



22 October 2010

Comments – Via Electronic Submission

The Honorable Lawrence E. Strickling
Assistant Secretary for Communications and Information
Department of Commerce
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Re: Internet Policy Task Force

Dear Assistant Secretary Strickling:

4G Americas, LLC (“4G Americas”) commends your leadership at the Department of Commerce in organizing the Internet Policy Task Force to identify leading public policy challenges in the Internet environment.¹ 4G Americas unites mobile operators, vendors, and manufacturers in the Americas to provide a single voice representing the Third Generation Partnership Project (“3GPP”) family of wireless technologies including Long Term Evolution (LTE). The mission of 4G Americas is to promote, facilitate, and advocate for the deployment of the 3GPP family of mobile broadband technologies throughout the ecosystem – including networks, services, applications, and wirelessly connected devices – in the Americas.

Specifically, 4G Americas commends the Task Force for issuing a *Notice of Inquiry* on the *Global Free Flow of Information on the Internet* to examine policies that will advance economic growth and create jobs and opportunities for the American people.² 4G Americas shares the view that it is a top priority to ensure that the Internet remains open for innovation and that government policy should be developed with an appreciation that the Internet is a global medium, recognizing that policies developed in one country may impact Internet-based service providers operating globally. In our comments to the Federal Communications Commission in their Open Internet proceeding, we cautioned that agency that policies mandating a particular form of network management could not only quickly grow obsolete, but also could be misconstrued by regulators in other countries as a form of access regulation to the Internet and possibly even result in regulation that prohibits network management techniques that enhance the user’s experience of mobile broadband applications.³

¹ See Global Free Flow of Information on the Internet, 75 Fed. Reg. 60,068 (Sept. 29, 2010) (“Notice of Inquiry”).

² See *id.*

³ See Reply Comments of 3G Americas, LLC, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Apr. 19, 2010) (“3G Americas Reply Comments”).

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While 4G Americas appreciates that the instant *Notice* was focused on restrictions other governments may impose on access to content, the Department invited commenters to raise and address other governance questions as they see fit.⁴ One of the issues facing both U.S. policymakers and those in other markets is network management techniques.⁵

Attached to this letter for submission into the above referenced proceeding is 4G Americas' white paper on *Traffic Management Techniques for Mobile Broadband Networks: Living in an Orthogonal World* (2010), available for download free of charge at http://www.4gamericas.org/documents/3G%20Americas%20Traffic%20Management%20Paper_Final%20Aug%2010%202010.pdf. The attached white paper was written to help educate stakeholders on the importance of traffic management for mobile broadband networks to ensure high quality services to consumers and overall network reliability. We therefore submit it to the Task Force to provide technical background on the challenges operators of mobile broadband networks face in delivering services subject to constant and growing demand.

The physical layer in mobile networks is subject to a unique confluence of orthogonal influences - unpredictable and unrelated. Mobile broadband networks have some important differences from fixed networks, which lead to different traffic management requirements. Among the most significant differences for purposes of traffic management is the need for more granular visibility to circumstances on the ground. To function optimally, traffic management for mobile broadband networks requires visibility to what is occurring (by device or application) at the cell site level and a timeframe that enables as far as feasible near-time reactions to resolve issues.

With the consumer in mind, an End-to-End ("E2E") view of mobile service is critical for traffic management. 3GPP has endeavored to standardize increasingly robust traffic management (Quality of Service, or QoS) techniques for mobile broadband networks with a

⁴ See Notice of Inquiry at 60,073.

⁵ See Information Society and Media Directorate-General, European Commission, Questionnaire for the Public Consultation on the Open Internet and Net Neutrality in Europe (June 30, 2010), available at http://ec.europa.eu/information_society/policy/ecomms/doc/library/public_consult/net_neutrality/nn_questionnaire.pdf; see Canadian Radio-Television and Telecommunications Commission, Modifications to Forbearance Framework for Mobile Wireless Data Services, Telecom Decision CRTC 2010-445 (June 30, 2010), available at <http://www.crtc.gc.ca/eng/archive/2010/2010-445.pdf>; Autorité de Régulation des Communications Électroniques et des Postes (ARCEP), Discussion Points and Initial Policy Directions on Internet and Network Neutrality (May 20, 2010), available at http://www.arcep.fr/uploads/tx_gspublication/consult-net-neutralite-200510-ENG.pdf; French Republic, Consultation Publique sur la Neutralité du Net (Apr. 9, 2010), available at http://www.telecom.gouv.fr/fonds_documentaire/consultations/10/consneutralitenet.pdf; Ofcom, Traffic Management and 'Net Neutrality', a Discussion Document (June 24, 2010), available at <http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/summary/netneutrality.pdf>; Camilla Grimelund Thomsen *et al.*, The Swedish Post and Telecom Agency, Open Networks and Services, PTS-ER-2009:32 (Nov. 30, 2009), available at <http://www.pts.se/upload/Rapporteur/Internet/2009/2009-32-open-networks-services.pdf>; Norwegian Post and Telecommunications Authority, Network Neutrality: Guidelines for Internet Neutrality, Version 1.0 (Feb. 24, 2009) available at <http://www.npt.no/ikbViewer/Content/109604/Guidelines%20for%20network%20neutrality.pdf>.

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consumer's E2E view of QoS. Typically, however, mobile operators do not have full control over E2E provisioning of services that depend on mobile broadband Internet access.

Global standards organizations like 3GPP play an important role in the development of traffic management through provisions for addressing QoS, particularly regarding interworking with non-3GPP access mechanisms. These are important new innovations, and the attached white paper notes that the efforts of standards development organizations should be intensified.

In addition, the configuration of end-user devices and content and applications not provisioned by the network operator not only impacts the experience of the particular user, but potentially other users in a particular cell as well. Efforts to drive further QoS innovations should be mindful of potentially adverse impacts from these sources and support and foster interoperability of third party applications with existing network platforms. More innovations are needed throughout the mobile broadband ecosystem, in particular by application developers, in order to realize E2E Quality of Service.

Because of the need for mobile broadband QoS techniques to evolve, we have argued in the past that the U.S. should not codify rules governing mobile broadband network management.⁶ In addition, while 4G Americas supports transparency for customers, transparency in network management practices must ensure the ability of operators to safeguard network reliability. Accordingly, we likewise have counseled against codifying a transparency rule for mobile broadband network management.

Respectfully submitted,

/s/

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Cc: The Honorable Francisco Sánchez
The Honorable Phil Verveer
The Honorable David Kappos
The Honorable Patrick Gallagher
The Honorable Gary Locke

⁶ See 3G Americas Reply Comments. On September 28, 2010, the association publically announced the changing of the association's name to 4G Americas.