The scope of the mobile operators' 2G cellular licences issued under section 1(1) of the Wireless Telegraphy Act 1949 and the legal status of the use of GSM gateways

An Ofcom statement for comment

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Contents

Section 1

Summary

This document has been issued following a judgment of the Competition Appeal Tribunal in an appeal brought by Floe Telecom Limited against a decision of the Director General of Telecommunications. Following this judgment, Ofcom undertook to open a new investigation into Floe Telecom Limited's complaint. In its judgment the Competition Appeal Tribunal identified certain issues relevant to this investigation that Ofcom should seek representations on.

This statement sets out that the mobile operators' 2G cellular licences do not cover the use of GSM gateways. It also confirms that UK law prohibits the commercial operation of GSM Gateways.

In this document Ofcom also identifies certain issues relevant to the compatibility of the current legal position with the RTTE Directive and the Authorisation Directive, and to the desirability of maintaining the restriction on the commercial operation of GSM Gateways.

Interested parties are invited to comment on any of the matters discussed in this statement by 31 March 2005.

Section 2

Introduction

Background

1. On 19 November 2004, the Competition Appeal Tribunal (the "CAT") issued its judgment in an appeal brought by Floe Telecom Limited ("Floe") against a decision of the Director General of Telecommunications (the "Director") dated 3 November 2003[1]. The Director had decided that Vodafone Limited ("Vodafone") had not infringed the Chapter II prohibition in the Competition Act 1998 (the "1998 Act") by disconnecting GSM gateways operated by Floe[2].

2. The CAT concluded that the Director's decision was based on incorrect and/or inadequate reasoning. By an Order made on 1 December 2004[3], the CAT has remitted the case back to Ofcom to re-investigate[4]. Ofcom has also undertaken to re-investigate at the same time another case, which concerned the disconnection by T-Mobile (UK) Limited ("T-Mobile") of GSM gateways operated by VIP Communications Limited ("VIP")[5].

3. The CAT's judgment in the Floe appeal identified various issues which require further consideration by Ofcom in order to reach a decision as to whether Vodafone has infringed the Chapter II prohibition[6]. These include the proper construction of Vodafone's 2G cellular licence issued under section 1(1) of the Wireless Telegraphy Act 1949 and its compatibility with the RTTE Directive[7] and the Authorisation Directive[8].

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[1] Case 1024/2/3/04, *Floe Telecom Limited (in administration) v. Office of Communications*, [2004] CAT 18, available at: http://www.catribunal.org.uk/documents/Jdg1024Floe191104.pdf

[2] http://www.ofcom.org.uk/static/archive/oftel/publications/mobile/2003/gsm1103.pdf

[3] http://www.catribunal.org.uk/documents/Jdg1024Floe191104.pdf

[4] As of 29 December 2003, the office of the Director has ceased to exist and his functions have been transferred to Ofcom. Ofcom is empowered to exercise certain functions under the Competition Act 1998 by virtue of section 371(1) of the Communications Act 2003. Details of Ofcom's new investigation can be found at http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_805/?a=87101

[5] This case was the subject of a separate appeal by VIP (Case 1027/2/3/04, *VIP Communications Limited v. Office of Communications*). The VIP appeal was stayed pending the outcome of the Floe appeal. Details of Ofcom's new investigation can be found at http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ocases/open_all/cw_806/?a=87101

[6] Paragraph 287 of the CAT's judgment.

[7] Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

[8] Directive 2002/20/EC on the authorisation of electronic communications networks and services.

The scope of this statement

(i) The scope of the mobile operators' 2G cellular licences

4. The primary purpose of this statement is to set out the scope of the mobile operators' 2G cellular licences.

(ii) The legal status of the use of GSM Gateways

5. GSM gateways are devices containing one or more subscriber identity modules (SIMs) for one or more mobile networks, which enable calls from fixed phones to mobile networks to be routed directly via a GSM link into the relevant mobile network. A call made via a GSM gateway appears to the mobile network to have originated from a mobile registered to that network and so may attract a cheaper call rate than an ordinary fixed to mobile call.

6. Ofcom recognises that there may be a degree of uncertainty regarding the precise legal status of the use of GSM gateways. In the interests of clarity, Ofcom considers it appropriate to include in this statement an explanation of the legal status of the use of GSM gateways in the UK.

(iii) The compatibility of the current legal position with the RTTE Directive and the Authorisation Directive

7. Ofcom has identified certain issues relevant to the compatibility of the current legal position with the RTTE Directive and the Authorisation Directive and to the desirability of maintaining the current legal position. Stakeholders are invited to comment on the issues raised.

The structure of this statement

8. The remainder of this statement is structured as follows:

- Section 3 provides an overview of the current regime for authorising use of the radio spectrum in the UK and how this fits in with the Authorisation Directive.

- Section 4 sets out the scope of the mobile operators' 2G cellular licences.

- Section 5 sets out the legal status of the use of GSM gateways.

- Section 6 sets out certain issues relevant to the compatibility of the current legal position with the Authorisation Directive and the RTTE Directive and to the desirability of maintaining the current legal position.

9. Interested parties are invited to comment on any of the matters discussed in this statement by 31 March 2005. Details of how to respond are set out in the Annex. These representations will then be taken into account by Ofcom in making its decisions in the new Floe and VIP investigations.

Section 3

The UK regime for authorising the use of the radio spectrum

10. The radio spectrum is a finite resource for which demand generally exceeds supply. This means that the use of frequencies needs careful planning in order to make the best use of the available spectrum, as well as ensuring that minimum interference is caused to authorised radio users. Prior to 29 December 2003, the Radiocommunications Agency ("RA"), an executive agency of the Department of Trade and Industry, was responsible for managing the non-military radio spectrum in the UK. The RA's functions have now been transferred to Ofcom.

11. The current regime for authorising the use of the radio spectrum in the UK is established principally by the Wireless Telegraphy Act 1949 (the "WTA") and a series of regulations and orders made pursuant to the WTA.

12. Section 1(1) of the WTA makes it a criminal offence to establish or use any station for wireless telegraphy or install or use any apparatus for wireless telegraphy except under the authority of a licence granted by Ofcom or unless exempted from the requirement for a licence by regulation made by Ofcom[9].

13. Licences granted by Ofcom pursuant to section 1(1) of the WTA authorise the person or persons named in the licence to establish, install or use certain defined radio equipment within certain specified frequencies and subject to the conditions set out in the licence. Further information about radio spectrum licensing is set out in Ofcom's Licensing Policy Manual[10].

14. Section 1(1) of the WTA gives Ofcom the power to exempt the establishment or use of any station for wireless telegraphy or the installation or use of any apparatus for wireless telegraphy from the requirement to hold a licence. Such exemption may be either absolute or subject to specified terms, provisions or limitations.

15. The Wireless Telegraphy (Exemption) Regulations 2003 (the "Exemption Regulations")[11] were adopted pursuant to section 1(1) and section 3(1)(a) and (b) of the WTA. Regulation 4(1) of the Exemption Regulations exempts from the requirement for a licence the establishment, installation and use of "relevant apparatus", which is defined by reference to schedules 3 to 9 to the Regulations. Regulation 4(2) imposes a condition on the use of certain "relevant apparatus". It provides that, with the exception of apparatus operating in certain specified frequency bands, the exemption does 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*

[9] Prior to 29 December 2003, the power to grant exemptions from the requirement for a licence was exercised by the Secretary of State.

[10] http://www.ofcom.org.uk/licensing_numbering/radiocomms/licensing/licensing_policy_manual/?a=87101

[11] SI 2003/74 as amended.

an electronic communications service is provided by way of business to another person".

The Authorisation Directive

16. On 25 July 2003, a new regulatory framework for the regulation of electronic communications networks and services entered into force. The basis for this new framework, which is designed to create harmonised regulation across Europe and is aimed at reducing entry barriers and fostering prospects for effective competition to the benefit of consumers, is five new EU Communications Directives.

17. One of the new EU Communications Directives, the Authorisation Directive, is aimed at implementing an internal market in electronic communications networks and services through the harmonisation and simplification of authorisation rules and conditions in order to facilitate their provision throughout the Community.

18. Recital 7 of the Authorisation Directive states that "*the least onerous authorisation system possible should be used to allow the provision of electronic communications networks and services…*".

19. This approach is reflected in Article 3(2) of the Authorisation Directive, which sets out a general rule that the provision of electronic communications networks and services may, subject to certain exceptions, only be subject to a general authorisation, i.e. an undertaking wishing to provide an electronic communications network or service should not be required to obtain an explicit decision or other administrative act, such as the issuing of a licence, by a national regulatory authority before exercising the rights stemming from the authorisation.

20. Where radio frequencies are used to provide electronic communications networks and services, it may not be appropriate to make the use of such radio frequencies subject to a general authorisation. This may be the case, for example, where there is a risk of harmful interference associated with unrestricted use of the radio spectrum. For this reason, Article 5 of the Authorisation Directive qualifies the general rule established by Article 3(2). Article 5(1) states that, "*where possible, in particular where the risk of harmful interference is negligible*", the use of radio frequencies should be made subject to a general authorisation, rather than to the grant of individual rights of use, such as the need to obtain a licence. In other words, where a particular type of use of the radio spectrum creates a more than negligible risk of harmful interference, a Member State may make such use of the radio spectrum subject to individual rights of use, should it consider this appropriate.

21. Article 6(1) and the Annex to the Authorisation Directive set out the types of conditions which may be attached to the general authorisation or individual rights of use for radio frequencies. Such conditions must be objectively justified in relation to the network or service concerned, non-discriminatory, proportionate and transparent.

22. In the UK, Article 3(2) of the Authorisation Directive has been implemented by abolishing the previous licensing regime for telecommunications systems established under the Telecommunications Act 1984 and introducing a new

general authorisation regime for electronic communications networks and services established under the Communications Act 2003 (the "2003 Act")[12].

23. Concerning the use of radio frequencies for the provision of electronic communications networks or services, the UK has chosen to maintain in force the licensing regime established under section 1 of the WTA. Where Ofcom (or previously the Secretary of State) has not granted an exemption from the requirement for a licence under section 1(1) of the WTA, the authorisation to use radio frequencies therefore remains subject to individual rights of use, rather than a general authorisation. However, where an exemption is adopted, such as the Exemption Regulations, this constitutes a general authorisation for the purposes of Article 5(1) of the Authorisation Directive. Any terms, provisions or limitations on the scope of the exemption (other than those which define the scope of the exemption) constitute conditions attached to the general authorisation pursuant to Article 6(1) of the Authorisation Directive. In order to ensure compliance with Article 5(1) of the Authorisation Directive and to ensure that the UK authorisation regime remains "*the least onerous authorisation system possible*" (in accordance with Recital 7 of the Authorisation Directive), section 1AA has been inserted in the WTA, which requires Ofcom to exempt from the individual licensing regime the establishment, installation and use of radio equipment that is not likely to involve any undue interference.

[12] The general conditions of entitlement can be found at: http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/cond_final0703.pdf

Section 4

The scope of the mobile operators' 2G cellular licences issued under section 1(1) of the Wireless Telegraphy Act 1949

24. Vodafone Ltd, T-Mobile (UK) Ltd, Orange Personal Communication Services Ltd and O2 (UK) Limited (the "mobile operators") have all been granted licences under section 1(1) of the WTA in relation to their second generation cellular networks (the "2G cellular licences"). Insofar as relevant, the mobile operators' licences are in identical terms.

25. This section sets out the scope of those licences, including whether the licences cover, or enable the mobile operators to authorise, the use of GSM gateways under the auspices of the licence.

The scope of the 2G cellular licences

26. Condition 1 of the 2G cellular licences states that the licence authorises the relevant licensee "*to establish, install and use the radio transmitting and receiving stations and/or radio apparatus as described in the schedule to the licence (the "Radio Equipment")*".

27. Paragraphs 1 and 2 of schedule 1 of those licences set out a description of what constitutes Radio Equipment and the purpose of such equipment:

    "*1. <u>Description of Radio Equipment Licensed</u>*

    In this Licence, the Radio Equipment means the base transceiver station or repeater stations forming part of the Network (as defined in paragraph 2 below).

    2. <u>Purpose of the Radio Equipment</u>

    The Radio Equipment shall form part of a radio telecommunications network (the "Network") in which approved user stations communicate by radio with the Radio Equipment to provide a telecommunications service for customers".

28. GSM gateways do not constitute Radio Equipment as defined above. They are not "base transceiver stations" or "repeater stations" as set out at paragraph 1 of Schedule 1 to the 2G cellular licences. The reasons for Ofcom's view are outlined further below.

The GSM system

29. A mobile operator's second generation (2G) radio telecommunications network is designed around the Global System for Mobile Communications ('GSM').

30. The European Conference of Postal and Telecommunications Administrations ('CEPT') originally began the GSM standardisation process. In 1988, CEPT created the European Telecommunications Standards Institute ('ETSI'), into which all its telecommunication standardisation activities were transferred. The first GSM standards (phase 1 GSM900 specifications) were published in 1990.

31. ETSI describes itself as "an independent, non-profit organization, whose mission is to produce telecommunications standards for today and for the future"[13] ETSI is currently comprised of 688 members from 55 countries. ETSI has specified the architecture of the GSM System in a series of reference documents, and the definitions that are used in this section are derived from these ETSI reference documents. An overview of the standards used in the GSM System can be found in the ETSI GSM technical specification 03.02[14].

32. Standardisation by ETSI means that the key elements of the GSM System, and the interfaces[15] between them, are well defined and commonly understood. This ensures interoperability between equipment manufactured by different vendors and ensures mobile network operators are able to mix and match equipment from different vendors within their network with minimal operational overhead.

33. Two key elements of the GSM System are the Base Station System ('BSS') and the Mobile Station ('MS'). These key elements, and the interfaces between them, are summarised in the following simplified diagram:

[13] http://www.etsi.org
[14] ETSI document ETS 300 522 – Digital cellular telecommunications system (Phase 2+); Network architecture). This document and ETSI's other reference documents relating to the GSM System are available free of charge on ETSI's website.
[15] An interface is a set of technical characteristics describing the point of connection between electronic communications entities – for example, between two electronic communications networks or between an electronic communications network and customer apparatus.

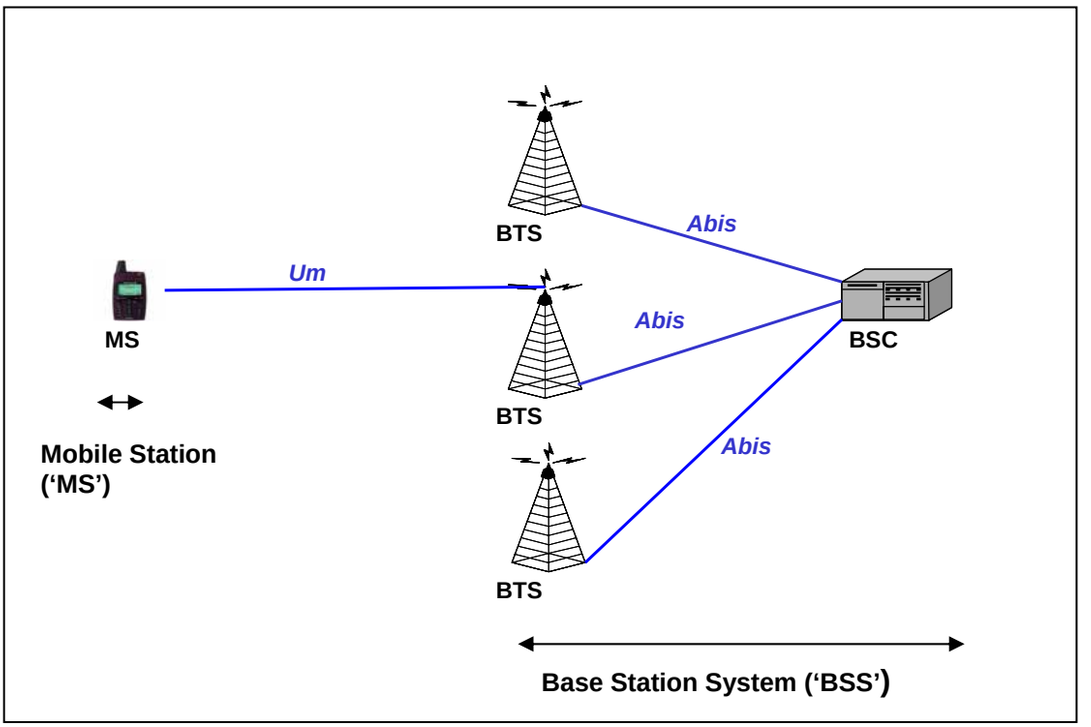

Figure 1: The Base Station System and the Mobile Station

The Base Station System

34. The Base Station System is the system of base station equipment responsible for communicating with Mobile Stations in a certain area. The Base Station System is sub-divided into one or more Base Transceiver Stations ('BTS') and one Base Station Controller ('BSC').

35. A Base Transceiver Station, which is referred to in the definition of Radio Equipment set out in paragraph 1 of Schedule 1 of the mobile operator's 2G cellular licence, provides GSM radio coverage within a cell (i.e. a particular geographic area of the mobile network). It comprises radio transmitting and receiving equipment.

36. The role of the Base Station Controller is to manage the radio resources supported by a number of Base Transceiver Stations. Part of this role is to coordinate the handover of calls in progress between different Base Transceiver Stations as the mobile user moves between cells.

37. A repeater station, which is also referred to in the definition of Radio Equipment set out in paragraph 1 of Schedule 1 of the mobile operator's 2G cellular licences, is a device that receives a radio signal, amplifies it and retransmits it. Although not set out in Figure 1, repeater stations are used in radio telecommunications networks to extend the range of Base Transceiver Station signals or to deal with areas that present certain difficulties (for example, they would be used where there is hilly terrain between Base Transceiver Stations). A repeater station receives the radio signal, amplifies it and re-transmits it without decoding or otherwise processing the information within it.

The Mobile Station

38. The Mobile Station ('MS') is the ETSI standardised term which is used to describe the physical equipment (normally a mobile phone) used by a subscriber to access the mobile operator's network. In practice, the Mobile Station is comprised of the Mobile Equipment ('ME') and a Subscriber Identity Module ('SIM').

The 'Um' and 'Abis' GSM interfaces

39. The radio transmitting and receiving equipment used by the Mobile Station and the Base Transceiver Station operate on different frequencies. As set out in Figure 1, the Um interface ('Um') defines the respective roles of the Base Transceiver Station and the Mobile Station, and specifies the interface between them. The Um interface is described in detail in the 04- and 05-series of GSM Technical Specifications, the 05-series focussing on the physical layer radio interface.

40. Therefore the Mobile Station, the Base Transceiver Station and the Base Station Controller are distinct components of the GSM System. The Um interface is the standardised interface between the Mobile Station and the Base Transceiver Station, which enables the Mobile Station to communicate with the Base Transceiver Station. The Abis-interface ('Abis') is the standardised interface between the Base Station Controller and the Base Transceiver Station, which allows the Base Transceiver Station to communicate with the Base Station Controller.

A GSM Gateway is a Mobile Station

41. As has been set out, GSM is a highly specified system in which the roles of the Mobile Station and Base Transceiver Stations, and the interfaces between them, are clearly distinct and have been standardised by ETSI.

42. A Mobile Station is defined in terms of the radio frequencies at which it transmits and receives, and the signalling interface used to control those transmissions. In both respects a GSM gateway complies with the definition of a Mobile Station. If it did not, it would not function. In this context a GSM Gateway is a Mobile Station (in the same way that a mobile phone is a Mobile Station). A Mobile Station communicates via radio over the Um interface with Base Transceiver Stations and/or Repeater Stations.

43. A GSM gateway is not a Base Transceiver Station because it does not comply with the ETSI Base Transceiver Station standard, and therefore the universally accepted technical definition of a Base Transceiver Station. It does not comply with this definition in two key respects. Firstly, a Base Transceiver Station is required to transmit and receive at specific radio frequencies, and a GSM gateway does not do so. Secondly, a Base Transceiver Station is required to communicate with other parts of the network using specific signalling interfaces, and a GSM gateway does not do so

44. Therefore GSM gateways do not constitute Radio Equipment for the purposes of the 2G cellular licences because GSM gateways are not "Base Transceiver Stations" or "Repeater Stations" as set out at paragraph 1 of Schedule 1 of the 2G cellular licences. It follows, therefore, that the 2G cellular licences do not cover the use of GSM gateways.

The possibility to authorise use of GSM gateways under the auspices of the licence

45. Condition 8 of the mobile operators' 2G cellular licences states as follows:

    "*The Licensee must ensure that the Radio Equipment is operated in compliance with the terms of this Licence and is used only by persons who have been authorised in writing by the Licensee to do so and that such persons are made aware of, and of the requirement to comply with, the terms of this Licence*".

46. This condition permits the mobile operators, in certain circumstances, to authorise another person to use the Radio Equipment, without the need for a separate licence issued under section 1(1) of the WTA.

47. However, as set out above, the definition of Radio Equipment in the 2G cellular licence does not cover GSM gateways. Therefore, even if a mobile operator intended to authorise another person to establish, install or use GSM gateways under the auspices of its licence, it does not have the power to do so. Condition 8 of the mobile operators' licence applies only to the establishment, installation and use of base transceiver stations or repeater stations.

The Government announcement of 18 July 2003

48. In a press statement dated 18 July 2003, announcing the results of the RA's consultation *Public Wireless Networks – Exemption of User Stations*, the Government stated that:

    "*In some circumstances, MNOs may be able to consider purchasing products or services from Gateway Operators for use under the auspices of MNO licences. Although a commercial matter for the companies concerned, the Government encourages the MNOs and Gateway Operators to consider ways to address pragmatically existing uses of equipment that continue not to meet the requirement for exemption.*"

49. When he made his original decision in the Floe case, the Director interpreted this statement to mean that it might be possible for the mobile operators to authorise the use of GSM gateways under the auspices of their 2G cellular licences. As noted above, Ofcom considers that this is not possible, since the mobile operators' 2G cellular licences, as currently drafted, do not cover the use of GSM gateways.

Section 5

The legal status of the use of GSM gateways

50. There has been considerable discussion over the past few years concerning the legal status of the use of GSM gateways.[16] This section seeks to clarify the current legal position in the light of the CAT's judgment in the Floe appeal.

Regulation 4(1) of the Exemption Regulations

51. As noted in Section 2, Regulation 4(1) of the Exemption Regulations exempts from the requirement for a licence "relevant apparatus". This term is defined in Regulation 3(1) as "prescribed apparatus" as defined further in Schedules 3 to 9 of the Regulations.

52. Under Schedule 3 Part I of the Exemption Regulations "prescribed apparatus" is defined to mean a "user station", which is described as follows:

"*a mobile station for wireless telegraphy designed or adapted –*

(a) to be connected by wireless telegraphy to one or more relevant networks; and
(b) to be used solely for the purpose of sending and receiving message conveyed by a relevant network by means of wireless telegraphy."

53. Ofcom's view is that the definition of "user station" in Schedule 3 Part I of the Exemption Regulations includes GSM gateways. In principle, therefore, the use of GSM gateways does benefit from exemption from the requirement for a licence under section 1 of the WTA, subject to the condition explained below.

54. As set out in section 3, Ofcom considers that a GSM gateway is a Mobile Station (in the same way that a mobile phone is a Mobile Station for these purposes), and that this view is the same as the terminology used in the GSM system elements as standardised by ETSI[17]. The specification of a Mobile Station is designed to support mobility, and it communicates via radio with a mobile operator's network

[16] RA statement of 23 August 2002 at http://www.ofcom.org.uk/static/archive/ra/topics/pmc/document/gsmgateway.htm, RA statement of 4 October 2002 at http://www.ofcom.org.uk/static/archive/ra/topics/pmc/document/gsmgateway.htm, RA consultation document of November 2002 at http://www.ofcom.org.uk/static/archive/ra/topics/pmc/consult/publicwireless/pubwire.htm (see also responses to RA consultation document of November 2002 at http://www.ofcom.org.uk/static/archive/ra/topics/pmc/consult/publicwireless/responses/index.htm), Government announcement of 18 July 2003 at http://www.ofcom.org.uk/static/archive/ra/publication/press/2003/18july03.htm.

[17] The terminology used by ETSI pre-dates the Exemption Regulations, is commonly used and understood throughout the entire industry and Ofcom considers that the Exemption Regulations should be read in that light.

55. Although in practice a GSM gateway may generally be operated from a fixed location, Ofcom does not consider that a mobile station is required to be moving at the time it transmits or receives a call in order to fall within the definition of "user station" in Schedule 3 Part I of the Exemption Regulations.

56. Ofcom recognises that the use of the word "mobile" in the definition of "user station" has in the past created uncertainty as to the proper scope of Regulation 4(1). This ambiguity was acknowledged in the press statement issued by the Government on 18 July 2003, announcing the results of the RA's consultation *Public Wireless Networks – Exemption of User Stations*. In this statement, the Government set out its intention to amend the Exemption Regulations to make it clear that they cover both fixed and mobile (i.e. stationary and moving) stations[18]. Ofcom still intends to amend the Exemption Regulations along these lines, but, insofar as GSM gateways are concerned, such amendment will be for clarificatory purposes only. Ofcom considers that GSM gateways are, and always have been, covered by Regulation 4(1) of the Exemption Regulations.

Regulation 4(2) of the Exemption Regulations

57. Although, in principle, the use of GSM gateways does benefit from exemption from the requirement for a licence, as noted in Section 2, this exemption is subject to the terms of Regulation 4(2) of the Exemption Regulations.

58. Regulation 4(2) provides as follows:

"*With the exception of relevant apparatus operating in the frequency bands 2400.0 to 2483.5 MHz, 5150 to 5350 MHz, 5470 to 5725 MHz and 57.1 to 58.9 GHz, the exemption in paragraph (1) shall not apply to relevant apparatus which is established, installed or used to provide or 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 communication service is provided by way of business to another person.*"

59. Ofcom considers that GSM Gateway equipment is apparatus which can be *"established, installed or used to provide or be capable of providing a wireless telegraphy link between electronic communications apparatus or an electronic communications network and other such apparatus or system".* Therefore, if such equipment is used to provide an electronic communications service by way of business to another person, it will not benefit from exemption from the requirement for a licence.

60. In the past, the wording of Regulation 4(2) has been relied upon to make a distinction between so-called 'public' GSM gateways and 'private' GSM gateways. These terms are not used in the Exemption Regulations. The term 'public' GSM gateway has been used to refer to GSM gateways which fall within Regulation 4(2), i.e. by means of which an electronic communications service is provided by way of business to another person. The term 'private' GSM gateway, on the other hand, has been used to refer to GSM gateways which are not caught by Regulation 4(2).

[18] Provided that they are Mobile Stations in the sense explained in Section 4 above.

61. Ofcom recognises that the use of this terminology has led to a certain degree of confusion as to the types of use of GSM gateways that are permissible under the Exemption Regulations. In particular, Ofcom notes that there appears to have been a misapprehension that the restriction on commercial operation of GSM gateways[19] in Regulation 4(2) only applied to GSM gateways used to provide services to multiple customers or customer premises, or to GSM gateways located away from a particular customer's premises.

62. In this respect, Ofcom notes the CAT's finding at paragraph 236 of its judgment of 19 November 2003:

"*Whether Floe's business concerned the provision of a telecommunications service by means of GSM gateways each of which were dedicated to the exclusive use of a single corporate customer of Floe at that customer's premises or whether the GSM gateways were used by multiple customers, Floe's use of GSM gateways in either case involved the provision of a telecommunications service by way of business to another person. In either case Floe's use of GSM gateways would be within regulation 4(2) of the Exemption Regulations and so would not be exempt from licensing under section 1(1) of the WTA 1949.*"

63. On the basis of this finding, for the purposes of Regulation 4(2), it is irrelevant whether a GSM gateway is being used to provide electronic communications services to a single customer or to more than one customer, or whether the GSM gateway equipment is located at a particular customer's premises or elsewhere. The key factor is whether the GSM gateway is being used to provide an electronic communications service by way of business to another person.

64. Based on the CAT's finding, a distinction can be made between the following scenarios involving the use of GSM gateways:

(a) a single end user establishes, installs or uses GSM gateway equipment for its own use;

(b) a communications provider establishes, installs or uses GSM gateway equipment to provide an electronic communications service by way of business to a single end user (whether the GSM gateway equipment is located at the end-user's premises or elsewhere); and

(c) a communications provider establishes, installs or uses GSM gateway equipment to provide an electronic communications service by way of business to multiple end-users.

65. In the light of the CAT's judgment, it appears to Ofcom that scenario (a) is not caught by Regulation 4(2) of the Exemption Regulations and therefore benefits from exemption under Regulation 4(1). In contrast, scenarios (b) and (c) do fall within Regulation 4(2) and therefore do not benefit from exemption under Regulation 4(1). Such use would therefore be unlawful. As noted in section 3 of this statement, the mobile operators' existing 2G cellular licences do not cover the use of GSM gateways. Ofcom has not granted any licence which would cover

[19] For the avoidance of doubt, commercial operation of GSM gateways in this context means the establishment, installation or use of GSM gateway equipment 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.

the use of GSM gateways, whether to the mobile operators or any other person. Therefore, the type of use of GSM gateways contemplated by scenarios (b) and (c) would be unlawful without the authority of a licence.

Section 6

The Authorisation Directive and the RTTE Directive

66. Section 4 set out that the mobile operators' 2G cellular licences do not cover the establishment, installation or use of GSM Gateways, whether by the mobile operators or any other person. Even if a mobile operator intended to authorise another person to establish, install or use GSM Gateways under the auspices of its licence, it does not have the power to do so.

67. Section 5 set out the current legal status of the use of GSM gateways, in the light of the CAT's judgment in the Floe appeal. This identified that the establishment, installation and use of GSM gateways by communications providers to provide an electronic communications service by way of business to another person is currently unlawful without a licence[20].

68. The issue of the compatibility of the current legal situation, including the restriction on the establishment, installation and use of GSM gateways by intermediaries such as Floe, with the RTTE Directive and the Authorisation Directive was explored before the CAT in the Floe appeal. The CAT did not find it necessary to reach any conclusions on this matter.

69. Ofcom has identified certain issues relevant to its consideration of this matter, as well as to the desirability of maintaining the current restriction on the commercial operation of GSM gateways. Ofcom would welcome comment and evidence from interested parties pertinent to these issues.

The Directives

70. The RTTE Directive sets out a harmonised regulatory framework regulating, among other things, the putting into service of radio equipment and telecommunications terminal equipment in the European Community.

71. The RTTE Directive entered into force on 7 April 1999. Member States were required to implement the Directive into domestic law by 8 April 2000. The Directive has been implemented in the UK by the Radio Equipment and Telecommunications Terminal Equipment Regulation 2000, as amended by the Radio Equipment and Telecommunications Terminal Equipment (Amendment) Regulations 2003 and the Radio Equipment and Telecommunications Terminal Equipment (Amendment No. 2) Regulations 2003.

72. Article 7(2) of the RTTE Directive states that "*without prejudice to conditions attached to authorisations for the provision of the service concerned in conformity with Community Law, Member States may restrict the putting into service of radio equipment only for reasons related to the effective and appropriate use of the radio spectrum, avoidance of harmful interference or matters relating to public health*".

[20] This includes the establishment, installation and use of GSM gateways by intermediaries such as Floe, as referred to by the CAT at paragraph 280 of its judgment in the Floe appeal.

73. The Authorisation Directive sets out a harmonised regulatory framework regulating, among other things, the conditions that may be attached to a general authorisation for the provision of electronic communication networks or services.

74. The Authorisation Directive entered into force on 24 April 2002. Member States were required to implement the Directive into domestic law by 25 July 2003. The means by which the Directive has been implemented in the UK has already been set out in section 3.

75. The types of conditions which may be attached to a general authorisation are limited to those set out in Part A of the Annex to the Authorisation Directive. Point 17 of Part A of the Annex to the Authorisation Directive includes as one of the types of conditions that may be attached to a general authorisation: "*Conditions for the use of radio frequencies, in conformity with Article 7(2) of Directive 1999/5/EC* [the RTTE Directive]*, where such use is not made subject to the granting of individual rights of use in accordance with Article 5(1) of this Directive*".

76. Article 6(1) of the Authorisation Directive requires that conditions attached to a general authorisation must be objectively justified in relation to the network or service concerned, non-discriminatory, proportionate and transparent.

77. Article 6(3) of the Authorisation Directive requires that the general conditions shall not duplicate conditions which are applicable to undertakings by virtue of other national legislation.

78. The RTTE Directive and the Authorisation Directive thus permit restrictions on the use of the radio spectrum, in the form of conditions attached to a general authorisation, where this relates to the effective and appropriate use of the radio spectrum, the avoidance of harmful interference, or a matter related to public health. Any such restrictions must be objectively justified, proportionate, non-discriminatory and transparent and must not duplicate conditions which are applicable by virtue of other legislation.

79. The CAT's judgment in the Floe appeal also makes reference to recitals 7 and 11 of the Authorisation Directive[21].

80. Recital 7 of the Authorisation Directive states that "*the least onerous authorisation system possible should be used to allow the provision of electronic communications networks and services*". This recital relates to a Member State's authorisation system as a whole. However, whether a particular condition attached to the general authorisation is proportionate in accordance with Article 6(1) of the Directive will depend on the facts of the particular case.

81. Recital 11 of the Authorisation Directive states that: "*…rights of use should not be restricted except where this is unavoidable in view of the scarcity of radio frequencies and the need to ensure the efficient use thereof.*" This recital refers to the situation where a Member State has chosen to grant individual rights of use (i.e. licences) for the use of the spectrum and relates specifically to a restriction on the number of such rights of use. It does not appear to relate directly to the imposition of conditions as part of a general authorisation.

[21] Paragraph 280 of the CAT's judgment.

Issues relating to the operation of GSM gateways

82. Ofcom is aware of a number of specific issues that have been raised in the past in relation to the operation of GSM gateways. These issues relate primarily to the effective and appropriate use of the radio spectrum. The Government has taken the view that these issues justify the restriction on the commercial operation of GSM gateways[22].

83. Ofcom would welcome the views of interested parties on these and any other relevant issues. In particular, Ofcom invites stakeholders to answer the questions raised below.

The provision of Caller Location Information and Calling Line Identification Facilities

84. Ofcom understands that, to a GSM network a GSM gateway looks identical to any other mobile equipment, including an ordinary mobile handset. As a result, unless other arrangements are put in place, a GSM network will identify the location of the caller for all calls routed through a gateway as being the physical location of the gateway, rather than that of the end user originating the call. Similarly, unless other arrangements are put in place, a GSM network will set the Calling Line Identification (CLI)[23] for all calls routed through a gateway to be the CLI of the gateway rather than that of the originating line.

85. Ofcom understands that such 'masking' of the correct location and identity of the originating caller could have adverse implications for the provision of emergency services, and the tracing of nuisance calls. Incorrect CLI may also be a nuisance for the ordinary recipients of calls, for example making it harder for them to identify the originator of the call and therefore to decide whether or not to answer or return the call.

Question 1: *How significant are the issues identified in paragraphs 84 - 85 in relation to Caller Location Information and CLI?*

Question 2: *To what extent, if at all, do the issues outlined in paragraphs 84 - 85 in relation to Caller Location Information and CLI depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:*

- *whether the GSM gateway is used to provide services to a single end-user or multiple end-users;*
- *whether the GSM gateway is located at the end-user's premises or at a location away from the end-user's premises; and*
- *whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.*

Question 3: *Is it technically feasible for Caller Location Information (i.e. information indicating the geographic position of the person originating the call) to be made available for calls routed through GSM gateways?*

Question 4: *If so, please provide an estimate of how much it is likely to cost to do so.*

[22] These issues informed the Government's decision to maintain the restriction on the commercial operation of GSM gateways in July 2003.
[23] CLI is a facility which enables identification of the number from which a call is being made.

Question 5: *Is it technically feasible to make the CLI of calls routed through GSM gateways to be the CLI of the originating line, rather than the CLI of the GSM gateway?*

Question 6: *If so, please provide an estimate of how much it is likely to cost to do so.*

Hindrance to lawful interception

86. Ofcom understands that the ability of a GSM gateway to 'mask' the location and identity of the end-user originating calls also has potential implications for the ability of the security services to undertake lawful interception of calls.

87. Lawful interception of telecommunications services is regulated in the UK by the Regulation of Investigatory Powers Act 2000 (RIPA). Under section 12 of RIPA, the Secretary of State may impose obligations on persons providing public telecommunications services in order to ensure that lawful interception is and remains practicable. The Regulation of Investigatory Powers (Maintenance of Interception Capability) Order 2002 sets out the obligations that the Secretary of State may impose for these purposes[24].

Question 7: *How serious is the issue outlined in paragraph 86 in relation to lawful interception?*

Question 8: *To what extent, if at all, does the issue outlined in paragraph 86 in relation to lawful interception depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:*

- *whether the GSM gateway is used to provide services to a single end-user or multiple end-users;*
- *whether the GSM gateway is located at the end-user's premises or at a location away from the end-user's premises; and*
- *whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.*

Question 9: *Are there any reasons, other than a potential failure to provide Caller Location Information and/or CLI in relation to the originating call, why the use of GSM gateways might hinder the lawful interception of calls?*

Network congestion and service quality

88. Ofcom understands that the operation of GSM gateways can give rise to congestion in the locality of the GSM gateway. Such congestion can lead to a degradation in the quality of service of users of the mobile network and can ultimately result in ordinary mobile users being unable to make or receive calls (including emergency calls). This is particularly likely to be a problem in areas of high mobile activity.

89. However, it may be the case that this problem is not as prevalent in areas of low mobile activity. Furthermore, Ofcom understands that mobile network operators may be able to mitigate the problems of network congestion and service

[24] SI 2002/1931.

degradation identified above (if and when they become aware of them) by increasing the capacity of their network in the vicinity of the GSM gateways.

90. Although the installation of additional capacity may be at some expense to the mobile operator in both costs and resources, it could be argued that it is a matter for the mobile operator to decide, on a case by case basis, whether it is cost-effective to do this. Relevant considerations in this regard may be that it is difficult to expand capacity in some areas because of the problems of acquiring new base station sites, and also that there may be network planning problems if the location of the GSM Gateways is subject to significant change.

Question 10: *How significant are the issues identified in paragraphs 88 - 90 in relation to network congestion and service quality?*

Question 11: *To what extent, if at all, do the issues identified in paragraphs 88 - 90 in relation to network congestion and service quality depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:*

- *whether the GSM gateway is used to provide services to a single end-user or multiple end-users;*
- *whether the GSM gateway is located at the end-user's premises or at a location away from an end-user's premises; and*
- *whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.*

Question 12: *What obstacles, if any, are there that mean that the market could not be relied upon to determine whether or not the commercial operation of GSM gateways was an effective use of the radio spectrum?*

Question 13: *If the commercial operation of GSM gateways were permitted, but subject to the control of, or coordination with, the mobile network operators, would this make a difference to the answer to Question 12?*

Harmful interference

91. Harmful interference is defined in both the RTTE Directive and the Authorisation Directive as "*interference which endangers the functioning of a radio navigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with the applicable Community or national regulations*"[25].

Question 14: *How likely is it that GSM Gateways would cause harmful interference, in particular as compared with ordinary mobile handsets?*

Other possible systems of regulating the operation of GSM gateways

92. Ofcom notes that there are potentially various alternative means of regulating the operation of GSM gateways. These range from imposing a complete restriction on all types of GSM gateway use to completely liberalising the operation of GSM gateways.

[25] Article 2(i) of the RTTE Directive and Article 2(2)(b) of the Authorisation Directive.

Question 15: *If the commercial operation of GSM gateways were permitted without restriction, to what extent would this be likely to lead to GSM gateway use becoming more widespread than at present? If so, what would be the implications of this?*

93. It has been put to Ofcom that, if the current restriction on the commercial operation of GSM gateways were removed, the mobile network operators might simply reduce or remove the arbitrage opportunity that GSM gateway use is predicated upon (i.e. the difference between retail on-net mobile call rates and wholesale call termination rates for fixed-to-mobile calls) by adjusting their call tariffs.

94. This adjustment could result in certain rates increasing and other rates decreasing. Following this rebalancing, consumers may or may not be better off overall. The precise outcome will depend on the amount of revenue to be recouped, and also the degree of competition in the retail market.

Question 16: *What obstacles, if any, are there to prevent the mobile network operators from adjusting their tariffs to remove the arbitrage opportunity arising from the difference between retail on-net mobile calls rates and wholesale call termination rates for fixed-to-mobile calls? If such an adjustment were to take place, what would be the likely effects on consumers?*

Annex 1

How to respond to this statement for comment

How to respond

Ofcom invites written comment on the issues raised in this document, to be made by **5pm on 31 March 2005**.

Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, as this helps us to process the responses quickly and efficiently.

Please can you send your response to robert.macdougall@ofcom.org.uk.

Responses may alternatively be posted or faxed to the address below, marked with the title of this document.

Robert MacDougall
Competition and Markets
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7783 4303

Note that we do not need a hard copy in addition to an electronic version. Also note that Ofcom will not routinely acknowledge receipt of responses.

Further information

If you have any want to discuss the issues and questions raised in this document please contact Robert MacDougall on 020 7783 4338.

Confidentiality

All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex.

Ofcom reserves its power to disclose any information it receives where this is required to carry out its functions. Ofcom will exercise due regard to the confidentiality of information supplied.

Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use, to meet its legal requirements. Ofcom's approach on intellectual property rights is explained further on its website, at www.ofcom.org.uk/about_ofcom/gov_accountability/disclaimer.

Timescale for responding to this statement for comment

Respondents have until 31 March 2005 to provide responses. The reason for this timescale is because responses will be taken into account by Ofcom in making its decisions in the new Floe and VIP investigations.

Annex 2

Questions set out in this document

Question 1: How significant are the issues identified in paragraphs 84 - 85 in relation to Caller Location Information and CLI?

Question 2: To what extent, if at all, do the issues outlined in paragraphs 84 - 85 in relation to Caller Location Information and CLI depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:

- whether the GSM gateway is used to provide services to a single end-user or multiple end-users;
- whether the GSM gateway is located at the end-user's premises or at a location away from the end-user's premises; and
- whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.

Question 3: Is it technically feasible for Caller Location Information (i.e. information indicating the geographic position of the person originating the call) to be made available for calls routed through GSM gateways?

Question 4: If so, please provide an estimate of how much it is likely to cost to do so.

Question 5: Is it technically feasible to make the CLI of calls routed through GSM gateways to be the CLI of the originating line, rather than the CLI of the GSM gateway?

Question 6: If so, please provide an estimate of how much it is likely to cost to do so.

Question 7: How serious is the issue outlined in paragraph 86 in relation to lawful interception?

Question 8: To what extent, if at all, does the issue outlined in paragraph 86 in relation to lawful interception depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:

- whether the GSM gateway is used to provide services to a single end-user or multiple end-users;
- whether the GSM gateway is located at the end-user's premises or at a location away from the end-user's premises; and
- whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.

Question 9: Are there any reasons, other than a potential failure to provide Caller Location Information and/or CLI in relation to the originating call, why the use of GSM gateways might hinder the lawful interception of calls?

Question 10: How significant are the issues identified in paragraphs 88 - 90 in relation to network congestion and service quality?

Question 11: To what extent, if at all, do the issues identified in paragraphs 88 - 90 in relation to network congestion and service quality depend on the type of GSM gateway use? In particular, what relevance, if any, do the following factors have:

- whether the GSM gateway is used to provide services to a single end-user or multiple end-users;
- whether the GSM gateway is located at the end-user's premises or at a location away from an end-user's premises; and
- whether the GSM gateway is used to provide an electronic communications service by way of business to another person or is used for non-commercial purposes.

Question 12: What obstacles, if any, are there that mean that the market could not be relied upon to determine whether or not the commercial operation of GSM gateways was an effective use of the radio spectrum?

Question 13: If the commercial operation of GSM gateways were permitted, but subject to the control of, or coordination with, the mobile network operators, would this make a difference to the answer to Question 12?

Question 14: How likely is it that GSM Gateways would cause harmful interference, in particular as compared with ordinary mobile handsets?

Question 15: If the commercial operation of GSM gateways were permitted without restriction, to what extent would this be likely to lead to GSM gateway use becoming more widespread than at present? If so, what would be the implications of this?

Question 16: What obstacles, if any, are there to prevent the mobile network operators from adjusting their tariffs to remove the arbitrage opportunity arising from the difference between retail on-net mobile calls rates and wholesale call termination rates for fixed-to-mobile calls? If such an adjustment were to take place, what would be the likely effects on consumers?