



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Covid-19: Temporary Spectrum Management Measures

- Request for industry proposal on co-ordination issues in the 700 MHz Duplex
- Publication of non-confidential versions of submissions received to Consultation Document 20/21

Information Notice

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Commission for Communications Regulation

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1 Information Notice

Summary

1. ComReg has received eight responses to the consultation published last week on temporary spectrum management measures to provide extra capacity for mobile phone voice and broadband provision in support of the Irish Government's measures to tackle Covid-19.
2. The responses were generally supportive of ComReg's proposals. Responses also highlighted a small number of technical issues relating to co-existence of existing services with the temporary uses of spectrum proposed.
3. ComReg is therefore seeking, by close of business this Friday, 3 April, a joint proposal from industry on arrangements for managing the co-existence issues.
4. ComReg's aim is to make final decisions during the course of next week so that additional flexibility can be made available to mobile operators as soon as possible.

Detail

5. On 27 March, ComReg published Document 20/21 entitled "Covid-19 Temporary Spectrum Management Measures" in which it proposed to temporarily release additional radio spectrum to provide extra capacity for mobile phone voice and broadband provision in support of the Irish Government's measures to tackle Covid-19.
6. The swiftness and the impact of the Covid-19 measures is resulting in significant increases and changes to the normal level of traffic and its geographic and time-of-day pattern which, in turn, is placing greater demands than ever on Ireland's electronic communications networks ("ECNs").
7. People are depending on and using ECNs to access essential government services and stay in contact with relatives and friends and, across the majority of sectors, people are now working from home, in line with Irish Government guidelines.

8. Having previously discussed the additional burdens being placed on ECNs with various industry operators¹, and having received a joint request from all three mobile network operators (MNOs) for ComReg to take action to temporarily release radio spectrum, ComReg proposed last Friday to, on foot of a justified request being made in accordance with ComReg's application process:
 - make available temporary 2.1 GHz liberalised rights of use on a national basis through a Temporary ECS Licence ;
 - make available temporary 700 MHz Duplex liberalised rights of use on a national basis through a Temporary ECS Licence ; and
 - make available temporary 2.6 GHz liberalised rights of use outside certain exclusion zones through a Temporary ECS Licence, subject to appropriate consultation with the Irish Aviation Authority (IAA).
9. ComReg has received 8 submissions from interested parties in response to the proposals set out in Consultation Document 20/21, being:
 - Eir;
 - Imagine;
 - Irish Aviation Authority (IAA);
 - IAA, Safety Regulation Division, Aeronautical Services Department;
 - RTÉ;
 - Three;
 - Virgin Media; and
 - Vodafone.
10. Non-confidential versions of these submissions are being published alongside this information notice as Document 20/23a.
11. ComReg is grateful for these submissions, particularly given the necessarily short turnaround time provided, and notes the general overall support from respondents for its proposals.

¹ For example, on 20 March, ComReg had a teleconference with BT Ireland, Eir, Imagine, Siro, Sky, Three, Virgin Media, Vodafone Ireland.

12. Whilst ComReg intends to consider all relevant matters in its forthcoming decisions, it observes that various issues have been raised regarding the co-ordination and co-existence between the potential new services in these bands and existing services in the same or adjacent spectrum bands. In particular:
 - (i) co-existence issues between new services in the 700 MHz Duplex and existing mobile services in the 800 MHz and 900 MHz bands;
 - (ii) notification of the deployment of new sites in the 700 MHz Band and adjacent Digital Terrestrial Television services in adjacent bands;
 - (iii) coexistence between deployments in the 2.6 GHz Band and the IAA's Primary Radar installations in the 2.7 GHz Band; and
 - (iv) co-existence between the new services in the 700 MHz Duplex and Virgin Media's closed fixed broadband network in the 700 MHz Band.
13. Given the importance of promptly finding an appropriate solution that enables increases in capacity without materially damaging existing services, ComReg's preference is for operators to find mutually-agreeable solutions to the above issues in the first instance (given, among other things, that operators have all the available information and resources and are best-placed to do so). This is discussed further below. However, any such proposal(s) would be subject to ComReg's final approval in line with the relevant aspects of ComReg's statutory framework.
14. In light of the above issues raised by respondents, ComReg is now seeking further consideration and input from industry on the following, in order to inform its forthcoming decisions:
 - a. In relation to paragraph 8(i) above, ComReg would welcome the submission of an agreed protocol between MNOs to ensure coexistence and envisages that confirmation of adherence to such a protocol would be required as part of an application for a Temporary ECS Licence.;
 - b. In relation to 8(ii), ComReg would welcome MNOs' views on RTÉ's request;
 - c. In relation to 8(iii), ComReg would welcome MNOs' views on the matters raised by the IAA and the additional information that it would require (e.g. antenna heights, antenna orientation and predicted coverage plots);
15. In relation to 8(iv), and by way of background, ComReg notes that:
 - Virgin Media is using the 700 MHz Band on its closed fixed cable network and claims that, if new services are provided in the 700 MHz Duplex,

such services have the potential to have an adverse effect on its network and, because of leakage from its network, may have an adverse effect on MNO's services in the 700 MHz Duplex²;

- To address this, Virgin Media proposes:
 - (i) a rural only release of 700 MHz to MNOs; or
 - (ii) the adoption of a protocol where:
 - a. MNO's would be required to notify Virgin Media of any 700 MHz deployments; and
 - b. an exclusion zone would be established for MNO deployment within 2km of Virgin Media's HFC (Hybrid Fibre-Coaxial)³ footprint⁴.
16. ComReg requests that, in the Irish national interest during this Temporary Situation⁵, that the MNOs (who have each expressed an interest in the 700 MHz Duplex) and Virgin Media come together and find an acceptable solution that reasonably and appropriately meets their respective needs.
17. Given the urgency of this matter, ComReg would be grateful to receive proposed solutions in relation to the above four matters by close of business Friday 3 April 2020.
18. Submissions should be directed to Mr. Joseph Coughlan and sent by email: marketframeworkconsult@comreg.ie
19. ComReg's aim is to make final decisions during the course of next week so that additional flexibility can be made available to mobile operators as soon as possible.

² Virgin Media, Page5 of its submission: *"Ingress into Virgin Media's network from high powered downlink transmissions from MNO's base stations in the spectral area 758 -788MHz and/or lower powered uplink transmissions from MNOs' customers' handsets and fixed networks, in close proximity to HFC infrastructure, in the spectral area 703-733MHz, have the real potential to reduce SNR and adversely impact on the quality of service Virgin Media provides."*

³ HFC networks are closed cable networks that combine optical fibre and coaxial cable (a cable made up of a conductor and a tubular insulating layer) to carry TV, broadband and voice signals to end-users.

⁴ Virgin Media notes in its submission that it would be willing to provide maps to MNOs that show the extent of the HFC footprint and the 2km zone to assist in this exercise.

⁵ The temporary impact upon electronic communications networks and services arising from the extraordinary situation arising from the spread of the disease known COVID-19.