

Ofcom consultation on “Mobile Data Strategy” Qualcomm response

January 2014

Qualcomm welcomes the opportunity to share its views on Ofcom’s “Mobile Data Strategy”. Mobile data traffic has been growing exponentially and now the industry is preparing for an astounding 1000x increase. Qualcomm is leading the charge through its compelling technologies, path breaking innovations, and market leading products in preparing the industry to meet this “1000x challenge”. The availability of additional harmonised spectrum and innovation in spectrum management are cornerstones in addressing this challenge.

Question 1: Have we correctly identified the future characteristics of mobile data demand?

Yes, we agree with Ofcom overall assessment. In addition, we believe that quality of service, security and reliability will be critical requirements for mobile access going forward as new wireless services such mobile health and connected cars start to develop.

Question 2: Do you agree that there is a prospect of significant continuing growth in demand for mobile data services?

Yes, we agree that there is a prospect of significant growth in demand for mobile data services. We refer to this prospect as the “1000x data challenge”¹.

Question 3: Have we identified all the challenges in realising future growth in citizen and consumer benefits from use of mobile data services and do you have any comments on the nature or the scale of the challenges we have identified?

From a spectrum management perspective, we believe that innovations in spectrum use such as Supplemental Downlink (SDL) and Licensed Shared Access (ASA/LSA), which have not been explicitly quoted in this section, will help address the challenge of competing demands for key spectrum bands (e.g. broadcast/mobile, public/commercial etc.). They will significantly contribute to growth in citizen and consumer benefits as shown in a number of studies^{2 3}.

Question 9: Do you agree with the short list of bands we have identified for more detailed consideration?

Yes, we agree with the short list of bands Ofcom has identified for more detailed consideration.

¹ <http://www.qualcomm.com/solutions/wireless-networks/technologies/1000x-data>

² http://www.plumconsulting.co.uk/pdfs/Plum_June2011_Benefits_of_1.4GHz_spectrum_for_multimedia_services.pdf

³ http://www.plumconsulting.co.uk/pdfs/Plum_Dec2013_Economic_benefits_of_LSA_2.3_GHz_in_Europe.pdf

Question 10: Do you agree with our methodology for prioritising potential bands for mobile data use?

Yes, we agree with Ofcom's methodology for prioritising the bands for mobile data use.

Question 11: Do you agree with our provisional assessment and the results of our band prioritisation?

Yes, we agree with Ofcom's provisional assessment and bands prioritisation. We would like to take this opportunity to confirm that Qualcomm has sought the modification of the technical conditions contained in its license to ensure that SDL can be deployed in the UK in 1452-1492 MHz in accordance with the European harmonised technical rules as defined in the ECC Decision (13)03, with the aim to place the UK at the forefront of innovation and to bring significant benefits for consumers. The specification work of 1452-1492 MHz for SDL already started and is scheduled to be completed by 3GPP in June 2014. Qualcomm has started the planning to develop new chipsets for devices that will support this band. It currently expects such chipsets to be available to enable the commercial launch of devices in 2015, subject to completion of standards work in a reasonable time frame and assuming that the standards process produces reasonable technical specifications that are consistent with the ECC Decision. The use of 1452-1492 MHz for SDL will also prove to be beneficial to the future use of adjacent bands such as 1427-1452 MHz and potentially 1492-1518 MHz as correctly highlighted by Ofcom, in particular in terms of ecosystem development.

Question 12: Do you agree with the possible timelines we have identified in this section?

Yes, we agree with the possible timelines Ofcom has identified.

Question 14: Do you agree with the next steps we have identified for further domestic work based on the proposed priorities?

Yes, we agree with the next steps identified at domestic level based on the proposed priorities. However, we would also recommend, as highlighted in detail in our response to Ofcom's consultation on "spectrum management strategy", to consider the implementation of LSA at 2.3 GHz to enable MoD to make available additional spectrum in the 2.3 GHz, beyond the 40 MHz currently planned. This would be in line with the European framework. To that end, it would be highly beneficial for the industry if Ofcom were to set up and coordinate a dedicated 2.3 GHz LSA working group – which would include MoD and industry - with the objective to define the sharing framework (geography and time) applying to the entire 2.3 GHz frequency band use for mobile broadband under LSA and to determine, with appropriate government stakeholders, the LSA spectrum usage rights definition and valuation mechanism, reflecting the dynamic use and the sharing framework.

Question 15: How do you think we should adjust our support for international harmonisation based on our proposed priorities?

We also agree with the implications identified for the next steps at international level. We believe a strong involvement in the EU and CEPT (TG6) work on strategies for the future use of the UHF band (470-694 MHz) will prove to be required in 2014/15. This work will have domestic implications.