

XX October 2023

XXXXYY
XXXXYY
MNO

By email: XXX.YYY@XXYY

Satellite-based mobile-handset (Direct to Device) in the [XXX] MHz band within New Zealand

I am writing to you regarding your potential offering of Direct to Device commercial services with [Satellite operator] within the [XXYY] MHz terrestrial mobile frequency bands that you currently hold in Management Right(s).

Direct to Device is a fast-emerging technology globally with new satellite services and innovations being offered. Internationally there has been some initial regulatory and operational considerations both by spectrum regulators of other countries and within the International Telecommunications Union. We expect that the regulatory and operational environment will evolve in the coming years, and we will continue to monitor international developments closely.

At this stage New Zealand does not have a specific radiocommunications regulatory or operational regime for Direct to Device and we do not plan to develop a regime in the immediate future. New Zealand also does not have a landing rights regime as outlined in Section 3.1 of PIB 60¹. However, any transmission within our territory (i.e. where the transmitter is located within the territory of New Zealand) falls under the Radiocommunications Act 1989 and needs to be appropriately licenced.

Where the frequency ranges for Direct to Device are within a Management Right (MR), the manager may create its own spectrum licences. I note that [MNO] currently hold MR [XXX] (XXX - YYY MHz) and MR [XXX] (XXX - YYY MHz).

We have no objection to [MNO] creating licences within its Management Right(s) to operate commercial services for Direct to Device with [Satellite operator] from the date of this letter until 30 April 2027. Before that date we will review the situation and consider whether ongoing use, or any further requirements, are appropriate. For transmissions in the Earth-to-space direction, in [XXX – YYY] MHz (or portions thereof), I confirm that [MNO], being the rights holder of Management Right [XXX], has the authority to create any licence to transmit within New Zealand territory in this frequency range, as long as the licence meets the technical parameters defined for this particular Management Right.

We ask that [MNO] create a spectrum licence, or licences, within its [XXX - YYY] MHz (or portions thereof) Management Right [XXX] that covers mobile-handset Earth-to-space transmissions². This licence should commence after the date of this letter and expire 31 April 2027. The transmit

¹ <https://www.rsm.govt.nz/about/publications/pibs/pib-60/>

² Direct to Device use is defined as space radiocommunication and is not terrestrial radiocommunications. See ITU RR No 1.8 *space radiocommunication: Any radiocommunication involving the use of one or more space stations or the use of one or more reflecting satellites or other objects in space.*

location on the licence(s) may be “All of New Zealand”, regional locations or the specific locations in which [XXX] will be operating. The receive location should be the satellite official ITU name, [“XXXXYY”]. Also recorded in the licence(s) should be :

- the ITU SNS notice ID [YYYYYYYY],
- the beam name (as recorded in the relevant ITU filing publications),
- the orbit type (that is, [NGSO or GSO]),
- the longitude of the satellite (if GSO),
- any commercial or other names for the satellite (constellation),
- the satellite owner and operator
- the purpose of the link.

This information could be recorded in a notes or additional information field of the licence, if no other appropriate field is identified.

Transmissions in the space-to-Earth direction in [XXX – YYY] MHz (or portions thereof) originate from space and therefore are outside the jurisdiction of New Zealand. Under New Zealand regulations, no licence is required for the reception of this signal within New Zealand. As [MNO] is the rightholder of Management Right [XXX], which encompasses this frequency range, it is able to make the appropriate receive-protection arrangements, if these prove to be necessary.

The New Zealand administration follows the ITU framework and procedures when considering frequency use in space. Such transmissions and associated satellite networks need to be notified through the ITU in a corresponding ITU satellite filing. In this case, we understand that this use will be in conjunction with satellite stations under the ITU filing [XXX], ITU notice ID [YYY]. The recording of this information on the licence shows that there is an appropriate ITU filing clearly linked with the use, in-line with Treaty obligations.

[Satellite operator] and [MNO] must work together to manage any potential interference issues. We also expect that there is co-ordination and cooperation with adjacent Mobile Network Operators to prevent any potential interference issues before they arise. These issues are your responsibility and for you and your Approved Radio Engineer to assess and manage, we will not be involved in this. Should interference occur, you must take immediate effective remedial action including, changing frequency, reducing power, or ceasing operations of any transmission or emission to eliminate the interference.

We assume that [MNO] will fulfil its relevant regulatory obligations, including obligations under the Telecommunications (Interception Capability and Security) Act 2013 (TICSA), as appropriate, particularly when you incorporate [satellite operator] satellite capabilities into your public telecommunications network.

Finally, we ask that you keep us up to date on your developments in the Direct to Device area.

Best regards

Daniel O’Grady
Manager

Radio Spectrum Management Policy and Planning
Ministry of Business Innovation and Employment