



Non-confidential version

Response to Ofcom's consultation on:

Policy for the DECT guard band

Consultation on the authorisation regime and the licence fees

(Issued by Ofcom on 29 September 2016)

BT plc
8 December 2016

Executive Summary

1. BT agrees with Ofcom's conclusion that the DECT guard band should remain authorised for shared low power use by multiple licensees.
2. BT has no objection to Ofcom's proposal to allow additional players to access this spectrum via a light-licensing regime. This, together with Ofcom's decision to amend the technical licence conditions to facilitate LTE femtocells, may promote additional innovation and competition that could benefit consumers. We note, however, that there is also the possibility for any party interested in using the spectrum to seek to acquire a licence via spectrum trading with one of the existing twelve licensees.
3. We do not support the alternative option of changing to a single high power licence, which may be awarded by auction, that would possible following revocation of each of the existing (currently twelve) licences with due notice (5 years). The variant of this option where the band is expanded to 5MHz would be even more problematic given the due process that would need to be followed and the costs of implementing such a change.
4. BT considers that existing and planned use of the band by the current licensees, and potentially new licensees, has potential to deliver greater consumer benefits than may arise from a single high power licence awarded 5 years or more hence. Ofcom could always re-examine the situation in a few years' time in light of market developments in case the position should change.
5. Ofcom's other alternative option of moving to licence-exempt access would mean that the inter-operator coordination arrangements, that are important to help achieve quality of service, would be difficult to enforce. We therefore don't recommend this option.
6. BT recommends that Ofcom sets annual fees for the use of this shared spectrum taking due account of the full range of relevant considerations on fees within the applicable regulatory framework as well as the somewhat unique features of the use and constraints associated with this band and the uncertainties around the impact of excessive fees and uncertainty around opportunity cost. We therefore don't think benchmarking to Ofcom's estimation of full market value per MHz of adjacent UK 1800MHz mobile spectrum, adjusted to reflect the DECT adjacency using German auction data, is the right approach here.
7. We consider that given the unique sharing and coordination arrangements associated with this band and the tradable licenses, cost based fees would be sufficient to promote efficient use of this spectrum. It is unclear how any higher fees would encourage greater use of the band given that under Ofcom's proposed amended licensing regime any party that wished to use the band would be able to request a licence to do so. More efficient use would be achieved by maximising the number of licensees and the number of systems they deploy and the spectrum pricing regime ought not to discourage this.

Question 1: In the light of the complexities of the transition, do you have views on the relative value of a 2x5 MHz block as opposed to a 2x3.3 MHz block for high power mobile use?

BT welcomes Ofcom's position that it is not minded to trigger a change to high power use, whether 2x3.3MHz or 2x5MHz.

BT agrees that given the complexities of the transition (and costs that may arise), as well as the need to give 5 years notice or secure agreement to vary the existing national mobile licences, it would be much more problematic to award a full 2x5MHz block. As regards the theoretical value of a 5MHz block compared to a 3.3MHz block, this would depend on what application were to be supported and the technology to be used. The value of either size block may also reflect the fact that it is not adjacent to other spectrum that could be aggregated with it (assuming it were not awarded to BT/EE).

Question 2: Are there any other developments, in the UK or in Europe, relevant to our policy in this band that we should be aware of? In particular, are there other potential applications that could be deployed in the band under a low power shared access regime? It would also be helpful to receive any updates from the current CSA licensees on their plans.

BT does not know of developments in UK or Europe beyond those that Ofcom is already aware of.

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Question 3: Do you agree with this preliminary view that we should not trigger a change from a low power shared regime to a high power single use regime at this point?

Yes, we agree with Ofcom's analysis and conclusions on this point. We note that in light of market developments Ofcom could revisit this decision at a later stage in the event that Ofcom's preferred route of continuing with shared low power use does not develop as expected.

Question 4: Do you think that the stations could be deployed in the DECT guard band without material interference risks or need for coordination? If so, do you have a view on the conditions for exemption such as power limits, indoor/outdoor use or others?

We consider that the risks of interference between systems of different licensees in an uncoordinated licence-exempt environment would be too great for the intended product solutions and the needs of our customers, especially in congested locations and where a mix of narrowband (e.g. GSM) and wideband (e.g. LTE) technologies are used. We think that a light licence regime in which any additional licensees would be part of a requirement to coordinate with other operators and to input deployment information to a database is a pragmatic and workable solution.

Question 5: Are there technology developments, such as polite protocols, that would facilitate coexistence of stations in the band?

It is possible that newer technologies may increasingly be able to self-organise to control interference, e.g. by adapting frequencies or power levels. However, based on today's existing deployments some inter-operator coordination / deployment rules and registration of installations in a database seems necessary.

Question 6: Do you think it would be possible to coordinate deployments if the number of licences was higher than twelve, potentially unlimited?

So long as the coordination is a licence obligation, and there is opportunity to develop the arrangements over time in light of technical and market developments, it should be possible to coordinate deployments to a sufficient degree.

Question 7: Do you think it would be possible to have different coordination procedures for different types of use?

There may be scope to do this but it may be useful if Ofcom could play a more active role in working with licensees to update the procedures and ensure they help give equitable access to the shared spectral resource and minimise interference risks.

Question 8: What do think would be the most appropriate authorisation approach regime in a low power shared access regime for this spectrum (and why)?

BT considers that if Ofcom wants to enable wider access to the DECT guard band spectrum a light licence regime with obligation to coordinate with other licensees is the most appropriate solution.

Question 9: Do you have comments on the choice of approach to setting fees under each of the options for licensing low power shared access to the DECT guard band?

General approach

BT recommends that Ofcom sets annual fees for the use of this shared spectrum taking due account of the full range of relevant considerations on fees within the applicable regulatory framework, as well as the somewhat unique features of the use and constraints associated with this band and the uncertainties around the impact of excessive fees and uncertainty around opportunity cost. We therefore don't think that benchmarking to Ofcom's estimation of full market value per MHz of adjacent UK 1800MHz mobile spectrum, adjusted to reflect the DECT adjacency using German auction data, is the right approach here.

The purpose of fees in this band should be to cover Ofcom's costs of spectrum management and to ensure optimal use of the spectrum within the licensing regime that Ofcom has decided for the band (i.e. concurrent shared access). Thus, in the unique scenario of this band, we believe that cost based fees are appropriate.

Opportunity cost

We do not agree that Ofcom's estimate of the full market value per MHz of adjacent 1800MHz spectrum is a reasonable proxy for the full market value of this isolated 2x3.3MHz of spectrum, or that full market value is anyway an appropriate benchmark for this portion of spectrum. In setting AIP Ofcom needs to aim to secure optimal use of the spectrum while also taking into account a range of other issues including the benefits of innovation and promoting competition, factors which surely led Ofcom to the original policy decision to award this spectrum on a shared low power basis.

A 2x3.3MHz block in isolation may have a lower value than a wider block of spectrum comprising of multiple 5MHz slots which we understand is an inherent assumption in Ofcom's prior work on estimating full market value of 1800MHz spectrum licences. Just 2x3.3MHz would not even support a 5MHz LTE carrier and it is therefore not appropriate to use Ofcom's 1800MHz work to estimate full market value as a benchmark. In Germany the top 5MHz block, post assignment round, is aggregated with other spectrum and not a value for a "stand-alone" and relatively small assignment.

Given this uncertainty, if AIP were applied Ofcom should substantially scale back from such a benchmark value as the one proposed (i.e. at least 50%).

Cost based fees are appropriate in this special case

We consider that given the unique sharing and coordination arrangements associated with this band, *cost* based fees would be sufficient to promote efficient use of this spectrum. It is unclear how any higher fees would encourage greater use of the band given that under Ofcom's proposed amended licensing regime any party that wished to use the band would be able to request a licence to do so. More efficient use would be achieved by maximising the number of licensees and the number of systems they deploy and the spectrum pricing regime ought not to discourage this.

If Ofcom is seriously considering the licence-exempt option, and only pulled back from this because of concerns around interference management, it is difficult to see why anything other than a cost-based fee regime is appropriate as the licence exempt option would have had no fees at all.

Comments on the alternative AIP options

If Ofcom were to apply AIP, then of the options set out the per base station or the tiered based approach is preferred, but the threshold and per base station fee would need to be set at a moderate level with only future large scale deployments by many licensees leading to Ofcom's opportunity cost being met in aggregate. To do otherwise would harm innovation and competition by making business cases unviable in the early years of deployments.

It could be further argued that if AIP is applied, the fees should reflect the amount of spectrum used as that can impact other licensees. For example a base station using a single 200kHz carrier for GSM may be easier to share with other nearby deployments than one using the full 2x3.3MHz for LTE.

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