



Virgin Media O2 response to Ofcom Call for Input:

Improving mobile connectivity from the sky and space:

Spectrum for Direct to Device and Mobile Satellite Services

September 2024

INTRODUCTION

Virgin Media O2 (“VMO2”) welcomes the opportunity to respond to Ofcom’s Call for Input on Improving connectivity from the sky and space: Spectrum for Direct to Device and Mobile Satellite Services.¹

GENERAL COMMENTS

We note Ofcom is considering potential authorisation options for D2D services in the UK prior to WRC-27, due to the potential for these services to be made available in the UK in the next couple of years, and that there could be benefits for consumers and businesses, subject to appropriate regulatory frameworks being in place.

We agree that such services could provide benefits. For example, there may be scope for MNOs to extend coverage even further, in very hard to reach areas, beyond those served by the Shared Rural Network, through partnering with satellite operators to deliver D2D services.

Regarding appropriate regulatory frameworks, Ofcom highlights that in the UK, the licences held by MNOs to provide communications services do not authorise transmissions from space. Furthermore, Ofcom highlights that the introduction of D2D services in terrestrial mobile bands would raise a number of issues, including increased risk of interference between the satellite and the ground infrastructure of the MNO which holds the licence and associated protections from harmful interference.

The use of terrestrial mobile spectrum by satellite systems will require comprehensive technical coordination and management between the satellite operator and the MNO, to ensure that transmissions are only beamed in the specific areas required for service, and do not interfere with the terrestrial mobile network. This is likely to be a complex undertaking, especially where satellites are in constant motion.

In light of these factors, we believe it is appropriate for Ofcom to consider options which would remove existing barriers to partnerships which could deliver D2D services, and to ensure the risk of harmful interference is minimised.

Any options that Ofcom considers, must all include the following as minimum requirements, prior to authorisation of a D2D service using spectrum licensed to MNOs:

- An agreement between the MNO and satellite operator to provide the service.
- A co-ordination agreement between the MNO and the satellite operator. This is critical to ensure that MNOs terrestrial networks are protected from harmful interference.
- A suitable licencing framework to enable the MNO to provide the satellite operator with rights to access the licensed mobile spectrum, in order to deliver the agreed service.

¹ <https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-2-6-weeks/call-for-input-improving-mobile-connectivity-from-the-sky-and-space/main-documents/call-for-input-improving-mobile-connectivity-from-the-sky-and-space.pdf>

We note that Ofcom makes reference to the existing Local Access Licence framework which enables a third party to gain access, for terrestrial use, to spectrum licensed to an MNO in areas where it is not being used, or is not planned to be used within 3 years. Given the increased risk of interference and technical complexities involved with the introduction of D2D services, and also with HAPs (especially HIBs) in terrestrial mobile bands, use of a Local Access Licence framework should only be considered when combined with the minimum requirement of an agreement between the MNO and the satellite or HAPs operator to provide the service, and a coordination agreement. This is critically important to ensure that MNOs terrestrial networks are protected from harmful interference and that mobile network quality is preserved for consumers and businesses across the UK.

Finally, Ofcom highlights that WRC-27 agenda Item 1.13 will consider the results of new studies looking at coexistence of D2D satellite services and terrestrial mobile services. We note Ofcom states that if it were to introduce a UK authorisation framework prior to WRC-27, it would continue to participate in studies and negotiations pertaining to D2D services at the ITU and would review any such authorisation based on the outcome of decisions made at WRC-27. VMO2 sees this is an important consideration. The ongoing work to establish an international harmonized framework for D2D services will need to be followed closely.