

Notice of Ofcom's proposal to make regulations in connection with the award  
of 2500-2690 MHz and 2010-2025 MHz  
Issued 4 April 2008

T-Mobile response

1. Executive Summary

- Ofcom will be aware that T-Mobile has argued strongly for some considerable time that Ofcom cannot properly proceed with this auction without first taking a decision on its policy on the liberalisation and potential reallocations of spectrum in the 900MHz and 1800MHz ranges. [3<]
- T-Mobile has considerable concerns regarding the rights of licence holders. Ordinarily, spectrum licences are granted on an exclusive basis (hence their purpose and value), or subject to a clearly defined exceptions regime. However, the Information Memorandum makes clear that the licences will not guarantee exclusive use of the spectrum, and makes vague reference to the possibility of Ofcom granting additional authorisations to allow the use of all or part of the bands.
- T-Mobile considers that the rights of licence winners must be both reinforced and clarified. The proposed regime should be reversed: licences should be granted on an exclusive basis, with Ofcom retaining the right to propose further authorisations of the same spectrum for specific uses only and subject to significant consultation requirements only. Subsequent Ofcom's actions on use of the spectrum could alter the spectrum value, irrespective of any interference matters, thereby impairing a company's value. This is clearly unacceptable.
- T-Mobile remains very concerned that there is still uncertainty surrounding the issue of terminal to terminal interference. Ofcom should take into account the output from the SE42 work on terminal to terminal interference. The output of this SE42 work should be reflected in the terminal out of band limits within the WT Act licences and in the future exemption regulations.
- T-Mobile is concerned that repeaters are not catered for within the Draft Licence or the draft Interface Requirement (IR 2072). The Draft Licence and Interface Regulations need to be amended to deal specifically with repeaters.
- T-Mobile has argued at length previously that Ofcom should maintain the CEPT Band Plan and that an auction in line with this Plan does not restrict any technologies from accessing the band. TDD technologies such as WiMax can still be used in the FDD blocks using half duplex FDD mode. T-Mobile has further argued that if the Band Plan was not to be followed then Ofcom should adopt the contingent bidding proposals that it set out in the August 2007 Discussion Document. T-Mobile still believes these arguments are valid.

## 2. Legal issues

### 2.1 Liberalisation

[§<] Ofcom has not yet made a decision on liberalisation of the 900MHz and 1800MHz bands. It is essential that liberalisation of existing mobile spectrum is addressed in advance of the 2.6GHz award process. Until Ofcom's policy on liberalisation has been crystallised the auction can only take place in circumstances of unacceptable uncertainty as to demand for, and thus the value of, the spectrum being auctioned; such uncertainty is within Ofcom's control and will result in an auction process contrary to Ofcom's statutory duties and objectives.

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### 2.2 Licence Terms

#### 2.2.1 Floe Telecom case

T-Mobile has repeatedly drawn Ofcom's attention to the Floe Telecom case, which affects the spectrum powers of Ofcom and the rights of spectrum licence holders, and the uncertainty that this case consequently engenders pending final judgement. Ofcom's response in this consultation process has been to dismiss this concern on the basis that a judgement will be published ahead of the award process and will in any event not affect the ability of T-Mobile, or any other bidder, to participate in the auction.

However, in adopting this position, Ofcom fails to address itself to the fundamental issue of uncertainty caused by this case. It cannot be assumed that the Court of Appeal judgment will resolve the issue, or do so immediately. For instance, the judgement may annul the judgement of the Competition Appeal Tribunal on narrow grounds, but leave the remarks of the CAT on other issues open.. Accordingly, it is unrealistic for Ofcom to assume the mere fact that a judgement is likely prior to the commencement of the auction is sufficient.

Moreover, however, it is careless, as the importance of the issues at stake make it incumbent on Ofcom to be particularly cautious. The Court of Appeal case has indicated that there is no certainty as to the interpretation of any licence or Ofcom's spectrum powers. In these circumstances, a decision not to postpone the auction is extraordinary. Given the short delay that may be required, even weighed against the benefits of releasing the spectrum at the earliest opportunity, there is a clear net benefit to resolving this issue.

Ofcom's argument that the case does not affect a bidder's ability to participate in the auction is particularly concerning as it betrays a fundamental misunderstanding of the issue. T-Mobile's concern is not to postpone the auction indefinitely, but to ensure that the auction takes place in circumstances where transparency and certainty are not sacrificed for needless expediency. T-Mobile's ability to bid is not prevented by the Floe Telecom case, however it's participation is heavily coloured by the fact that its assessment of the spectrum licence is necessarily affected by the uncertainty that surrounds the status of Ofcom's powers.

#### 2.2.2 Exclusivity

T-Mobile has considerable concerns regarding the rights of licence holders. Ordinarily, licences are granted on an exclusive basis (hence their purpose and value), or subject to a clearly defined exceptions regime. However, the Information Memorandum makes clear that the licences awarded will not

guarantee exclusive use of the spectrum, and makes vague reference to the possibility of Ofcom granting additional authorisations to allow the use of all or part of the bands. This is extraordinary.

It is expected that licence fees will be substantial. The reason for this is that bidders are expected to have placed a high value on the use of the licensed spectrum. The value of that spectrum is based on the ability to use that spectrum, the flipside of which is that others are not permitted to use it. The licence therefore has value in part because it permits the user to use the bands, and because it denies others from doing the same. Exclusivity is a key tenet to any bidder's interest in the auction.

Ofcom will no doubt point to the reassurance provided to prospective bidders in the form of a requirement to ensure the risk of harmful interference is minimised, by making any subsequent additional authorisation subject to conditions of use, which would be consulted on. However, this is wholly inadequate. Put plainly Ofcom, is proposing to licensees that they will have use of the spectrum subject to Ofcom being able to:

- permit others to use the same spectrum, the licence holder having no veto, or even right of consultation regarding the decision to permit such further use.
- grant further authorisations for use of the same spectrum subject to conditions that will manage the risk, but not exclude, harmful interference.

Hence, it is expected that licensees will pay significant sums for the non-exclusive use of spectrum, in respect of which they have no right to be consulted on how to manage the risk of harmful interference caused by the authorisation of further licensees by Ofcom to use the spectrum won at auction.

Furthermore, licensees have little assurance that this potential authorisations regime will be unobtrusive or that their consultation responses will be accounted for.

T-Mobile's experience of Ofcom's consultation of licence holders regarding test and development licences is not encouraging, as it is not clear what is eventually agreed with the applicant and so whether Ofcom fully accounts for the responses of licence holders. Further, T-Mobile has to invest considerable time and effort to minimise the impact on its operational network. T-Mobile endeavours to accommodate applications but Ofcom must recognise that interference will cause loss of revenue and customer dissatisfaction. In such cases, the risk of interference is not managed – interference is permitted.

The issue of the licensing of ultra wide band devices and Ofcom's handling of this issue also does not fill potential licensees with confidence. Ofcom has wide spectrum management powers and it should rely on this, rather than rendering the rights of licensees effectively nugatory.

In summary, T-Mobile considers that the rights of licence winners must be both reinforced and clarified. The proposed regime should be reversed: licences should be granted on an exclusive basis, with Ofcom retaining the right to propose further authorisations of the same spectrum for specific uses only (i.e. non-operational licences referred to at 5.47-5.49 of the IM) and subject to significant consultation requirements only.

Subsequent Ofcom's actions on use of the spectrum could alter the spectrum value, irrespective of any interference matters, thereby impairing a company's value. This is clearly unacceptable. It is unreasonable for Ofcom to reserve rights to re-use spectrum it has sold.

### 2.2.3 Publication of information

Ofcom has proposed to include a standard condition in the licences to require licensees to provide, on request, "general information regarding their equipment and use of frequencies, or the roll-out of their network". Such information is currently provided by MNOs under a voluntary arrangement (Site Finder), which is currently the subject of some uncertainty. It is inappropriate for the provision of this information to be addressed in this manner until the current appeal is determined and the legal position clarified. Thereafter, Ofcom should fully demonstrate that a licence term requiring the provision of such information is a necessary and proportionate mechanism in the circumstances. At present, the reasoning set out in the statement is insufficient to validate such a requirement, particular where it conflicts with current Ofcom and licensee practice.

## **2.3 Auction Rules**

### 2.3.1 Bid Forms – offline alternative

T-Mobile requests clarification from Ofcom regarding the use of bid forms outside the electronic auction system. In respect of each stage of the auction it is stated in the Information Memorandum and draft rules that bidders must use the bid form provided by Ofcom. In respect of bids made during the normal course of the auction it is assumed that this will be the bid form provided online via the electronic auction system.

However, in the event that this system is not available to a particular bidder (prompting use of an "alternative method for submission"), while bidders are required to use the form required by Ofcom, it is not clear what form this is: in the absence of the electronic auction system, bidders will be unable to use the online form. T-Mobile would be grateful if Ofcom could indicate whether it intends to provide bid forms (for each of the primary, supplemental and assignment rounds) or whether it is referring the form in which bids are made (i.e. telephone/fax etc).

### 2.3.2 Bid Forms – correction of incomplete or defective bid forms

Regulations 34, 42 and 61 state that where the relevant stage bid form is incomplete or defective, but Ofcom believes that they can ascertain the bidder's intention in relation to the making of the [relevant stage] bid, Ofcom shall ask the bidder to confirm in a notice to Ofcom [...] that Ofcom have correctly ascertained the bidder's intention in relation to the making of the primary bid.

While the use of the electronic auction system should prevent the submission of incomplete or defective forms, and T-Mobile is grateful for this further fallback, we would submit that Ofcom should ask bidders to confirm their bid in each case where the bidders intention is unclear owing to an incomplete or defective bid form: the threshold for verification of such bids is Ofcom's belief as to whether it can ascertain the bidder's intention, however this is too uncertain and discretionary.

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## **3. CEPT Band Plan – ECC Decision (05)05**

T-Mobile has argued at length previously that the Ofcom should maintain the CEPT Band Plan in ECC Decision (05)05 and that an auction in line with this Plan does not restrict any technologies from

assessing the band. TDD technologies such as WiMax can still be used in the FDD blocks using half duplex FDD mode. T-Mobile has further argued that if the Band Plan is not to be followed then Ofcom should adopt the contingent bidding proposals that it set out in the August 2007 Discussion Document.

T-Mobile does not repeat those arguments in this response, however T-Mobile still believes these arguments are valid and that Ofcom should maintain the CEPT Band Plan. T-Mobile does not agree with the Ofcom's assessment that the impact of terminal to terminal interference is likely to be insignificant (see 4.1 below) or the assessment that there is therefore a limited risk that not allowing contingent bids would lead to an inefficient award (see section 4.1 of T-Mobile's response to Ofcom's Discussion Document).

## **4. Technical issues**

### **4.1 Terminal out of band limits**

T-Mobile remains concerned that there is still uncertainty surrounding the issue of terminal to terminal interference. We believe the latest Ofcom study presents optimistic results. For example the study of the urban macro-cellular scenario has only considered outdoor terminals. Terminals within buildings are more susceptible to terminal-to-terminal interference in an indoor scenario: within buildings the interfering terminal is transmitting at a higher power to overcome the penetration loss and the receiving terminal is more susceptible to interference due to reduced received signal from the serving base station. We expect that most situations where FDD terminals are in close proximity to TDD terminals are indoor cases (e.g. meeting rooms, hotel lobbies, etc.). Further the study does not address individual users having multiple devices e.g. a mobile phone and a laptop where one is an FDD device and the other is a TDD device.

As indicated in section 6.8 and 6.9 of the Statement, the ECC has instructed SE42 to carry out further work on terminal to terminal interference at 2.6 GHz as a matter of urgency. The deliverable from this supplementary work will be presented as advice to ETSI and can be handled in line with the normal co-operative process between CEPT and ETSI. Further work on terminal to terminal interference at 2.6 GHz could, in due course, be reflected in future ETSI standards for user equipment operating in the 2.6 GHz band.

We note that the inputs into SE42 on the issue of terminal to terminal interference, including the ones submitted by Ofcom and ANFR, present considerable different conclusions. Some studies have shown that the 'out-of-block' emissions of the terminals have to be reduced in the order of 20 dB's to protect adjacent channels.

SE42 should finalise its work in June this year. However it is not certain how long it will take ETSI to incorporate any new limits within the Harmonised Standards for equipment operating in the 2500 – 2690 MHz band. Indeed it is by no means certain whether ETSI will adopt the limits proposed by CEPT.

Hence we are concerned that terminals could be placed on the market which meet the ETSI Harmonised Standards but will still cause interference into our network. It is our understanding that under the RTTE Directive operators must allow terminals onto their networks if they comply with the relevant Harmonised Standard and in any case customers from abroad would roam onto our network with terminals conforming to the Harmonised Standard.

Ofcom should take into account the output from the latest SE42 work on terminal to terminal interference. The output of this work needs to be reflected in the terminal out of band limits within the WT Act licences and in the future exemption regulations.

## **4.2 Repeaters**

T-Mobile is concerned that Repeaters are not catered for within the Draft Licence or the draft Interface Requirement (IR 2072). Repeaters transmit on both Base and Mobile transmit frequencies. The draft Interface Requirement for 2.6 GHz states that a WT Act licence is required for Repeaters but these are not mentioned in the Draft Licence. The Draft Licence and Interface Regulations need to be amended to deal with Repeaters.

T-Mobile  
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