UK SPF recommendations resulting from Real Wireless' 26 GHz study

In September 2019, the UK Spectrum Policy Forum (SPF) suggested a possible innovative spectrum sharing approach for the 5G pioneer band at 26 GHz. The sharing model is for the UK to be divided into:

1. A relatively small (but widespread) high-demand zone containing all the areas with an exceptionally high demand for data, where spectrum is licensed on an exclusive basis to enable network operators to meet this demand and to provide new services.
2. A considerably larger low-demand zone comprising the rest of the country with equal access for all via local licensing on a first-come first-served basis. This would offer low-cost access to an internationally harmonised mobile band over most of the country in which a higher quality of experience could be maintained with greater certainty than is feasible in unlicensed bands.

The proposal also included the pooling of unused licensed spectrum (termed "Club Spectrum") that an individual licensee could access on an opportunistic basis within the zone associated with the licence, which substantially improves the spectrum efficiency.

Real Wireless was commissioned by the UK SPF to explore the model in more detail and provide evidence and insight that will help policy makers to potentially implement this. The study is now complete and contains the independent view of Real Wireless. Its insights have facilitated the Spectrum Policy Forum in arriving at the following recommendations:

a) The high-demand zone should comprise an area of the order of 1-3% of the total UK geographical area. Ideally the entire 24.25 – 27.5 GHz band would be made available for exclusive licensing in the high-demand zone[1], but if that isn't possible the need for exclusivity could be met with around 1 GHz, taking into account the advantage of the Club Spectrum feature and the ability to access further spectrum in the high-demand zone on a non-exclusive first-come first-served basis. A reduction in the amount of 26 GHz band spectrum made available for exclusive licensing could be linked to a more generous sized high-demand zone within the indicated range.

b) In the high-demand zone spectrum licences should be awarded on an exclusive basis with a flexibility to "share" between licence holders in a club spectrum model to improve spectrum efficiency. There is scope to further improve club spectrum efficiency through technical means.

c) In the low-demand zone an approach based on local licensing on a first-come first-served basis should be adopted linked to a regulatory framework that allows for others to share the spectrum and reclaims spectrum that is not used.

d) The award mechanism for the exclusive licences in the high-demand zone needs to be proportionate considering its complexity, time, effort and effectiveness. In addition to an auction, which has the advantage of being fair, transparent and non-discriminatory, other award options could include administrative assignment.

[1] The GSMA recommends around 1GHz of spectrum per operator is made available in mmWave for 5G – see 5G-Spectrum-Positions.pdf (gsma.com)

We believe this hybrid licensing approach provides the best mix of certainty of access and flexibility.