

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Preserving the Open Internet

Broadband Industry Practices

GN Docket No. 09-191

WC Docket No. 07-52

REPLY COMMENTS OF GENERAL COMMUNICATION, INC.

Introduction

General Communication, Inc. (“GCI”) files these reply comments regarding the Commission’s Further Inquiry into Two Under-Developed Issues in the Open Internet Proceeding (“*Open Internet Further Inquiry*”)¹ to support the Commission’s effort to foster an Open Internet while ensuring all Americans have access to Internet and broadband services. As the leading provider of broadband services to government, commercial, and residential users in Alaska, GCI understands the challenges network providers face when delivering broadband to rural and hard-to-serve communities. As it conducts its further inquiry, the Commission should ensure that any regulatory protections do not inadvertently delay or impede the delivery of broadband services in these areas.

The record before the Commission confirms what GCI has long understood – specialized services are critical to the continued expansion of broadband services, particularly in rural areas. In areas such as rural Alaska that today see all high-speed services constrained by limited

¹ *Further Inquiry into Two Under-Developed Issues in the Open Internet Proceeding*, Public Notice, GN Docket No. 09-191 and WC Docket No. 07-52 (rel. Sept. 1, 2010). (“*Open Internet Further Inquiry*”).

middle-mile capacity, whether delivered via satellite or terrestrially, there is a particularly strong need to allow network providers to differentiate between the specialized enterprise class services needed by anchor tenants such as rural health clinics, schools, and governmental installations and the mass market services offered to the public at large. If providers are unable to provide strong quality-of-service guarantees, anchor tenants such as rural health care networks may not have the assured throughput needed for lifesaving services and that schools need to provide students with a high quality learning experience. Moreover, when bandwidth is scarce and not easily supplemented – as is the case with terrestrial microwave services – service providers must prioritize their traffic in ways that are not anticompetitive, but rather reflect the reality that some applications are harmed by latency and jitter, while others can tolerate them well. However well-intentioned, overly-prescriptive rules for specialized and managed services would impede, rather than reduce the barriers to, the deployment of high capacity, highly rural networks.

I. The Commission Should Not Subject Specialized Services to Network Management Restrictions.

GCI joins the many commenters that caution against restrictive regulation of managed or specialized services.² As commenters have explained, “allowing specialized services benefits consumers, investors and innovators, and the open Internet.”³ Simply put, because specialized

² Comments of Telecommunications Industry Association at 8-9, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“TIA Comments”); Comments of Time Warner Cable Inc. at 1, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (arguing that the Commission’s “proposals would undermine investment, innovation, and experimentation in the emerging marketplace for specialized services”); Comments of tw telecom at 1, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“tw telecom Comments”) (explaining the Commission “must be sure to leave service providers the flexibility to provide critically important specialized services to enterprise customers”).

³ Comments of Internet Innovation Alliance at 6, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“IIA Comments”).

services free capacity⁴ and drive critical network investment,⁵ they are “an asset, not a threat, to the well being of the Internet.”⁶

The Commission should be particularly reluctant to adopt regulations that could inadvertently stifle rural broadband deployment, which is often driven by the purchase of specialized services by anchor institutions such as hospitals and schools. As GCI has explained,⁷ “revenues generated by such anchor tenants can justify, in many instances, the deployment of . . . second-mile, regional networks”⁸ and “can also stimulate demand for bandwidth, which can help

⁴ Alcatel-Lucent Comments at 3, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“Alcatel Lucent Comments”); Comments of AT&T, Inc. at 18-19, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“AT&T Comments”) (noting that “extra capacity built into the [AT&T U-verse] network to preserve QoS for video and voice services during moments of extreme congestion is available at other times—*i.e.*, most of the time—to enhance the performance of best-effort Internet access.”); IIA Comments at 1 (“Provision of services that enhance quality of service (QoS) or enable the connection of a varied array of devices (such as medical equipment, smart meters, enhanced video and voice technologies) will complement the open Internet, enhancing its speed and quality by channeling or off-loading additional traffic with special needs.”).

⁵ AT&T Comments at 22 (explaining the Commission should encourage “additional specialized services to be provided over . . . broadband platforms, which will improve the economic case for extending those platforms into higher-cost areas of the country, as envisioned by the Recovery Act and the *National Broadband Plan*.”); Comments of Cricket Communications, Inc. at 12, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“Specialized services provide network operators with additional revenue streams that promote investment in network upgrades and increased capacity.”); Comments of Ericsson, Inc. at 2, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“Ericsson Comments”) (“User demands and the related need for network investment increasingly necessitate offering managed services.”); IIA Comments at 1-2.

⁶ Alcatel-Lucent Comments at 4.

⁷ *See, e.g.*, Comments of General Communication, Inc., GN Docket Nos. 09-47, 09-51, and 09-137 (filed Nov. 4, 2009) (“GCI Middle-Mile Comments”); Comments of General Communication, Inc., GN Docket Nos. 09-47, 09-51, and 09-137 (filed Nov. 9, 2009) (“GCI Tribal Lands Comments”); Comments of General Communication, Inc., GN Docket Nos. 09-47, 09-51, and 09-137 (filed Dec. 7, 2009).

⁸ GCI Middle-Mile Comments at 6.

justify deploying the basic infrastructure that can then support the mass market.”⁹ The National Broadband Plan recognized the key role anchor tenants play in delivering broadband to hard-to-serve communities, explaining that “once community anchors are connected to gigabit speeds, it would presumably become less expensive and more practical to get the same speeds to homes.”¹⁰ Windstream confirms the importance of specialized services to rural broadband deployment, explaining that “[i]n high-cost areas where it is economically challenging for providers to deploy broadband facilities, the prospect for revenues from specialized services in the future may help make it economic for providers to invest in new and enhanced high-capacity networks.”¹¹ The Commission should not take regulatory steps that put these demonstrated benefits at risk.

The record before the Commission convincingly demonstrates the concrete benefits of specialized services. There is, by contrast, no evidence of actual harm that would justify the Commission’s proposed limits on specialized services.¹² History likewise shows that specialized services do not threaten the best-efforts Internet. The Internet Engineering Task Force (“IETF”), for instance, “has long recognized the use of specialized services.”¹³ Moreover, as Bright House

⁹ GCI Tribal Lands Comments at 16.

¹⁰ Federal Communications Commission, *Connecting America: The National Broadband Plan*, Goal No. 4, at 10 (2010) (“NBP”).

¹¹ Comments of Windstream Communications, Inc. at 21, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010).

¹² Comments of MetroPCS at 37-38, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“There has not been a single enforcement action (let alone a single complaint) against broadband Internet access providers in connection with abusing specialized services, nor is there market-based evidence that remotely suggests that such conduct is likely to occur.”); tw telecom Comments at 2; Comments of United States Telecom Association at 3, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“[P]arties favoring the adoption of new rules simply cannot point to any threats of harm that have been demonstrated in the absence of these Internet regulations.”)

¹³ Comments of Americans for Tax Reform’s Digital Literacy Project at 3, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010); *see also* Comments of Bright House Networks, LCC at 21-32, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12,

details, the Internet has and will continue to resolve management and allocation problems in connection with the offering of specialized services,¹⁴ and thus there is “no reason for the Commission to be concerned – in advance and based on speculation – that the Internet community will be unable to resolve any problems that might arise.”¹⁵

The record is likewise replete with evidence that managed and specialized services are offered today without harm to the best-efforts Internet.¹⁶ Public interest groups echo industry concerns that regulation of specialized services will have “negative, unintended consequences” and have urged to the Commission “to refrain from prohibiting pro-consumer voluntary agreements for the provision of specialized services.”¹⁷ The Small Business & Entrepreneurship Council likewise urges the Commission to reject “risky, intrusive and economically damaging ‘net neutrality’ rules” to address “problems that simply do not exist in the broadband or Internet space.”¹⁸

2010) (“Bright House Comments”) (discussing role of IETF in Internet management); Comments of Center for Individual Freedom at 3, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“The simple reality is that specialized service offerings are already widespread and exist well within the norms established over a decade ago by the Internet Engineering Task Force (IETF).”).

¹⁴ Bright House Comments at 22-32.

¹⁵ *Id.* at 26.

¹⁶ *See, e.g.*, AT&T Comments at 23; Comments of Hughes Network Systems, LLC at 2, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (describing Hughes’ “diverse” and “tailored” offerings).

¹⁷ Comments of the National Organizations at i, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010).

¹⁸ Comments of the Small Business & Entrepreneurship Council at 1, 2 GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010).

II. The Commission Should Define Specialized Services Broadly and Permit Neutral Application of All Network Management Tools.

GCI agrees with many of the comments submitted in this proceeding that the Commission should define managed services broadly.¹⁹ Qwest explains, for example, that a broad definition of these services is necessary to continue to foster their “pro-investment and pro-competitive characteristics.”²⁰ This is especially true for rural areas at the end of relatively thin, but very costly, middle-mile transport networks. GCI and other rural providers must be able to prioritize traffic that requires high quality of service over traffic that does not. This need is particularly acute for rural healthcare, school, and governmental enterprise customers, but extends as well to mass market public Internet traffic. There is simply no reason why GCI should not be permitted to ascribe higher priority to a Skype call from an Alaska National Guard member stationed in Afghanistan to his family back home than to a non-time-sensitive music download.

Accordingly, any limits the Commission does impose should be narrowly tailored to limit only the anti-competitive use of network management techniques. The record before the Commission convincingly demonstrates the many ways in which innovation in specialized

¹⁹ AT&T Comments at 14.

²⁰ Comments of Qwest Communications International Inc. at 8, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) ; *see also* AT&T Comments at 14 (urging the Commission not to adopt definitions that sweep specialized services such as “remote heart monitors; telemedicine applications that permit high definition images to be transmitted in real time; utility meters and smart-grid devices; networked vending machines; vehicle telemetry sensors; various network-based VPN services offered to business customers; specialized consumer services integrated with special-purpose devices such as eReaders (*e.g.*, from Amazon and Barnes & Noble) and broadband-enabled GPS navigation devices (*e.g.*, from Garmin and TomTom); and IPTV services and the ‘widgets’ offered in connection with them (*e.g.*, from AT&T and more than 200 others)” into the definition of broadband Internet access service, explaining that doing so would “nip countless such services in the bud”).

services promotes the Commission policies and public interest.²¹ By their very nature, specialized services commonly require quality-of-service guarantees that require consistent network management.²² Blanket prohibitions on network management techniques are therefore likely to do far more harm than good.

Southern Company Services highlights the need for flexibility in network management, detailing its reliance on specialized broadband services to support the safe and efficient delivery of energy service to utility customers.²³ Delivery of specialized services to consumers over last-mile connections likewise requires flexibility to allocate bandwidth as needed to ensure consumer satisfaction.²⁴ The inability to manage traffic associated with specialized services, would simply prevent network operators from providing the innovative, robust, and reliable services that the marketplace demands.²⁵ And, as Alcatel Lucent points out, to offer these guarantees, providers must make “significant upfront and continuous investment” that differs from the investment necessary to provide best-effort Internet access.²⁶ The Commission should

²¹ Comments of Charter Communications at 7-9, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“The Commission would create barriers to innovations in IP services, to the vision shown in contemporaneous Commission dockets, and to inventions yet unimagined, if it extended net neutrality rules to IP specialized services.”); Comments of the National Organizations at 13, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (detailing “broad consensus” in favor of allowing end-users to continue to enter into voluntary agreements for the provision of consumer-driven specialized offerings); Comments of Southern Company Services, Inc. at 7, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010) (“Southern Comments”) (explaining that the public interest would not be served by limitations on specialized services).

²² *See, e.g.*, TIA Comments at 11 (“There is little to no tolerance for latency, jitter, packet loss or lack of availability for these business- or mission-critical services.”).

²³ Southern Comments at 2-6.

²⁴ Comments of SureWest Communications at 3, GN Docket No. 09-191 and WC Docket No. 07-52 (filed Oct. 12, 2010).

²⁵ *See, e.g.*, Ericsson Comments at 3 (detailing variety of features customers demand).

²⁶ Alcatel-Lucent Comments at 3.

therefore ensure that providers continue to enjoy the flexibility they need to provide specialized services in a manner that meets customer demand and protects all subscribers.

Conclusion

Today, specialized services deliver innovation, meet varied customer needs, and encourage broadband deployment and investment, particularly in rural areas. Specialized services will continue to fulfill this crucial role only if they are not subject to overly prescriptive regulation. The Commission should decline to put the demonstrated benefits of specialized service at risk simply to address hypothetical harms, and should instead adopt regulation, if at all, that is narrowly tailored to address anti-competitive conduct.

Respectfully submitted,

/s/

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