



Office of Utility Regulation

Mobile Telephony Licensing in Guernsey

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Report on the Consultation Paper & Decision Notice

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## **Foreword by the Director General**

Not so long ago, mobile telephones were considered to be a gadget, a fad; and an annoying one at that. But already that sounds like a dated statement. Now, mobile telephones are an essential part of our lives, and before long we will all be struggling to explain to the children of today how anyone ever had use for a communications device that was stuck in one location, when we as human beings are always on the move.

Right now mobile telephony underpins the economy of Guernsey as well as its society in a way that we have in common with all of Western Europe and indeed most of the developed world. Businesses in Guernsey use mobile communications to operate as part of their wider global business networks, with employees able to work on the move and independent of their location. In our private lives, many of us have friends and family in the UK and elsewhere who use mobile telephones to keep in touch when travelling, and we co-ordinate our busy lives with our children, parents and friends increasingly by mobile. We can even see new forms of social communication being invented by the community that are using the technology daily – the most obvious example being the emergence of a whole new language based on text messaging.

With all this happening today, who knows what the future will bring – certainly data communications on the move, with internet access on mobiles being an application that is eagerly anticipated by many. What is important is that Guernsey keeps pace with these developments and stays at the forefront of technological innovation and development so that the economy and society of Guernsey maintains its position and reputation as a highly developed place to live and do business.

Competition between mobile operators provides the greatest incentive to innovate and provide high quality value for money services as operators strive to meet customer expectations. This paper sets out the next steps in opening the Guernsey mobile market to competition and I look forward to the contribution of the telecoms sector in Guernsey to developing a framework that will facilitate that industry in delivering on customer expectations.

**Regina Finn**  
**Director General of Utility Regulation**

## **1. Introduction**

In December, 2001, the Director General of Utility Regulation (“the Director General”) published a consultation paper, entitled “Mobile Telephony Licensing in Guernsey”<sup>1</sup>, which considered the licensing of mobile networks and services and the scope for competition within the Bailiwick. That paper covered, inter alia, the Director General’s initial views and proposals on:

- the availability of spectrum for mobile telephony in the Bailiwick of Guernsey;
- options for introducing competition in both network provision and services within the Guernsey telecommunications market; and
- how licences for the spectrum could be allocated.

This report sets out the Director General’s conclusions following detailed consideration of the responses received and describes the next steps in the process leading up to the introduction of competition in the mobile telecommunications market at the end of March 2003.

This report is structured along the lines of the consultation document and each section summarises the matter consulted upon, the responses received and the Director General’s consideration of the matter.

Three organisations responded to the consultation and the Director General wishes to thank them for their contributions in helping to shape the regulatory regime. As explained in OUR Document 01/25, all detailed responses to this consultation will be treated as confidential. Consequently the written comments received by the Office of Utility Regulation (“OUR”) will not be available for public inspection at OUR’s office and the identity of the respondents will not be disclosed. To further protect the confidentiality of the respondents, this paper summarises the comments received on a general basis only.

## **2. Availability of Spectrum in Guernsey**

Document OUR 01/25 set out the Director General’s initial assessment of the coordination requirements for third generation mobile telephony (“3G”) and suggested that at least two network operators could be accommodated in the available 3G spectrum in Guernsey. In addition, due to the fact that GSM1800 spectrum is currently unused in the Bailiwick, the Director General proposed that an additional licence for another network operator could be issued in the available second generation (“2G”) spectrum. The Director General gave an example of possible spectrum packages which are shown again overleaf in table 1.

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<sup>1</sup> Document No: OUR 01/25 December 2001, Mobile Telephony Licensing in Guernsey

**Table 1: Illustration of Spectrum Packages**

<b>GSM1800</b>	<b>3G</b>
2 × 20 MHz	2 × 10 MHz Paired 1 × 5 MHz unpaired
	2 x 10 MHz Paired 1 x 5 MHz unpaired

These three spectrum packages could be allocated in a number of ways – for example either on a stand alone basis or the 2G and 3G spectrum could be combined in some way. Therefore the Director General invited views as to how the appropriate spectrum packages should be allocated to licensees within the Guernsey telecommunications market.

**Views of Respondents**

All respondents expressed a range of views on this aspect of the consultation and raised a number of additional questions. With respect to the main questions raised by the Director General a number of views were expressed:

- the view that the minimum 3G allocation should be 2 x 10 MHz paired, plus 5MHz unpaired;
- an explicit interest in one or other of the spectrum packages available was also expressed; and
- the consideration that the available GSM1800 spectrum package was more than adequate for building a network to cover the Bailiwick.

In addition the various respondents raised a number of supplementary issues. One issue raised was the underlying rationale behind the consultation paper and whether the Guernsey market was large enough to support more than one licensed operator. Another was the suggestion that if two or more licences were to be awarded the same conditions should apply to each operator, in particular as regards Bailiwick wide coverage and non-discrimination.

Clarification was also sought on the relationship between the OUR’s consultation process and award of mobile telecommunications licences and the vesting of the responsibility for licensing in the Radiocommunications Agency (“RA”), and its proposed successor OFCOM.

It was also suggested that the existing sole mobile telephony provider in the Bailiwick – Guernsey Telecoms Limited (“GT”) had been allocated an excessive amount of 2G-900MHz spectrum and it was inefficient for GT to continue to have the benefit of this scarce resource without being under an obligation to allow access to its network to third parties. Comments were also made on the uncertainty on the attractiveness of market entry as a purely third generation network, given the delay and technical problems over 3G networks and it was argued that therefore 3G should be seen as an evolution of 2G,

rather than a service enabler in its own right and 3G spectrum should be made available to existing and new 2G operators, whenever licensed, according to demonstrated need.

**Director General’s Position**

The Director General noted all the responses and is grateful for the comments provided by the respondents. It appears to the Director General that there is sufficient interest to warrant the offering of two spectrum packages in the Bailiwick of Guernsey. One package will comprise GSM 1800 spectrum of 2 x 20 MHz and 3G spectrum of 2 x 10 MHz paired and 1 x 5 MHz unpaired. The second package will only be for 3G spectrum of 2 x 10 MHz paired and 1 x 5 MHz unpaired.

<b>Decision 2.1</b>		
The following two spectrum packages, A and B, will be made available in the Guernsey mobile telecommunications market through a competitive licensing process:		
<b>Spectrum Package</b>	<b>GSM1800</b>	<b>3G</b>
Package A	2 x 20 MHz	2 x 10 MHz Paired 1 x 5 MHz unpaired
Package B		2 x 10 MHz Paired 1 x 5 MHz unpaired

In response to the original question raised in the consultation paper the respondents raised a number of additional questions about the RA and OUR.

The UK’s, Wireless Telegraphy Act, 1949 applies to the Channel Islands. As such, any person establishing or using any station for wireless telegraphy or installing or using any apparatus requires a wireless telegraphy (“WT”) licence from the RA unless specifically subject to an exemption regulation. Further information is available in RA information sheet RA 342 (Rev1) copies can be downloaded from the from the RA website at [www.radio.gov.uk](http://www.radio.gov.uk) . However, as explained in the original consultation paper, mobile telecommunication network operators (i.e. those operators building, owning or operating telecommunications networks using radio frequency spectrum where those networks are used to provide services to third parties) will require, both a WT licence, for radio spectrum aspects from the RA in the UK and a telecommunications licence from the OUR.

For clarification however, the operation and use of frequency spectrum in the Bailiwick for telecommunications purposes under a WT licence obtained from the RA is contingent upon holding a licence from the OUR. Where the service provided is not a telecommunications service as defined in the Telecommunications Law<sup>2</sup> or is a service exempted under that Law or otherwise by the Director General, operators will only need to hold a WT licence from the RA (e.g. private radio systems). Conversely where an operator is providing telecommunications services over mobile networks operated by

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<sup>2</sup> The Telecommunications (Bailiwick of Guernsey) Law, 2001

third parties, the operator may not need a WT licence and may only need to apply for a telecoms licence from OUR. To facilitate the co-ordination and efficient use of the spectrum, the OUR will act as a local co-ordination point between all Guernsey public network mobile operators and the RA. The relative responsibilities of the RA and OUR are defined in the UK and Bailiwick legislation respectively.

### **3. Competition Infrastructure**

#### **3.1. Network Competition in 2G**

The Director General sought indications of interest from parties who might wish to enter the Guernsey 2G mobile telecommunications market to build and operate a second mobile transmission network.

#### **Views of Respondents**

Responses to this question were varied ranging from:

- the view that the market was not large enough to support two 2G network operators and that customers would not benefit from two competing operators striving to earn an acceptable return on capital; to
- welcoming the prospect of liberalisation of Guernsey's mobile telecommunications market and expressing an interest in building and operating a second mobile transmission network within the Bailiwick.

#### **Director General's Position**

The Director General received an indication of sufficient levels of interest from parties wishing to build and operate a second mobile transmission network within the Bailiwick, to warrant proceeding with a licensing process for the available spectrum GSM 1800.

In response to concerns raised about whether the market was large enough to support two operators, the Director General notes that the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 ("the Regulation Law") provides overarching duties and objectives which need to be balanced and taken into account in regulating the market. These include the objective of introducing and promoting effective sustainable competition. Experience in other jurisdictions shows that market forces will determine what degree of competition is feasible based on the commercial business decisions of investors and operators. It is appropriate therefore for the Director General to allow those market forces to work and not put in place any artificial regulatory barriers to entry. In summary there is no reason for the Director General to assume that the market cannot support more than one licensee particularly where interest has been expressed in an additional 2G network.

### **3.2. Network Competition in 3G**

The Director General invited parties who are interested in the building and operating of 3G networks in Guernsey to indicate their interest, providing information on the services potential licensees would seek to offer and the anticipated timescales associated with the roll-out and launch of such services.

#### **Views of Respondents**

The respondents did express interest in building and operating 3G networks within the Bailiwick and described a range of services that they would wish to provide consumers, although some uncertainty was expressed due to questions over the reliability of 3G technology.

In particular, it was noted that the introduction of 3G service is heavily dependent on the availability of dual band handsets and that, until a sufficient number of handsets are available that work on both 2G and 3G networks, customer demand is likely to be low due to the importance of international roaming.

#### **Director General's Position**

The Director General received indications of sufficient levels of interest from parties wishing to build and operate 3G networks within the Bailiwick to proceed with a licensing process for the available spectrum in Guernsey. The responses to the consultation again gave support to the Director's decision regarding the 3G spectrum package outlined in section 2.

### **3.3. Access to GT's 2G network**

The Director General, in the original consultation paper, considered that even if 3G operators were also allocated 2G spectrum, there may be a time delay in the building of networks that may make it attractive for such new entrants to have access to the existing 2G network of the incumbent network operator (i.e. GT). Alternatively, it was noted that the small geographic scope of the Bailiwick might mean that the lead time to build a network could be relatively short, potentially negating the need for roaming access to the GT network. The Director General sought views from respondents on whether 3G operators would need either direct access to 2G spectrum or access to the existing 2G network of Guernsey Telecoms. If respondents believed there to be a need for measures to provide for access to existing 2G network facilities for new 3G entrants, the Director General invited comments and reasoning on whether there should be any time limit on such access.

#### **Views of Respondents**

Views expressed and issues raised by the respondents included:

- The view that during the roll out process access to the existing 2G network should be available to a new 3G licensee;
- A suggestion that access should be available through roaming provisions to enable the offering of a full and early service;



- The observation that new players should at least be offered cost oriented access to the current 2G operator's resources (such as 900MHz spectrum, other mobile network components and roaming agreements);
- The possibility of provisions governing this type of access could have a sunset clause which however should not prohibit such arrangements to continue on a commercial basis;
- The view that new entrants should be able to enter the mobile market in advance of the 1 April 2003, as it would substantially improve the attractiveness of a market entry business case, and at the very least this should be the case for non-network based access such as service provision or MVNO;
- The view that such an operator (non-facilities based) would not require a licence or would be licence exempt; and
- The suggestion that access to the existing 2G network would not be necessary given the small size of the Bailiwick.

### **Director General's Position**

As explained in the Consultation Paper, and mentioned earlier in this document, GT already has a mobile telephony network licence using 2G 900MHz capacity. In light of the responses to the consultation paper the Director General is of the view that GT's first mover advantage could represent a barrier to entry and deter effective competition. Therefore in accordance with her statutory functions and responsibilities to promote competition, the Director General will facilitate competition by taking a number of steps to ensure a level playing field between GT, as the incumbent operator with a 2G network, and new entrants to the market. The differences in the composition of the two spectrum packages require different measures to meet the Director General's objectives.

The Director General wishes to ensure that the licensee that acquires Package A (i.e. 2G and 3G) is able to provide a service while its own network is rolled out. The Director General proposes therefore that the licensee will be entitled to roaming access on GT's existing 2G network. However in recognition of the small size of the Bailiwick the roaming entitlement will be limited to a period of three years as the Director General believes that this is a sufficient window of opportunity to allow the new licensee to build its own 2G network.

Notwithstanding these access provisions, the Director General believes it is important to ensure efficient use of the radio frequency spectrum and therefore there will be a requirement on all licensees to roll out a network using the spectrum allocated within defined timescales. While the minimum timescales for roll out will be specified in the prequalification criteria for licence applications, the Director General believes it is reasonable to require the licensee awarded Package A to rollout its 2G network within three years and its 3G networks within five years taking into account the capital investment required to roll out both networks. In any event, failure to meet a specified roll out target would mean that the Director General would have to consider all appropriate avenues of action including rescinding the relevant licence, in which case there would be no continuation of any access or roaming rights.

In order to offer a total service across the Bailiwick the licensee that is awarded Package B (i.e. 3G licence only) will be entitled to roaming for a three year period on the existing 2G network on mandated terms. After this three year period there should be two 2G operators competing within the market and the licensee would be expected to commercially negotiate roaming agreements with either the incumbent or new entrant. If however the new 2G entrant has failed to roll out its own 2G network and has its licence rescinded, then the Director General considers it may be necessary for the mandatory roaming arrangements with the incumbent 2G network operator to continue.

Once again, the licence will contain a minimum roll out period and if the licensee has not rolled out a network and used the spectrum within a specified period, the Director General will take such steps as are appropriate, including the possibility of revoking the licence. As the licensee awarded Package B would only have to invest in one network compared with the two networks required for Package A, it is reasonable to assume that the 3G network could be rolled out fully within four years, compared with the five allowed for package A. The Director General therefore considers that a four year period would be an appropriate roll out period for full coverage, but this will be set out in more detail in the pre qualification criteria for the competitive licence award process.

With respect to the incumbent operator, should GT acquire either Package A or B, it would in effect have access to roaming on its own existing 2G network, but should it fail to roll out the new 3G network within the required period then once again appropriate measures would be imposed, with the possibility that the relevant licence would be rescinded and the spectrum handed back.

The access arrangements to the existing 2G network and network rollout timetables for each of the spectrum packages are summarised in the table below.

**Table 2: Access and Rollout of mobile networks**

	<b>2G Network</b>	<b>3G Network</b>
<b>Licensee awarded Package A (2G &amp; 3G)</b>	Mandated three year roaming on GT's existing 2G network.  2G Network to be rolled out within three years, if not then telecoms licence may be rescinded and 2G spectrum licence returned to RA.	3G Network to be rolled out within five years, if not then 3G spectrum and telecoms licence may be revoked.
<b>Licensee awarded Package B (3G)</b>	Licensee would not have a 2G Network but have mandated 3G roaming on GT's existing 2G network for three years and then subject to commercial negotiation if two 2G operators within the market. Should there be only one 2G network operator after three years then mandated roaming could continue.	3G Network to be rolled out within four years, if not then 3G spectrum and telecoms licence may be revoked.

**Decision 3.1**

The mobile network operator that acquires Spectrum Package A (i.e. the GSM and 3G spectrum capacity) will receive mandatory access to the incumbent 2G operator's network for a limited period of three years if required. The licensee will have been expected to roll out its own 2G network after three years and if it has not done so, at the Director General's discretion it may be required to hand back the 2G spectrum and telecoms licences. Similarly the operator will have been expected to roll out its own 3G network within five years and if it has not done so it may be required to hand back the 3G spectrum licence and telecoms licence.

**Decision 3.2**

The mobile network operator that acquires Spectrum Package B (i.e. 3G spectrum capacity only) will be allowed access to GT's 2G network for a limited period of three years. However should there be only one 2G network operator after three years then the mandatory roaming may continue. The licensee will have been expected to roll out its own 3G network after four years and if it has not done so it may be required to hand back the 3G spectrum and telecoms licences.

## 4. Service Based Competition

### 4.1. Indirect Access Services

In the consultation document the Director General raised the issue of introducing service-based competition in Guernsey in parallel with, after, or in advance of, active network-based competition.

One form of access that was suggested was indirect access ("IDA") provision which it was suggested could offer a platform of the rapid introduction of competition into the Guernsey mobile market. The Director General sought indications of the level of interest by potential market entrants in offering IDA and the extent to which this could be viewed at an entry platform for a new network operator (in 2G or 3G) or as a substitute for operating a network. The Director General was particularly interested in the respondents' views on the effect of introducing IDA prior to the introduction of network competition.

### Views of Respondents

Various concerns were expressed in relation to indirect access including:

- The importance of ensuring that the indirect access provider paid fair origination charges to avoid "free riding" and to ensure that the incentive for network build out was not removed;
- A concern that cherry picking would jeopardise the network operator's business plan and discourage infrastructure investment in the Bailiwick
- A recognition that in certain circumstances, Indirect Access may lead to issues around the sustainability of the market;

- A comment that indirect access providers tend to represent short term opportunities;
- A view that indirect access could offer important commercial opportunities that would benefit consumers.

### **Director General's Position**

The Director General has noted the comments provided by the respondents. Whilst she recognises the potential benefits that indirect access providers may bring to the market in terms of; choice of suppliers of call services, possible wider choice of value added services and lower retail prices to consumers, she recognises that introducing provisions to mandate the facilitation of IDA at this moment in time may jeopardise the development of network based competition within the Bailiwick. However, should no effective network competition emerge in the market once the mobile telephony market becomes liberalised, then it may be appropriate for IDA, or some other form of service based competition, to be mandated and the Director General reserves the right to reconsider this issue in the future.

#### **Decision 4.1**

The Director General will not require incumbent operators to facilitate access by IDA operators at this stage of the development of the market. The Director General reserves the right to review and amend this decision in the light of developments within the market.

### **4.2. MVNOs**

The Director General pointed out that the MVNO proposition could provide many of the benefits generally expected from network-based competition, but without the capital investment and potential delays associated with building a new transmission network. The Director General was therefore interested in views on the role that MVNOs could play in the Guernsey mobile market and invited comments on what shape MVNOs could take in Guernsey (including the outline service portfolio, level of investment by MVNO, and other relevant parameters to describe the opportunity and the operations of the MVNO) and the extent to which MVNO status could be viewed as an entry platform for a new network operator (in 2G or 3G) or as a substitute for operating a network.

### **Views of Respondents**

There was a view that this option should be left open at this stage and also some specific interest in the option as an immediate market entry strategy. Despite this there was also a comment that the MVNO option did not confer the advantages of full network provision.

### **Director General's Position**

The Director General has already set out the timetable for the liberalisation of the mobile telephony market within Guernsey which allows for competition in the market from 1 April 2003. Even with market penetration by GT of around 55% the Director General believes that a new entrant should be able to compete with the incumbent network operator through price and innovative services from the date of opening of the market.

As with the IDA service providers the Director General believes that mandating access by MVNOs to mobile networks from 1 April 2003 could potentially jeopardise the development of network based competition within the Bailiwick. As before, however should no effective network based competition develop in the market once the mobile telephony market becomes liberalised then it may be appropriate to reassess this position.

#### **Decision 4.2**

The Director General will not require network operators to provide access to MVNOs at this stage of the development of the market. The Director General reserves the right to reconsider and amend this decision in the light of developments within the market.

### **4.3. Access Charges**

One determining factor for a market entrant's choice of entry-method may be the terms on which they will be able to access the existing networks (fixed and mobile). Within the Guernsey environment the Director General has already proposed an approach across fixed and mobile networks, which makes network components available on a cost-plus basis without discriminating between different types of players. The purchase of network components is however only possible and useful for operators with the necessary equipment to interface with the network and the technical expertise to operate such an interface. This makes the access to cost-plus pricing contingent upon the technical capabilities of the individual players and their investment in infrastructure, not on a relatively arbitrary categorization of players in the market. The Director General sought comments on access charging and on how this would influence the market entry strategy of potential players.

#### **Views of Respondents**

Various concerns were expressed in relation to indirect access including:

- network components should only be available on a cost plus basis to licenced operators that have the necessary equipment to interface with the network and that have the technical expertise to operate such an interface – meaning that such a licensed operator would interface with GT through GT's Reference Offer;
- access charging should broadly be set at a cost plus level adjusted by the OUR to reflect an efficient mobile operator in a small national market;
- termination rates constitute an important element of the investment case faced by potential new entrants and hence access to an incumbent operator's network should be granted on a fair and non-discriminatory basis.
- charging arrangements for access to mobile networks, given the size of the market, are best left to commercial negotiations between operators.

#### **Director General's Position**

Based on experience from a number of other markets the Director believes that new entrants into the Guernsey mobile telecommunications market will use an interconnection to the incumbent fixed network to access both fixed and mobile networks on the island in the first instance. Direct interconnection between mobile networks is therefore not likely to become a short-term issue for new entrants. Interconnection to GT's fixed network is

governed by the terms of GT's fixed network license and by the Reference Offer for interconnection and access which will be available prior to the opening of the fixed telephony network on July 1 2002.

However, for access other than interconnection of networks, in particular for roaming onto GT's network a specific costing and charging regime will need to be created. The Director General is of the opinion that such access should be at a level to enable GT to recover its reasonable costs and provide appropriate investment incentives to build additional 2G and 3G networks on the island.

OUR is investigating a number of options to achieve the above and will develop an appropriate regime as part of the work programme for issuing new mobile telephony licences.

**Decision 4.3**

Direct interconnection between mobile networks, if required, should be subject to good faith commercial negotiations between the parties. The Director will act as arbiter, if required.

## **5. Options for Allocating Spectrum**

The Director General considered that the method of licensing spectrum should be decided depending on the demand expressed in using that spectrum and sought views on this principle.

Each of the main possible approaches (auctions, comparative selection, first come first served) to allocating spectrum were reviewed and discussed in OUR document 01/25. Whilst each approach has its attractions the Director General believed that on balance, assuming that demand will exceed the supply of spectrum, then comparative selection would be the most appropriate means of awarding spectrum and licences in the Bailiwick and invited respondents to comment on this view.

### **Views of Respondents**

Whilst all of the respondents agreed with the principle that the means of licensing spectrum should depend upon the demand expressed in that spectrum, additional comments included:

- the choice of a mechanism for spectrum allocation should have due regard for the size of the market; and
- a number of mechanisms for allocating spectrum (such as auctions) may not be viable or desirable in Guernsey.

Consequently all of the respondents supported the Director General's view that comparative selection would be the most appropriate means of allocating spectrum and licences in the Bailiwick.

### **Director General's Position**

The Director General welcomes support both for the principle that the means of licensing spectrum should be dependent upon the demand expressed in that spectrum, and for the view that comparative selection would be the most appropriate means of allocating spectrum and licences within the Bailiwick.

#### **Decision 5.1**

Mobile telecommunication licences using spectrum within the Bailiwick of Guernsey will be allocated through a process of comparative selection.

The timetable for the development of the competitive process and associated guidance documents is described in the final section of this report which sets out the next steps in the liberalisation of Guernsey's mobile telephony market.

## **6. Next Steps**

Following this report on the initial consultation on mobile telephony licensing and the resulting Director General's Decisions, the next step in the OUR's work programme will be a further consultation during the second quarter of 2002 on the licence obligations and conditions for the new 2G and 3G licensees.

It is intended to issue a call for interest in late July 2002 by which time the OUR will have published the prequalification criteria and a description of the evaluation criteria to be used in the comparative selection process, along with any other available relevant information.

**/ENDS**