



**Consultation on the licensing of spectrum
in the 900 MHz, 1800 MHz, 2100 MHz, 2.6
GHz and 3.4 GHz bands**

20 December 2017

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1. Introduction

1.1 Requests received for additional spectrum assignments

The Isle of Man Communications Commission ("the Commission") has received requests from Manx Telecom Trading Limited ("MT"), Sure (Isle of Man) Limited ("Sure") and BlueWave for additional licensed spectrum in order to improve the quality of communications services provided to end-users. The three operators have made the following requests for spectrum:

- **MT** has requested that, in the 900 MHz band, the 2 x 1.2 MHz that is currently reserved for it now be formally assigned to it. MT has also expressed interest in acquiring an additional 2 x 20 MHz in the 1800 MHz band, an additional 2 x 20 MHz in the 2100 MHz band and allocations of 2 x 40 MHz (FDD-compatible) and 40 MHz (TDD-compatible) in the 2.6 GHz band;
- **Sure** has requested access to an additional assignment of 2 x 15 MHz in the 1800 MHz band and an assignment of 2 x 15 MHz in the 2100 MHz band;
- **BlueWave** has requested access to an assignment of 30 MHz of TDD-compatible spectrum in the 3.4 GHz band.

The Commission's provisional position in relation to these requests for access to additional spectrum assignments is as follows:

- In relation to MT's request for access to the 2 x 1.2 MHz in the 900 MHz band that has already been formally reserved for it, the Commission will now recommend to Ofcom that the relevant MT Wireless Telegraphy licence be varied so that MT is granted access to this spectrum;
- As both MT and Sure have expressed interest in acquiring additional spectrum in the 1800 MHz band such that all remaining spectrum will be assigned to them, the Commission proposes to recommend to Ofcom that both operators be granted access to additional assignments of 2 x 15 MHz of spectrum in the band and that the relevant Wireless Telegraphy licences held by MT and Sure be varied so that they are granted access to this spectrum;
- In relation to MT and Sure's requests for additional spectrum in the 2100 MHz band, the Commission proposes to recommend to Ofcom that MT be granted access to an additional assignment of 2 x 20 MHz of spectrum in the band and that Sure be granted access to an additional assignment of 2 x 15 MHz of spectrum in the band and that the relevant Wireless Telegraphy licences held by MT and Sure be varied so that they are granted access to this spectrum;
- In relation to MT's request for two spectrum allocations in the 2.6 GHz band, the Commission notes that assignments in this band were envisaged

as part of the 4G licensing process, in which initial assignments of 2 x 20 MHz were reserved for MT and Sure. However, the Commission believes that the very large FDD- and TDD-compatible assignments requested by MT requires further consideration, in light of likely future requests for spectrum in the 2.6 GHz band by Sure and the need to provide for large contiguous spectrum allocations for both operators to support the further development of 4G Advanced services. The Commission's provisional position is that MT's request for spectrum in the 2.6 GHz band is therefore best dealt with in a separate consultation that the Commission intends to hold early in 2018 on the issue of awarding large contiguous spectrum allocations to support the further enhancement of 4G Advanced services;

- In relation to BlueWave's request for a spectrum assignment of 30 MHz of TDD-compatible spectrum in the 3.4 GHz band, the Commission is minded to recommend to Ofcom that a new Wireless Telegraphy licence be issued to BlueWave granting it access to the requested spectrum in the 3.4 GHz band.

It is the Commission's view that the proposed new spectrum assignments for MT, Sure and BlueWave are consistent with its spectrum policy, and are in the best interests of end-users and of the broader Isle of Man economy. The Commission's reasoning in relation to the proposed assignments is explained further in Section 3 below. However, before making this recommendation to Ofcom, the Commission must ensure that it has considered any other demand for spectrum in the affected bands. The extent and nature of any such demand will inform the Commission's final decision on how it deals with the requests for spectrum made by MT, Sure and BlueWave.

The Commission invites comments on its proposal to recommend additional spectrum allocations to MT, Sure and BlueWave, as set out in Section 4. Following an assessment of responses to this consultation, the Commission will decide whether or not to proceed with a recommendation to Ofcom. In all cases, the grant of licences by Ofcom is subject to the payment of relevant spectrum fees.

1.2 Consultation structure

This Consultation Document is structured in the following way:

- **Section 2** contains a legal and regulatory background on the award of licences and associated spectrum usage rights on the Isle of Man;
- **Section 3** outlines the policy background for the Commission's spectrum licensing decisions;
- **Section 4** provides details of the requests for additional spectrum made by MT, Sure and BlueWave;
- **Section 5** sets out the Commission's proposed next steps in relation to this issue.

2. Legal and regulatory background

2.1 Legislative background

The Commission is responsible for issuing licences for telecommunications and broadcasting services on the Island. Under the Telecommunications Act 1984 (of Tynwald) its powers include:

- specifying the nature of the telecommunications systems and services which operators are permitted to operate and provide under the licence¹; and
- setting conditions on such operation and provision.²

Spectrum management is the responsibility of the UK Office of Communications (Ofcom). Ofcom licenses and regulates the use of radio spectrum in the Island, under the Wireless Telegraphy Act 2006 of Parliament, which is extended to the Isle of Man, with Tynwald's consent, by Order in Council. The Commission works closely with Ofcom to ensure that Isle of Man Government policies are taken into account in licensing decisions.

2.2 UK legislation relevant to spectrum licensing in the Isle of Man

The use of spectrum in the Isle of Man is governed by UK legislation that has been extended to the Isle of Man, as well as by international agreements between the UK and other countries on the use to which various bands of radio spectrum can be put and the avoidance of interference across borders. The licensing of spectrum, in the UK and in the Isle of Man, is carried out by Ofcom, by virtue of the powers given to it by the Wireless Telegraphy Act 2006 and the Communications Act 2003.

Ofcom's principal and secondary duties are in Section 3 of the Communications Act 2003 ('General duties of Ofcom'), which provides that:

- (1) *It shall be the principal duty of OFCOM, in carrying out their functions—*
 - (a) *to further the interests of citizens in relation to communications matters;*
 - and*
 - (b) *to further the interests of consumers in relevant markets, where appropriate by promoting competition.*
- (2) *The things which, by virtue of subsection (1), OFCOM are required to secure in the carrying out of their functions include, in particular, each of the following—*
 - (a) *the optimal use for wireless telegraphy of the electro-magnetic spectrum;*
 - (...)

Moreover, Section 3 of the WTA ('Duties of OFCOM when carrying out functions') further specifies Ofcom's duties as follows:

- (1) *In carrying out their radio spectrum functions, OFCOM must have regard, in particular, to—*

¹ See s.5(1) and 5(4)(b) Telecommunications Act 1984.

² See s.5(5) Telecommunications Act 1984.

- (a) the extent to which the electromagnetic spectrum is available for use, or further use, for wireless telegraphy;*
- (b) the demand for use of the spectrum for wireless telegraphy; and*
- (c) the demand that is likely to arise in future for the use of the spectrum for wireless telegraphy.*
- (2) *In carrying out those functions, they must also have regard, in particular, to the desirability of promoting—*
- (a) the efficient management and use of the part of the electromagnetic spectrum available for wireless telegraphy;*
- (b) the economic and other benefits that may arise from the use of wireless telegraphy;*
- (c) the development of innovative services; and*
- (d) competition in the provision of electronic communications services.*

For the purposes of the spectrum relevant to this consultation, the respective roles of the Commission and Ofcom in coordinating the award of spectrum licences in the Isle of Man are as follows:

- the Commission ascertains the level and nature of demand for the spectrum in the specified bands. It identifies whether a selection process is needed. Eventually, when the assessment and selection process is completed, it makes a recommendation to Ofcom in relation to the issuing of licences under the WTA to Isle of Man operators, specifying the spectrum bands and the allocations within these bands that should be included within such licences; and
- Ofcom issues licences for spectrum use under the WTA where it is satisfied the Commission's recommendation is consistent with its own statutory duties.

3. Spectrum licensing policy

Building on the legal and regulatory background within which the Commission operates, spectrum licensing decisions that the Commission makes are also grounded in a clear policy framework.

In the first instance, the Commission is mindful of the legislative requirement placed on it in the Telecommunications Act 1984 “to promote the interest of consumers, purchasers and other users of telecommunications services ... in respect of the prices charged for, and the quality and variety of services provided”.³ Given this requirement, the Commission needs to be satisfied that granting a request for access to additional spectrum will promote end-users’ interests.

The Commission also needs to be cognisant of its own Spectrum Strategy⁴, in which it decided that the best approach to adopt in relation to the licensing of spectrum was one geared towards maximising investment in telecommunications services on the Island. In relation to the licensing of services in high-value bands such as 800 MHz and 900 MHz, the Commission determined that, in addition to supporting investment, the provision of geographic coverage and the promotion of competition were goals it should aim at.

Recent licensing processes undertaken by the Commission also need to be factored in. In this respect the 4G licensing process in the 800 MHz and 1800 MHz bands and licensing processes in the 3.4 GHz and 3.6 GHz bands are relevant.

In the 4G licensing process held in 2013, the Commission approved applications from MT and Sure. Pursuant to the 4G licensing process, the Commission recommended to Ofcom that both operators be granted access to spectrum in the 800 MHz and 1800 MHz bands and that spectrum in the 2.6 GHz band be reserved for both operators to use in the provision of 4G services. Subsequently, in 2015, the Commission recommended to Ofcom that both Sure and MT be granted access to additional spectrum in the 800 MHz, 900 MHz and 1800 MHz bands in order to improve the quality of their 4G services.

The 4G services offered by both operators on the Island compare favourably with 4G services available in the UK. Both operators have met and exceeded their licence obligations of 95% population coverage.

Both MT and Sure have now informed the Commission that they wish to introduce further improvements in their respective 4G services, specifically by the deployment of 4G Advanced technology in their networks. This technology encompasses a number of different enhancements that together act to significantly improve the data speeds achievable on 4G networks. One of the most important of these is what is

³ See s.1(2) Telecommunications Act 1984.

⁴ See *Response to Consultation on Options for Managing the Radio Frequency Spectrum*, Communications Commission, January 2012, available at: <https://www.gov.im/lib/docs/cc/consultations/responsetoconsultationonoptions1.pdf>

known as “carrier aggregation” which enables an end-user device (such as a smartphone) to receive multiple 4G signals simultaneously.

By deploying carrier aggregation across a number of frequency bands significantly improved 4G data speeds are achievable. In order to do this, the 4G operators require more spectrum, which both are now applying for.

The Commission is very supportive of this development, one that will yield immediate gains for customers of mobile services on the Island. This is because an estimated 50% of all mobile customers already have handsets that are 4G Advanced compatible. As a result, once 4G Advanced services come on stream, significant numbers of customers will be able to avail of the higher data speeds being provided across MT and Sure’s 4G networks.

The Commission would stress that, at this point in the process, the spectrum requested by MT and Sure to improve their 4G services has not been reserved exclusively for both operators.⁵ The Commission notes, however, that any interest from another operator in acquiring access to this spectrum would need to be treated in a similar manner to that set out in the 4G licensing process, in terms of the roll-out and service requirements that were placed on existing 4G licensees and the fees paid by the two 4G operators. In light of this, the Commission is of the provisional view that there is unlikely to be any interest in a potential new mobile operator acquiring the unassigned spectrum in the relevant spectrum bands but it is interested in hearing the views of stakeholders before coming to a definitive position on the matter.

The Commission has considered a number of requests in recent years for spectrum assignments in the 3.4 GHz band (i.e. 3.4 – 3.6 GHz) and the adjacent 3.6 GHz band (3.6 – 3.8 GHz). Domicilium is the only operator on the Island to hold spectrum in the 3.4 GHz band, while BlueWave holds an assignment in the 3.6 GHz band.

BlueWave has requested access to a spectrum assignment of 30 MHz of TDD-compatible spectrum in the 3.4 GHz band in order to improve the publicly available wireless-based communications services it provides on the Island. As with the requests for additional spectrum assignments made by MT and Sure, the Commission wishes to elicit view of stakeholders before coming to a definitive position on BlueWave’s request for spectrum in the 3.4 GHz band.

One issue which is relevant in this regard is the likely future development of 5G mobile services. Over the medium-term it is anticipated that 5G mobile technology will be deployed globally and, in this regard, the 3.4 – 3.8 GHz bands have been identified as potential key bands for the delivery of 5G mobile services. Bearing this

⁵ It should, however, be noted in this regard that the additional 2 x 1.2 MHz assignment in the 900 MHz band requested by MT has already been reserved for it (see Commission document *Response to Consultation and Decision on the licensing of spectrum in the 800 MHz and 900 MHz bands*, 8th December 2015 (Decision 2)) and that the 4G licensing process reserved 2 x 20 MHz assignments for MT and Sure in the 2.6 GHz band (see Commission document *Response to Consultation and Decision on the Licensing of 4G Mobile Services*, 10th September 2013 (Decision 3)).

in mind, the Commission wishes to make clear to current and prospective holders of spectrum assignments in the 3.4 – 3.8 GHz bands that these bands may, at some future point, have to be cleared or re-configured for re-assignment in a future 5G licensing process.

The timing for such a spectrum clearance programme remains uncertain, given that 5G standardisation work is not yet complete. In addition, the introduction of 5G is proving a challenge worldwide due to the potentially very large infrastructure investment required. As a result, the Commission does not believe it would be justifiable or proportionate for it to refuse to consider a request for a spectrum assignment in the 3.4 GHz band at this point in time to support the further development of communications services that are already been made available to customers on the Island. The Commission will, however, maintain a close watching brief on 5G developments internationally to see when would be the most appropriate time to consider the licensing of spectrum for 5G services and in which frequency bands it should consider doing so.

4. Requests for additional spectrum

Details of the various requests received from the three operators for spectrum assignments in the 900 MHz, 1800 MHz, 2100 MHz, 2.6 GHz and 3.4 GHz bands and the implications for spectrum usage and availability in these bands are outlined below.

4.1 Request by MT for spectrum in the 900 MHz band

As noted earlier, an allocation of 2 x 1.2 MHz in the 900 MHz band was reserved for MT in an earlier assignment process undertaken by the Commission in 2015. MT has now requested that this spectrum be assigned to it, thus increasing its holding in the band to 2 x 15 MHz, i.e. from 945 MHz to 960 MHz (base transmit). This is illustrated in Figures 1 and 2 below.

Figure 1: current spectrum assignments in the 900 MHz band

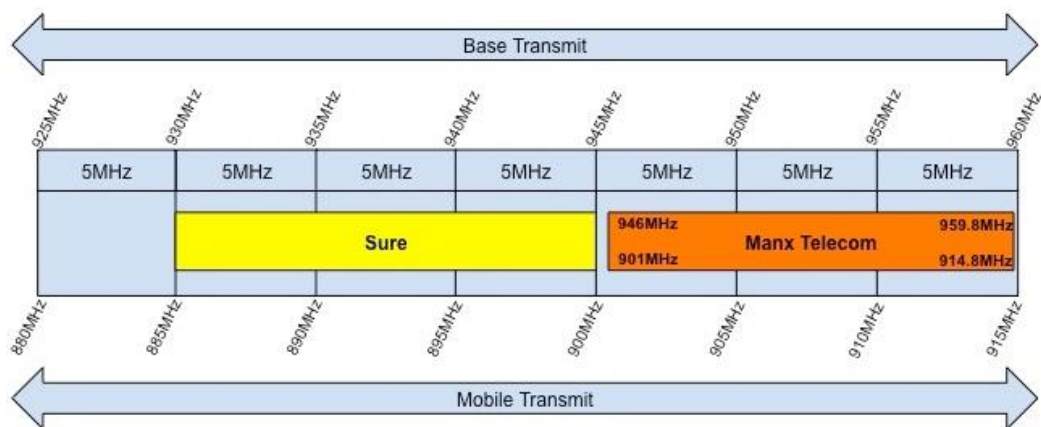
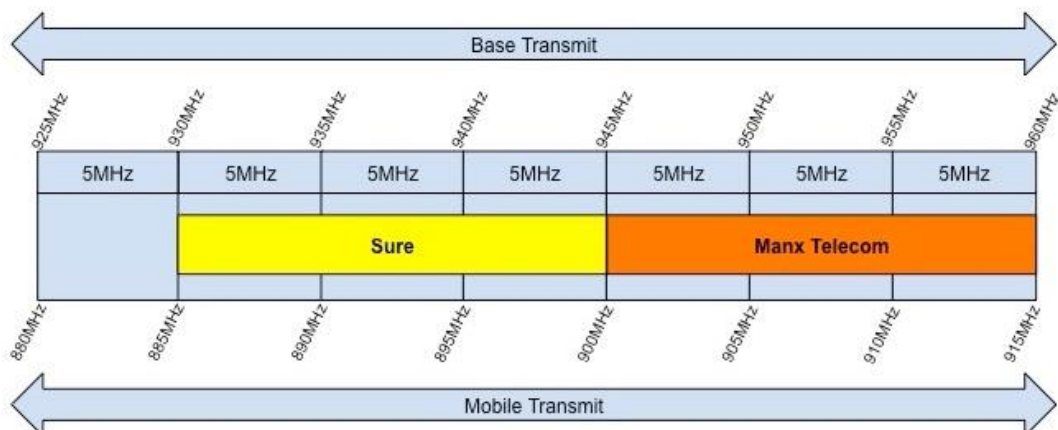


Figure 2: proposed spectrum assignments in the 900 MHz band



4.2 Requests by MT and Sure for spectrum in the 1800 MHz band

Sure currently holds 2 x 25 MHz of spectrum in the 1800 MHz band and it has requested that a further 2 x 15 MHz (i.e. half of the unassigned portion of spectrum in the band) be assigned to it. MT currently has a holding of 2 x 20 MHz of 1800 MHz spectrum and it has requested a further 2 x 20 MHz allocation.

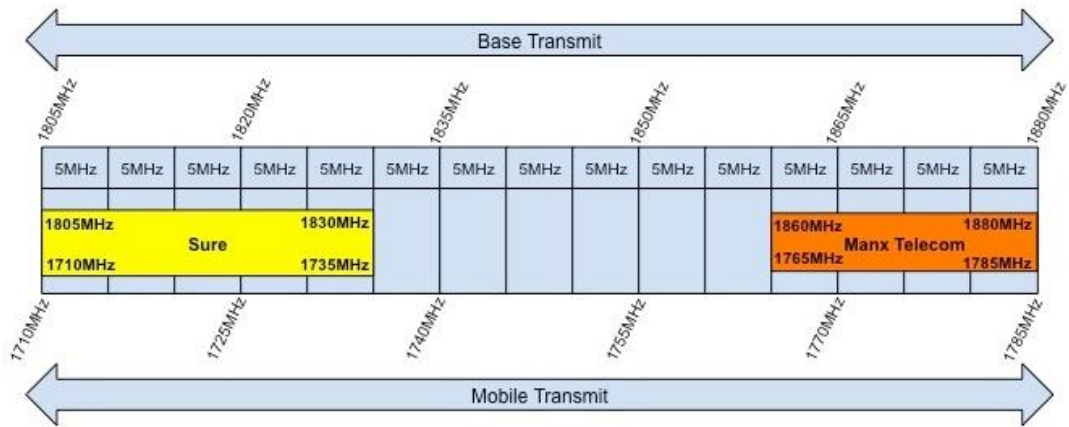
The Commission notes that the approach it recommends to Ofcom for additional allocations in the 1800 MHz band will mean that, with the band fully assigned, one or other of the operators will end up with an assignment that is 2 x 5 MHz bigger than the other. If, on the one hand, both operators are granted access to an additional 2 x 15 MHz of spectrum, then Sure will have a total allocation of 2 x 40 MHz and MT will have 2 x 35 MHz. On the other hand, if MT is granted its requested additional allocation of 2 x 20 MHz, thus leaving Sure with the remaining 2 x 10 MHz, then MT will have a total allocation of 2 x 40 MHz and Sure 2 x 35 MHz.

The Commission recalls that, during the 4G licensing process, it attempted to put in place a process of spectrum equalisation between the two mobile operators. On that occasion one of the operators was not keen to pursue this option and, in light of this, the Commission decided not to take the issue any further. One of the by-products of this decision is that, arising from the 4G licensing process and the subsequent assignment of additional spectrum in 2015, Sure – which had a legacy GSM allocation – emerged with 2 x 5 MHz more spectrum in the 1800 MHz band than MT.

The Commission sees no good rationale at this juncture to recommend that MT be granted access to an additional 2 x 20 MHz allocation within the band, while Sure is only granted access to a further 2 x 10 MHz. On balance, it would be more equitable for both operators each to be granted access to further allocations of 2 x 15 MHz, which is what the Commission proposes to recommend to Ofcom. While this will mean that Sure will hold more spectrum in the fully assigned band than MT, there are other opportunities for MT to acquire spectrum in other bands, which it is doing with its current request for spectrum in a number of different bands.

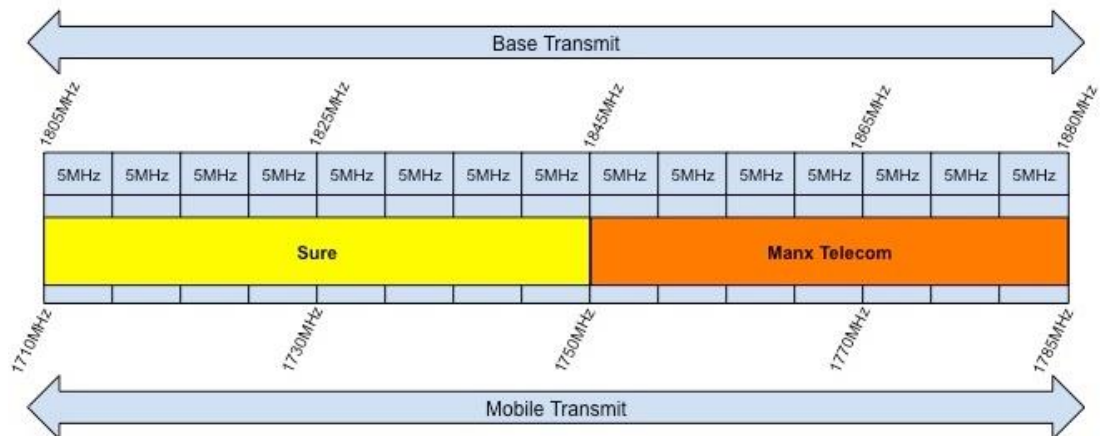
Current and prospective holdings in the 1800 MHz band are illustrated in Figures 3 and 4 below.

Figure 3: current spectrum assignments in the 1800 MHz band



Note: Sure's allocation illustrated above encompasses its existing 5MHz GSM assignment within the band (i.e. 1724.1MHz – 1729.1MHz for mobile transmit and 1819.1MHz – 1824.1MHz for base transmit)

Figure 4: proposed spectrum assignments in the 1800 MHz band



4.3 Requests by MT and Sure for spectrum in the 2100 MHz band

MT and Sure both hold spectrum allocations of 2 x 10 MHz in the 2100 MHz band, which were originally assigned to them for the provision of 3G services.⁶ Both operators have now requested access to additional 2100 MHz spectrum, with MT requesting a further allocation of 2x 20 MHz and Sure requesting an additional 2 x 15 MHz.

As Figure 5 shows, there is sufficient unassigned spectrum in the 2100 MHz band to meet both operators' requests for additional allocations. The main complicating factor is that because, as Figure 5 illustrates, the legacy 3G assignments in the band were allocated in close proximity to each other (i.e. just under 5 MHz apart), Sure will need to vacate its current assignment and move further up the band in order to

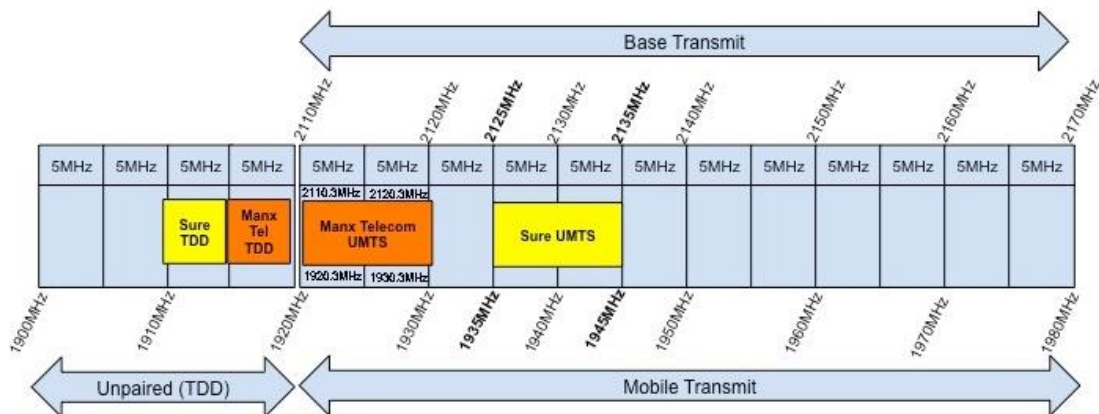
⁶ In addition to these FDD-compatible assignments, both operators also hold 5 MHz of TDD-compatible spectrum in the 2100 MHz band.

facilitate the allocation of larger contiguous assignments of 2100 MHz spectrum to both operators.

In order to be able to facilitate in full MT's request for an additional 2 x 20 MHz of 2100 MHz spectrum, there will also need to be a small adjustment to MT's current assignment. At present there is a guard band of 0.4 MHz between MT's allocation of TDD-compatible spectrum⁷ and its allocation of FDD-compatible spectrum.⁸ For MT to be allocated in full its requested assignment of 2 x 20 MHz of spectrum contiguous with its existing allocation, it will be necessary to eliminate the part of the guard band that resides in the FDD-compatible portion of spectrum in the 2100 MHz band.

Because MT holds the assignments of TDD-compatible and FDD-compatible spectrum that abut each other in the band, the Commission takes the provisional view that the co-ordination of services using the two spectrum holdings is an issue that may be internalised within MT and, hence, that the current guard band arrangement may be dispensed with. The Commission therefore proposes that MT's revised 2 x 30 MHz allocation should run from 2110 MHz to 2140 MHz (base transmit), with Sure's new 2 x 20 MHz assignment running from 2140 MHz to 2160 MHz (base transmit). The proposed new assignments in the 2100 MHz band are illustrated in Figure 6 below.

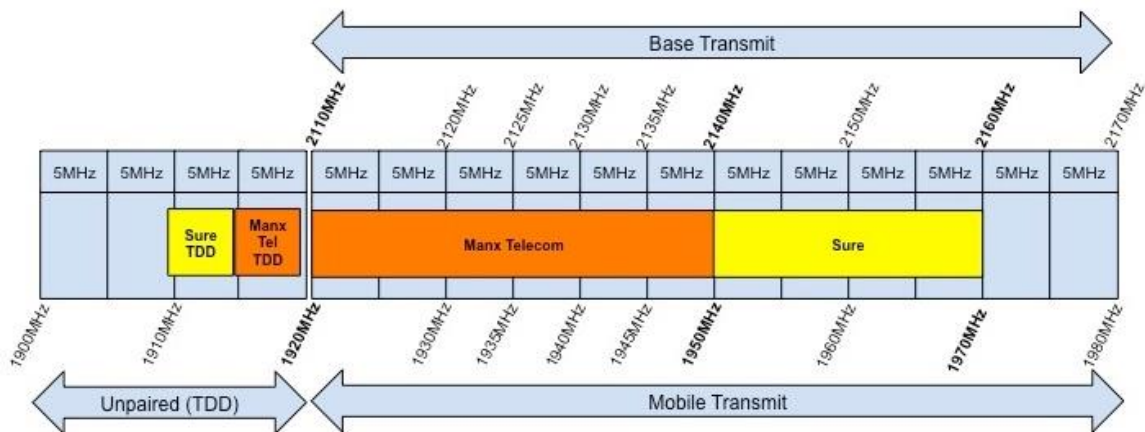
Figure 5: current spectrum assignments in the 2100 MHz band



⁷ This comprises the 5 MHz block from 1914.9 MHz to 1919.9 MHz.

⁸ This comprises the 2 x 10 MHz block from 1920.3 MHz to 1930.3 MHz (mobile transmit), paired with 2110.3 MHz to 2120.3 MHz (base transmit).

Figure 6: proposed spectrum assignments in the 2100 MHz band



Timing of availability of the proposed new assignments in the band is an issue of concern to the Commission, as it will also be for the operators as they will want to use the spectrum at the earliest possible date to support their provision of 4G Advanced services. The Commission has already discussed with Sure the timeframe within which it will be able to vacate its current spectrum holding in the band. Sure has indicated that it would be in a position to do so no later than 12 weeks following the Commission’s adoption of its final decision in relation to the revised 2100 MHz spectrum assignments.

In light of this, the Commission has provisionally decided that, in its final decision, it will set out a definitive date by which Sure will have to have vacated its current spectrum holding in the 2100 MHz. As an incentive to ensure that this date is adhered to and in order to ensure equality of treatment in relation to spectrum access between the two operators, the Commission’s provisional position is that both operators will be entitled to make commercial use of their new expanded 2100 MHz assignments on the same date, i.e. following Sure’s vacation of its current spectrum holding in the band.

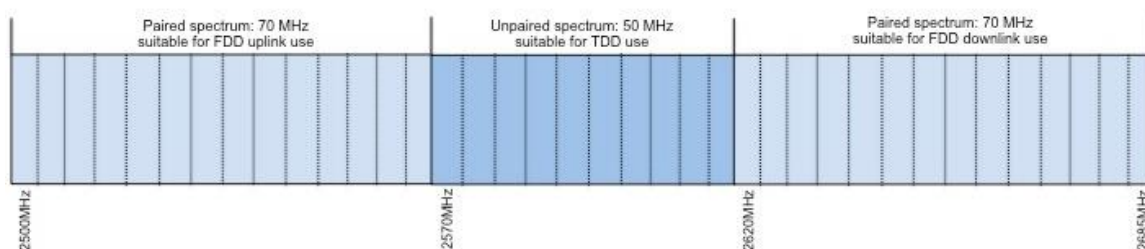
4.4 Request by MT for spectrum in the 2.6 GHz band

MT has requested access to two spectrum allocations in the 2.6 GHz band: a 2 x 40 MHz allocation of FDD-compatible spectrum and a 40 MHz allocation of TDD-compatible spectrum.

As noted above, at the time of the 4G licensing process assignments of 2 x 20 MHz of spectrum in the 2.6 GHz band were reserved for the two 4G licensees, although specific spectrum assignments were not made to MT and Sure at that time. It was envisaged then that spectrum in the 2.6 GHz band would be made available to the two operators as and when they required it.

The frequency arrangement adopted by Ofcom for the 2.6 GHz band in the UK⁹ follows that laid down in the European Commission's 2.6 GHz Decision.¹⁰ The 2.6 GHz band plan adopted by Ofcom provides for assignments of FDD-compatible (2 x 70 MHz paired) and TDD-compatible (50 MHz) spectrum. If the frequency arrangement for the 2.6 GHz band on the Island mirrors that adopted by Ofcom in the UK then it would be as illustrated in Figure 7 below.

Figure 7: frequency arrangement in the 2.6 GHz band



As Figure 7 above indicates, the 2.6 GHz band is currently clear of any usage and so, based on the Ofcom band plan, the entire 2 x 70 MHz (FDD-compatible) and 50 MHz (TDD-compatible) spectrum in the band is available for assignment. This means that MT has requested that it be allocated over half of all the available FDD-compatible spectrum and all but 10 MHz of the available TDD-compatible spectrum.

The Commission is very supportive of operators' plans to deploy enhanced mobile broadband services using 4G Advanced technology. MT's request for large contiguous spectrum assignments (both FDD and TDD) in the 2.6 GHz band, however, raises a wider issue in relation to how, and in what bands, such requests for large spectrum assignments may best be accommodated. While the 2.6 GHz band is an obvious band for doing so, the adjacent (TDD-compatible) 2.3 GHz band is also an option, not least given the fact that, like the 2.6 GHz band, it is already compatible with the latest smartphones, including the iPhone 8 and iPhone X.

Mindful of the need to complete in a timely manner the process of licensing access to spectrum assignments in the various bands, the Commission is of the view that the issue of awarding large contiguous spectrum assignments to support the further enhancement of 4G Advanced services is one that should now be decoupled from this current consultation. Instead, the Commission considers that it should be dealt with as a separate exercise, one that will require it to liaise further with the operators

⁹ See, for example, the 2.6 GHz band plan laid out in Ofcom document *The award of 800 MHz and 2.6 GHz spectrum*, Ofcom Information Memorandum, 24th July 2012, Figure 2.3, available at: https://www.ofcom.org.uk/_data/assets/pdf_file/0022/32872/im.pdf

¹⁰ European Commission Decision of 13 June 2008 on the harmonisation of the 2500-2600 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (2008/477/EC).

and with Ofcom, as well as examining international practice in this area, following which a short consultation, early in 2018, will take place.

This separate consultation will take into consideration wider issues in relation to spectrum allocations in the 2.3 GHz and 2.6 GHz bands, including, for example, if it would be appropriate to accommodate requests for TDD-compatible spectrum in the 2.3 GHz band and requests for FDD-compatible spectrum in the 2.6 GHz band. As a result, it is the Commission's provisional position that MT's request for FDD- and TDD-compatible spectrum assignments in the 2.6 GHz should be dealt with pursuant to this separate consultation.

4.5 Request by BlueWave for spectrum in the 3.4 GHz band

Finally, the Commission has received a request from BlueWave for an assignment of 30 MHz of TDD-compatible spectrum in the 3.4 GHz band in order to expand the wireless-based communications services it is already providing using its existing 3.6 GHz allocation.

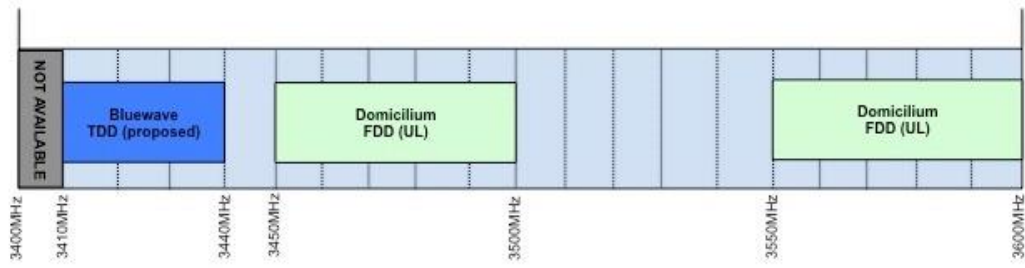
Another operator – Domicilium – has already been granted access to spectrum in the 3.4 GHz band. Domicilium holds a 2 x 50 MHz allocation of FDD-compatible spectrum in the band and so if the Commission accedes to BlueWave's request it will mean that allocations of both FDD-compatible and TDD-compatible spectrum will be in co-existence in the band.

The Commission has discussed this with Ofcom, who have stated that, providing an appropriate guard band is put in place between the respective operators' FDD- and TDD-compatible assignments, it would be acceptable to provide BlueWave with an appropriate TDD-compatible assignment in the 3.4 GHz band.

In conjunction with Ofcom, the Commission has identified an assignment of 30 MHz of TDD-compatible spectrum in the 3.4 GHz band which could be allocated to BlueWave. This proposed allocation, along with Domicilium's existing FDD-based allocation, is illustrated in Figure 9 below. It is the Commission's proposed position that BlueWave should be granted access to this allocation of 30 MHz TDD-compatible spectrum.

In considering this application for spectrum in the 3.4 GHz band, the Commission has, as outlined earlier, factored in the likely future development of 5G services and the possible use of the 3.4 GHz band in this context. The Commission re-emphasises that any decision to recommend the licensing of spectrum usage in the 3.4 GHz band at this point in time to support the expansion of existing communications services is without prejudice to future moves the Commission may have to make to clear or re-configure the band for re-assignment in a 5G licensing process.

Figure 8: current and proposed spectrum assignments in the 3.4 GHz band



5. Next steps

Your views are sought on this Consultation paper. Please respond in writing by 17.00 on **19th January 2018** to:

Katy Collister

Regulatory Manager,

Communications Commission Ground Floor, Murray House

Mount Havelock, Douglas Isle of Man, IM1 2SF

or by email: cc@iomcc.im

Electronic copies of this document are also available at www.iomcc.im.

When submitting your views please indicate if you are responding on behalf of an organisation. To ensure that the process is open and honest and in line with the Government's Code of Practice on Consultation, responses can only be accepted if you provide your name with your response. Unless specifically requested otherwise, any responses received may be published either in part or in their entirety, within three months of the closing date for this consultation, and will be available on the Commission's website.

It is the Commission's view that it is important that consultations are carried out in a transparent manner, that the views of respondents are published, and that the reasoning behind the Commission's consideration of these views can be made clear. Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. Please indicate clearly if any part of your response should be considered to be commercially sensitive, and so required to be confidential. Confidential responses will be included in any statistical summary and numbers of comments received.

The purpose of consultation is not to be a 'referendum' but a gathering exercise of information, views and evidence from which to make an informed decision. In any consultation exercise the responses received do not guarantee changes will be made to what has been proposed.