MICROSOFT CORPORATION

COMMENTS ON OFCOM'S DIGITAL COMMUNICATIONS REVIEW CONSULTATION

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INTRODUCTION

Microsoft commends Ofcom for the depth and timeliness of its Digital Communications Review Consultation. The pace of change in the way the world communicates continues to accelerate, driven by fundamental shifts in the technology of communications networks, the services provided over those networks, and the relationships between those networks and services. Regulation, meanwhile, rarely evolves at the same velocity as technological progress. Thus it is critical that regulators, particularly those in industries whose regulatory roots lie in the nineteenth century, look forward to where markets and technology will be and not just where they are now. Such foresight is necessary to determine whether current regulations remain fit for purpose, and whether new regulations are necessary.

As a company that participates in nearly every facet of the digital communications ecosystem – selling cloud services that are accessed over the Internet, operating systems that run both mobile and non-mobile devices connecting to the Internet, and devices (from mobile phones to tablets to gaming devices) that connect users to the Internet – Microsoft has a significant interest in this Consultation. Indeed, Microsoft's "cloud first" business worldview is emblematic of the convergence and IP transition phenomena discussed in the Consultation. Microsoft provides a variety of cloud services and applications, including Bing (an Internet search engine), Office 365 (a service providing online access to the Microsoft Office suite of productivity applications), Azure (a cloud platform for the development, deployment, and management of online applications), OneDrive (a cloud-based storage application), Skype (a consumer-oriented suite of communications tools), Dynamics (a suite of enterprise resource planning and customer relationship management applications), and Xbox Live (an interactive video game and entertainment service). Microsoft's cloud services promote competition, innovation, and economic growth by helping consumers and businesses be more productive, and by generating upstream and downstream opportunities for the thousands of that make up Microsoft's partner ecosystem.

Commensurate with the cloud-based nature of its business, Microsoft has a long-standing and strong public policy stance in support of a global, ubiquitous, ambient and open Internet. Microsoft and Ofcom share a common goal of ensuring that everyone in the UK has access to quality connections to the global Internet. Accomplishing that goal requires not only policies that promote the deployment of last mile broadband infrastructure, but also a positive environment in which the services, applications, and content accessible over those facilities can thrive.

Microsoft strongly encourages Ofcom and the Government to adopt forward-looking policies that reflect the changing and dynamic marketplace that has been fostered by the innovation of

the Internet. Microsoft believes there are myriad opportunities for growth, innovation and investment in the UK – particularly if network operators and providers of Internet content and applications all drive important products and services into the UK market in response to growing consumer demand. In these comments, Microsoft focuses on the questions raised in the Consultation concerning convergence and OTT services.[1]

DISCUSSION

We agree that Convergence is a positive phenomenon.

A significant shift is taking place in the way that people communicate in the 21st century. As the Consultation notes,[2] the proliferation of broadband Internet access is precipitating an untethering of communications networks and services – whereby the provider of access and transmission may no longer be the same provider of the communications and other applications facilitated by that access and transmission. As a result, the ecosystem of "digital communications" is no longer limited to the operators of physical network infrastructure. Rather, the realm of digital communications now includes both the network operators as well as everyone involved in the application layers on those networks. This is what the Consultation refers to as Convergence. And, as the Consultation acknowledges, this change is good for consumers, good for businesses, and good for the national economy.[3] In short, it is something for regulatory frameworks to welcome and encourage, rather than something to be feared and hindered. Microsoft supports and agrees with this approach.

The low barriers to entry, the low cost of global delivery, and the vibrant competition among application and service providers ensures that everyone with an Internet connection can have access to capabilities previously out of reach of many people and businesses. Moreover, this era of innovation has spawned new businesses and created opportunities for application developers around the world. Entrepreneurs no longer need access to significant sums of capital to reach millions of consumers; instead, novel ideas combined with little more than the ability to design and place an application on the Internet can unleash innovation to the benefit of consumers.

The value in the network and of connectivity has not diminished; network operators benefit from the growth in online content and applications through increased demand for more and better broadband services

Microsoft disagrees with the Consultation's proposition that value is shifting away from connectivity toward services.[4] Because of the increased demand for broadband and data connections, traditional network operators benefit significantly from consumer demand for the applications and capabilities that are delivered over the Internet. The untethering of services

[1] *E.g.,* Questions 4, 5 and 24.
[2] *See, e.g., Consultation* at 42.
[3] *See, e.g., Consultation* at 13 & 78.
[4] *Consultation* at 42.

from physical networks has only strengthened the interdependent relationships between services and networks. Applications depend on networks to provide the connectivity everyone needs to access and use applications. Conversely, networks depend on the demand for applications to drive demand for more and better connectivity.

The reality is that while the Internet has facilitated a separation of value between networks and services, both remain in a fundamentally symbiotic relationship. Indeed, there are numerous studies that demonstrate the symbiotic relationship between the use of online services and the resulting investment in broadband networks. As the U.S. FCC recently put it, the Internet – and, in particular, an open Internet – enables "a virtuous [cycle] of innovation in which new uses of the network – including new content, applications, services, and devices – lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses."[5] Microsoft and other cloud service providers drive significant investment in much of the physical networks, equipment, and infrastructure that compromise the network of networks that is the Internet.[6] A recent study by WIK-consult found that broadband networks in Europe benefit significantly from increased bandwidth demand driven by incremental use of applications, and specifically that "higher demand (and potentially willingness to pay) are key in enabling profitable investment and reducing risks for telecommunications providers."[7] The ultimate beneficiaries of this virtuous cycle are national economies. Broadband networks, and the Internet access they enable for consumers around the globe, is a significant driver of economic opportunity. The World Bank has found that every 10% increase in broadband penetration accelerates economic growth by 1.38% while McKinsey estimates every 10% increase in broadband penetration results in GDP growth of .1 to 1.4% and Booz & Co estimates such broadband penetration correlates to 1.5% greater labor productivity over the following 5 years.[8]

Regulation must be designed to foster Investment and innovation across the full range of the digital communications ecosystem

To foster the significant benefits we outline above, it is imperative that Ofcom focus broadly and implement policies that encourage investment, innovation and new ways of bringing services to all components of this communications ecosystem. This means adopting a mindset and

[5] FCC Open Internet Order at para. 77.

[6] *See Investment in Networks, Facilities, and Equipment by Content and Application Providers*, Analysis Mason Report (Sept. 2014), available at http://www.analysysmason.com/CAP-Internet-Sept2014. The potential for these entities to drive innovation and economic activity is significant; in 2009, for example, for every dollar of revenue earned by Microsoft, its partners generated local revenues for themselves of $8.70. Microsoft News Center, "Study Reveals Microsoft Partner Ecosystem Revenues of $580 Billion in 2010" (March 24, 2011). http://www.microsoft.com/en-us/news/press/2011/mar11/03-24idcpartnerecosystempr.aspx.

[7] *See* WIK-Consult, "Applications and Networks: the Chicken or the Egg, the Role of Digital Applications in Supporting investment and the European Economy," March 2, 2015 at 3, available at http://www.wik.org/index.php?id=studiedetails&L=1&tx_ttnews%5BbackPid%5D=85&tx_ttnews%5Btt_news%5D=1702&cHash=6a5a758243c9018024f69050a5c75299

[8] *See* World Bank GICT, Building Broadband: Strategies and policies for the Developing World, 2010.

introducing policies that support investment and innovation for all the players in that ecosystem, not just the traditional network players and not just in last mile networks. By doing so, Ofcom can enable and promote a strong economy through a global, open Internet as a platform for innovation, competition, and economic growth not only today, but also in the years to come. Given the additional pressures and uncertainty that could be caused by upcoming market consolidation, designing a regulatory framework that reflects the value of the entire digital communications landscape should be a strategic priority.

Applications delivered over the internet are not substitutes for traditional telecom services

As the Consultation indicates,[9] it is premature to consider establishing any sort of regulatory framework for communications applications delivered over the Internet. It is important to note that consumers view applications delivered over the internet and services delivered by traditional telecom operators as quite different options and such choice is exactly what a well-functioning competitive market should strive to retain. While the question of substitutability may be "perennial,"[10] the answer for now is that the vast majority of applications delivered over the Internet are not substitutes for traditional telecom services.

Traditional telephone services do not allow video chats, instant messaging, document and file sharing, or emojis as part of a conversation. On the other hand, communications apps do not enable inbound and outbound conversations with any other person on the planet with a telephone number. Moreover, in the traditional telecom industry there are high barriers to entry, including the need to invest in and build infrastructure. In contrast, applications provided over the Internet are subject to extremely low barriers to entry and substantial competition. If a consumer is interested in messaging others using the Internet, he has numerous choices, including Skype, Line, Viber, WeChat, WhatsApp and iMessage, among many others. Similarly, applications that enable users to "talk" do not necessarily drive users away from purchasing traditional wireless PSTN voice services, because those PSTN services ensure they can talk to anyone else – on the planet – with a phone number, regardless of the provider of that phone number. In short, as the Consultation concludes, online applications are not yet full substitutes for traditional telecom services.[11]

As an illustration of this proposition, Microsoft's empirical evidence indicates that users do not view or use Skype as a substitute for their wireline or wireless telephone service. With respect to features that interact with the public switched telephone network (PSTN), Skype users may choose either an outgoing calling feature or an incoming calling feature. Users may choose both features, but the two features are not combined in any Skype offering. Only a minuscule proportion of Skype users uses both features even occasionally. Skype does not market itself as a substitute for traditional telephone service. In fact, on its webpage, as well as in several

[9] *Consultation* at 166.
[10] *Consultation* at 77.
[11] *Consultation* at 163.

places in its terms of service, Skype explicitly and prominently informs consumers that it is not a substitute for traditional telecommunications services. Although Skype offers many exciting communications features for consumers, those features are not a replacement for the robust capabilities of a mobile or landline telephone line. Applications continue to play a complementary role to such voice services (or, SMS services that can connect to any SMS-enabled phone number) and, therefore, should not be considered "direct competition" subject to identical regulation.

Regulation for its own sake will only stifle rather than encourage investment and innovation

Fundamentally, a regulatory framework for any service must be premised on a specific justification – typically a market failure or risk of consumer harm. In the case of applications and capabilities delivered over the Internet, no such market failure (or consumer harm) warrants regulation. Consumers have numerous options for low-priced, easily-accessible communications and other capabilities, and there is significant private investment in the marketplace. Regulating without reason will ultimately cause consumers the greatest harm.

Online applications and services should not be regulated merely to create a "level playing field."

Some have suggested that "OTT services" should be regulated in order to level the playing field with traditional wireline and wireless telecommunications services. However, merely asserting the notion of a level playing field is an insufficient justification for regulation. An appropriate and successful regulatory regime should be one that focuses on critical societal objectives and the appropriate means of achieving those objectives in the provision of services and capabilities to consumers; not one that is imposed merely because it was previously imposed on other types of services in the past. As the Department for Culture Media & Sport recently warned the EU in connection with its review of the Electronic Communications Framework, "We should avoid knee-jerk reactions to change."[12]

As a practical matter, there is a significant challenge in crafting the applicable scope of any potential regulation in this area. Merely referencing "OTT services" or even "OTT communications services" fails to clearly delineate what services would and would not be subject to the proposed regulation. Although many commentators and industry players often make reference to "OTTs," there is no common understanding of this term. It can mean any number of things, depending on one's point of view. Everything that is accessed over the Internet is, arguably, "OTT," and any website with which users can interact and download and upload

[12] Department for Culture Media and Sport, "UK Non-Paper: Review of the Electronic Communications Regulatory Framework, September 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464971/20150903FINALDRAFTAnnexAFWRhighlevelobjectivesnonpaperdraftv3EV__1_.pdf

information*, i.e.*, nearly every site on the World Wide Web, could be considered in some sense to facilitate communications. The difficulty of precisely defining those capabilities, features, and applications available over the Internet to which communications regulations would apply should not be underestimated.

Additionally, even if regulations could be scoped appropriately, there would remain significant hurdles to successfully enforcing country-specific obligations on applications, services and websites that are accessible from anywhere on the globe and are provided by entities far beyond the practical reach of a national regulator. In an era where an application developer – from any corner of the globe – can write an application, put it on the Internet and quickly sign up millions of users around the world, it is unlikely the application developer is aware of specific regulations a national regulator such as Ofcom may choose to apply to Internet-delivered applications and services. And, even if made aware of the regulations, it is likely that an application developer outside the UK will choose not to comply with Ofcom's regulations – particularly if it is providing a free capability to users – due to the associated compliance costs of regulation. As a result, application developers would have three likely choices: choose to not make their application available in the UK; charge UK consumers for the right to use the application (in order to cover the costs of compliance with the regulatory environment); or, make the application available without complying. None of these options are in the interest of UK consumers. The first two options deprive UK citizens of the free and innovative benefits available to users in other countries, while the last option would put UK-based providers at a competitive disadvantage because they would have to incur the costs of compliance while the out-of-country applications ignore the regulations without consequence. As a result, innovation and start-ups from within UK could be discouraged as barriers to entry would be erected by these regulations.

Beyond these formidable practical considerations, the notion of regulating in this area merely to create an ostensible level playing field is a fool's errand. No regulator should be motivated to regulate different types of capabilities (and different technologies) identically. Nor should legacy regulations simply be transposed to today's technologies and services. Doing so risks stifling innovation and the introduction of new, advanced technologies.

Legacy regulations should be eased or eliminated.

Microsoft fully supports regulatory efforts to stimulate competition and investment at the network layer and to ensure that network providers do not use their dominant position in the access layer to stifle the innovation and growth in options for consumers in the applications layer. At the same time, however, Microsoft believes Ofcom should ask the question it has posed in the Consultation: are there legacy sector specific regulations that should be eased or eliminated? Clearing away any such impediments to growth, while simultaneously preventing the emergence of new barriers to innovation and competition throughout the digital communications ecosystem, is a much better approach than asking whether yesterday's regulations should be imposed on today's and tomorrow's applications and seeking to "level the playing field" by treating the application layer as if it were an outgrowth of the access network layer.

While Internet accessible communications applications and capabilities are not yet full substitutes for traditional telecom services, given the changing marketplace, Microsoft believes it is appropriate for Ofcom to consider whether a new approach to regulation of traditional operators is warranted, or, in the words of the Consultation, "to start from the position that there is a case for deregulation."[13] Are the original justifications for regulation still intact? Is there a continued need for all of the regulation that historically has applied to traditional telcos? In this new data-driven, broadband networks-driven environment, it may be appropriate to consider whether traditional telcos are inappropriately hamstrung by regulations that no longer make sense in 2015. In particular, Ofcom should consider taking a hard look at accounting, financial, record keeping, retail pricing, reporting, and other administrative and operational regulations that impose needless cost on traditional telecom operators.

This said, Microsoft believes it is incumbent on the network operators to identify those specific regulations they believe are no longer warranted, impose unnecessary costs on their operations, and thus should be eliminated. To date, while network providers have complained generally of the burden of legacy regulations, they typically have not identified with specificity those regulations they feel are creating disadvantages in their provision of applications layer offerings. Once they do so, Ofcom can then consider the appropriateness of eliminating specific regulations and seek stakeholder views on such implementation in an informed manner.

> ***Spectrum should be at the core of regulatory policy change; Policy that fosters more efficient use of spectrum will delay the onset of the impending imbalance between the increased demand for mobile data services and the scarcity of a limited resource.***

The creation of a competitive market in which multiple players have access to spectrum resources and national borders do not restrict the accessibility of spectrum frequencies is needed to ensure that all users can benefit from access to spectrum-based competitive, high-quality services. Such an approach needs to be underpinned by an innovative, balanced, pan-European (wider than just the UK) regulatory approach that enables fast and efficient release of spectrum and supports new technologies, as well as incentivizing the growth of secondary and competing markets and secondary purposes (*i.e.*, dynamic and license-exempt access to spectrum). By proactively establishing a framework for a more open and competitive market and facilitating the greater use of unlicensed spectrum, businesses, consumers, society and the economy will all benefit.

CONCLUSION

There is no question that an open Internet and the more efficient use of spectrum is critical to encouraging innovation and maintaining a strong and vibrant national economy. In the digital age, and especially when it comes to information and content delivered over the Internet,

[13] *Consultation* at 13.

unhindered access to online platforms and services is a prerequisite. Return on investment on data networks depends on the availability of (and demand for) compelling Internet content and applications. Only by adopting a regulatory mindset that appreciates the value of the entire digital communications ecosystem and fostering a positive environment for the development and proliferation of compelling Internet content, applications, and services will sufficient demand for superfast broadband evolve.

Going forward, Internet services and content will continue to help support the business case for network investment by promoting wider Internet use, demand for higher quality access, and revenue growth. Internet 'content' was estimated to be worth 155 billion euros for telecom operators in Europe in 2010, confirming the link between telecom revenues and the availability of a wide array of Internet content, services and applications; the estimated consumer surplus for enhanced broadband access linked to consumption of Internet content and services in Europe is £100 billion.[14] This is the target that Ofcom must shoot for through this Consultation process.

[14] Plum Consulting: *Open Internet – Platform for Growth*, October 2011; http://blogs.skype.com/en/Plum_October2011_The_open_internet_-_a_platform_for_growth.pdf