directive and constituted an infringement of EU law (further details of the Recall case are set out below).^{6 7}
- 2.16 In order to give effect to the Courts’ findings, Ofcom made the Wireless Telegraphy (Exemption) (Amendment) Regulations 2016⁸ (the “2016 Amendment Regulations”). Those regulations amended the 2003 Exemption Regulations so as to include COSUGs within the exemption, setting out COSUG use in Regulation 4(5) as ‘...the situation where relevant apparatus is established, installed or used to provide an electronic communications service by way of business to more than one person within a single body’.⁹ The 2016 Amendment Regulations entered into force on 28 April 2016. The 2016 Amendment Regulations did not, however, extend to the inclusion of COMUGs within the exemption.

⁵ This use refers to a person providing a gateway to another person as part of a service provided by way of business to that other person.

⁶ *Recall Support Services and Others v Secretary of State for Culture Media and Sport* [2013] EWHC 3091 (Ch) (‘High Court judgment’).

⁷ *Recall Support Services and Others v Secretary of State for Culture Media and Sport* (2014 EWCA Civ 1370).

⁸ SI 2016/486.

⁹ Decision by Ofcom to make regulations amending the Wireless Telegraphy (Exemption) Regulations 2003, 8 April 2016. Available at:

https://www.ofcom.org.uk/_data/assets/pdf_file/0023/54167/statement.pdf.

Recall Support Services Ltd & Ors v Secretary of State for Culture, Media and Sport

- 2.17 The Recall case considered whether the restriction on the use of COSUGs and COMUGs provided for under the 2003 Exemption Regulations, as originally made¹⁰ (described as the ‘Commercial Use Restriction’), constituted an infringement of EU law, and in particular the Authorisation Directive.
- 2.18 The Secretary of State for Culture Media and Sport (‘DCMS’) argued that the Commercial Use Restriction could be justified on the basis of: (a) the need to avoid harmful interference; (b) the need to ensure the efficient use of spectrum; and (c) national security.¹¹
- 2.19 In its judgment, the High Court found that:
- 2.19.1 DCMS could not justify the Commercial Use Restriction, in relation to either COSUGs and COMUGs, on the basis of (a) the need to avoid harmful interference or (b) the need to ensure the efficient use of spectrum.¹²
 - 2.19.2 DCMS could rely on national security concerns to justify imposing the Commercial Use Restriction in so far as it restricted the provision of COMUGs, but not in so far as it restricted the provision of COSUGs.¹³
 - 2.19.3 Accordingly, the restriction in the Regulation 4(2) of the 2003 Exemption Regulations, insofar as it applied to COSUGs (only), was in breach of the Authorisation Directive and constituted an infringement of EU law.¹⁴
- 2.20 These findings were upheld by the Court of Appeal on appeal. As explained above, Ofcom subsequently amended the 2003 Exemption Regulations to lift the restriction on COSUGs in order to give legislative effect to the Courts’ findings.

Consultation

- 2.21 On 16 December 2016 we published our consultation “Commercial Multi User Gateway Review” (the “Consultation”) to review the current regulatory regime for the authorisation of mobile gateway devices in the UK. In particular, we sought views on the current regulatory position in relation to COMUGs, by reference to our duty under section 8(4) of the 2006 Act and the conditions set out at section 8(5) of that Act.
- 2.22 In the Consultation we explained that we considered that the condition set out in section 8(5)(b) of the 2006 Act, namely whether the use of COMUGs is likely to have an adverse effect on technical quality of service, was likely to be the most relevant issue in deciding whether to exempt COMUGs, and on what terms. However, we also welcomed any evidence from stakeholders in relation to the application of the other conditions set out in section 8(5) of the 2006 Act to COMUGs.

¹⁰ i.e. prior to amendment to the 2003 Exemption Regulations made by the 2016 Amendment Regulations.

¹¹ High Court judgment, paragraphs 37 and 62.

¹² High Court judgment, paragraphs 149 and 158.

¹³ High Court judgment, paragraph 114.

¹⁴ High Court judgment, paragraphs 159-160.

Section 3

Responses to the consultation

3.1 We received eight responses to the Consultation. All non-confidential versions of the responses are available to view on the Ofcom website¹⁵.

3.2 In the Consultation we asked the following questions.

Q1. Do you have any evidence that the installation or use of COMUGs does or does not have the potential to cause an adverse effect on technical quality of service of wireless telegraphy?

Q2. To the extent that you do have any concerns regarding the impact of the use of COMUGs on technical quality of service, do you think these concerns could be adequately addressed through a qualified exemption of COMUGs? If so, please explain what conditions you consider would need to be imposed on the use of COMUGs?

Q3. If you do not consider that your concerns could be addressed through a qualified exemption, please explain why, giving reasons for your views.

Q4. Do you have any evidence that the installation or use of COMUGs is likely to:

- *involve undue interference with wireless telegraphy;*
- *lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;*
- *endanger safety of life;*
- *prejudice the promotion of social, regional or territorial cohesion; or*
- *prejudice the promotion of cultural and linguistic diversity and media pluralism.*

Q5. To the extent that you do have any concerns in relation to any of the issues referred to in question 4, do you think it can these concerns could be adequately addressed through a qualified exemption of COMUGs? If so, please explain what conditions you consider would need to be imposed on the use of COMUGs?

Q6. If you do not consider that your concerns could be addressed through a qualified exemption, please explain why, giving reasons for your views.

3.3 The responses we received addressed a number of these questions. We have grouped the responses setting out the arguments made by respondents and our response to these in the section below.

Technical quality of service

3.4 As noted above, in the Consultation we explained that we considered that the question of whether the use of COMUGs is likely to have an adverse effect on technical quality of service (condition 8(5)(b) of the 2006 Act) was likely to be the

¹⁵ <https://www.ofcom.org.uk/consultations-and-statements/category-2/commercial-multi-user-gateway-review>

most relevant issue in reaching our decision on whether to exempt COMUGs, noting concerns that had been raised in the past regarding the impact of COMUGs on congestion on mobile networks.

- 3.5 We explained that we had not yet reached a view on this issue and sought evidence from stakeholders, including on the characteristics (if any) of COMUGs which might be likely to cause adverse effects on the technical quality of service offered by MNOs over their networks today, as well as the circumstances in which any such effects are likely to occur.¹⁶
- 3.6 The respondents in favour of exemption were all of the view that COMUGs do not cause an adverse effect on technical quality of service. However, EE and Vodafone raised a number of concerns regarding the potential impact of COMUGs on the technical quality of service experienced by mobile customers.
- 3.7 Jury O'Shea LLP submitted that when considering the issue of technical quality of service, Ofcom should only take account of adverse effects outside the normal course of any events, i.e. *"in terms of something which makes a system outside of the parameters as set by its standard"*. They stated that as the use of apparatus (including COMUGs) causing congestion is something which is catered for as part of the technical planning of a mobile network, it could not be said that COMUGs affect technical quality of service. Jury O'Shea LLP advised that they had consulted Professor William Webb - who provided evidence in the Recall case in relation to the issue of harmful interference – and that he had agreed that *"at a definitional basis"* congestion could not be said to affect the technical quality of service.
- 3.8 Daniel Mahony, on the other hand, appeared to accept that COMUGs had the potential to impact upon technical quality of service, which he considered to be closely linked to the issue of quality of service more generally. Mr Mahony stated that if a gateway is installed in a location that has limited cell capacity *"it will reduce the [quality of service] it can offer a customer"* and supported *"Ofcom's need to be alive to the issue of congestion"*.
- 3.9 However, Mr Mahony argued it would not be in the interests of either the gateway provider or the MNO to provide a poor quality service and suggested that MNOs had in the past exaggerated the impact that commercial gateway devices had on congestion on their networks. Mr Mahony stated that *"If traffic from a GSM gateway is being terminated successfully, it stands to reason that the network can cope with the volumes and that the quality of service remains high."*
- 3.10 Referring to the evidence set out at paragraph 3.14 of the Consultation, provided by an MNO in 2005, Mr Mahony explained that he was not aware of any commercial gateway operator who used gateways carrying 60 sims, for reasons of quality. Further he noted that it is not practical to use a sim card for 400 minutes a day, due to the MNOs employing anti-gateway departments (or outsourcing to specialist companies) that identify and shut down SIM cards that an MNO believes is being used in commercial gateways.
- 3.11 John Mittens and Christopher Lowery (both ex-directors of Floe Telecom) submitted that congestion issues are no longer relevant due to the large increases in capacity that the networks need to install in order to meet projected demand, highlighting

¹⁶ Paragraphs 3.17-3.18 of the Consultation.

evidence that mobile data traffic is expected to increase tenfold in the next six years and that MNOs will need to build capacity to deal with this.

- 3.12 Mr Mittens and Mr Lowery stated that the use of COMUGs has been legal in continental Europe for many years. They advised that European networks use the same mobile network technologies and that any issues with COMUGs would have been dealt with by technical solutions. Mr Mittens and Mr Lowery submitted that the lack of evidence of concern experienced in Europe demonstrated that COMUGs have never presented a danger of any kind.
- 3.13 Several respondents considered that any congestion issues raised by the use of COMUGs could be resolved either through the MNOs increasing the capacity of mobile base stations in the relevant areas and/or contractual arrangements with gateway providers.
- 3.14 For example, Jury O'Shea LLP noted that the "*power to deal with congestion is in the hands of the Mobile Network Operators*" by investing in increased capacity. They also stated that "*it is quite possible and indeed has been going on for some time in respect of Self-Use Single-Use Gateways being subject to, for example, Fair Usage Policies rather than controlling relevant commercial use*" and that MNOs could impose "*fair, reasonable, non-discriminatory terms*" at a contractual level.
- 3.15 Jury O'Shea LLP also argued that Ofcom was "*stopped from saying that there can be a problem with technical quality of service*" because when Ofcom exempted COSUGs in 2016 it had not considered issues relating to technical quality of service¹⁷. Mr Mahony also considered it significant that no stakeholders had made representations regarding technical quality of service in response to Ofcom's consultation on COSUGs.
- 3.16 Vodafone submitted that the "*greatest impact of COMUGs will be on quality of service for our mobile customers*". Vodafone explained that their network is dimensioned around complex models of the volume of mobile customers anticipated at each geographic location, influenced by the location of residential properties, businesses and leisure venues. Vodafone stated that each network sector is of finite capacity, so capacity which is utilised by COMUGs "*is not available for Vodafone's retail customers*".
- 3.17 Vodafone noted, however, that "*[r]egardless of their legality, the use case for COMUGs has now disappeared: mobile termination rates are now explicitly regulated to be no more than the pure Long Run Incremental Costs (pure-LRIC) of terminating calls, meaning that they are now <0.5ppm, and on a downward trajectory*". Vodafone stated that it was unable to provide any additional, quantitative, evidence regarding the impact of COMUGs because "*Ofcom's actions (and the reduced commercial incentive of using COMUGs) have all-but stamped out their usage*", but considered that if Ofcom were to authorise COMUGs it would lead to its service being compromised by their operation.
- 3.18 EE explained that equipment and radio frequency planning limitations assume that [X] is operating a terminal and restrict the number of traffic channels to a maximum of around [X] (and fewer on the cell edge). However, EE submitted that COMUGs and supporting equipment may contain up to 60 SIMs cards, potentially enabling 60 simultaneous calls to be originated on a single cell site. EE stated COMUGs could

¹⁷ https://www.ofcom.org.uk/_data/assets/pdf_file/0023/54167/statement.pdf

thereby occupy a very significant proportion of the overall capacity of a typical macro cell, even if the device were located in an optimal location in the cell, and noted that the potential is greater when a COMUG is located close to the cell edge.

- 3.19 EE submitted evidence, based on an internal trial conducted in 2003, of the impact which COMUGs can have on busy hour traffic in a cell, stating that this demonstrated “*how COMUGs can lead to rapid and unpredictable increases in traffic, which creates congestion on cell sites.*”¹⁸
- 3.20 EE explained that, where COMUGs caused congestion in this way, there could be several adverse impacts on technical quality of services for mobile customers, which could create erroneous perceptions of negative network reliability. These included:
- 3.20.1 A degradation in voice call quality, including through an increased likelihood of being unable to make or receive a call (call blocking), a reduction in call reduction in voice quality (e.g. degraded acoustic quality, latency and jitter), dropped calls, and reduced coverage on the move.
- 3.20.2 A detrimental impact on data services. EE explained that this is because voice call users are allocated a higher service priority than data users, meaning that any congestion caused by COMUGs would be likely to impact on the quality of data services first.
- 3.21 In addition to problems caused by congestion, EE stated that there were three particular problems which could affect users of the COMUG itself due to the way in which COMUGs operate: increased dropped calls, speech delay, and increased call set-up delay. EE also stated that the use of COMUGs could impact on the correct functioning of other services such as Dual Tone Multi Frequency support and International roaming services.
- 3.22 EE considered that the MNOs’ ability to manage congestion created by COMUGs is “severely limited”. This was because it can take time (typically [§<]) to identify an upsurge in use of a particular site and decide what action to take. The MNO’s ability to address the problem by building additional capacity would then depend on a range of factors including the ability to upgrade the site, availability of staff and equipment and could take [§<].¹⁹

Qualified exemption

- 3.23 In the Consultation we suggested that, even if we found that COMUGs do have some potential to impact technical quality of service, there may be a case for a qualified exemption of COMUGs, i.e. subject to conditions designed to address any concerns we identified. We noted that one option, for example, might be to exempt the use of COMUGs subject to a condition requiring the users of such devices to obtain prior written consent / authorisation from a host mobile network.²⁰
- 3.24 Jury O’Shea LLP stated that they did not consider these questions to be relevant and that it would be better if any issues relating to congestion were dealt with by contractual conditions (see above). Mr Mahony also considered that no qualified exemption is required, as the MNOs have the power to suspend SIM cards it believes

¹⁸ EE response, Figure 1.

¹⁹ EE response, paragraphs 12-15.

²⁰ Paragraphs 3.19-3.21 of the Consultation.

are causing problems to its network at any time (including a breach of any fair usage conditions).

- 3.25 EE raised concerns that any proposal that would allow the use of COMUGs subject to MNO consent would provide significant scope for “illegal operators” to hide behind apparently legitimate operations. EE explained that gateway operators have in the past unlawfully modified IMEI numbers to mask their operation of illegal gateways²¹. It considered that a qualified exemption would create a lack of clarity in relation to the legal status of COMUGs, which would lead to undertakings believing (or at least claiming to believe) that unlawful activities are in fact lawful and a proliferation of illegal COMUGs.
- 3.26 EE also stated that Ofcom had not considered the significant difficulties and costs associated with a qualified exemption regime, relating to policing the use of COMUGs (including monitoring and enforcement), assessing/processing applications from prospective COMUG users, and maintaining accurate records of authorised devices and their location. EE therefore considered that the correct approach would be to maintain the current restriction on COMUGs.
- 3.27 Vodafone also did not support the exemption of COMUGs but advised that if a licence-exemption status was to be granted, this must be only in the circumstances where COMUGs are deployed and operated with the express permission of the licensed mobile operator. Vodafone went on further to add that its user agreements expressly prohibit the use of SIMs in a COMUG and that they had no plans to review this provision.

Ofcom’s response

The meaning of “technical quality of service”

- 3.28 Section 8(5)(b) of the 2006 Act requires us to consider whether the use of COMUGs would be likely to have an adverse effect on technical quality of service.
- 3.29 In the Consultation we explained that, in assessing this issue, we were primarily concerned with identifying whether the use of COMUGs has the potential to impact on the performance of a network such that the technical quality of service which would otherwise be available to other users of that network is adversely affected. We noted that this could take many forms such as a reduction in cell coverage, an inability to set up or complete a call, a reduction in the speed or reliability of data services, delay or packet loss (among others).²²
- 3.30 Jury O’Shea LLP argued that in assessing this issue Ofcom could only take into account adverse effects which made “*a system operate outside of its parameters as set by its standard*”, referring to arguments made in the *Recall* case in relation to harmful interference.²³ We do not agree that the term “technical quality of service” is limited in this way for the purposes of section 8 of the 2006 Act. We note that the issue of technical quality of service was not considered in the *Recall* case and we

²¹ Every mobile phone has a unique serial number called the IMEI number. When making a call the IMEI number of the device being used is checked against a Central Equipment Identity Register. If the IMEI number has been blacklisted the network will not allow connection. MNOs use this function as part of their procedures when closing down gateway devices operating illegally on their networks. Reprogramming the IMEI allows for the gateway equipment to continue to access the network.

²² Paragraph 3.5 of the Consultation.

²³ See paragraph 3.7 above.

therefore do not consider that the Courts' judgments in that case are relevant to the interpretation of section 8(5)(b).

The potential impact of COMUGs on technical quality of service

- 3.31 Vodafone and EE both raised concerns that COMUGs would be likely to cause congestion on their networks, leading to adverse effects on technical quality of service. EE explained that congestion caused by COMUGs making high call volumes would be likely to lead to a degradation in voice call quality in the affected cell(s) and that data services could also be affected, given that voice calls are given priority in its network.²⁴
- 3.32 Other respondents did not dispute that COMUGs had the potential to cause congestion on mobile networks, or that such congestion could adversely effect the technical quality of services received by mobile customers.²⁵
- 3.33 We have considered whether use of COMUGs may lead to congestion in the affected cell(s), and consequently whether this would lead to an adverse effect on technical quality of service.
- 3.34 We note that the risks associated with COMUGs are likely to be greatest where the COMUG is used for a high volume of calls. The evidence from EE also suggested that the impact may depend on where the COMUG is located within a cell, with congestion more likely to be caused if the COMUG is located near to the cell edge. However, it is also possible that a COMUG may be operated without causing adverse effects, provided that it does not consume a material proportion of the available capacity in the cell in which it is located.
- 3.35 We do not currently have evidence to indicate whether, in practice, the use of COMUGs is likely to give rise to the potential adverse effects which EE and Vodafone have outlined. For example, we note that the evidence which EE provided in this respect was from 2003 and therefore not necessarily representative of the impact which COMUGs would have today.²⁶
- 3.36 The absence of current evidence on the impact COMUGs are likely to have on mobile networks in practice is unsurprising, given that the use of COMUGs is currently unlawful. However, we note that COSUGs, which can also in principle be used for high volumes of calls, have now been lawful for almost a year (and self-use gateways are also legal). The absence of any recent evidence of adverse effects caused by gateways suggests that the use of COSUGs has not led to significant congestion issues (although we acknowledge that the risks associated with COMUGs may be higher).
- 3.37 We note that the one of the main drivers for the use of gateways in the past was due to the savings they offered when calling from a fixed to a mobile network.²⁷ However,

²⁴ See paragraph 3.20 above.

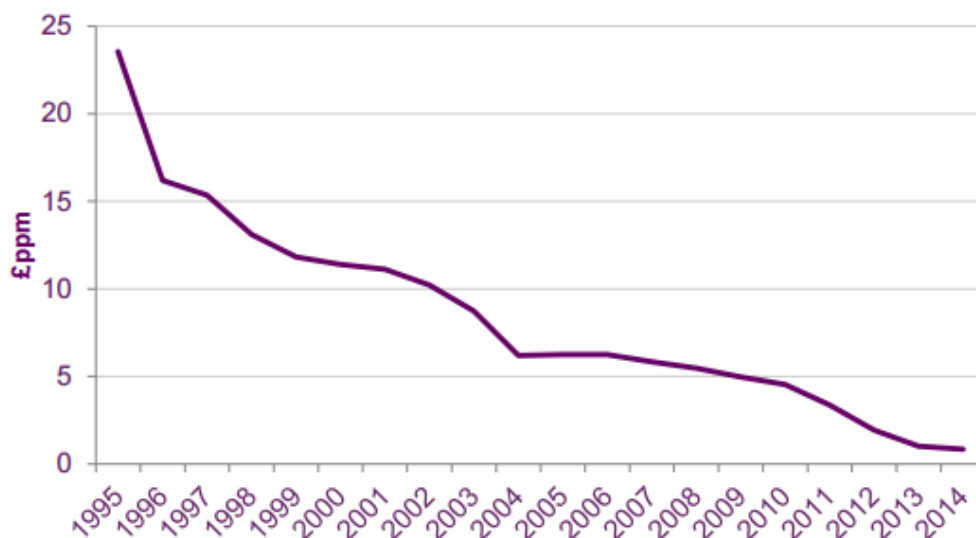
²⁵ Other than Jury O'Shea LLP which, as noted above, disagreed that any impact on mobile services constituted an effect on "technical" quality of service for the purposes of section 8(5)(b) of the 2006 Act.

²⁶ EE response, Figure 1.

²⁷ The price differential was created due to the differential between mobile termination rates for fixed-to-mobile calls as compared to those for on-net mobile calls

mobile termination rates have fallen significantly in recent years.²⁸ This is illustrated in Figure 1 below.

Figure 1: Average MTR in the UK (nominal pence per minute, weighted by subscriber numbers)



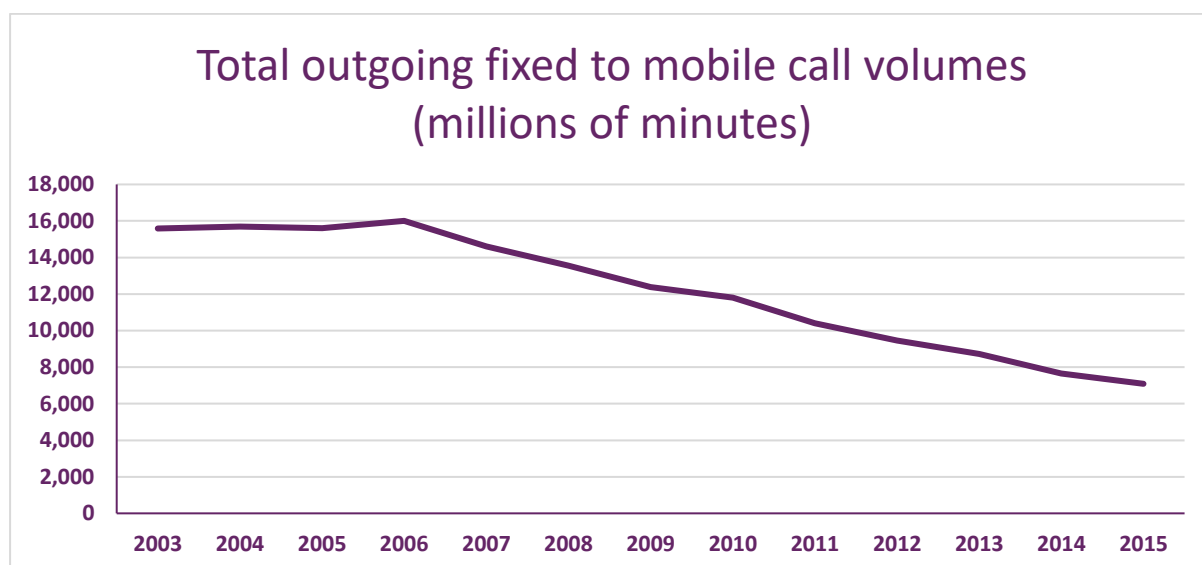
Source: Ofcom's Mobile call termination market review 2015-18

- 3.38 This fall in mobile termination rates suggests that the incentive to use COMUGs for high volumes of calls is likely to have fallen away to a significant degree. Vodafone, for example, told us that as a result of these changes in mobile termination rates the “*use case for COMUGs has now disappeared*” and that COMUG use was to “*a large degree an artefact of a by-gone era*”.²⁹
- 3.39 There has also been a declining trend in the use of fixed to mobile voice calls over the same period as more people use their mobile phones. Figure 2 shows that there has been over a fifty percent decrease in fixed to mobile calls from 2003 to 2015.

²⁸ For example, in 2003 the mobile termination rate was a nominal price per minute of £0.0804 (http://www.wik.org/fileadmin/Konferenzbeitraege/2006/Bill_and_Keep/Teh.pdf whereas the current rate, as set by Ofcom for 2017, is now close to £0.005 (<https://www.ofcom.org.uk/about-ofcom/latest/media/analysts/regulated-prices>).

²⁹ Vodafone response, p.3.

Figure 2: Fixed voice call volumes from 2003 to 2015



Source: Ofcom

- 3.40 We consider that the use of COMUGs is less likely to give rise to significant congestion now than was the case in the past.
- 3.41 We have also taken into account that, to the extent that any congestion might arise, there may be steps available to MNOs to mitigate any impact from COMUGs. For example, MNOs may be able to take steps to increase the capacity of cells affected by COMUG usage (although EE explained that the ability to do so would depend on a range of factors including the ability to upgrade the site in question, and availability of staff and equipment).
- 3.42 It is clear from the responses to the Consultation that at least one MNO (Vodafone) currently actively monitors and terminates SIMs they believe are being used in gateway devices. Vodafone explained that its user contract specifically states that the use of a SIM in a gateway is not allowed and stated that it had no intention to change this provision if COMUGs were authorised.
- 3.43 In addition to concerns related to congestion, EE noted that there may be an impact on technical quality of service for those making or receiving a call made through a COMUG.³⁰ Although we acknowledge that the issues raised by EE may have some impact for some users' experience, we do not believe that this represents a sufficient detrimental impact on the technical quality of service to maintain the requirement for licensing under the 2006 Act. We also note these are issues which may equally affect the use of all gateway devices, irrespective of whether they are from a private gateway, COSUG or COMUG.

Qualified exemption

- 3.44 The only respondent which suggested that a qualified exemption may be appropriate was Vodafone, which stated that if an exemption was to be granted (which it did not support) "*this must only be in circumstances where COMUGs are deployed and operated with the express permission of the licensed mobile operator*". However, EE

³⁰ See paragraph 3.21 above.

was strongly opposed to such a condition on the basis that there would be issues in terms of enforcement and monitoring, and that it may give greater scope for illegal COMUGs to hide behind apparently legitimate operations.³¹ As explained above, we have concluded that the MNOs are best placed to manage any congestion effects raised by COMUGs and do not consider that a conditional exemption on the basis proposed by Vodafone would have any material benefits.

Conclusion

- 3.45 For the reasons set out above we have concluded that the use of COMUGs is not likely to have an adverse effect on technical quality of service to a sufficient degree to warrant the maintenance of the current restriction on the use of COMUGs.

Undue interference and inefficient use of spectrum

- 3.46 In the Consultation we explained that the Courts had considered the potential for equipment to cause undue interference or an inefficient use of spectrum (conditions 8(5)(a) and (c) of the 2006 Act), respectively, and concluded that a restriction on the use of COMUGs could not be justified on either basis. We therefore considered that these issues would only be relevant if new evidence had come to light the substance of which was not before the Courts in the Recall case and which might lead to a different conclusion to that reached in that case.³²

Undue interference

- 3.47 EE and Vodafone were the only stakeholders to comment substantively on the issue of undue interference. EE stated that the adverse effects it outlined in relation to technical quality of service (see above) also constitute harmful interference as defined by the 2006 Act. Vodafone stated that this was one of the “most pertinent” issues (alongside technical quality of service) but did not expand further other than to note that *“having a large volume of co-located user terminals simultaneously transmitting could have an effect on interference to adjacent channels that would warrant further investigation by Ofcom prior to any move to exempt such devices.”*

Inefficient use of spectrum

- 3.48 EE argued that the use of COMUGs inherently represents inefficient use of spectrum, on the basis that it adds an unnecessary mobile leg into a call, stating that this *“needlessly and inefficiently”* caused 100% greater use of the relevant radio spectrum.
- 3.49 EE further considered that the technical characteristics of COMUGs mean that they use a disproportionate amount of capacity compared to mobile phones. It explained that the capacity of a mobile cell is dependent on the way in which it is used, as the cell relies on assumptions about randomness in the nature of calling (length and timing) to ensure that it is used optimally. EE stated that this assumption of randomness breaks down when a cell is used by a COMUG because the very high volumes of traffic on a COMUG effectively “blocks” entire channels in a mobile cell for the COMUG’s use. EE highlighted an example of a COMUG consistently using just 1 channel out of 8 available in a mobile cell, explaining that the reduction in

³¹ EE response, Section 7.

³² Paragraphs 3.22-3.24 of the Consultation.

capacity would not be 1/8 (12.5%) but rather 17% because of the non-linear relationship between capacity and channel usage.

Ofcom's response

- 3.50 We have found no reason to change our position that a commercial use restriction on the use of COMUGs cannot be justified on the basis either of undue interference or inefficient use of spectrum. In particular, we do not consider that the points raised by either EE or Vodafone represent new evidence the substance of which was not considered by the Courts in Recall.

Endangerment to safety of life

- 3.51 In the Consultation, we explained that we did not have any evidence to suggest that the use of COMUGs would be likely to endanger safety of life (condition 8(5)(d) of the 2006 Act) in a way that would justify maintaining the current restriction on COMUGs.³³
- 3.52 In response, the Home Office raised concerns that because the end user location information is not transmitted (only the SIM location and number) that in an emergency this information cannot be used by the emergency services to prevent death or injury or any damage to a person's physical or mental health. They highlighted two examples (kidnapping and sexual exploitation) where this information is vital in helping the police and other agencies to track and identify individuals. They noted that if COMUGs or GSM gateways could be operated so that data could be provided, and done so quickly, then this may reduce their concerns.
- 3.53 EE also stated that COMUGs prevent MNOs from receiving accurate information on caller location (and potentially on Calling Line Identification (CLI)), and providing it to public agencies responsible for law enforcement and emergency assistance and national security.³⁴ This presents a risk to emergency services, law enforcement efforts and national security as the relevant authorities are presented with incorrect information on the location of callers. They note that this was supported by the High Court in the Recall case.
- 3.54 Mr Lloyd-Weston advised that it was possible to trace calls that utilise GSM gateways (COSUGs and COMUGs) and comply with the Regulation of Investigatory Powers Act 2000. He advised that his company never had any problems or issues working with the UK security services or police forces in supplying such call information and that tracing calls over GSM gateways is a simple function as all call records are logged, unlike other services such as VOIP, WhatsApp or Messenger calls.
- 3.55 Jury O'Shea LLP was the only other respondent to comment on this issue, stating that it did not believe that endangering safety of life was a relevant factor in considering whether to exempt the use of COMUGs.

³³ See paragraphs 3.25-3.26 of the Consultation.

³⁴ EE also noted that COMUGs may raise national security concerns. However, under the 2006 Act we are not empowered to take national security considerations into account in deciding whether or not to licence exempt relevant apparatus and equipment. In reaching our decision we have therefore not undertaken a consideration of national security issues relating to COMUGs.

Ofcom's response

- 3.56 When considering the potential for apparatus to endanger safety of life we are primarily interested in any possible direct risk to safety of life that the operation of the apparatus would cause. An example of this is where a device, when transmitting, would interfere with or prevent the operation of safety of life services such as air traffic control radar, public protection and disaster relief systems or other critical safety systems.
- 3.57 On a technical level, we understand that COMUGs operate in accordance to the standards set for mobile handsets. We therefore do not believe that there would be an impact on these safety of life services. Having considered the Consultation responses, we do not consider that the evidence presented to us indicates that the use of COMUGS gives rise to a sufficiently direct and material risk to safety of life that would justify maintaining the current restriction on their use.
- 3.58 In particular, whilst the Home Office's response points to situations in which communications data may be used by emergency services, it does not explain how or why COMUGs present a risk which is any greater or more direct than other lawful means of communications. We note, for example, that masking of caller location/line information is something which can be achieved using other, lawful, means of communications .
- 3.59 On this basis, we have concluded that the concerns raised relate to how apparatus may be used rather than demonstrating that COMUGs inherently endanger safety of life. We do not consider these concerns sufficient to refuse to exempt the use of COMUGs.

Sections 8(5)(e) and (f) of the 2006 Act

- 3.60 Jury O'Shea LLP was the only respondent to comment on the conditions set out in sections 8(5)(e) and (f) of the 2006 Act, simply noting that no one has ever suggested that gateways prejudice the promotion of social, regional or territorial cohesion, or prejudice the promotion of cultural and linguistic diversity and media pluralism.
- 3.61 Our position therefore remains that these issues would not justify maintaining the current restriction on COMUGs.³⁵

Other issues raised by stakeholders

General Conditions of Entitlement

- 3.62 In their responses both EE and Vodafone raised concerns regarding the compliance of COMUG providers with the General Conditions of Entitlement imposed by Ofcom under section 45 of the Communications Act 2003.
- 3.63 Both EE and Vodafone raised concerns regarding compliance with the provisions of General Condition 4 on Caller Location Information, which require the provision of accurate and reliable location information for all calls to the emergency call numbers "112" and "999". They stated that when a call is made through a COMUG the

³⁵ See paragraphs 3.25-3.26 of the Consultation.

information provided would be the location of the COMUG rather than the end-user making the call.

- 3.64 Vodafone also raised concerns over compliance with General Condition 16 regarding the provision of additional services such as Caller Line Identification that allows the receiving party to see the incoming call number, as again the number provided would be of the COMUG and not the original calling party. They also questioned why Ofcom would see fit to liberalise apparatus under the 2006 Act, if using that equipment would put the operator in clear breach of conditions under the Communications Act 2003.

Ofcom's response

- 3.65 Although we note the concerns raised regarding compliance with the General Conditions these are not considerations which we are able to take into account when considering authorisation under sections 8(4) and (5) of the 2006 Act. However, it should be noted that all providers of electronic communications networks and services must comply with the General Conditions and Ofcom will enforce these obligations.

Citizen and consumer interest and Ofcom's wider duties

- 3.66 Mr Mittens and Mr Lowery advised that by not allowing the use of COMUGs Ofcom had failed in its duties to further the interests of citizens and consumers in regards to competition. Mr Mittens and Mr Lowery argued that the decision on whether to licence exempt the use of COMUGs should not be based on discredited technical issues but on matters of fair competition and business / consumer benefit.
- 3.67 EE stated that any changes to legislation would have the effect of limiting MNOs' ability to deploy coverage enhancing mobile repeaters on public transport and/or making use of COMUGs licence exempt would be contrary to Ofcom's principal statutory duties to further the interests of citizens in relation to communications matters and secure the optimal use for wireless telegraphy of the electro-magnetic spectrum under section 3 of the Communications Act 2003, as well as its duties under section 3 of the 2006 Act and Articles 8 and 9 of the Framework Directive.

Ofcom's response

- 3.68 Our assessment has taken into account our statutory duties and we consider that our decision, set out in section 4 below, is consistent with those duties. In response to the point raised by EE regarding the authorisation of other types of devices, we would like to confirm that the changes considered in this decision only relate to network user equipment (e.g. handsets, dongles, etc.) and not base stations or repeaters. We note that the latter are already covered as part of the 2006 Act licences issued to MNOs.

Section 4

Ofcom's decision and notice of proposed regulations

- 4.1 This section sets out our decision to exempt the use of COMUGs from the requirement to obtain a licence under section 8(1) of the 2006 Act and gives notice of our proposal to make regulations to give effect to this decision.

Decision

- 4.2 We have considered the responses to the Consultation, outlined in section 3, and have decided to proceed with making the use of COMUGs licence-exempt.
- 4.3 As explained in the Consultation, we have taken our decision by reference to the conditions set out in section 8(5) of the 2006 Act. We considered that the most relevant condition to our decision was that set out in section 8(5)(b), relating to the impact of COMUGs on technical quality of service. We set out our assessment of this issue in section 3.
- 4.4 In this document we acknowledge that the use of COMUGs has the potential to have an adverse effect on technical quality of service in certain circumstances. Nevertheless, we have concluded that it is appropriate to licence-exempt COMUGs and we are therefore proceeding with proposals to make regulations to give effect to this decision (see below).
- 4.5 This is because we consider that the likelihood of COMUGs causing congestion on mobile networks has reduced significantly as a result of the reductions in mobile termination rates in recent years. We also consider that the MNOs are best placed to manage any congestion effects created by COMUGs (e.g. through increased cell capacity and/or contractual arrangements). We note that this is the same approach adopted in other European countries (the Netherlands, Ireland and Germany amongst others have no legal restrictions on the use of COMUGs).
- 4.6 In reaching our decision, we have also taken into account that there is emerging interest in using devices which COMUGs for purposes other than the conversion of fixed-to-mobile calls. For example, during the consultation we became aware that there is interest in using COMUGs to provide in-band backhaul services (e.g. train WIFI backhaul, microcell backhaul), which may bring citizen and consumer benefits depending upon how they develop.
- 4.7 We understand that it is likely that these services would be used to backhaul information to the network from the same location / proximity as the person using the data (similar to a COSUG). If a COMUG was used for backhaul then the provider would likely not want to cause congestion as this would directly impact on them as this would lead to slower speeds and data throughput. When considering these uses it was difficult to differentiate technically between devices for in-band backhaul and a COMUG; other than that these devices mainly transfer data rather than calls.

- 4.8 In summary, we have concluded that the use of COMUGs is not likely to have an adverse effect on technical quality of service to a sufficient degree to warrant the maintenance of the current restriction on the use of COMUGs. We have also concluded that the other conditions set out in section 8(5) of the 2006 Act do not justify refusing to licence-exempt COMUGs. We therefore have decided to exempt COMUGs.

Notice of proposed regulations

- 4.9 To implement this decision, we will need to amend the 2003 Exemption Regulations. This notice is given in accordance with section 122(4) and (5) of the 2006 Act and covers a proposal to make a Statutory Instrument.
- 4.10 Ofcom has the power under sections 8(3) and 122(7) of the 2006 Act to make regulations to provide for such exemptions and exceptions as it thinks fit in respect of wireless telegraphy licences and to make different provision for different cases. Ofcom proposes to make regulations amending the exception to the exemption provided for in the 2003 Exemption Regulations.
- 4.11 The Proposed Regulations set out how we intend to amend the 2003 Exemption Regulations in respect of the establishment, installation and use of prescribed apparatus. A draft of the Proposed Regulations is set out at Annex 2 and their general effect is set out in Section 5 below. A regulatory impact assessment is set out at Annex 3.
- 4.12 Comments or representations with respect to the proposed regulations are invited by **5pm on 8 August**.³⁶ Comments should be sent to:
- Eniola Awoyale
Ofcom
Riverside House
2a Southwark Bridge Road
London
SE1 9HA
- email: Eniola.Awoyale@Ofcom.org.uk
- 4.13 Following completion of the consultation process, Ofcom intends to make the final regulations as soon as practicable.

³⁶ Under s122(6) of the Wireless Telegraphy Act 2006, the time specified must be at least one month from publication of the notice.

Section 5

General effect of the proposed Wireless Telegraphy (Exemption) (Amendment) Regulations 2017

The Legislative Framework

- 5.1 As previously stated, under section 8(1) of the 2006 Act it is an offence to install or use equipment to transmit without holding a licence granted by Ofcom, unless the installation or use of such equipment is exempted. Ofcom can exempt the establishment, installation and use of wireless telegraphy equipment by making regulations under section 8(3) of the 2006 Act.

Extent of application

- 5.2 The Proposed Regulations will apply in the United Kingdom, the Channel Islands and the Isle of Man, subject to formal agreement of the Island Authorities.

The Proposed Regulations

- 5.3 A draft of the Proposed Regulations is set out in Annex 2.
- 5.4 Regulation 1 sets the date when the Proposed Regulations would come into force;
- 5.5 Regulation 2 advises that the Proposed Regulations will amend the 2003 Exemption Regulations.
- 5.6 Regulation 3 amends regulation 3(1) of the 2003 Exemption Regulations by omitting the definition of “body”.
- 5.7 Regulation 4 amends regulation 4 of the 2003 Exemption Regulations by introducing additional circumstances in which the exemption in regulation 4(1) of the principal Regulations shall apply.

Annex 1

Respondents

BT / EE

Anthony Lloyd-Weston

Daniel Mahony

David O'Reilly

Home Office

Jury O'Shea LLP

John Mittens & Christopher Lowery

Vodafone

Proposed Regulations

[DRAFT]

2017 No. 0000

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Exemption) (Amendment) Regulations 2017

Made - - - - [xxxx]

Coming into force - - [xxxx]

The Office of Communications (“OFCOM”) make the following Regulations in exercise of the powers conferred by sections 8(3) and 122(7) of the Wireless Telegraphy Act 2006⁽¹⁾ (the “Act”).

Before making these Regulations, OFCOM have given notice of their proposal to do so in accordance with section 122(4)(a) of the Act, published notice of their proposal in accordance with section 122(4)(b) of the Act, and have considered the representations made to them before the time specified in the notice in accordance with section 122(4)(c) of the Act.

Citation and commencement

1. These Regulations may be cited as the Wireless Telegraphy (Exemption) (Amendment) Regulations 2017 and shall come into force on [xxx].

Amendment of the Wireless Telegraphy (Exemption) Regulations 2003

2. The Wireless Telegraphy (Exemption) Regulations 2003⁽²⁾ (the “principal Regulations”) shall be amended in accordance with the following Regulations.

Amendment of regulation 3

3. In regulation 3(1) of the principal Regulations, omit the following definition —

““body” means a body corporate or an unincorporated association;”.

Amendment of regulation 4

¹ 2006 c. 36.

² S.I. 2003/74, amended by S.I. 2003/2155, 2005/3481, 2006/2994, 2008/236, 2008/2426, 2010/2512, 2011/2950, 2013/1254, 2016/486, 2016/1075.

4.—(1) In regulation 4 of the principal Regulations:

(a) omit paragraph (2);

(b) in paragraph (3), for the words “for the purposes of paragraph (2)” substitute “for the purposes of paragraph (4)”; and

(3) omit paragraph (5).

Annex 3

Regulatory Impact Assessment

Introduction

- A3.1 Ofcom acts in accordance with Government practice that, where a statutory regulation is made, a Regulatory Impact Assessment (RIA) must be undertaken. We also comply with our duty under section 7 of the Communications Act 2003 (“the 2003 Act”) to undertake impact assessments.
- A3.2 The analysis in this document is a regulatory impact assessment relating to the Wireless Telegraphy (Exemption) (Amendment) Regulations 2017 (the “Proposed Regulations”). It is consistent with the Government practice on RIAs and Ofcom’s duty under the 2003 Act.
- A3.3 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the 2003 Act, which imposes a duty on Ofcom to carry out impact assessments where our decisions would be likely to have a significant effect on businesses or the general public, or when there is a major change in our activities.
- A3.4 As a matter of policy we are committed to carrying out and publishing impact assessments in relation to the great majority of our policy decisions. For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom’s approach to impact assessment, which are on our website: http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf.
- A3.5 This RIA relates to our proposals with regards commercial multi user gateway devices (COMUGs). A gateway is a device that uses multiple SIM cards issued by a mobile network operator (MNO) to enable the transfer of calls from a fixed network to a mobile network. Gateways have typically been used to reduce the cost of making fixed-to-mobile calls, as calls made using these devices are treated by the recipient’s network as ‘on-net’ and thereby take advantage of lower charges / free call bundles.

Legislative background

- A3.6 In the UK, we are responsible for authorising civil use of the radio spectrum and achieve this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 (the “2006 Act”) and by making regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the 2006 Act, it is an offence to install or use equipment to transmit without holding a licence granted by us, unless the use of such equipment is exempted.
- A3.7 Under section 8(3) of the 2006 Act, Ofcom may make regulations exempting from the licensing requirement under section 8(1) the establishment, installation or use of wireless telegraphy stations or wireless telegraphy apparatus of such classes or descriptions as may be specified in the regulations, either absolutely or subject to such terms, provisions and limitations as may be specified. When making such regulations, section 122(7) of the 2006 Act enables Ofcom to make such exemptions and exceptions as it thinks fit and to make incidental, supplemental,

consequential and transitional provisions.³ Under section 8(4) of the 2006 Act, we have to make regulations to exempt equipment if conditions set out in section 8(5) are met. Those conditions are that the installation or use of the equipment is not likely to:

- involve undue interference with wireless telegraphy;
- have an adverse effect on technical quality of service;
- lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
- endanger safety of life;
- prejudice the promotion of social, regional or territorial cohesion; or
- prejudice the promotion of cultural and linguistic diversity and media pluralism.

A3.8 In accordance with the requirements of section 8(3B) of the 2006 Act, the terms, provisions and limitations specified in the regulations must be:

- objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate;
- not such as to discriminate unduly against particular persons or against a particular description of persons;
- proportionate to what they are intended to achieve; and
- transparent in relation to what they are intended to achieve.

Proposal

A3.9 This impact assessment relates to the decision to make the Proposed Regulations that would amend the Wireless Telegraphy (Exemption) Regulations 2003 (the “Principal Regulations”). This is to make a change to provisions relating to the use of wireless apparatus that connects to a telecommunication service and is used to provide services by way of business to another person.

A3.10 An example of one of these devices is a mobile Gateway (“Gateway”). This is a device incorporating one or more SIM cards created and issued by a mobile network operator (MNO), which allows the device on which the SIM card is installed, to originate calls on that MNO’s network. As a result, calls from fixed lines to mobile networks are treated by the recipient’s network as if they were made by a mobile phone using that SIM card in the gateway, rather than made from the fixed line phone. This means the cost of the call is reduced. Gateways may be used in different ways:

³ Under section 8(3B) of the 2006 Act, the terms, provisions and limitations specified in regulations made under section 8(3) must be: (a) objectively justifiable in relation to the wireless telegraphy stations or wireless telegraphy apparatus to which they relate; (b) not such as to discriminate unduly against particular persons or against a particular description of persons; (c) proportionate to what they are intended to achieve; and (d) transparent in relation to what they are intended to achieve.

- i) a self-use gateway - where a single end-user organisation or individual establishes, installs and/or uses the gateway for its own use; or
- ii) where a third party provides electronic communications services by way of a business. This allows the GSM gateway operator to provide the capability to deliver an 'off-net' call, by purchasing an 'on-net call'. This may be in the form of:
 - o a commercial single-user gateway ('COSUG'), so that all the calls diverted through the gateway come from one end-user; or
 - o a commercial multi-user gateway ('COMUG'), so that the calls diverted through the gateway come from multiple end-users.

A3.11 Regulation 4(1) of the Principal Regulations provides an exemption from the requirement to obtain a licence from Ofcom under section 8(1) of the 2006 Act, in relation to relevant apparatus set out in Schedules 3 to 10 of the Principal Regulations. Regulation 4(2) of the Principal Regulations provides an exception to the exemption set out in Regulation 4(1): namely, that the exemption shall not apply to relevant apparatus which is established, installed or used to provide or to be capable of providing a wireless telegraphy link between electronic communications apparatus or an electronic communications network and other such apparatus or system, by means of which an electronic communications service is provided by way of business to another person. This has the effect of excluding COMUGs from the exemption provided for in Regulation 4(1). Currently the Principal Regulations allow for the use of private gateways and COSUGs.

A3.12 The Proposed Regulations will give legislative effect to Ofcom's decision in regards to removing the restrictions set out in Regulation 4(2) of the Principal Regulations. This would allow the establishment, installation and use of COMUGs without the need to hold a licence issued under the 2006 Act.

Citizen and consumer interest

A3.13 Our principal duty under section 3 of the 2003 Act is to further the interests of citizens in relation to communications matters; and of consumers in relevant markets, where appropriate by promoting competition. We take account of the impact of our decisions upon both citizen and consumer interests in the markets we regulate. We must, in particular, secure the optimal use for wireless telegraphy of spectrum and have regard to the principle under which all regulatory activities should be targeted only at cases in which action is needed.

A3.14 The current regulatory regime prevents the use of COMUGs. However, by allowing the use of COMUGs to deliver broadband backhaul services and helping to extend internet /mobile coverage (e.g. on vehicles and remote locations), this could deliver consumer benefits depending upon how these services develop.

Equality Impact Assessment

A3.15 We are required by statute to assess the potential impact of all our functions, policies, projects and practices on the following equality groups: age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief and sexual orientation— an Equality Impact Assessment (EIA) is our way of fulfilling these obligations.

A3.16 Following an initial assessment of our policy proposals and decision we considered that it was reasonable to assume that any impacts on consumers and citizens arising from the Proposed Regulations in most cases would not differ significantly between groups or classes of UK consumers and citizens, all of whom would have access to these services, potentially at end-user prices reflective of all general input costs, including opportunity costs of spectrum used. We have not identified any particular impact in relation to the identified equality groups and we do not envisage that the Proposed Regulations are likely to be to the detriment of any group in society. Nor have we seen the need to carry out separate EIAs in relation to the additional equality groups in Northern Ireland: religious belief, political opinion and dependants. This is because we anticipate that our proposals will not have a differential impact in Northern Ireland compared to consumers in general.

Our policy objective

A3.17 We seek wherever possible, to reduce the regulatory burden upon our stakeholders, in this instance users of the radio spectrum. One way in which we can do this is to remove the need for spectrum users to apply for individual licences to authorise the use of radio equipment. Exemption is realised by describing the details of equipment and the parameters under which it may be used in a Statutory Instrument (secondary legislation called Regulations) that exempts users of such equipment from the need to hold a licence provided they comply with the terms of the regulations. The Proposed Regulations give legislative effect to the decision of Ofcom in regards to COMUGs by exempting the establishment, installation and use of these devices from the requirement to obtain a licence from Ofcom under the 2006 Act.

Options considered

A3.18 We have considered three options.

- i) Licence exempt use – making changes to the Principal Regulations that would allow the use of COMUGs on a licence exempt basis.
- ii) Qualified licence exemption – making changes to the Principal Regulations that would allow the use of COMUGs on a licence exempt basis but only if used under certain circumstances or subject to technical restrictions.
- iii) Keep the status quo – not making changes to the Principal Regulations that would allow the use of COMUGs on a licence exempt basis.

Analysis of options

A3.19 We considered whether the evidence provided regarding the conditions set out in section 8(5) of the 2006 Act, in particular the potential for adverse effects on technical quality of service, justified maintaining the current restriction on the use of COMUGs.

A3.20 Although we acknowledge there is some risk of an adverse impact on technical quality of service on mobile networks where high call volumes lead to congestion, we do not consider this is sufficient to maintain the restriction on the use of COMUGs. This is because the business case originally behind the use of COMUGs (the cost of mobile termination rates) is no longer a significant factor.

- A3.21 Exemption would place the responsibility on MNOs to manage their networks (for example managing capacity and/or contractual arrangements). This would align the UK with the legal position in other European countries such as the Netherlands, Ireland and Germany. We did not consider that a qualified exemption would provide material benefit in mitigating the potential risks of congestion created by COMUGs.
- A3.22 We have also taken into consideration that there is interest in using COMUG type devices to provide data backhaul services (e.g. train WIFI backhaul, microcell backhaul), which may bring citizen and consumer benefits.

Cost to Ofcom

- A3.23 There are one-off administrative costs associated with making Regulations. We considered that the implementation costs to be low, both in absolute terms and in comparison to licensing alternatives. These may involve an auction or the maintenance of a renewable licence scheme. Moreover, the costs such as they are will also be offset by the benefits to business and consumer outlined above.
- A3.24 A qualified exemption approach may lead to additional costs for Ofcom involved with enforcing any conditions imposed.

Cost to business

- A3.25 Costs to business are likely to be lower under a licence-exemption approach than the requirement for users to obtain individual licences. Licence-exemption represents the least cost regulatory approach to authorisations on the use of spectrum. For example, if use of spectrum is authorised through a 2006 Act licence, businesses face administrative costs associated with applying for the licence. In addition, there are licence charges that must be paid on the initial issue of the licence and on its renewal.
- A3.26 Allowing the use of user devices to provide commercial in-band backhaul services may provide benefits to businesses, including MNOs, as these solutions may provide lower cost opportunities than other technologies in certain circumstances.
- A3.27 There is a risk that by exempting the use of COMUG this would increase the number of gateways deployed on mobile networks. This may require additional resources to be deployed by MNOs to monitor their network and take any necessary action to prevent misuse. However, it is likely that the cost of full exemption may be lower than a qualified exemption approach under which MNOs may need to deal with requests for access/coordination from COMUG providers and monitor whether a COMUG on their network was legal before considering whether to take any action.

Preferred option

- A3.28 We analysed the options above and concluded that the appropriate course of action would be licence exempt COMUGs and give responsibility for addressing any network congestion issues to the MNOs.