



Comments of AT&T on the AGCOM Public Consultation on Net Neutrality

3 May 2011

Introduction

AT&T Global Network Services Italia S.p.A (“AT&T”) respectfully submits these comments on AGCOM Public Consultation Paper on Net Neutrality (the “Consultation Paper”).

Operating globally under the AT&T brand, AT&T’s parent, AT&T Inc., through its affiliates, is a worldwide provider of Internet Protocol (IP)-based communications services to businesses and a leading U.S. provider of wireless, high speed Internet access, local and long distance voice, and directory publishing and advertising services, and a growing provider of IPTV entertainment offerings. AT&T Inc. operates one of the world's most advanced global networks, carrying more than 23.7 petabytes of total IP and data traffic to 300 million people and more than 1 billion devices on an average business day, the equivalent of a 3.7 megabyte music download for every man, woman and child on the planet. With operations in countries that cover 97% of the world’s economy, AT&T Inc. has extensive experience as an incumbent and a new entrant, as a fixed line operator and a mobile operator, and in the dynamic areas of converged technologies and services.

In Italy and other EU Member States, AT&T Inc., through its affiliates, is a competitive provider of business connectivity and managed network services and is a leading provider of bilateral connectivity services linking Italy and all other EU Member States with the United States.

AT&T appreciates the opportunity to express its views in this consultation on Net Neutrality. AT&T hopes that its responses will be helpful to the Authority in formulating a comprehensive strategy for the sustainable development of the Information Society within Italy, and among Italy and the globally interconnected Internet networks, allowing market participants to invest in the infrastructures and services which will benefit both consumers and businesses.

Summary

AT&T supports the goal of an open Internet, which means an Internet ecosystem that enables users to exchange ideas and communicate freely, gives them freedom to access the lawful applications and content they wish to use, and affords them the ability to choose and assemble packages of services and equipment that meet their needs.

Prior decisions by governments to avoid unnecessary regulation of the Internet are validated every day by the spectacular growth of the Internet and its remarkable contribution to culture, political discourse, and economic development throughout the world. The Internet has evolved from being a network that provided only file downloads and remote access to distant academic or government computers to being a vibrant global commercial network that now provides countless different services to millions of content and applications providers and billions of users.

The Internet has become the most powerful communications medium and engine for economic growth in our time precisely because governments have wisely allowed market forces to shape its evolution free from prescriptive regulation that would have locked in place certain specific technologies or business models. Further dynamic advances are likely to occur in response to future technological change and consumer demand. Indeed, the Internet's next 40 years are likely to be just as dynamic as the past 40 years. To avoid limiting the future growth and development of the Internet, unless actual problems and harms are specifically demonstrated, Internet regulation should remain limited to protecting the basic customer freedoms associated with openness and customer value under which the Internet has always operated.

In particular, maintaining an open Internet does not require the implementation of new, prescriptive network neutrality rules that would restrict traffic management. With the new powers attributed to the National Regulators by the EU Directive *on Universal Service and Users' Rights relating to Electronic Communications Networks*,¹ potential problems can be solved readily by the National Regulatory Authorities in the event that any market failure actually does appear.

¹ Directive 2009/136/EC of the European Parliament and of the Council, 25 Nov. 2009.

Thus, any discriminatory conduct by firms with significant market power is likely to be closely scrutinized to ensure there are no anticompetitive effects. Certainly, there is no evidence of any such general market failure brought on by a dominant participant abusing its market power, nor has there been evidence of an anticompetitive practice by an individual actor that has not been resolved quickly through the application of existing regulatory measures and procedures.

There is also no basis to the claims made by some that Internet traffic management or prioritization practices now threaten the historic “neutrality” of the Internet and therefore require new prescriptive regulation. In fact, traffic management and other network practices to ensure quality of service for particular Internet applications and content have been widely used for many years without controversy. In addition, the rapid convergence of all electronic communications onto the IP platform and growing network demands will make the continued use of these traffic management practices increasingly important to consumers in the future to ensure their economic access to the content and information services they desire. That is especially the case for users of mobile broadband services, since mobile operators must rely heavily on the use of network management techniques to avert or respond to network failures or congestion of scarce spectrum and to allow customer use of latency-sensitive applications.

Arguments that regulators should now restrict traffic management and service differentiation by ISPs fail to take account of the longstanding non-controversial use of these practices by operators throughout the world. The adoption of such policies would create significant costs and practical difficulties for operators subject to these requirements and would undermine Italy’s most pressing objectives for the digital economy: expanding deployment of more capable broadband facilities and fostering investment in related technologies and services.

Substantial new investment is needed to support the unprecedented growth of Internet traffic and the increasing demands of its changing traffic mix and to extend broadband networks to increase the availability of broadband services. Most importantly, to fund these investments, and to expand broadband adoption, all network providers need to be able to price their services in manners that are attractive and affordable to consumers. Reliance on the expansion of facilities alone to meet Internet traffic growth would require significant additional construction leading inevitably to the need for consumer price increases that

would reduce broadband adoption, even if it was possible for network operators to avoid the use of traffic management techniques simply by building additional facilities.

With the continued growth of bandwidth-intensive services, and the increasingly large and unpredictable spikes in Internet traffic, the construction of new facilities will not be sufficient by itself to maintain economic service capability and quality. Consequently, ISPs must place increasing reliance on traffic management practices to maintain services. Any restriction on the use of these practices would limit the speed and functionality of Internet services overall and reduce the utility and value of the Internet for all users. In the newly adopted European Commission (EC) Communication “The Open Internet and net neutrality in Europe,” the EC recognizes that “*it is widely accepted that network operators need to adopt some traffic management practices to ensure an efficient use of their networks and that certain IP services, such as for instance real-time IPTV and video conferencing, may require special traffic management to ensure a predefined high quality of service*”²

For these and the further reasons set forth in these Comments, AT&T urges the Authority to avoid the prescriptive regulation of traffic management. Instead, the role of regulators in these circumstances should be to monitor the market to see whether real problems are developing. As the Organisation for Economic Co-operation and Development (OECD) and numerous economists have observed, the imposition of new regulation based on speculation of future harm is premature and potentially damaging.³ Similarly, as Vice President Neelie Kroes noted at the ARCEP Conference in Paris on April 13, 2010, “we should avoid taking unnecessary measures that may hinder new efficient business models from emerging.”⁴ If any corrective action is needed, AT&T believes that such action should be informed on a case-by-case basis by the specifically-identified problems.

² European Commission, Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, *The Open Internet and Net Neutrality in Europe*, Apr. 19, 2011 (“European Commission Communication on the Open Internet and Net Neutrality in Europe”), at 3.

³ Organisation for Economic Co-operation and Development, *Internet Traffic Prioritisation: An overview*, at 5 (Apr. 6, 2007), available at <http://www.oecd.org/dataoecd/43/63/38405781.pdf> (concluding that it would be “premature for governments to become involved at the level of network-to-network traffic exchange and demand neutral packet treatment for content providers”).

⁴ See EUROPA Press Releases, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/153&format=HTML&aged=0&language=EN&guiLanguage=en> .

AT&T supports the use of consumer-focused principles requiring ISPs to furnish end-users with the ability to send and receive the legal content of their choice, use the services and run the applications of their choice, and connect the hardware and use the programs of their choice, provided they do not harm the network. These are similar to the principles adopted by the EU Institutions in 2009 and by the U.S. Federal Communications Commission (FCC) in 2005.⁵ AT&T also supports an additional principle to encourage greater transparency for consumers regarding operators' network management practices.

This approach would preserve the openness of the Internet, while maintaining incentives for broadband providers to make the massive investments necessary to increase broadband deployment. It also would encourage those providers to invest in the next-generation "smart" managed networks that are needed to support the innumerable new and varied Internet applications that will enrich our daily lives, as well as make us healthier, safer, more energy efficient, and more prosperous.

AT&T responds to the questions asked by the Consultation Paper as follows:

1. What are the technological and commercial profiles that, in perspective, will become important in the evolution of the data service sector both for wireless and fixed? Will such profiles influence the market strategies created by the different subjects working in the sector, ISPs and content providers? And in which way? How will those profiles influence consumers' data service consumption?

All existing evidence indicates that congestion problems in the networks comprising the Internet are likely to continue for the foreseeable future. Even during this economic downturn, Internet traffic continues to grow at a tremendous rate. A recent report by Cisco notes that global IP traffic will quadruple from 2009 to 2014.⁶ The nature of Internet traffic is changing as well, with the fast-increasing usage of bandwidth-intensive applications like streaming video placing greatly increasing burdens on underlying networks. For example,

⁵ See FCC, Policy Statement, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd. 14986 (2005) ("*Internet Policy Statement*"), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf.

⁶ Cisco Visual Networking Index: Forecast and Methodology, 2009-2014, available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360_ns827_Networking_Solutions_White_Paper.html.

Cisco expects video to account for over 90% of global consumer traffic and 66% of the world's mobile data traffic by 2014.⁷ The European Commission reports that “[a]ccording to some traffic projections, traffic is set to increase by 35% year on year for fixed networks and by 107% year on year for mobile.”⁸

Increased investment is a critical element in responding to these unprecedented and increasing demands on the capacity of Internet access and backbone networks. Continued massive investment in fibre, wireless, and other network infrastructure is necessary to increase the bandwidth and Internet functionality available to consumers, even though competition and the unpredictability of consumer demand often make these investments exceptionally risky for the companies that underwrite them. While these risky, capital-intensive capacity upgrades are necessary steps that any network provider must take to keep pace with escalating bandwidth demands, alone they are insufficient steps to address these challenges.

As the attached Engineering Background explains (at pp. 11-12), operators cannot economically enlarge network capacity to ensure instantaneous delivery of all packets at all times, particularly with the escalating magnitude of unpredictable spikes in Internet traffic.⁹ Any reliance solely on increased investment to meet escalating Internet usage would greatly increase network costs and in turn require huge increases in user prices. Even if there were no economic constraint on network expansion, experience has shown that network usage, particularly in the form of peer-to-peer file transfer applications, inevitably expands rapidly to fill new capacity and user behavior is difficult to predict in advance. Consequently, network operators cannot simply construct higher-capacity facilities, but must also use greater network intelligence, including the ability to identify and provide the appropriate

⁷ One minute of video requires 10 times the bandwidth as voice. Kleeman, Michael, "Point of Disconnect," University of California, San Diego, August 30, 2007, *available at* <http://cpe.ucsd.edu/assets/013/6535.pdf>

⁸ European Commission Communication on the Open Internet and Net Neutrality in Europe, at 3

⁹ Like conventional telephone networks, IP networks are sized to handle demand during periods of peak usage. The closer that peak usage is to average usage, the more efficient the network's cost structure will be, and the more predictably the network operator can recover those costs from the users of its network. According to some estimates, however, video applications roughly double the “peak-to-mean” ratio of traffic on IP networks because of the “viral” (self-intensifying) nature of popular video files.

level of performance required by different applications traversing the network, to ensure that users can receive the service quality they desire.

As described below, Internet providers have made longstanding use of traffic management practices to ensure quality of service for their users. With increasing network congestion, Internet providers will be required to place even greater reliance on traffic management techniques in the future to manage competing demands on finite bandwidth. Internet providers will be required to place even greater reliance on traffic management techniques in the future as the rapid convergence of all electronic communications onto the IP platform allowing the integration of voice, video and text into new multi-media applications for consumers raises the critical engineering challenge of making applications with different quality of service needs function as well as possible over a shared and increasingly challenged network infrastructure.

2. What types of data services and what kinds of traffic management are particularly important within the debate on net neutrality? What is the likely impact that the increasing spreading of traffic management's forms, either for technical reasons or the blocking of applications for commercial reasons, will have on the principle of net neutrality? Which factors contribute to the definition of net neutrality?

The speculation at the root of the current “net neutrality” debate rests on deeply flawed premises, including that the Internet has always been an inherently neutral collection of “dumb pipes” that cannot distinguish among packets based on their associated applications or content, and that new tools allowing operators to prioritize particular data now threaten the Internet’s supposed historic “neutrality.”

As described in these comments and in the attached Engineering Background, each of these premises is mistaken, and the strict “non discrimination” requirements proposed by net neutrality advocates to address this purported “threat” are not only unnecessary, but would have severe adverse effects on broadband providers and consumers, by prohibiting longstanding network management practices, inhibiting the provision of widely used applications and services, increasing consumer rates, and limiting further deployment and adoption of the broadband services that are increasingly important to all countries’ future growth and prosperity.

The Internet has never been merely a collection of “dumb pipes” and has never been “neutral” in its treatment of different applications and content. Rather, content providers with capital resources have long purchased specialized network services in order to distinguish their traffic from other Internet traffic and to offer their end users far better Internet experiences than would be possible without those quality-of-service enhancements.

Nearly three decades ago, the Internet Engineering Task Force (IETF) – the Internet’s standard-setting organization – first included a “type of service” field within the Internet Protocol to enable prioritization of real-time and other performance-sensitive applications.¹⁰ The IETF expanded upon that capability in 1994 and 1998 by creating the — differentiated service code point — field (DSCP or —DiffServ), and it has now incorporated an even more advanced version of this capability into IPv6.¹¹ Net neutrality advocates that contend that no Internet packets should be provided with any transmission quality superior to that given every other packet – regardless of whether this extra quality derives from guaranteed bandwidth or reduced packet loss, latency or jitter – are, in effect, trying to re-write the open, IETF-approved standards that have made the Internet such a tremendous success.

Broadband providers have long sold prioritized capabilities to enterprise customers, including content providers, to ensure proper handling of performance-sensitive Internet and other content through a broadband provider’s network. Such services can make use of packet-prioritization techniques on several protocol layers, including DiffServ on the IP layer and analogous mechanisms on other layers, such as the ATM, Ethernet, and MPLS protocols. Broadband providers use the same basic types of service-differentiation technologies in the residential market to guarantee quality of service for performance-sensitive IP applications and content, such as IPTV and VoIP, that are offered to consumers over the same physical infrastructure as best effort Internet access.

In addition to these longstanding prioritization techniques, application and content providers with the capital resources to purchase services from third-party CDNs such as Akamai or Limelight – or to build CDNs of their own, as Google and other large content providers have done – enjoy huge performance advantages over rivals without those resources. Traffic shaping, CDNs and traffic prioritization are all forms of Internet traffic

¹⁰ See Information Sciences Institute, *Internet Protocol DARPA Internet Program Protocol Specification, RFC 791*, at 11 (Sept. 1981), available at <http://www.ietf.org/rfc/rfc0791.txt>.

¹¹ See generally, James F. Kurose & Keith W. Ross, *Computer Networking: A Top-Down Approach* 367 (5th ed. 2010).

management and demonstrate that the use of such practices is not a new feature of the Internet economy.

The increased importance of traffic management: As described above in response to Question 1, in today’s environment of increasing network congestion, Internet providers have a critical need to use the various traffic management techniques and technologies available to manage competing demands on finite bandwidth. The use of these techniques to maintain service quality over congested networks provides ISPs with a greater ability to maximize the efficiencies of future investment in additional network capacity.

To prohibit all differential treatment, as some net neutrality advocates propose, would not only greatly increase network costs and user prices, as noted above, but would also prevent different services, applications, and content from obtaining the quality of service they need to function efficiently and effectively. Imposing this form of “neutrality” on the Internet would have decidedly non-neutral results by discriminating *against* quality of service-sensitive applications like streaming video and VoIP that may not function reliably unless they are accompanied by quality of service enhancements that non-performance sensitive applications do not need in order to continue to function well. Likewise, requiring that all data streams must receive equal treatment regardless of their application or content would force all application and content providers to design their applications and content using the same transport protocol – so that, for example, UDP-based applications that lack the ability to automatically “self-throttle” when faced with congestion do not arrogate network resources from TCP-based applications that can “self-throttle.”¹²

¹² UDP applications “send out data as fast as [they] can,” even when they encounter congestion, “while [conventional] TCP-friendly applications deliberately send fewer and fewer packets” and may thus end up “starved of network resources.” Jon M. Peha, *The Benefits and Risks of Mandating Network Neutrality, and the Quest for a Balanced Policy*, 1 Int’l J. of Comm’n 644, 651 (2007), available at <http://www.ijoc.org/ojs/index.php/ijoc/article/viewFile/154/90>. Nonetheless, when properly managed, UDP’s attributes can be beneficial for a range of purposes, including Domain Name System (DNS) queries. By the same token, some applications that use TCP can and do aggressively consume disproportionate amounts of subscriber bandwidth simply by opening up multiple streams (or “torrents,” as featured in some P2P technologies) to seize capacity for themselves. See, e.g., Bob Briscoe, *Flow Rate fairness: Dismantling a Religion*, 37 Computer Comm’n Rev. 63 (2007), available at http://www.cs.ucl.ac.uk/staff/bbriscoe/projects/2020comms/refb/fair_ccr.pdf (“*Flow Rate Fairness*”). Under a requirement to provide “equal treatment” of all Internet communications, the disparate characteristics of these and other transport protocols would need to be homogenized to ensure that no packets receive priority over others.

AT&T strongly disputes claims that the prioritization of packets associated with some content or applications necessarily “degrades” the performance of all other non-prioritized content and applications. Network engineers have been prioritizing real-time and other performance-sensitive applications for years and have developed sophisticated algorithms to ensure proper handling of all traffic. As noted above, this practice has been followed because it is far more cost-efficient to prioritize applications that need prioritization than to construct massively overbuilt networks and pass the unnecessary costs through to consumers.

This longstanding practice of handling IP packets differently, depending on the performance-sensitivity of their associated applications, is not a “zero-sum game” in any meaningful sense of that term. Some applications are highly performance-sensitive and thus need quality of service enhancements to function optimally, and accommodating those application-specific needs will not materially impair the performance of other, less latency-sensitive applications.

In the United States, large, medium, and small providers alike have built IP-based, double- and triple-play platforms that are shared between prioritized IP traffic (IPTV and/or VoIP) and unprioritized, best-effort Internet traffic.¹³ As AT&T’s own experience has shown, differentiation among these service categories gives consumers a high-quality, high-value experience for *all* of these services.¹⁴ The best-effort Internet access service that AT&T offers today, over the shared U-verse platform, is far faster and more robust than it was just a few years ago when it was provided over a legacy DSL network that was *not* shared with managed IPTV and VoIP services. Indeed, the introduction of advanced services generally enhances the quality and capacity of best efforts traffic because the advanced services use on average only a small fraction of increased capacity installed for these services

¹³ These providers range from AT&T, which provides IPTV services to millions of consumers over its shared U-verse platform, to mid-sized provider Surewest to more than *two hundred* rural telephone companies. See National Exchange Carrier Association, *Trends 2009: A report on rural telecom technology*, at 11 (2009) (“NECA Trends 2009 Report”), <https://www.neca.org/cms400min/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=2392> And, all of the major US cable companies offer managed VoIP services over the same shared facilities as their broadband Internet access services.

¹⁴ See AT&T, Press Release, *AT&T Wins Frost & Sullivan 2009 Market Leadership Award in Dedicated Internet Access Service*, Mar. 11, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30631>; AT&T, Press Release, *AT&T Wins Frost & Sullivan 2009 Video Company of the Year Award*, Mar. 11, 2010, <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=30629>.

and router queuing algorithms ensure that the unused incremental bandwidth is available for use by best-efforts traffic.

Mobile broadband networks: The imposition of traffic management restrictions on mobile broadband services would cause significant difficulties to mobile network operations. Mobile operators must contend with mobility, spectrum constraints, interference, and other unique issues in a dynamic environment that is changing even more rapidly than its wireline counterpart. While it is impossible to predict which business models and engineering solutions will best meet consumers' diverse needs in this environment, subjecting the mobile industry to restrictions on network management would preclude many service-enhancing business arrangements and practices altogether, undermine efforts to manage scarce spectrum resources, chill sensitive engineering and business decisions through endless regulatory second-guessing, and deter investment in new network technologies.

While all broadband networks share the need for traffic management, given the ever rising demand for and proliferation of new quality-sensitive, bandwidth-intensive applications, mobile broadband networks also must contend with spectrum constraints, a shared "last mile" radio access network, interference sensitivity, and other concerns that make it far more challenging to provide mobile broadband than fixed wireline broadband. Capacity and quality-of-service challenges for wireless broadband providers are particularly acute in the "last mile" radio access network, where spectrum is shared among both users and cell sites; bandwidth can fluctuate based on weather, interference and other issues; the number of users located in particular cells and their dispersion within those cells at any given time is variable; and the spectrum available for use is not infinitely (or even readily) expandable.

These factors make it exceedingly difficult for carriers to ensure a constant supply of sufficient bandwidth to provide high-quality data transmission for broadband Internet access customers. Providers therefore use a range of dynamic network-management techniques to respond to or avert network failures or severe congestion and to ensure that customers can enjoy latency sensitive applications.

3. *What are the most relevant objectives and instruments, as defined in the European Regulatory framework, for the purpose of regulation, where appropriate, for the relationship between forms of traffic management, commercial techniques and commercial net neutrality? What kind of traffic management can be considered reasonable?*

AT&T believes that the existing EU regulatory framework, together with competition law enforcement, is fully capable of addressing any issues arising from Internet traffic management. Importantly, incentives to engage in exclusionary conduct in connection with traffic management are likely to exist only where a dominant participant is able to abuse its market power. In competitive markets, where consumers may respond to attempted exclusionary conduct by switching to rival operators, market forces prevent any harm to competition or consumers. Since any discriminatory conduct by dominant firms is very likely to be closely scrutinized under existing regulatory and competition law procedures, there is no reason to impose new blanket restrictions on traffic management to address such concerns.

In addition, under the EU regulatory framework, any attempt to regulate traffic management would first have to demonstrate that the market fulfils the “three criteria” test to be susceptible to ex ante regulation.¹⁵ The European Parliament and the Council underscored the importance of this threshold requirement in the November 2009 telecom package, which noted that “[c]onsidering that the markets for electronic communications have shown strong competitive dynamics in recent years, it is essential that ex-ante regulatory obligations only be imposed where there is no sustainable competition.”¹⁶

To AT&T’s knowledge, there have been no significant problems linked to net neutrality, either in Italy or other European Union Member States or in the United States, and certainly none that have not been quickly resolved. In the United States, the FCC has found it necessary to take action only twice: first, to stop Madison River Communications, a small

¹⁵ The three cumulative criteria for ex ante regulation are: high and non-transitory barriers to market entry; the market displays characteristics such that it will not tend towards effective competition over time; and insufficiency of ex post application of competition law alone. See Commission Recommendation of 17 December 2007 on Relevant Product and Service Markets, Art. 2, 2007/879/EC.

¹⁶ Directive 2009/140/EC of the European Parliament and of the Council, 25 Nov. 2009, at L337/37.

rural local exchange carrier, from unreasonably blocking the use of certain VoIP services by its customers; and second, to prevent the cable service provider, Comcast, from using a particular congestion management capability to unreasonably interfere with certain peer-to-peer applications used by its customers.¹⁷

In both instances, FCC actions directly targeted the specific practices in question and led to the voluntary resolution of both cases rapidly and effectively.¹⁸ In fact, in the case of Madison River, the FCC quickly reached a consent decree with Madison River without the need for protracted investigation. In the case of Comcast, the FCC adopted a declaratory ruling that ultimately validated the changes that Comcast had already voluntarily made to its congestion management capability. Thus, the FCC's oversight of industry adherence to the principles embodied in the *Internet Policy Statement* it adopted in 2005 has ensured compliance with those principles and fostered an open Internet.¹⁹ AT&T accordingly supports an approach based on the consumer-focused principles adopted by the FCC in 2005, in addition to encouraging greater consumer-oriented transparency regarding network management practices.

In various proceedings, regulators have taken the position that regulatory measures on net neutrality are not necessary at this time or have adopted more restrained measures than those initially proposed. In the UK, Ofcom emphasized in a Consultation Paper issued in June 2010 that “[w]e believe that there is insufficient evidence at present to justify the setting of blanket restrictions on all forms of traffic management.”²⁰ The European Commission

¹⁷ See FCC Memorandum and Order, *Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd. 13028 (2008); Order, *Madison River Commc'ns, LLC*, 20 FCC Rcd. 4295 (2005).

¹⁸ Although an appellate court subsequently found that the FCC had not identified an appropriate jurisdictional basis for its actions in the Comcast matter, Comcast has not suggested that it would reinstate the network management practices it used prior to the FCC's review of those practices.

¹⁹ See Policy Statement, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd. 14986 (2005) (“*Internet Policy Statement*”), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf

²⁰ Ofcom, *Traffic Management and 'net neutrality'*, 24 June, 2010 (“Ofcom Consultation Paper”), Sects. 1.11 & 4.54. UK Communications Minister Ed Vaizey stated in November 2010 that the initial responses to the consultation “reinforce the view that there is no need for intervention. There is broad agreement on the need for traffic management; and there is broad agreement that there is not yet evidence of any impact either on competition or consumers from traffic management.” Ed Vaizey, Minister for Culture, Communications and Creative Industries, FT World Telecoms

stated in November 2010 at the close of its consultation on net neutrality that “[t]he consultation did not reveal a widespread call for further EU legislation[.]”²¹ Similarly, Japan’s regulator, the MIC, has encouraged providers to develop voluntary guidelines for traffic management, noting that “bandwidth control [packet shaping] is recognized as an appropriate method” to ensure quality of service for Internet users.²²

In December 2010, the FCC adopted an order focusing on the following requirements: (i) the need for transparency, no blocking, and no *unreasonable* discrimination; (ii) allowing for reasonable network management; (iii) exempting from the rules managed or specialized services (*e.g.*, IP-based services that are provided over the same networks as broadband Internet access service, such as IPTV or Enterprise VPNs); and importantly (iv) applying a lighter set of obligations to mobile broadband Internet access services, due to the quickly evolving wireless technology platform and its more substantial bandwidth constraints.²³ The FCC’s measures are more moderate than those originally proposed, but remain controversial in the U.S. and the subject of continuing uncertainty regarding how they will be applied, and whether they will survive legal challenges in the U.S. appellate courts concerning the FCC’s statutory authority to adopt these rules, in addition to legislative challenges in the U.S. Congress. This process may take several years to complete.

While the ultimate resolution of the net neutrality debate in the U.S. is still unclear, many regulators across the globe are emphasizing the importance of avoiding new regulation without a demonstrated market failure, particularly in the evolving areas of wireless Internet access and specialized services such as IPTV and enterprise VPNs, allowing reasonable

Conference 2010, London, November 2010, <http://www.bis.gov.uk/news/speeches/ed-vaisey-open-internet>.

²¹ Europa, Press Release, *Digital Agenda: Consultation Reveals Near Consensus on Importance of Preserving the Open Internet*, Nov. 9, 2010, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1482&format=HTML&aged=0&language=EN&guiLanguage=en>.

²² Ministry of Internal Affairs and Communications, *Report on Network Neutrality, Working Group on Network Neutrality* (Sept. 20, 2007), available at http://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/pdf/070900_1.pdf.

²³ FCC, *Preserving the Open Internet*, GN Dkt. No. 09-191, Report and Order, FCC 10-201, (rel. Dec. 23, 2010).

network management practices, and providing transparency for consumers regarding network management practices without jeopardizing security or commercially sensitive information.

- 4. In the framework of the rules aimed at protecting consumers and, in particular, those protecting transparency of the economical and technical conditions of the services offered; what are the other relevant elements, apart from the current rules, available on the market that contribute to the full knowledge of the end user of the characteristics of the data services both for wireless and fix? What are or which could be the relevant technical modalities to inform users even in real time, when forms of traffic management are happening and, in general, the modalities and the minimum informative channels ensuring end-users transparent information in relation to data services?***

Transparent disclosures of the terms and conditions applicable to a customer's service create the conditions for genuine competition because they enable consumers to make educated choices based on real differences among service providers. Under this principle, a broadband network operator should inform consumers, at an appropriate level of detail, about any material restrictions or limitations on their broadband Internet service so that they can make informed choices about which providers and service plans best meet their needs.

To make such choices, consumers need to know what they can do with the service they purchase, how much of it they can use, what applications they can run, and what quality they can expect. Such information should therefore include maximum and minimum connection speeds (where applicable), usage limits, and a general description of how traffic management practices may affect the user experience.

Thus, customers should receive information on how traffic management practices may affect the user experience. Such information would both assist consumers in choosing between Internet providers and allay any misplaced concerns about the effects of those practices on Internet services. Transparency can address any concerns about openness and competition in the Internet while empowering consumers and businesses to make choices according to their individual preferences. Such transparency requirements, moreover, should apply to all actors in the Internet value chain.

However, there is no reason to require providers to disclose the technical and often highly proprietary details of their particular network-management techniques that may assist

their broadband competitors or third parties who may seek to evade those techniques to the detriment of the network and consumers. Otherwise, network engineers would face the impossible challenge of having to decide each time they employ a new management technique whether its prior disclosure would be required, and whether such disclosure would, or would not, create critical infrastructure vulnerabilities. Such disclosures also would be highly impractical because of the need for constant updates. Network management practices may change on a monthly, weekly, or even an hourly basis as the Internet ecosystem evolves and new congestion challenges and security threats emerge.

AT&T also believes that quality of service requirements should rarely, if ever, be necessary in competitive markets where multiple operators compete vigorously based on their quality of service, in addition to price, service features, and the various other factors that customers may consider in making their choice of provider. Operators in these markets that fail to provide the service quality their customers expect risk losing business to operators that meet or exceed those expectations. AT&T particularly questions the relevance of such quality of service requirements for business services supplied to multi-national corporations, which routinely require service level agreements from their suppliers ensuring the provision of their required service quality.

Mandated standards may also fail to recognize that some network users may desire service quality *below* current “best effort” handling if it is offered at a commensurately lower price (sometimes referred to as “scavenger” class). For example, in the machine-to-machine (M2M) context, some devices and applications may be highly tolerant of latency but may also need very low cost network connectivity to be economically viable. Minimum service quality requirements may have the unintended consequence of preventing these devices and applications from entering the market.

5. *What are the potential competition's concerns arising from the spread of new forms of traffic management? Are the rules to protect transparency of economical and technical conditions of the services offered sufficient to prevent the implementation of anti-competitive conduct in the markets for data services? Where regulation to protect competition is proved to be necessary, which would be the tools policy makers should use to regulate?*
6. *What are the structural elements that characterize the ecosystem of the network that may be relevant, if potential competition problems and specific market circumstances make an intervention of the policy makers to protect competition appropriate? Which factors affect prices and quantities produced by data services, as well as by the ability to innovate and incentives to invest by the various stakeholders? How is the relationship between economic growth and net neutrality and what is the impact of the Internet economy on the development of the society?*

As described above in response to Question 3, notwithstanding the huge growth in Internet usage and massive global increase in Internet traffic in recent years, there is no evidence that unregulated traffic management has in fact led to any anticompetitive or discriminatory practice that has not been fully and swiftly addressed through the application of existing regulatory measures and procedures. Thus, any structural concern with the market performance is speculative rather than fact-driven, and as long as this is the situation, AT&T believes that regulators should refrain from prescriptive regulation intended to resolve *potential* future problems.

Such regulation could limit or prohibit longstanding network management practices, inhibit the provision of widely used applications and services, increase consumer prices due to mandated inefficient network design and management, and thus reduce the deployment and adoption of the broadband services that are increasingly important to all countries' future growth and prosperity. Accordingly, rather than take such action based on speculation that a market failure *might* arise someday in the future, regulators should require adherence to consumer focused principles and should take further action only if real problems in fact arise.

As described in response to Question 2 and in the attached Engineering Background, network practices that ensure quality of service for particular Internet applications and content have proliferated for years without controversy – and the Internet has never been healthier, more functional or more open. For example, just in the last few years, new social networking applications and multimedia sites have exploded in popularity:

- The video giant YouTube did not even exist in January 2005, but now delivers nearly 10.5 billion videos each month in the United States, and has recently begun offering high-definition video with a resolution of 1080p.²⁴
- The social networking site Facebook, which was created in 2003 and was confined to college campuses until 2005, now claims over 500 million users.²⁵
- Twitter, which did not exist in 2005, is now the third most-used social network, with 55 million monthly visits.²⁶
- Amazon.com, which sold its first Kindle in late 2007, has altered the way that millions of people obtain and read books, periodicals, and blog content and has already prompted several competing services.²⁷

These content and application providers and others have changed the face of the Internet and society at large all without any impediment from broadband providers or any need for government regulation. Indeed, the Internet has succeeded largely because broadband providers invested scores of billions of dollars into broadband network infrastructure to accommodate demand for these applications. Similarly, 3G wireless broadband services have surged, and the wireless marketplace also boasts a range of wireless platforms that have spawned literally hundreds of thousands of wireless applications from third-party developers.

Today's thriving Internet marketplace also demonstrates that service differentiation provides significant competitive benefits to both consumers and businesses. Managed services provided alongside access to the open Internet, such as network operators' IPTV services today, have a positive impact on the development of the Internet access service.

²⁴ See *1080p HD Is Coming to YouTube*, YouTube Blog, Nov. 12, 2009, <http://youtubeglobal.blogspot.com/2009/11/1080p-hd-comes-to-youtube.html>

²⁵ Facebook, Press Room, Statistics, <http://www.facebook.com/press/info.php?statistics>; Douglas McIntyre, *Facebook gets funding offer from Russian private equity firm*, Daily Finance, May 23, 2009, <http://www.dailyfinance.com/2009/05/23/facebook-gets-funding-offer-fromrussian-private-equity-firm/>.

²⁶ Andy Kazeniak, *Social Networks: Facebook Take Over Top Spot, Twitter Climbs*, Compete.com, Feb. 9, 2009, <http://blog.compete.com/2009/02/09/facebook-myspace-twittersocial-network/>.

²⁷ See Mellissa J. Perenson, *Amazon Kindle Review: Igniting Interest in E-Books?*, PC World, Nov. 21, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/11/21/AR2007112100030.html>; BBC News, *Plastic Logic e-reader aims to challenge Kindle*, Jan. 7, 2009, <http://news.bbc.co.uk/2/hi/technology/8446959.stm>.

They are an important driver for the take-up of high-speed broadband connections and a key generator of revenues for operators, enabling the deployment of fast and very fast broadband networks.

For example, the recent extraordinary development of the mobile Internet and of compelling devices, such as the Blackberry and iPhone, has been possible thanks to the development of mobile infrastructure and technologies that were largely driven by the popularity of mobile voice telephony services. Innovation in the operators' networks carried out for their own managed services thus leads to infrastructure roll-out and bandwidth increases, fuelling innovation in Internet services and applications.

As regards future offers for pre-defined quality of service offered to third party content and online service providers, individual arrangements with third parties may exist alongside offers which are open to all interested parties. Where operators are able to enter commercial arrangements for superior quality of service at the wholesale level, this creates positive commercial incentives to offer the service to all parties to increase revenues. Any restrictions regarding the provision of managed services by network operators going beyond the application of competition law rules would significantly slow down broadband investment and take-up.

Therefore, differentiated commercial offers should be allowed in the Internet as in other areas of the economy. Quality and price differentiation in most markets and circumstances enlarges consumer choice and increases consumer welfare. There is similarly no case for *per se* banning discrimination by operators providing access to the Internet. At the same time, any anti-competitive discrimination by a market dominant undertaking should be addressed by the competent authorities, whether at the network layer or other layers of the Internet value chain. However, such agreements are likely to raise competitive concerns only where a dominant participant is able to abuse its market power.

Claims that regulators should ensure equality of treatment for smaller applications and content providers also fail to recognize that the Internet today treats various applications and content providers quite differently depending on their capital resources. Applications and content providers that can afford access to the content-delivery networks of Akamai and others, or that can build their own such networks, as Google and Microsoft have done, already enjoy substantial performance advantages over rivals that cannot afford the use of such networks. Yet, there is no suggestion that this inequality of treatment warrants a

regulatory solution. Indeed, prohibiting all such differential treatment would require the abolition of these CDNs that leverage edge networks to provide online customers with lower latency and higher quality of service than the competition.

There is also no basis to claims that operators would have an incentive to degrade best efforts Internet access in order to increase revenues obtained from managed services arrangements. Competitive market pressures prevent any such conduct, which would quickly drive customers to switch to rival operators that offered better performance. Indeed, providers have long offered quality of service enhancements to business-class customers, and no one has suggested that they have degraded bandwidth for the best-effort Internet access platform to increase the value of their prioritized services. To the contrary, best-effort Internet access speeds keep increasing year after year across the industry; broadband providers are investing billions to increase those speeds; and they are spending millions more on advertising to compete on the basis of such bandwidth.

Likewise, Internet interconnection markets are highly competitive and have brought massive reductions in transit prices to ensure that application and content providers can reach end users quickly and reliably. As described in the attached Engineering Background, Internet backbone providers use commercially-negotiated peering or transit agreements for traffic between their networks depending in part on the traffic volumes exchanged. The use of distributed interconnection between peers and transit customers using neutral Internet Exchange Points also has led transit customers to interconnect directly at these points. In fact, ISPs and content providers have many options to exchange traffic while avoiding Internet backbone transit costs including secondary peering arrangements between ISPs and paid peering arrangements between ISPs and content providers.

As noted above, some content providers have constructed huge content delivery networks (CDNs) to deliver their content to cache servers closer to ISP networks. As a result, there is intense competition for transit business among the many choices for the delivery and exchange of transit traffic, resulting in a huge reduction in transit prices from approximately \$1200 per Mbps in 1998 to less than \$12 per Mbps in 2008 and even lower levels today.²⁸

²⁸ See, e.g., http://drpeering.net/a/Ask_DrPeering/Entries/2009/4/28_Transit_Prices_Race_to_the_Bottom.html; DrPeering, Why care about Transit Pricing?, http://drpeering.net/a/Peering_vs_Transit_The_Business_Case_for_Peering.html.

- 7. More generally, given the profiles related to the protection of the consumer and to the protection of the competition, what are the methods of intervention and regulation that allow protecting the principle of net freedom, namely, that free and open nature that distinguishes the Net?***
- 8. What forms of intervention are deemed most appropriate and effective, without prejudice to the principles of appropriateness, necessity and proportionality of the intervention respect to the objectives pursued under the new regulatory framework?***

For the end-user to fully benefit from an open Internet environment, AT&T believes that the debate on Internet openness should not be limited to the ‘network layer’ in the Internet. Key elements for users’ unrestricted access to information, content and services are located on other layers of the Internet value chain, such as Internet search or content and service platforms. It is in these areas that complaints over alleged anti-competitive behaviour have been raised in the recent past.

Against this background, regulatory principles to ensure openness, such as competition and transparency rules, should as far as possible be applied symmetrically and equally across the players in the Internet value chain. These policies should address issues of competition, openness and consumers’ rights not only at the level of electronic communications networks and services but wherever they emerge in the Internet value chain.

AT&T believes that existing policies on Internet openness are serving consumers well in their present form and that there is no need to expand these measures. The more imminent threat to consumers and competition is inadequate competition and diversity in the search market, where one provider has an overwhelmingly dominant position. Thus, the Authority cannot protect Internet “neutrality” without considering the significant role that search engines play in influencing and limiting consumers’ access to online content, applications, and services – and online content, application and service providers’ access to consumers.

The crucial role that search engines play in determining which Web sites users will visit means they affect the free flow of information on the Internet more than any broadband Internet access provider. And one search engine in particular—Google’s—dominates that

market in selecting the winners and losers on the Internet. Google's share of the search market is between 83% and 90% worldwide for the year to Q1 2010²⁹.

Furthermore, Google is decidedly non-transparent about how it affects consumers' experience. In its own words, "opening up the code [to our search and advertising products] would not contribute to these goals [of Internet openness] and would actually hurt users. . . . Not to mention the fact that opening up these systems would allow people to 'game' our algorithms to manipulate search and ads quality rankings, reducing our quality for everyone."³⁰ Thus, by Google's own design, consumers have no basis to make any kind of informed choice when selecting their search provider, and may simply continue using Google based on habit or its preeminence in the search and online advertising markets.

In contrast, the largest broadband Internet access provider could at most theoretically foreclose access only to a small percentage of Internet users (and even then, only to those that connect to the Internet exclusively through one broadband access provider, and not those who may have a connection both at home and at work, or who use both wireline and wireless broadband Internet access).

To be clear, AT&T contends that adherence to existing Internet principles and policies as adopted by the EU, the FCC and other countries such as Japan, combined with general antitrust enforcement, are sufficient to govern all Internet-based services and applications. But no regulator rationally could regulate broadband access providers on the basis of hypothetical misconduct, when this approach would leave search providers unregulated in the face of Google's market power, its gatekeeper capabilities, and its actual demonstrated abuse of both.

Google's already widely-distributed network and data center system also gives it a significant incentive to prevent potential competitors from being able to obtain prioritization for their services. As described in the attached Engineering Background, Google has constructed a vast "overlay" content-delivery network (CDN) that enables it to out-perform its rivals in the delivery of search results to users throughout the world. While Google can obtain settlement-free peering directly with end-user broadband networks, less well-funded

²⁹ See marketshare.hitslink.com available at: <http://marketshare.hitslink.com/searchenginemarket-share.aspx?qprid=4#> statcounter.com available at: <http://gs.statcounter.com>

³⁰ See Jonathan Rosenberg, The meaning of open, Google Public Policy Blog, Dec. 21, 2009, <http://googlepublicpolicy.blogspot.com/2009/12/meaning-of-open.html>

application and content providers must purchase CDN services or rely on traditional access/aggregation and backbone services to send their traffic through potentially congested routers and links en route to other Internet users. Google thus has every interest in promoting government-enforced “network neutrality” regulations that would prohibit or limit network operators’ use of traffic management techniques that would allow competitors to match some of Google’s self-provisioned advantages.

9. How would the full implementation of the principle of net neutrality impact on the social, cultural and political life of the country? What are the general values associated with debate on net neutrality that should be taken into account to ensure the full implementation of the principle of net neutrality? In this regard, what tools can be used by the Authority?

10. What is the relationship between the different aspects of the principle of Net Neutrality and pluralism of information and, more generally, freedom of communication and of expression?

The spectacular growth of the Internet and its remarkable contribution to communication, culture, political discourse, and economic development throughout the world is the direct result of policies that have allowed the Internet to develop in the marketplace free from government regulation that would have locked in place specific technologies or business models. AT&T believes that governments and regulators should continue to apply these highly successful deregulatory policies to encourage and stimulate the further development of the Internet as network operators make investment decisions regarding the huge expansions of broadband network facilities, both fixed and mobile, that are required to meet ever-increasing consumer demands for high bandwidth services.

Information and communications technology (ICT) is already a critical driver of economic growth in both developed and developing countries. The further deployment of broadband technologies promises to multiply these benefits by leading to the creation of innovative services that are key economic drivers in themselves and also enhance the benefits of investments in other industries and institutions – such as by enabling transportation systems to run more smoothly, delivering new efficiencies to electric grids, expanding access to health care, providing new work options that allow reduced travel and

emissions, connecting students to expanded educational resources, and bringing increased effectiveness to government.

To deliver these results, governments and regulators should continue the investment-friendly policies that have brought the vast expansion of network facilities throughout the world and allowed this critically important global communications medium to flourish and benefit the global community in ways that would have been unimaginable twenty years ago. Prominent among these beneficial policies that should be maintained to achieve this goal is the need to avoid any prescriptive regulation of the Internet and associated service arrangements.

Regarding the question on freedom of expression and human rights, AT&T is committed to respect basic human rights. We believe that the freedom to access information, the freedom to communicate and the respect for personal privacy are essential to the advancement of human potential. At a most basic level, the infrastructure we build and operate is part of a global platform which enables the ability to connect and communicate. Through our services and platforms, we make it possible for our users to hold and share opinions freely, to seek out the ideas of others and to communicate their own. This exchange of information and ideas is at the very core of what we do as a company. We believe restrictions on freedom of expression using communications services and the Internet will diminish their usefulness, dampen the exchange of ideas and reduce innovation and commercial opportunities.

Although national governments have a primary role in determining and protecting basic human rights, it is increasingly important for businesses working internationally to establish a framework for their actions that potentially impact human rights. We will work with governments, industry, consumers and civil society to promote human rights around the world in areas associated with our operations. We recognize that governments can have a legitimate interest in addressing important objectives such as national security, public safety, law enforcement and preventing harm to children. We believe governments should narrowly tailor such restrictions to meet those objectives, and should base any such restrictions in transparent laws and regulations to the extent permitted by law. When faced with such restrictions, AT&T will validate the legality of the restriction under applicable law and seek to minimize any adverse impacts on our users. We will generate periodic reports regarding

our experience with such requests to the extent permitted by the law. We encourage the national governments to address human rights issues with other governments directly.

The International dimension of the Net Neutrality debate

In these comments, AT&T has already reviewed the US and EU Net Neutrality discussions. We would like also to highlight the other major international proceedings on net neutrality during the past 6 years. The purpose of these comments is to assist the Authority by highlighting what most regulators have concluded after extensive review.

The detailed facts about the importance of reasonable network management put on the record in these proceedings have helped to narrow the gap between opposing perspectives, and have made clear that there is a general consensus on acceptable network operator behavior requiring the avoidance of anti-competitive practices or any blocking of lawful content, applications and services, and the need for adequate transparency and openness concerning network management practices and their potential impact on consumers.

The major debate in these proceedings has been between those advocating the use of prescriptive regulation to mandate that network operators adhere to these behavioral norms in their provision of Internet access, and those emphasizing that competitive market forces ensure such adherence while avoiding the harmful effects to the market that likely would result from new regulation. Importantly, during these proceedings, regulators frequently have begun their analysis of net neutrality with an impression, fostered by pro-regulatory interest groups, that extreme interventionist measures are needed in order to prevent severe harm to the Internet. After learning the facts about the Internet ecosystem, however, ultimately these regulators either have adopted much more restrained measures that reflect a dynamic and competitive market, or have decided that new regulatory measures are not necessary at this time.

Canada

After an extensive proceeding, Canada has taken a light-handed approach to net neutrality oversight. In October 2009, the Canada Radio-Television and Telecommunications Commission (CRTC) issued a policy (rather than *regulation*) permitting Internet service providers to use a variety of prioritization methods, including traffic shaping and slowing

down of certain applications, as long as such practices do not result in “noticeable degradation of time-sensitive Internet traffic” or slow down other traffic “to such an extent that it amounts to blocking the content.”³¹³² The CRTC described its policy as “a principled approach that Although the policy forbids practices that are “unjustly discriminatory” or “unduly preferential,” it permits service providers to engage in a variety of prioritization practices providing they act in an impartial manner that is transparent to consumers.appropriately balances the freedom of Canadians to use the Internet for various purposes with the legitimate interests of ISPs to manage the traffic thus generated on their networks, consistent with legislation, including privacy legislation.”³³

Hong Kong

The Office of the Telecommunications Authority (OFTA) in Hong Kong also has taken a restrained approach with respect to net neutrality. In March 2009, OFTA issued a discussion paper³⁴ in which it expressed its view that net neutrality oversight should concern anti-competitive and unreasonably discriminatory conduct. OFTA noted that the competitive nature of the telecom market in Hong Kong can dilute any negative impact that would arise if an operator were to engage in discriminatory and anti-competitive actions and, moreover, that existing safeguards against the abuse of market power and discrimination are adequate to guard against such conduct. OFTA stated that “[a]s long as the ISPs adopt a fair and open method to control the flow of Internet traffic on their networks, this should be tolerated. Adopting more vigorous regulations at this stage may have unintended consequences that can stifle investment and innovation.”³⁵ As with many other regulators, OFTA has thus focused on the need for transparency, reliance on market forces, and the prevention of anti-competitive conduct, rather than the introduction of new prescriptive regulation of traffic management.

³¹ Canada Radio-television and Telecommunications Commission, *Telecom Regulatory Policy CRTC 2009-657, Review of the Internet Traffic Management Practices of Internet Service Providers*, at pars.123-27 (Oct. 21, 2009), available at <http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm>.

³² *Id.* at Summary.

³³ *Id.* at Summary.

³⁴ Regulatory Affairs Advisory Committee, *RAAC Paper No. 2/2009, Network Neutrality* (Apr. 23, 2009), available at http://www.ofta.gov.hk/en/ad-comm/raac/paper/raac02_2009.pdf.

³⁵ *Id.* at 20.

Japan

After a substantial multi-year study, the Japan Ministry of Internal Affairs and Communications (MIC) concluded that there is no current need for net neutrality regulation. Following a number of public consultations, draft reports, and industry panels, in September 2007 the MIC released a final report³⁶ concluding, among other things, that there is no case for imposing *ex ante* rules and that charges for bandwidth-intensive content may be determined through negotiations between Internet service providers and content providers. Notably, referencing Japan's 2004 general transition from *ex ante* to *ex post* regulations in order to ensure minimum regulatory intervention in the marketplace, the MIC stated that "it is appropriate to always bear in mind this minimal regulatory framework be also kept for IP-based networks since remarkable changes in market structure and network structure brought on by rapid innovation are further expected."³⁷ Japan's regulator did, however, encourage communications providers themselves to develop guidelines for traffic management, noting that "bandwidth control [packet shaping] is recognized as an appropriate method" to ensure quality of service for Internet users. They further stated that "to establish a broad-based consensus on bandwidth control criteria, it is advisable to seek participation from diverse parties in drawing up 'packet shaping guidelines.'"³⁸ In response, in May 2008 four telecommunications trade associations issued *voluntary* guidelines³⁹ that permit traffic shaping. These industry guidelines allow providers, subject to disclosure obligations, to impose restrictions on certain end-users and applications such as peer-to-peer (P2P) that consume disproportionate bandwidth and potentially degrade service quality for other users. Thus, the position of the Japan regulator is that the government should not prescriptively regulate the Internet, and that the industry should self-regulate through industry guidelines.

³⁶ Ministry of Internal Affairs and Communications, *Report on Network Neutrality, Working Group on Network Neutrality* (Sept. 20, 2007), available at http://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/pdf/070900_1.pdf.

³⁷ *Id.* at 9

³⁸ *Id.* at 29-30.

³⁹ Japan Internet Providers Association *et al.*, *Guideline for Packet Shaping* (May 2008), available at http://www.jaipa.or.jp/other/bandwidth/guidelines_e.pdf.

United Kingdom

In the United Kingdom, the regulator Ofcom has repeatedly refused calls to interfere with Internet service providers' reasonable management of their networks. In a March 2007 Policy Statement, Ofcom explained that "...the existing market structure, the level of competition in service provision and the regulatory policy in Europe, combined with powers to address such issues under the existing regulatory framework[] will be sufficient to address issues that arise in relation to network neutrality now and in the future. . . Specifically, in a competitive market, with consumers that are well informed in relation to the activities of different ISPs and who can easily move to competing providers, competition itself can [provide] a constraint on behaviours that reduce consumer benefits."⁴⁰

The UK has consistently found that net neutrality regulation is unwarranted. In a January 2009 report,⁴¹ the UK reiterated its rejection of pre-emptive net neutrality principles in the absence of clear market failure, noting that "the Government has yet to see a case for legislation in favour of net neutrality. In consequence, unless Ofcom find[s] network operators or ISPs to have Significant Market Power [justifying] intervention on competition grounds, traffic management will not be prevented."⁴² The report concluded that without such a finding of market failure, net neutrality regulations would be imprudent because they may stifle investment. And after a nearly two-year-long assessment of the mobile sector, Ofcom announced a similar policy with respect to wireless networks, reporting that "[i]n a competitive market we expect that the degree of traffic management (if any) will be determined by consumer choice and therefore does not require regulation. We therefore believe that our promotion of competition in the mobile sector has the potential to address these concerns to a large degree."⁴³ Although Ofcom acknowledged that prioritization and even blocking may occur in the absence of regulation, it concluded that the appropriate

⁴⁰ Ofcom, *Regulation of VoIP Services: Statement and publication of statutory notifications under section 48(1) of the Communications Act 2003 modifying General Conditions 14 and 18*, at 80-81 (Mar. 29, 2007), available at

<http://stakeholders.ofcom.org.uk/binaries/consultations/voipregulation/statement/voipstatement.pdf>.

⁴¹ Department for Culture, Media, and Sport and Department for Business Entertainment & Regulatory Reform, *Digital Britain, The Interim Report* (Jan. 2009), available at http://webarchive.nationalarchives.gov.uk/+http://www.culture.gov.uk/images/publications/digital_britain_interimreportjan09.pdf.

⁴² *Id.* at 22.

response is to require transparency concerning such practices, rather than to impose prohibitions.

In the most recent United Kingdom review in June 2010, Ofcom published a discussion paper⁴⁴ on Internet traffic management practices to determine how Ofcom's existing powers, and future enhanced authority under the amended EU rules that will be transposed into UK law this year, might be used to address traffic management concerns. Ofcom stated: “[O]ur initial position is that discriminatory behaviour is only a potential issue where firms have substantial ‘market power’ and could discriminate in favour of their own services[.]. In this case, any form of discrimination will come under very close scrutiny to ensure that there are no anti-competitive effects. We believe that there is insufficient evidence at present to justify the setting of blanket restrictions on all forms of traffic management.”⁴⁵ Moreover, Ofcom noted that to date it has received no formal complaints of traffic management being used as a form of anti-competitive discrimination.

As shown by those examples, there is no disagreement about the central role the Internet plays in society, and the need to preserve its openness. While the ultimate resolution of the net neutrality debate in the U.S. remains unclear, many regulators across the globe are finding common ground on a balanced approach to net neutrality and preserving consumer interests, without overly distorting competition between participants in the Internet ecosystem. Indeed, many regulators have begun their analysis of net neutrality by asserting that heavily prescriptive regulation is necessary, but this has not been the typical outcome of these proceedings. Rather, the general result has been one of restraint. Regulators have emphasized the need to preserve incentives for network operators to reasonably manage and invest in their networks. Specifically, regulators have:

- Highlighted the importance of meaningful **transparency** for network management practices—*i.e.*, providing information to consumers about practices, without

⁴³ Ofcom, *Mobile Evolution: Ofcom's mobile sector assessment*, at 21 (Dec. 17, 2009), available at http://stakeholders.ofcom.org.uk/binaries/consultations/msa/statement/MSA_statement.pdf.

⁴⁴ Ofcom, *Traffic Management and 'net neutrality,' A Discussion Document* (Jun. 24, 2010), available at <http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/summary/netneutrality.pdf>.

⁴⁵ *Id.* at 2.

disclosing technical details that could jeopardize security or commercially sensitive information;

- Recognized that network operators have a legitimate need to utilize reasonable network management practices and that such sound conduct does not harm competition;
- Affirmed that competitive markets are the optimal consumer safeguard for and best barometer of an open Internet, and that new regulation should not be adopted absent a demonstrated market failure; and,
- Found that there are compelling reasons to apply especially “light-touch” regulation to the evolving areas of wireless Internet access, and to specialized services such as IPTV and Enterprise VPNs.

As the Authority examines net neutrality, we urge that the starting point for analysis should reflect this emerging global regulatory consensus, which supports a restrained and fact-driven approach toward the adoption of new regulation in this area.

AT&T would be pleased to answer any questions concerning these comments.

Respectfully submitted,

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