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Ofcom
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7 September 2006

Dear Joe

Award of available spectrum: 10 GHz, 28 GHz, 32 GHz and 40 GHz

THUS plc is pleased to respond to Ofcom's consultation on the award of the above spectrum dated 29 June 2006.

1) Do stakeholders agree with the proposals for the award of licences in the 10 GHz, 28 GHz and 32 GHz bands in 2007?

1. In broad terms, we agree with the proposals outlined by Ofcom. We are pleased that the licences will be offered on a technology- and usage-neutral basis. THUS (through Your Communications which it acquired in March 2006) gained first hand experience of 28 GHz auctions and network rollout during 2000 – 2001, so we are well aware of the disadvantages of usage restrictions. As such, we are pleased that lessons appear to have been learnt from that exercise.
2. The existing 28 GHz licences held by THUS (regions B,C, I & J) give limited coverage of the UK as a whole. Should THUS wish to expand coverage to a nationwide level, it would be helpful if one of the three partial UK packages could be an exact 'fit' around the regions already held. In other words, THUS would request that the 'partial UK' licenses on offer be changed so that at least one of them offers an exact complement to our existing coverage. At the moment, THUS cannot see that any of the packages on offer in 28 GHz offers a perfect fit around our existing regions. We realise that other license holders may wish to do the same as THUS. However, none of the existing holders has an operational network and as such should be happy with any package of frequencies which would give them nation-wide coverage. We would welcome the opportunity to discuss this matter further with Ofcom.
3. The proposed terms for the new licences are different in certain respects from the existing licence held by THUS, notably the licence duration. We believe that Ofcom should be prepared to amend the terms of THUS's existing licence to match the terms of the new licences, and would welcome an opportunity to discuss this matter with Ofcom further. If Ofcom were to adopt a policy that licence conditions would normally be up-graded in

situations such as this, it would provide those bidding for spectrum with some reassurance that their investment would not be undermined (any more than necessary) by future awards, and potentially lead to increased investment as a result of reduced regulatory uncertainty. It could also facilitate any future market in spectrum, which could otherwise be constrained by the difficulties of combining spectrum lots with different rights or obligations attached. Finally, unless there is an objective justification for preserving the differences, we believe that it could be discriminatory (and contrary to the tests set out in section 1D(9) of the 1949 Act) not to amend the existing licence.

4. We have some reservations about the timing of the forthcoming auctions of 28 GHz and 32 GHz allocations. We feel certain that there will be significant interest in the 10 GHz spectrum – the propagation characteristics and equipment currently on the market are both conducive to profitable usage in (for instance) local broadband distribution, especially in rural areas. Therefore, for 10 GHz, the timing appears sensible. However, for the 28 GHz and 32 GHz bands it is unclear that there will be any significant demand. Our own 28 GHz network has had limited commercial success and we are not aware of any other operational networks in the UK. Any prospective operator will face the same issues as THUS – limited equipment availability, relatively short range, expensive hardware and a very aggressive market place (due to technological advances, for example in ADSL speeds, and Local Loop Unbundling). There have been no significant changes since 2001 to available technology or demand that would make a 28 GHz license any more attractive now than at the original 2000 auction. The properties of the 32 GHz band are very similar to 28 GHz and so the same argument applies to that band.

2) *Do stakeholders agree with the proposal to include in the award of the 32GHz band that portion of the band that has been open since 2003 for point to point applications?*

Yes, if the 32 GHz band is to be auctioned then it should include that portion which was made available for point to point links. In our opinion this is consistent with Ofcom's general direction towards allowing the market to decide on the optimum use of available spectrum. Ofcom made the band available for point to point links, and after three years, no use had been made of the band. This suggests that the market has decided that the industry's needs are adequately served by the existing 25 GHz and 38 GHz spectrum.

3) *Do stakeholders agree with the proposals to defer the release of the 40 GHz band and review the position in two year's time?*

Yes. If the band were auctioned now when there is little or no demand / technology present, then it could result in a potentially valuable piece of spectrum being contaminated unnecessarily – reducing its usefulness for a future (as yet unknown) application. The 40 GHz band would appear to be best suited to very high bandwidth, short-range applications (say <4km). Two possible applications are: point to multipoint distribution from high altitude platforms and high capacity links between densely packed (urban), heavily loaded, 3G and 4G base stations. A two-year interval before further consideration appears sensible to THUS.

4) Do stakeholders have any other comments on the content of this document?

The auctions outlined in the consultation document could benefit significantly from the change from the system of 'command and control' to 'spectrum usage rights' as outlined in a recent Ofcom consultation document on SURs. The respondents to the SUR consultation all concluded (in general terms) that moving away from 'command and control' could result in significant gains, both technical and economic. However, many of the respondents also identified the need for significantly more discussion and research to be carried out to ensure that any negative effects of SURs are minimised (namely, increases in unwanted interference).


The consultation document relating to the auction of spectrum at 10, 28 and 32 GHz does incorporate some aspects described in the SUR consultation: technology neutral, boundary power spectral densities and non-specific usage. However, there are still many issues to be resolved before the questions surrounding the use of SURs are fully answered. Is Ofcom expecting that all of the SUR issues will have been resolved by the time of the auction in 2007? If so, it seems over ambitious. If not, then would it better to delay the auctions until most of the uncertainties over SURs have been resolved?

From Ofcom's consultation document on SURs, it would appear that the expected benefits of the new approach will apply to 'Wide Area' or 'National' licences. All of the spectrum under consideration here falls into exactly this category and is therefore perfect for the SUR approach.

Would the auction of a piece of virgin spectrum such as 32 GHz be better put on hold? In the interim it could be used for commercial trials under SUR conditions to enable problems to be identified under 'safe' conditions. This would allow a demonstration of how any conflict situations might be played out.

We would be happy to discuss any of the issues raised above in more detail. Please contact me or Julian Stafford, our Radio and Fibre Planning Manager (tel 0161 609 7531).

Yours sincerely

A handwritten signature in black ink, appearing to read 'Richard Sweet'.

Richard Sweet
Director of Government Affairs