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Nominet response to Ofcom's Proposed Annual Plan 2019/2020

Dear Yih-Choung,

This is Nominet's response to Ofcom's proposed Annual Plan for 2019/2020. The proposed Annual Plan provides helpful information about Ofcom's workstreams and how these are intended to support Ofcom's important strategic goals. As such, we welcome the opportunity to respond to Ofcom's proposed workplan.

About Nominet

Nominet is driven by a commitment to use technology to improve connectivity, security and inclusivity online. For 20 years, Nominet has run the .UK internet infrastructure, developing an expertise in the Domain Name System (DNS) that now underpins sophisticated network analytics used by governments and enterprises to mitigate cyber threats.

We provide registry services for top level domains and continue to explore applications for a range of emerging technologies including autonomous vehicles and new tools to support dynamic spectrum management, designed to respond to the rapid expansion of demand on spectrum in the coming years, in line with Ofcom's objectives around the availability of mobile data. This also includes support we already provide to Ofcom directly, through our TV White Space database.

Nominet is a profit with a purpose company. We support initiatives that contribute to a vibrant digital future and Nominet has donated over £45 million to tech for good causes since 2008, benefitting more than 10 million people.

Across the breadth of our work therefore, we believe we have unique perspective and insight on the challenges Ofcom has identified for the year ahead.

Ofcom's Objectives

Nominet welcome's Ofcom's renewed commitment to it's three, long-term strategic goals; to promote competition, secure standards, and to protect consumers from harm.

When approaching these, we would urge Ofcom to consider not just interventions that address the consumer outcomes each of these objectives relates to, but the underlying causes that enabled them. A number of Ofcom's

proposed workstreams for 2019/2020, in particular for the allocation of radio spectrum, set out Ofcom's ambitions to address specific harms caused by short falls of the current competitive market; for example, wireless network coverage. We would urge Ofcom to consider interventions aimed at pre-empting issues and designing an approach that prevents future harms, in parallel to tackling the symptoms of previous challenges.

With Ofcom shortly licensing further 5G spectrum at 3.6-3.8GHz, this is a key juncture to ensuring Ofcom is undertaking the right approach to its workstreams to deliver its three strategic objectives.

Ofcom's Management of Radio Spectrum

One of Ofcom's core functions is the efficient release and management of radio spectrum and ensuring new spectrum can be brought to market and serve the interests of end users and the wider digital economy. Indeed, this is central to Ofcom's functions as an economic and competition regulator. As such Nominet welcomes Ofcom's workstreams on licensing 5G spectrum and making spectrum more widely available, set out in the proposed Annual Plan.

Nominet would note that this is a critical juncture for the UK's digital economy. The decisions Ofcom will take around the licensing of 5G spectrum at 3.6GHz, and flexibility around the use of radio spectrum in general, will shape both the quality and reach of wireless communications for the next decade and beyond. As Ofcom has previously noted in its Mobile Data Strategy, demand for data continues to grow at a rate of 60% every year¹. Similarly, more than a third of the UK landmass is unable to receive 4G coverage from all four operators². In these areas valuable spectrum that Ofcom has committed considerable resource to clearing remains idle and unused. New and innovative approaches will be necessary to meet these two linked challenges.

Nominet therefore urges Ofcom to bring together two currently separate workstreams; the proposed release of 700MHz and 3.6GHz bands, and "Enabling opportunities for innovation", to produce a single statement with a joined-up approach to sharing, linking both existing and new bands. If Ofcom were to pursue such an approach this would stand to unlock 5G coverages for people, places and things that might otherwise be left behind by and Mobile Network Operator and 'demand-led' model alone.

i. Coverage

Ofcom's proposals for licensing of the 700MHz band with landmass coverage obligations are welcome in principle. The National Infrastructure Commission's findings that the UK ranked 54th in the world for 4G deployment highlight the need for action³. However, we would urge Ofcom to approach its release of both the 700MHz and 3.6GHz bands with meaningful assessment of how historic licensing methods have led to poor coverage.

¹ Ofcom, Mobile Data Strategy, 2016, p6, https://www.ofcom.org.uk/__data/assets/pdf_file/0033/79584/update-strategy-mobile-spectrum.pdf

² Ofcom, Connected Nations, 2018, p1, https://www.ofcom.org.uk/__data/assets/pdf_file/0020/130736/Connected-Nations-2018-main-report.pdf

³ <https://www.nic.org.uk/our-work/connected-future/>

We fully recognise the work that Ofcom has done to address poor coverage and its associated harms for consumers. In addition to proposing landmass coverage obligations for the 700MHz band, Ofcom was instrumental in its support for Government in its 2014 Coverage Agreement with industry (including subsequent compliance), and through advice on the design of the £150m Mobile Infrastructure Project. These interventions though have only been made a number of years after deployment, providing only incremental benefit at significant cost.

Ofcom's proposals for sharing of existing and unused spectrum in the 1800MHz, 2.3GHz and 3.8GHz sharing bands, set out in the proposed Annual Plan, represent a first step toward an alternative and welcome approach that embraces greater flexibility around allocation of spectrum. However, we would urge Ofcom to apply sharing not only to address the harms resulting from spectrum being unused in existing 4G bands, but to ensure these are applied to 5G 3.6GHz spectrum being licensed in late 2019. Ofcom has already identified how sharing and flexible usage of spectrum can be applied to areas where 4G failed to reach, so we would urge that this be brought forward in parallel with 5G.

Nominet would also note that the TVWS framework is already in place covering the 700MHz band. Relatively small changes to the current regulatory framework would enable sharing at 700MHz. Nominet would be happy to discuss these with Ofcom in relation to coexistence to protect incumbent and primary users, should Ofcom wish to integrate its proposals for 700MHz with those above as well.

Nominet welcomes Ofcom's initiative to support sharing including a proposed sharing statement in Q3 2019, however in light of the unique challenges the deployment of site-dense 5G networks presents, it would be a mistake not to incorporate these welcome moves for 5G as well.

ii. Capacity

We also note Ofcom's ambitions to ensure the long-term capacity of the UK's mobile data networks. With data usage continuing to grow exponentially, it will be increasingly important that Ofcom takes the steps necessary to ensure that it manages spectrum in such a way as to ensure the greatest possible utility and efficiency in its capacity to carry data.

Nominet has long advocated Dynamic Spectrum Management as an alternative means to allocate and manage spectrum to the benefit of all users, and as such we welcome Ofcom's innovation statement acknowledging the necessity of such measures. We would urge Ofcom to bring forward these proposals as a priority, noting in particular that technical implementation of a database for 5G would be broadly similar to that of TV White Space; the technology needed to enable Dynamic Spectrum Management is proven and ready. Indeed given the demand on data that new users; connected devices, vehicles and appliances will place on networks this will be a necessary tool in complementing any rollout by the Mobile Network Operators.

We would therefore urge Ofcom to consider this not just a long-term ambition but as a component of its 2019/2020 plan, one that supports Ofcom in each of its strategic objectives.

Nominet has considerable expertise and experience delivering such interventions, including Dynamic Spectrum Management. Delivery of such a framework is very achievable to a relatively short timescale. We continue to support Ofcom's ambition in this regard and will be happy to offer and technical insight to help do so, including around how a licensing regime of this kind could be delivered expeditiously.

Working with Ofcom

Nominet also welcomes Ofcom's commitment under 4.38 of the Annual Plan to work with Government, devolved and other bodies to inform its policy on communications infrastructure.

Government, both in Westminster and each of the devolved administrations, has been clear around the need for regulatory intervention to support greater reach and wireless network coverage. We would note the Department for Digital, Culture, Media and Sport's Future Telecoms Infrastructure Review of July 2016, and the role Ofcom will need to play in delivering this framework⁴.

It is vital that Ofcom take a joined-up approach to connectivity, working in partnership with each administration and reflecting their desire for innovative and bold approaches to improve coverage. We urge Ofcom to consult closely with each of these stakeholders, noting they often represent areas most underserved by competitive rollout to date.

Network Security and Resilience

Ofcom also sets out in its proposed Annual Plan under 5.6, its intention to build new capability to ensure Critical National Infrastructure's (CNI) compliance with the new Network and Information Systems (NIS) framework. It is important that Ofcom be clear about its plans to support CNI's with testing, and the eventual detail of its planned implementation of the new framework.

Nominet remain committed to support Ofcom in carrying out these crucial roles. We would note that a number of previous assessments, audits and questionnaires from regulatory and compliance bodies that may overlap with the new requirements. We would urge Ofcom to consider how previous work can be drawn upon, and how wording and tools can be used to ensure CNI's are able to have clear and consistent expectations around NIS requirements, and to prevent unnecessary or unintended duplication that neither benefits the respondent nor the competent authority. This would also help industry compare findings over time and ensure that any learnings or improvements are comparable with previous assessments.

We would particularly note in this regard that Nominet, while providing the Top Level Domain Name Registry services are designated as Critical National Infrastructure, are also classified as a Small and Medium Enterprise (SME) by headcount and turnover. This is likely to put Nominet in a unique position in terms of resourcing to

⁴ DCMS, Future Telecoms Infrastructure Review, July 2018, p3, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/732496/Future_Telecoms_Infrastructure_Review.pdf

support the NIS framework, and we therefore urge Ofcom to ensure that its implementation is designed to ensure it is manageable in terms of resourcing and complements existing frameworks and formats.

Ofcom's Annual Plan makes reference to both Communications Provider (CP) and Communications Service Provider (CSP) in its terminology. We would request greater clarity around Ofcom's use of these terms; while Ofcom is the competent authority for Nominet's Domain Name Registry services, Nominet would not meet Ofcom's previous definitions of either a CP or CSP. We believe this is likely a drafting oversight and would therefore request that Ofcom review use of language to ensure it is indeed applicable for all potential NIS subjects under its remit.

We would also welcome greater clarity around the scope of the NIS regulations in the UK; for example, whether the provision of Domain Name Registry services for other TLDs of importance to the UK, would be subject to NIS, and if so any clarity around definitions and thresholds used.

I hope our response will help inform Ofcom's workstreams for the year ahead. The decisions Ofcom will make under its Annual Plan framework will be critical to delivering its strategic goals of securing standards, competition and preventing consumer harm. We therefore urge Ofcom to be bold, and to ensure it's thinking on radio spectrum and 5G in particular is properly joined up, in order to support these ambitions.

If you have any questions, or if Nominet can be of any assistance in Ofcom's thinking about these challenges, please do not hesitate to get in touch.

Yours sincerely,



Adam Leach
Director of Emerging Technology