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Date: 19-March-2021

From: Ian Marshall

Re: RSPG21-006 Draft RSPG Opinion on Spectrum Sharing.

Dear Sirs,

On behalf of CommScope, we are pleased to be able to contribute to your recent consultation on "RSPG21-006 Draft RSPG Opinion on Spectrum Sharing.". The following are our answers to selected parts of this consultation that are of interest to CommScope. Please feel free to contact us for further information relating to either the answers below or further information on related topics should you require.

Paragraph 2: CommScope supports the broad concept of "*use-it-or-share-it*" as a valuable policy in ensuring that spectrum is used to its maximum benefit. To promote this policy, we would encourage the Commission to include time related "build-out" and coverage requirements in spectrum licences. We would also note that this is not an issue solely related to block licences commonly used for wide area cellular networks, but is also seen in specific licences as used for point to point links in highly sought-after locations, where "paper licenses" have been used to block competitors from gaining access to spectrum (i.e. "spectrum warehousing"). Furthermore "paper licenses" will also impact the ability of databases solutions to effectively and fully manage spectrum resources as these may still leave spectrum unused in areas of high demand.

Paragraph 3: CommScope believes that in-country roaming can bring benefits to both consumers and operators in serving sparsely populated regions. Consumers benefit by gaining access to services that may not be provided on their primary network provide, whilst operators gain by sharing operational costs in areas where subscriber numbers are at levels that question the economics of multiple networks being deployed.

Paragraph 4: CommScope agrees with RSPG's goal to make spectrum sharing a primary option for policy makers, regulators, and spectrum managers as they make critical spectrum allocation decisions. In contrast to the traditional frameworks of exclusive licensing and license exempt, spectrum sharing frameworks provide additional flexibility and can support a wider variety of use cases. In this sense, spectrum sharing very much represents a new "tool in the toolkit" and should be considered where appropriate.

Paragraph 8: CommScope's experience has shown that spectrum sharing tends to be most successful in bands where there is a large and vibrant ecosystem that forms around the opportunity(ies). This is most likely to occur if the sharing framework supports the widest possible

variety of use cases (e.g. public mobile broadband, fixed broadband, private wireless, “neutral host” deployments, etc…). Therefore, CommScope strongly agrees with RSPG’s guidance that member states should seek to find synergistic / mutually beneficial sharing arrangements between as many use constituencies as feasible.

Paragraph 13: When considering incumbent users, due consideration should be given to the life expectancy of the radio equipment employed. This focus should be on the radio equipment and not the host of the radio equipment, for example a trains may have a life expectancy of over 40 years, but very few if any radio technologies will have such a life expectancy and this should be taken into account when deciding on the apportionment of the respective sharing requirements between incumbents and new entrants. If this isn’t done, then innovation may be held back due to unrealistic sharing requirements being placed upon the new entrants whilst the incumbents continue to use non state of the art technology.

Paragraph 14: Whilst CommScope agrees that transmitter and receiver specifications should be comprehensive, care must be taken that they remain proportionate to the envisaged equipment and services they are intending to deliver. If such specifications are too onerous then innovation may be restricted, and the introduction of new services may be restricted to high value applications and users as opposed to empowering the ordinary citizen/consumer.

Paragraph 15: CommScope believes that the phrase “design receivers able to tolerate a given degree of unforeseen interference” is extremely subjective, could change over time, and has the potential to be used as a means to refuse standards that otherwise would enable innovative products to reach the market. Designing for the unknown is extremely expensive and, in many cases, would not be proportionate for the products concerned. We would suggest that RSPG provide more definition of the term “unforeseen interference”.

Paragraph 16: CommScope welcomes the Commissions recognition that market surveillance is critical to the workings of the single market and that it has a role to play in ensuring that the sharing requirements laid down in the relevant standards are adhered to. We have seen recent calls to resolve interference cases by increasing the number of requirements in Harmonised Standards, when evidence shows that the problems are caused by non-complaint equipment or operation is the problem and this would be resolved by improved market surveillance of the existing standards and regulations.

Paragraph 18: CommScope would agree that sharing is potentially applicable in all frequency bands with the best candidates being geographically underutilised spectrum in previously awarded bands. A number of bands allocated for terrestrial mobile (i.e. IMT), satellite (earth to space particularly), and fixed services have resulted in the spectrum being intensively utilized in very localized areas (e.g. metro areas, near earth stations, or along fixed wireless paths), with much of the remaining license areas remaining spectrally “fallow”. As noted previously in CommScope’s response to Paragraph 8, a large and vibrant ecosystem is one of the key enablers of a successful spectrum sharing framework. For this reason, CommScope would encourage RSPG to provide guidance to its member states that the 3.7-3.8 GHz and 3.8-4.2 GHz bands are prime opportunities for near-term spectrum sharing given the activities already underway in Europe and around the world.

Sincerely,

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CommScope

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