



Manx Telecom Response

Consultation on the Licensing of 4G Mobile
Services and Notice of Proposed Modification to
Existing Licences

31st July 2013

This response should be read with the view that Manx Telecom believe it is imperative that no more than two licences are issued to provide commercial 4G mobile services in the Isle of Man. Whilst there may be sufficient spectrum to support up to three licensed operators, the commercial reality is that three licences would dramatically undermine the business case to deploy a 4G network. This would directly impact the commercial viability of meeting the roll-out criteria and timescales.

In part 3.9 of the consultation in the section discussing the recommended fee, one of the factors considered by the Commission is *"the limited scale of the 4G commercial opportunity in the Isle of Man, in particular given the population of the island and the widespread availability of high-speed fixed broadband services across the Island."*

It is reassuring that the Commission appreciate the limited scale of the 4G commercial opportunity but it should be recognised that the issue of a third licence would further dilute the limited opportunity that exists.

Manx Telecom is the largest investor in telecommunications on the Island. It is an Isle of Man based company fully committed to driving economic growth for the Island and innovation in telecommunications. We believe that the issue of a third licence would be detrimental to the stated Commission strategy *"to maximise investment and economic growth"* as the investment case would be severely compromised.

Proposal 1: in order to provide 4G services, a mobile operator in the Isle of Man will require a WTA licence issued by Ofcom on the recommendation of the Commission, and the acceptance of a new Part inserted into its Isle of Man Telecommunications Act licence which will include appropriate licence conditions relating to 4G mobile service provision.

It may not be appropriate to run both consultations in parallel as the licence changes specified in the new Part have some interdependencies on other elements in the process. E.g. our compliance with some of the 4G roll-out criteria will be directly affected by the award of more than two licences.

We would not be able to commit to the 4G roll-out criteria by the timeframes indicated should a third licence be awarded. If only two licences are awarded, the addition of the new Part to the licence would be acceptable.

Furthermore, with the addition of a new Part to the licence, this is an opportunity to extend and align licence terms. We suggest that a minimum of 15 years apply to the existing licences and the term is confirmed at the same time as spectrum is awarded.

Manx Telecom has built a great working relationship with the Isle of Man Government, particularly through the e-Isle of Man partnership in recent years. Manx Telecom has continued to invest significant amounts in the Island's telecommunications infrastructure to ensure that the Island is equipped with world-class networks and services.

Furthermore, Manx Telecom is continuing to invest in assets, resources (e.g. data centres) and new technologies (e.g. fibre for NGN deployment). Manx Telecom is dedicated to continuing to promote innovation and investment in the sector, and further develop its partnership with the Isle of Man Government. Certainty over the term of investment in 4G infrastructure will promote further investment and innovation by Manx Telecom because it provides greater certainty in respect of the lifecycle of its assets.

The licence extension will remove a key element of uncertainty for current and future investment decisions. Significant investment will be required in order to achieve the deployment of the required 4G coverage within the proposed short timescales. An extension to the licence term would enable Manx Telecom to invest in the deployment with the knowledge that it would be in a position to benefit from the demand for the services that Manx Telecom would expect to see picking up over the longer term of the licence, as this would reflect the economic life of the capital infrastructure required to provide the 4G services (spectrum, masts, backhaul, etc.).

Proposal 2: spectrum for 4G services should be made available in the 800MHz, 1800MHz and 2.6GHz bands.

Yes – spectrum should be made available in all the different spectrum bands.

Proposal 3: the Commission will consider assignments of up to 2 X 10MHz per operator in the 800MHz band; 2 x 20 MHz per operator in the 1800MHz band; and 2 x 20 MHz per operator in the 2.6GHz band, with the option of reserving spectrum in the 2.6GHz band for later assignment to the 4G licensees.

Manx Telecom supports the maximum assignment in each band:

2 x 10MHz in the 800MHz band
2 x 20MHz in the 1800MHz band
2 x 20MHz in the 2.6GHz band

This will allow us to develop the highest possible speeds in service offerings to customers.

It makes sense that 2.6GHz is allocated when required as it would incur WTA licence fees before being of immediate use.

We would like it to be specified that a successful applicant would have access to the 2.6GHz band when they require it and propose that the TDD spectrum in the centre gap be assigned as an “automatic right” in the same manner as the 2.6GHz FDD spectrum.

If 2.6GHz isn't allocated on an “automatic right” basis we'd like clarification on how the Commission will determine if the spectrum is required.

Proposal 4: all spectrum bands should be liberalised at the same time as the 4G spectrum is awarded.

We would support the liberalisation of all spectrum bands.

The aim of completing licence variations *"to coincide with the conclusion of the 4G licensing process"* outlined in paragraph 2.26 is acceptable but there should be a provision to liberalise sooner if the 4G award process is for any reason delayed.

In paragraph 2.27, there is discussion of WTA and Telecommunications Act licences. For the latter there is a comment that *"licences will contain general obligations in relation to the provision by the licensee of a mobile broadband service"*. This is acceptable but it should be clarified that these obligations are not frequency specific (i.e. Manx Telecom can use whatever frequencies it likes to meet an overall obligation rather than having, say, a 2.6GHz specific obligation). It should also be stressed that this spectrum will be used only for the provision of mobile services.

Proposal 5: up to three licences for the provision of 4G services should be awarded.

Whilst there may be sufficient spectrum to support up to three licences, the commercial reality of the Isle of Man mobile market is that the award of more than two licences will have a significant impact on the investment case to deploy 4G services. In particular, we think that a third licence should not be awarded for the following reasons:

- a potential new entrant would significantly undermine the commercial viability of the investment by Manx Telecom in 4G, and its commitment to meet the rollout criteria, obligations and licence fee;
- given the geography and population of the Island, demand for 4G services is balanced by resident's reliance on fixed broadband or Wi-Fi connections for broadband and data usage both inside and outside the home; and
- there is increasing acknowledgement internationally that adding an additional operator in a market may not have positive competitive outcomes in the medium to long term. In larger markets across Europe, mobile operators are consolidating, and this is viewed by the regulator to be pro-competitive. In addition, there are smaller markets around the world (e.g. UAE), where the existence of two mobile licensees has been deemed to be sufficient and the introduction of a third operator has been ruled out. There are other smaller markets in which the introduction of a third mobile operator has in fact damaged the quality of services.

We have outlined these issues in greater detail below.

New entry would undermine the commercial viability of investment by Manx Telecom

The rollout of 4G services is likely to require a significant investment by Manx Telecom. In particular, the rollout obligations and the specified timeframes (rollout to 95% of the population within two years of the Launch Date) require significant investment.

This investment is made even more significant in light of the fact that the Isle of Man has a small population, which in effect, reduces the potential to recover the investment quickly through building scale and raising high revenues. This would be further reduced if an additional operator was introduced.

Further, widespread Island coverage is highly important to provide competitive telecommunications services. As such, Manx Telecom, if awarded a 4G licence, will be required to service the entire Island, including underserved rural areas. The costs of deploying services in these areas are particularly high. However, the provision of services in these areas would raise comparatively low revenue.

Therefore, awarding a third licence on the Isle of Man and having a situation where all three operators are required to build out to provide full island coverage within two years for relatively few customers is likely to generate outcomes that are contrary to the Commission's stated aim of "*maximising investment and economic growth*".

Manx Telecom is committed to building the telecommunications sector in the Isle of Man. However, if a third licence is to be awarded, it would simply be unviable for Manx Telecom to commit to the rollout obligations within the required timeframes proposed in the consultation.

There is insufficient demand for a third operator

As the Commission has stated in the consultation paper, demand is an important consideration for radio spectrum decisions by Ofcom. Section 3(b) of the WTA provides that, when carrying out its duties in respect of radio spectrum, Ofcom will consider "*the demand for use of the spectrum for wireless telegraphy*".

Isle of Man is a small Island¹ with a low population density.² As such, comparisons with, for example, the Channel Islands may not be appropriate. Both Jersey and Guernsey are approximately 5.5 times as densely populated as the Isle of Man, so population coverage does not present the same challenges.

Given the small population and geography of the Island, there is little need for data usage on the go. Currently, the demand for 2G and 3G mobile data usage is lower than some markets.

¹ With a total area of around 572 square kilometres.

² Population density of the Island is estimated at 133 people per sq. kilometre or 336 people per sq. mile. As at July 2013, the population was estimated at 86,120.

The Commission has itself acknowledged this and stated that:

"... the Island is not large and the 'mobility' benefit of mobile broadband, both for 'nomadic' use and accessing mobile broadband on, for example, public transport, is not likely to be as significant as in other larger jurisdiction".

4G is a new technology, and as such, demand for take-up of 4G services is highly uncertain at this stage and is likely to be – at best – very low in the beginning stages (as is the case in some of the larger economies in Europe, including the UK).

In fact, given the increased competition in fixed broadband and the increased number of Wi-Fi spots around the Island, people on the Island are likely to continue to rely heavily on these sources for data and broadband usage rather than relying on mobile networks.

The Commission has itself acknowledged this, and in the context of determining the fee for the licence, stated that the fee should be set at a lower rate than the international benchmarks given *"the population of the Island, and the widespread availability of high-speed fixed broadband services across the Island."*, which is ultimately said by the Commission to limit the scalability of 4G in the Island.

An additional operator does not necessarily foster competition

An additional operator may not result in positive competitive outcomes in the market. In fact, in other markets (including other industries), regulators have been considering the positive effects of having fewer competitors.

For example, the Australian Merger Guidelines by the Australian Competition and Consumer Commission relevantly states that:

" ... market concentration is not determinative in itself. For example, firms can gain a high market share by adopting a more efficient technology, lowering costs and reducing prices. In such cases, high levels of market concentration do not necessarily reflect the existence of market power".³

In addition, there are a number of smaller international markets within which only two mobile licensees are currently operating. In such markets, competition within the mobile sector has proven to be highly effective, and given the small size of the population, the telecommunications regulator has decided not to issue a third licence.

The UAE Telecommunications Regulatory Authority has ruled out any intentions to licence a third operator besides du and Etisalat. With the launch of 4G services in the UAE only recently, the Telecommunications Regulatory Authority has stated that du and Etisalat are effectively competitive (i.e. provide competitive prices and high quality services). In particular, the Telecommunications Regulatory Authority has ruled out a

³ Australian Competition and Consumer Commission, "Merger Guidelines (draft)", 2008, paragraph 6.7.

third licence operator because, compared with other countries, the UAE has a small population, and the existing level of competition is considered to be sufficient. Similar two-operator structures exist in other countries such as Oman and Trinidad.

Further, there are numerous examples where the issue of a third licence has damaged the market rather than improving services to customers, including Barbados and Jamaica. As the Commission would recall, the issue of a third mobile licence in the Isle of Man to Cloud 9 didn't result in a credible third operator as services were suspended within weeks of launch.

Importantly, it is not only smaller economies within which fewer operators have been considered to be more effectively competitive. There is a recent trend in favour of consolidation among mobile operators in Europe, resulting in fewer operators in several markets.

For example, the European Commission has recently approved the acquisition of France Telecom's Orange Austria operation by Hutchison 3 Austria with a view that consolidation can, in fact, promote competition.

The European Commission has expressed the view that protecting consumers and promoting competition is more than just ensuring a given number of operators in each country. The European Commissioner for Competition has stated that:

"Having a few pan-European operators that are strong in the cross-border market would not necessarily be bad for competition. ... It can make sense ... and be good for investment and innovation."⁴

As such, the European Commissioner for Competition has stated that, where significant investment is required for new technologies, including 4G technology, having fewer operators may be optimal if it leads to new services, lower prices and greater innovation by the operator – i.e. truly effective competition.

Closer to home in the UK, there has been a similar trend in terms of consolidation, including the merger of T-Mobile UK and Orange UK. As a result of a series of other mergers and acquisitions, the number of mobile access networks in the UK has been significantly reduced.

Similarly, a number of consolidations of mobile operators across Europe have occurred in recent times, including:

- in Ireland, where Hong Kong's Hutchison has bought Telefonica's Irish mobile phone operator O2, and announced plans to merge the business with its existing Irish

⁴ See <http://uk.reuters.com/article/2012/06/11/us-media-tech-summit-kroes-idUKBRE85A12A20120611>.

mobile operator, Three. The deal would see the number of mobile operators in Ireland reduce from four to three;⁵ and

- in Germany, where Telefonica will become the second largest mobile operator in Europe with the purchase of KPN's German operations.⁶

In addition to the above, should only two licences be awarded, it is absolutely imperative that the remaining spectrum not be held in reserve and awarded to a new entrant as this would result in an economically inefficient outcome. It would be acceptable for the remaining spectrum to be used for technology trials but not for commercial activities.

The Commission acknowledges in paragraph 2.36 that "*the Commission may consider recommending that further spectrum is made available to 4G operators*". Manx Telecom would support this approach as the effective utilisation of spectrum in this manner best supports the Commission's stated aim of "*maximising investment and economic growth*".

Further, such an allocation would result in greater innovation in the 4G technology space by Manx Telecom. Ultimately, this would result in greater services for the end user.

Proposal 6: all mobile operators should hold equal amounts of mobile spectrum upon completion of the 4G licensing process.

Whilst equalisation of spectrum is potentially feasible, it is unnecessary and would result in additional transition costs and network changes and delays for Manx Telecom.

Paragraph 2.40 makes it clear that Manx Telecom would in fact be the only party required to relinquish existing spectrum and we feel this is disproportionate for questionable competition benefits when existing spectrum availability is not an issue.

In fact, in several places in the consultation, the Commission has acknowledged that the availability of spectrum is not an issue, and there are large volumes of spectrum available.⁷

Further, it would seemingly result in some useful 900MHz spectrum being unused which would have a detrimental effect to consumers.

Only if spectrum availability became an issue would Manx Telecom consider the viability of relinquishing the 2x3.8MHz and then only over a reasonable period of time (to reduce the cost of transition). However, this is not the case at the moment and the proposed equalisation strategy is overly burdensome.

Paragraph 2.40 also sets out that a new licensee would be "*entitled*" to 2x10MHz of 900MHz and 2.1GHz (and 5MHz TDD at 2.1GHz). Therefore, they would be awarded more

⁵ Financial Times, *Hutchison Whampoa buys Telefónica's Irish O2 business*. 24 June 2013.

⁶ Financial Times, *Telefónica to buy KPN's German business*, 23 July 2013.

⁷ For example, in sections 4.4 and 4.5 of the consultation.

spectrum than the existing licensed operators in order to equalise holdings. This would present issues from a parity perspective as it would not provide for a level playing field for all the operators. As such, we submit that this would be inappropriate.

Proposal 7: 4G operators with usage rights in the 800MHz band will need to take appropriate steps to deal with possible DTT interference in the band and to implement whatever remedial work is necessary to deal with such possible interference.

In paragraph 2.15, the Commission *"takes the view that it is up to the 4G licensees themselves to deal with possible DTT interference and to implement whatever remedial work they see fit, in order to ensure that interference is not an issue"*.

There are two points which arise from this:

First, the notion that *"an obligation to deal with possible DTT interference should be included within the WTA licences"* may not in itself be an issue. However, the wording of such an obligation needs to be carefully defined and currently no mention of this wording is made in the consultation document. This needs to be clarified.

Secondly, interference to DTT is not equal from all 800MHz sub-blocks. In particular, the bottom of the band, which is adjacent to DTT, will cause more interference. As a result, obligations to mitigate interference may have different costs for different 800MHz users. The proposed award process contains no process (an "assignment stage") to determine which spectrum blocks each operator gets. As such, it is unclear how such selection will be made and as a result which operator will incur the highest interference mitigation costs, seemingly without any difference in the fees paid for the spectrum or ability to influence the outcome.

Only with greater clarity over the assignment of spectrum can this Proposal 7 be properly assessed.

Early certainty on spectrum allocation is vital to ensure that the sharing of costs for mitigation of DTT interference is viable. It also needs to be explicitly agreed that costs will be shared equally across operators.

It is worth noting that with only two licensed operators this could become less of an issue as spectrum could be awarded away from the lower bands that are most at risk of DTT interference. This would be the most sensible way to assign spectrum.

Proposal 8: the 4G Telecommunications licence fee should be set at £150,000 per licence.

The 4G Telecommunications licence fee of £150,000 is acceptable if the outcome of this process is that only two licences are awarded.

Proposal 9: the 4G licence award process will comprise four stages, i.e. an Application Stage, Qualification Stage, Sealed Bid Stage and Award Stage. If three or fewer qualified

applications are received, the Sealed Bid Stage will not be required and, in this instance, the process will proceed directly to the Awards Stage. The Commission is proposing this award process as the best method to meet its objective of concluding the licence award process as rapidly and efficiently as possible.

Throughout this section of the consultation document there are repeated references to "valid applications". At no point, however, does there appear to be a definition of "valid". It is essential that this term be clarified. For example, there doesn't appear to be any safeguards against frivolous applications which could delay the overall process.

Further, under the Qualification Stage, the Commission refers to "evaluation of the applications received" in response to its call for Expression of Interest. The criteria that the Commission intends to use for such evaluation need to be made clearer.

As previously commented, under the discussion of the Award Stage, the Commission refers to "provision also being made at this stage for access by the 4G licensees to spectrum in the 2.6GHz band as and when the Commission is satisfied that this is required". As mentioned earlier we believe the decision should lie with the successful applicants. I.e. access to be granted by the Commission on request of existing Telecoms Act licensee.

We support the Commission's decision that a beauty contest is likely to be too time consuming and expensive given a likelihood of no excess demand but we do not accept that there is a valid argument for issuing a third licence at all. As a result we don't consider the Sealed Bid Stage to be valid. If in the unlikely event the process was to progress to the Sealed Bid phase the existing operators would need to be granted reserved capacity. We have concerns that an operator based away from the Island applies for and is awarded a licence without ever intending to meet the roll-out criteria.

As the process stands there is a lack of clarity over some key elements: how the roll-out criteria will be assessed, penalties for failing to meet the criteria, how the application process will work and timescales on the award of spectrum and subsequent roll-out obligations. If the Commission intend issuing a 3rd licence some of these oversights will need to be addressed to prevent circumvention of the intended framework.

Assignment

As mentioned in discussion of Proposal 7 in Section 2, there is no assignment stage suggested in the consultation.

Not all spectrum in all bands is equally valuable and this makes consideration of the actual assignments important. For example:

Sure is likely to place a premium on spectrum in the 1800MHz band adjacent to its existing holding

All operators are likely to prefer spectrum at the top of the 800MHz band, or more generally, spectrum further from the bottom of the band (due to potential interference with DTT).

Operators are, in general, likely to prefer 2.6GHz FDD spectrum in the middle of the band to avoid potential interference with and from TDD services (or another use) of the centre gap.

Proposal 10: the Commission proposes to include a number of service criteria in the areas outlined above within the 4G licences. Respondents are invited to provide views on the proposed characteristics, including what parameters they believe would be appropriate for each.

In general the suggested service criteria are acceptable, if only two licences are granted and demand a reasonable level of commitment by a successful applicant but there are a few points that need further clarification.

It isn't clear in the criteria whether the coverage numbers refer to indoor or outdoor coverage. This certainly needs to be clarified.

In the consultation there is no definition of the key term "lightly loaded". We need the meaning of this term to be made clear. In the UK, the term "lightly loaded" is defined by Ofcom as a "*single user demanding service within the serving cell, and the surrounding cells of the network are loaded to a light level (by which we mean the common channels only are transmitting at 22% of the maximum cell power)*". Is the Commission referring to this definition?

As mentioned above it isn't clear how the service criteria will be assessed or audited. This needs to be made more robust.

Other

Two extremely important aspects are missed out of the consultation process documentation

It should be explicitly stated what will happen should a licensee fail to meet the outlined criteria for 4G roll-out. Our preference would be that this would lead to the revocation of the licence rather than any extension on the timescales or reduction in criteria to be met. Other proposals could include daily penalties to be applied for delays or a performance bond. This aspect of the consultation requires further discussion.

With the addition of a new Part to the licence this is an opportunity to extend and align licence terms. We suggest that a minimum of 15 years apply to the existing licences and the term is confirmed at the same time as spectrum is awarded. This will remove an element of uncertainty for current and future investment decisions.