

Digital Colony Partners

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12th March 2018

Ofcom

Riverside House
2a Southwark Bridge Road
London
SE1 9HA

Re: Award of the 700MHz and 3.6-3.8GHz spectrum bands

Dear Sir or Madam,

We welcome the opportunity to respond to Ofcom's Award of the 700MHz and 3.6-3.8GHz spectrum bands¹ ('the Consultation'). As a new entrant into the UK market, Digital Colony UK Holdco Ltd ('Digital Colony') welcomes Ofcom's objectives and timing of the proposed award to support the deployment of 5G mobile services.

It is the focus of Digital Colony to work collaboratively with Ofcom and the Mobile Network Operators ('MNO's') to ensure that our Neutral Host model furthers the development and deployment of these next generation connectivity solutions.

Whilst we broadly welcome the award consultation and its objectives, there are a number of areas that require urgent attention by Ofcom so as not to cause unnecessary delay to our investment within the UK and more broadly, support timely deployment of 5G mobile services and increased connectivity to current 'not spots' in the market. It is these areas that we focus our response below.

Introduction to Digital Colony

Digital Colony is a global investment firm with a unique focus on next generation mobile and internet infrastructure. Digital Colony combines the sector knowledge of Digital Bridge, a leading owner and operator of digital infrastructure businesses, and the investment expertise of Colony Capital, Inc. (NYSE: CLNY), a leading real estate investment management firm. Having acquired Opencell and Stratto in the UK in 2018, Digital Colony is actively looking to invest across the mobile and fixed infrastructure sector including planned investments in Data Centres, Mobile Towers, Small Cells and Fibre networks.

Ofcom policy approach to the award

As a new entrant into the UK market, Digital Colony UK Holdco Ltd ('Digital Colony') welcomes Ofcom's objectives of the proposed award and statutory duties including:

- Improving mobile coverage
- Ensuring efficient allocation of spectrum

These objectives combined with Ofcom's continued focus on fostering innovation and competition in wider markets concur with many of the investment criteria of Digital Colony when assessing the UK as a market for inward investment.

Improving mobile coverage

We support Ofcom's position that '*geographic availability of mobile services, particularly good quality data services, is not currently good enough in many areas across the UK*'. Whilst coverage in the UK has improved in recent years, particularly

¹ Ofcom (Dec 2018). 'Award of the 700MHz and 3.6-3.8GHz spectrum bands'

with the implementation of coverage obligations on mobile operators, we believe that there is still significant investment required to improve the level of coverage in the UK. The economics of rural mobile deployments often don't stack up for MNO's who struggle to justify investment into more rural areas of the county. Whilst we welcome Ofcom's proposed coverage obligations, we don't believe that these are sufficient enough in setting in place measures to truly deliver mobile connectivity to these 'not-spots'.

The Neutral Host model, if implemented efficiently, enables improvements in coverage due to shared costs and improved economics in these current 'not-spots'.

Efficient use of spectrum

Whilst we support Ofcom's use of an auction mechanism to most efficiently allocate spectrum to mobile operators, we believe the current spectrum regime limits more innovative deployments of spectrum, particularly in rural areas. Digital Colony broadly support the current regime of MNO owned spectrum as the MNO's are most likely to deploy spectrum in its most efficient manner.

However, operators deploying wide area networks, as recognised by Ofcom, will most likely deploy low- to mid-band spectrum due to its efficient propagation characteristics. This results in spectrum, often above 1GHz, not being utilised in large swathes of the landmass of the UK. We believe that a collaborative approach to managing underutilised spectrum directly with the MNOs is the most efficient mechanism for supporting better utilisation of mid- to high-frequency spectrum and further supporting coverage in the current 'not-spots' in the market. Our main reasons for this point of view are:

- A need to be able to seamlessly serve customers of the UK MNOs without delay or forced interaction on the device
- A need to access large blocks of spectrum (2x20MHz) in order to serve high speed data rates and high capacity

By working closely with MNO's, we can deploy their spectrum in areas where they have not intended on utilise it due to high deployment costs and utilise additional spectrum to deploy our own services to further improve the economics of rural coverage. We are currently in discussions with a UK MNO to trial a private LTE network on this basis. We set out this proposed trial below.

[✂ Redacted for non-confidential version]

We note that in the recent 'Enabling opportunities for innovation'² consultation, Ofcom has taken steps towards addressing this issue. We welcome this approach and will respond separately on that consultation.

Digital Colony's Neutral Host model

Digital Colony is committed to investing in owned infrastructure to deploy mobile network equipment as a Neutral Host and, benefitting from long term investment horizons, we are focused on working in collaboration with the MNO's to provide them with cost effective deployment options.

Furthermore, working in collaboration with mobile operators, Digital Colony intends on deploying its own mobile service in specific cases (such as that of the above trial) to further improve the economics of investing in this infrastructure. This is particularly prevalent in rural deployments where the economics for single MNO deployments don't stack up but with shared cost and additional service revenue, Digital Colony can support the deployment of mobile connectivity for one or multiple mobile operators in these rural areas and help to reduce the 'not-spots' in the UK.

Requirements of Digital Colony to support efficient Neutral Host deployments

² Ofcom (Dec 2018). 'Enabling opportunities for Innovation'

Whilst Digital Colony broadly supports the proposed award of spectrum, there are a number of areas that we urge Ofcom to take immediate action on to support our investment in the UK, and particularly in supporting the deployment of mobile networks in 'not-spots' to support Ofcom's objective of improving coverage across the UK.

Mobile Network Code

For Digital Colony to deploy this Neutral Host model, it is imperative that it secures a Mobile Network Code ('MNC') from Ofcom to support its deployments. We understand that these MNC's are in limited supply but urge Ofcom to support Digital Colony in its application. The granting of an MNC to Digital Colony would enable the deployment of rural network connectivity, in close collaboration with MNO's, by improving the economics of such deployments through sharing costs and allowing Digital Colony to secure private service revenue to further improve its economics.

We note that in the 'Enabling opportunities for innovation' consultation, Ofcom believes that there are sufficient MNCs to support investment in mobile networks. We welcome this and respond to that specific consultation in a separate response letter.

Roaming and rural spectrum sharing

As we have outlined in our proposed trial with an MNO, we are requesting the ability to work collaboratively with the MNO's to secure underutilised spectrum in specific locations to deploy a Neutral Host model that will support the improvement of coverage in the UK and support efficient utilisation of this valuable natural resource.

As discussed, we support Ofcom's consultation on location-based spectrum access as part of the 'Enabling opportunities for innovation' consultation and respond further to this in our separate response letter. We would, however, urge Ofcom to grant permission for our above trial site in the short term to allow Digital Colony to prove the viability of a collaborative approach to rural spectrum sharing.

We broadly support the proposed award but have some immediate areas of concern

We broadly welcome Ofcom's proposal for awarding spectrum in the 700MHz and 3.6-3.8GHz bands to support the deployment of next generation mobile technologies.

However, as we have pointed out above, there are a number of areas that we urge Ofcom to immediately consider. We believe that by supporting the development of the Neutral Host model, in close collaboration with the MNO's, Ofcom can further support its primary proposal objectives. By facilitating both access to Mobile Network Codes and commercial spectrum sharing arrangements for Neutral Hosts, Ofcom can enable additional competition in the deployment of rural and indoor networks, improving network coverage to 'not-spots' and ensuring the efficient utilisation of spectral assets. Working in collaboration with MNOs is not limited to spectrum and we urge Ofcom to be open minded to additional areas of collaboration including roaming and enabling Multi-Operator Core Networks ('MOCN') so as to improve the economics for all parties and drive further coverage deployments in the UK.

We welcome further discussions on the topics raised in this letter and look forward to Ofcom's response.

Best Regards

A handwritten signature in black ink that reads "G. Payne". The signature is fluid and cursive, with the first letter 'G' being particularly large and stylized.

Graham Payne
CEO
Digital Colony UK Holdco Ltd