

**Before the
Federal Communications Commission
Washington, D.C. 20544**

In the Matter of)
)
Protecting and Promoting the Open Internet)
_____)
GN Docket No. 14-28

**COMMENTS OF THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

The Pennsylvania Public Utility Commission (Pa. PUC) files these Comments in response to the Notice of Proposed Rulemaking (NPRM) issued by the Federal Communications Commission (FCC or Commission) on May 15, 2014.¹ The NPRM has invited initial comments due on July 15, 2014, and reply comments due September 10, 2014.

The Pa. PUC appreciates the opportunity to file these Comments. As an initial matter, these Pa. PUC Comments should not be construed as binding on the Pa. PUC in any matter that is pending before it. Moreover, these Pa. PUC Comments could change in response to later events, including various ex parte filings or the review of other submitted initial and reply comments and legal or regulatory developments at the state or federal level. Finally, the Pa. PUC's participation in this proceeding is without prejudice to any subsequent appellate litigation involving the FCC's *USF/ICC Transformation Order*.²

A. Initial Comments of the Pa. PUC

The Pa. PUC reiterates its previously submitted Initial Comments in this proceeding (*see* Attachment).³ The Pa. PUC has consistently advocated a modified form of common carriage regulation for the retail and wholesale broadband access network facilities and services that enable open and non-discriminatory use of Internet-based content and applications by end-user consumers. The Pa. PUC has stated the following:

¹ *In re Protecting and Promoting the Open Internet*, GN Docket No. 14-28, (FCC, Rel. May 15, 2014), Notice of Proposed Rulemaking, FCC 14-61 (Open Internet NPRM).

² *In re Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, (FCC, Rel. Nov. 18, 2011), Report and Order and Further Notice of Proposed Rulemaking, *slip op.* FCC 11-161, 26 FCC Rcd 17663 (2011), and subsequent Reconsideration and Clarification rulings (collectively *USF/ICC Transformation Order*), *aff'd In re FCC 11-161*, Nos. 11-9900 and 11-9585, (10th Cir., May 23, 2014), *reh'g petitions pending*.

³ *Open Internet Remand Order, et al.*, GN Docket No. 14-28 *et al.*, Initial Comments of the Pennsylvania Public Utility Commission, submitted March 19, 2014 (Pa. PUC Initial Comments).

Common carriage provides legal certainty, ensures joint jurisdiction, and allows state commissions to address local concerns in a cost effective manner compared to relegating all telecommunications matters to the FCC.

Of course, the PaPUC recognizes that the traditional panoply of pricing and tariffing in place under the current common carriage approach may not be appropriate. The PaPUC, however, maintains that modified common carriage is necessary so that all providers seeking to deliver services over the PSTN, albeit a Public Switched Transportation Network or a Packet Sending Transmission Network, will be shouldering an appropriate portion of the total FUSF [federal universal service fund or FUSF] and, now, network access.

The PaPUC suggested then, and repeats today, that a modified form of common carriage might well be the most effective, if not the only, way of providing open access to all facilities and ensuring support for whatever programs the FCC decides to support from the FUSF. This may well come to include broadband deployment and/or support for broadband services under the National Broadband Plan or its successors.

* * *

The PaPUC is gravely concerned, and could not support, a result in which the FCC preempts the states or reaches a forbearance decision that leaves the states with no viable role. An FCC decision that reclassifies the “broadband interconnectivity service” as “telecommunications” or “telecommunications service” must respect state law.

* * *

Finally, a modified common carriage approach that retains state authority better reconciles the FCC’s preservation of federal authority to ensure open access with state jurisdiction. Of necessity, moreover, a federal solution that preserves state authority must address the difficult questions of consumer protections and federal support for state work on federal goals, particularly the difficult issue of authorizing the states to impose a modest assessment on interstate revenues in support of federal efforts.

Pa. PUC Initial Comments, Appendix A (Pa. PUC Comments, *In re Framework for Broadband Internet Service, et al.*, GN Docket No. 10-127 *et al.*, submitted July 15, 2010), at 3-4, 6 (footnotes omitted).

These Pa. PUC positions are fully consistent with the FCC’s reliance on Sec. 706, 47 U.S.C. § 1301 *et seq.*, authority in promulgating its contemplated regulatory methods through its Open Internet NPRM.⁴ This is because Sec. 706(a), 47 U.S.C. § 1302(a), clearly specifies a dual role for both the “Commission and each State commission with regulatory jurisdiction over

⁴ Open Internet NPRM, ¶ 143, at 50.

telecommunications services” in encouraging “the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.” 47 U.S.C. § 1302(a). For example, in 1993 and, again, in 2004, Pennsylvania aggressively advanced the deployment of broadband networks by incumbent local exchange carriers (ILECs) through a statutorily prescribed incentive system of regulation that includes the use of price cap mechanisms.⁵

Furthermore, the statutory term “advanced telecommunications capability” in Sec. 706(c)(1), 47 U.S.C. § 1302(d)(1), “is defined, without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.” 47 U.S.C. § 1302(d)(1). Thus, the statutory connotation that the “advanced telecommunications capability” is or should be treated as “telecommunications” or “telecommunications service” under a dual federal and state involvement is rather strong.

B. The Commission’s Regulatory Methods In Protecting And Promoting An Open Internet Require Consistency

The formulation, adoption, and implementation of the regulatory methods that the Commission contemplates in protecting and promoting an open Internet in its NPRM require consistency. The broadband access services at issue⁶ rely upon physical networks. The capacity of such wireline and wireless physical networks is utilized by the traffic demand of multiple types, classifications, and protocols. Such capacity utilization, of course, imposes economic costs on the relevant physical networks especially when and where retail and wholesale broadband access demand and related physical facilities are concerned. These physical network facilities are required to handle such traffic demand irrespective of the underlying traffic types, classifications, and protocols. Indeed, physical network access facilities, e.g., fiber optic cables are agnostic on whether they handle ordinary voice call traffic or the transmission and delivery

⁵ See generally 66 Pa. C.S. § 3011 *et seq.*

⁶ Services that provide the desired Sec. 706(c)(1) “advanced telecommunications capability.”

of Internet Protocol based packetized videos. Naturally, the operators of these facilities are entitled to recover the relevant economic costs of their respective physical networks so that they can continue to make appropriate capital investments with new and innovative technologies in order to meet the growing and universal demand for retail and wholesale broadband access services across America.

The Commission appears to recognize this fact because its NPRM “does not preclude broadband providers from negotiating individualized differentiated arrangements with similarly situated edge providers (subject to the separate commercial reasonableness rule or its equivalent)” so long as “broadband providers do not degrade lawful content or service below a minimum level of access.”⁷ Indeed, when and where traffic demand — irrespective of the traffic types, classifications, and protocols — imposes economic costs on the capacity of physical access networks, such costs need to be recovered. For example, the NPRM appears to correctly acknowledge that the utilization of physical network access capacity by Internet-based traffic demand imposes economic costs on the networks and on the relevant retail and wholesale broadband access services.

The Pa. PUC encourages the Commission to address these issues in a consistent fashion. The Commission’s laudable goals in protecting and promoting the open Internet in accordance with the statutory premises of Sec. 706 are not divorced from the redefined concept of universal service and broadband deployment that the FCC addressed in its *USF/ICC Transformation Order* and continues to implement. The Pa. PUC believes that its modified common carriage proposals provide the basis for the consistent formulation and implementation of standards that would not only protect the open Internet but would continue to provide the appropriate economic incentives for the continuous deployment of broadband access network facilities and services throughout the United States with the appropriate support from the federal and state USF mechanisms. The Pa. PUC also encourages the Commission to fully utilize the statutory premise of Sec. 706 in this endeavor by seeking and obtaining the appropriate and active cooperation of the states and of the statutorily created Federal-State Joint Boards.

Respectfully Submitted,

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⁷ Open Internet NPRM, ¶ 89, at 33.

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July 15, 2014

ATTACHMENT A

**Before the
Federal Communications Commission
Washington, D.C. 20554**

Open Internet Remand Order	GN Docket No. 14-28
A National Broadband Plan for Our Future	GN Docket No. 09-51
Issues in the Open Internet Proceeding	WC Docket Nos. 07-52 & 09-191
In the Matter of Framework for Broadband Internet Service	GN Docket No. 10-127

**COMMENTS OF
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

The Pennsylvania Public Utility Commission (Pa. PUC) files these Initial Comments to the FCC's Public Notice seeking input to its new docket, Docket No. 14-28. This docket addresses a recent decision of the District of Columbia Court of Appeals in *Verizon v. FCC*, No. 11-3355. That decision affirmed in part, and vacated and remanded in part sub. nom, the FCC's prior decisions in Docket Nos. 07-52 and 09-191, proceedings in which the Pa. PUC previously participated as a party of record.¹

These Pa. PUC Comments should not be construed as binding on the Pa. PUC in any matter before the Pa. PUC. Moreover, the Comments could change in response to subsequent events, including review of other filed Comments and legal or regulatory developments at the state or federal level.

The PaPUC reiterates those filings in this successor proceeding and attaches them as an Appendix A and B. The Pa. PUC urges the FCC to ensure that its decisions reflect those filings, particularly the avoidance of any result that preempts or forbears from Pennsylvania's independent state law.²

Respectfully Submitted On Behalf Of,
The Pennsylvania Public Utility Commission

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March 19, 2014

¹ See *In re: National Broadband Plan and Framework for Broadband Internet Service*, Docket Nos. 10-127 and 09-51, Comments of the Pa. PUC (July 15, 2010); *In re: Framework for Broadband Internet Service, A National Broadband Plan for Our Future*, and *Issues in the Open Internet Proceeding*, Docket Nos. 10-127, 09-51, 07-52, and 09-191 (October 12, 2010).

² See e.g., 66 Pa. C.S. § 3010, *et seq.* and 73 Pa. C.S. § 2251.1 *et seq.*

APPENDIX A

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

Framework for Broadband Internet Service

GN Docket No. 10-127

A National Broadband Plan for Our Future

GN Docket No. 09-51

**COMMENTS OF
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

The Pennsylvania Public Utility Commission (PaPUC) hereby submits these Comments in response to the Federal Communication Commission's (FCC) Public Notice of Inquiry issued on June 17, 2010 (the *Title II Reclassification NOI*). The FCC set deadlines of July 15, 2010, and August 12, 2010, for filing Comments and Reply Comments, respectively.

The PaPUC appreciates the opportunity to file Comments. As an initial matter, the PaPUC Comments should not be construed as binding on the PaPUC in any proceeding before the PaPUC. Moreover, these Comments could change in response to subsequent events. This includes a later review of other filed Comments and legal or regulatory developments at the federal or state level.

The *Title II Reclassification NOI* asks a very basic, and critically important, question about the regulatory classification of the "internet connectivity service" component of "broadband internet service" under state and federal law. The FCC's resolution of this legal issue, particularly after the federal court's decision in *Comcast v. FCC*, 600 F.3d 642 (DC Cir. 2010) (*Comcast*) effectively voided the FCC's reliance on

Title I ancillary authority, is critical to pending consideration of the National Broadband Plan and, equally important, deployment and delivery of advanced telecommunications and information services to all Americans.

Before *Comcast*, the FCC relied on Title I ancillary authority to impose “telecommunications like” obligations on Voice over Internet Protocol (VoIP) providers (such as Local Number Portability, Universal Service support, and Telecommunications Relay Service). Moreover, the FCC also relied on the statutory provisions governing Communications Assistance for Law Enforcement Agencies (CALEA) in determining, in part, that VoIP was a “successor technology” to traditional telecommunications.

The FCC now asks if: (1) this current “information service” classification remains adequate to support effective performance of the FCC’s responsibilities; (2) classifying the “internet connectivity service” component of broadband service as a “telecommunications” service and applying *all* the requirement of Title II is appropriate; and (3) a “third way” is appropriate in which the FCC would classify the “internet connectivity service” as “telecommunications” *but* forbear from applying *all* provisions of Title II except for those needed to implement universal service, competition and small business opportunity, and consumer protections.¹

The PaPUC applauds, and supports, the FCC’s willingness to address this controversial, but fundamental, legal question.

The PaPUC supports a modified common carriage approach, albeit one that does not preempt state law or forbear from state responsibilities for ensuring telecommunications or telecommunications service to the extent that this “internet

¹ *In re: Framework for Broadband Internet Service*, Docket No. 10-127 (June 17, 2010), para. 2.

connectivity service” is intertwined with legitimate state concerns. This is consistent with the PaPUC’s prior filings.²

The FCC is fully aware that the PaPUC’s refrain on universal service has been that Early Adopter states must not be penalized for undertaking efforts at promoting competition, ensuring open access, and reforming local rates, lowering access rates, and creating state universal service funds before other states or the FCC. The FCC can accomplish all of the professed goals in the *Title II Reclassification NOI* in a manner that preserves, and does not undermine or harm, state law.

The PaPUC has consistently stated that a primary way to achieve these goals is by preserving the common carriage approach.³ Common carriage provides legal certainty, ensures joint jurisdiction, and allows state commissions to address local concerns in a cost effective manner compared to relegating all telecommunications matters to the FCC.

Of course, the PaPUC recognizes that the traditional panoply of pricing and tariffing in place under the current common carriage approach may not be appropriate.⁴ The PaPUC, however, maintains that modified common carriage is necessary so that all providers seeking to deliver services to customers over the PSTN, albeit a Public Switched Transportation Network or a Packet Sending Transmission Network, will be shouldering an appropriate portion of the total FUSF and, now, network access.⁵

The PaPUC suggested then, and repeats today, that a modified form of common carriage might well be the most effective, if not the only, way of providing open access to all facilities and ensuring support for whatever programs the FCC decides to support

² *In re: High-Cost Universal Service Support and Federal-State Joint Board*, Docket Nos. 05-337 and 96-45 (April 17, 2008) (hereinafter PaPUC Comments).

³ *PaPUC Comments*, p. 22.

⁴ *PaPUC Comments*, pp. 22-23.

⁵ *PaPUC Comments*, p. 22.

from the FUSF.⁶ This may well come to include broadband deployment and/or support for broadband services under the National Broadband Plan or its successors.

The PaPUC's support for a modified common carriage is not without limits. For one thing, the diversification in the current communications market may prevent the imposition of mandatory minimums on every device or service while, at the same time, the imposition of federal maximums could discourage investment. Consequently, the FCC may have to limit the scope of any "internet interconnectivity" classification.

For another thing, the PaPUC notes that the *Title II Reclassification NOI* lists several provisions of federal law governing universal service, public safety, access by persons with disabilities, privacy, homeland security, and harmful internet practices i.e., unreasonable disruption practices or secret interruptions.⁷ However, the FCC's NOI is significant in its silence on whether any state authority, as an historic joint regulator of "telecommunications" under state and federal law, will continue to apply to this proposed "broadband interconnectivity" service.

The PaPUC is gravely concerned, and could not support, a result in which the FCC preempts the states or reaches a forbearance decision that leaves the states with no viable role. An FCC decision that reclassifies the "broadband interconnectivity service" as "telecommunications" or "telecommunications service" must respect state law.

Several reasons support this approach. First, the PaPUC recognizes that traditional Title II regulation may be unworkable in today's technological market and possibly contravene existing state law if authority retained by the states is overturned by the FCC.⁸ Also, the PaPUC doubts that even the FCC's expansive authority under Title

⁶ *PaPUC Comments*, pp. 22-23

⁷ *In re: Broadband Internet Service*, Docket No. 10-127 (June 17, 2010), para. 32, 39, 40, 41, 42.

⁸ *VoIP Freedom Act*, 73 Pa.C.S. § 2251.1.

II and preemption or forbearance can include servers or routers connected to the United States network through nodes located in Europe, Asia, or Latin America. Moreover, states have restricted rate regulation and consumer protection for Internet Protocol (IP) or VoIP retail services. Consequently, any FCC action must be cognizant of these realities and avoid preemption or forbearance that overrides state law or prevents a state commission from participating in federal efforts.

However, the FCC's proposal for a "modified common carriage" is consistent with the federal definition for "information service" and the exception to the exclusion for "information service" under federal law. The definition holds that a change in protocol related to the management, control, or operation of a telecommunications system or the management of a telecommunications service is not "information service" but, instead, becomes telecommunications under federal law.⁹

The FCC's decisions interpreting Pennsylvania law view Pennsylvania law as consistent with federal law.¹⁰ In turn, the PaPUC relied on FCC interpretations of federal law to avoid preemption or forbearance for decisions made under state law.¹¹

Consequently, the FCC and the state commissions would be within the confines of this "exception to the exclusion of information service" if a provider is changing protocol to facilitate communications over the PSTN, albeit a traditional or modernized PSTN. This same provision preserves the "joint jurisdictional" approach that has been a hallmark

⁹ *Title II Reclassification NOI*, para. 59, n. 170.

¹⁰ *Fiber Technologies v. North Pittsburgh*, File No. EB-05-MD-014 (February 23, 2007) (*Fiber Technologies*).

¹¹ *Palmerton Telephone Company v. GNAPs*, Docket No. C-2009-2093336 (March 16, 2010); Application of *Sprint Communications Company L.P. For Approval of the Right to Offer, Render, Furnish or Supply Telecommunications Services as a Competitive Local Exchange Carrier to the Public in the Service Territories of Alltel Pennsylvania, Inc., Commonwealth Telephone Company and Palmerton Telephone Company*, Docket No. A-310183F0002AMA, A-310183F0002AMB, A-310183F0002AMB (December 1, 2006).

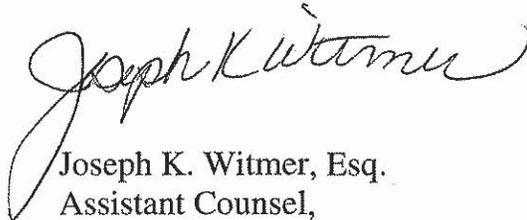
of regulatory oversight for network facilities, “telecommunications,” and “telecommunications service” under state and federal law.¹²

Finally, a modified common carriage approach that retains state authority better reconciles the FCC’s preservation of federal authority to ensure open access with state jurisdiction. Of necessity, moreover, a federal solution that preserves state authority must address the difficult questions of consumer protections and federal support for state work on federal goals, particularly the difficult issue of authorizing the states to impose a modest assessment on interstate revenues in support of federal efforts.¹³

The PaPUC appreciates the opportunity to file these Comments. The PaPUC reiterates that the positions taken in these initial Comments are general and may change, particularly following review of the other filed Comments.

Respectfully submitted,

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¹² *Fiber Technologies*, para. 12 and 15.

¹³ PaPUC Comments, pp. 16-17.

APPENDIX B

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Framework for
Broadband Internet Service

GN Docket No. 10-127

A National Broadband Plan for Our Future

GN Docket No. 09-51

Issues in the Open Internet Proceeding

WC Docket No. 07-52

**FURTHER COMMENTS OF
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

The Pennsylvania Public Utility Commission (PaPUC) files these Comments to the FCC's Notice of Inquiry issued on September 1, 2010 (the *Further NOI*). The *Further NOI* set deadlines of October 12, 2010, and November 4, 2010, for filing Comments and Reply Comments, respectively. These PaPUC Comments should not be construed as binding on the PaPUC in any matter before the PaPUC. Moreover, the Comments could change in response to subsequent events, including review of other filed Comments and legal or regulatory developments at the state or federal level.

The PaPUC's prior comments in the *Title II Reclassification NOI (Initial NOI)* broadly supported a modified common carrier Title II approach for "Internet connectivity service" or "broadband Internet access service" under state and federal law. These PaPUC Further Comments reiterate that a modified common carrier approach, so long as it does not preempt the states and properly reflects changes in technology and service platforms, is appropriate for "managed," "specialized," or "other" services, including wireless Internet connectivity service. These comments reflect, and incorporate, PaPUC comments that have been filed in other FCC proceedings such as the *Universal Service* at Docket 96-45, *Intercarrier Compensation* at Docket No. 01-92, *Separations* at Docket 80-286, and the *Broadband National Plan* at Docket No. 09-51 given their complex interrelationship. A copy of these Further Comments will be filed there as well.

General Issues in the Notice of Inquiry

A Modified Common Carrier Framework Is the Preferred Approach.

The *Further NOI* seeks comment on the regulatory treatment of “managed” or “specialized” service when those services are provided over the last-mile wireline facilities. These classifications would exclude “managed” or “specialized” services from that modified common carriage classification.

The FCC then asks if the open Internet rules applicable to “Internet connectivity service” as a Title II common carrier service should apply to “mobile wireless Internet access service” as well. This proposal may exempt “wireless” providers of “Internet connectivity service” from any Title II modified common carrier rules imposed on “Internet connectivity service” provided over wireline facilities. This apparently reflects the limitations in spectrum-based wireless “Internet connectivity service” when delivering wireless “Internet connectivity service” that is used to provide Internet broadband service.¹ This *Further NOI* also seems to reflect the recent legislative proposal of Verizon Communications, Inc. (Verizon) and Google announced on or about August 9, 2010.²

In the *Initial NOI*, the FCC asked if the “Internet connectivity service” physical connection used to provide “broadband Internet service” should be classified as “telecommunications” under Title II. The *Initial NOI* addressed an earlier federal appellate court decision in *Comcast v. FCC*, 600 F.3d 642 (DC Cir. 2010) (*Comcast*), a decision that restricted the FCC’s reliance on Title I ancillary authority to adequately address an broadband Internet Access Service under federal law.

¹ See, for example, Ex Parte *CTIA Presentation on Net Neutrality* to FCC Commissioner Meredith Atwell Baker (September 20, 2010), p. 2 (“wireless is limited by spectrum availability *and* the physical limits of its capacity”), *emphasis added* and p. 4 (“**as few as 5% of users can monopolize cell capacity**” and “the use of BitTorrent, unknown to the consumer, almost brought an entire cell site down”), *emphasis supplied*.

² *Verizon, Google Unveil Legislative Proposal for Open Internet Principles, FCC Authority*, TR Daily (August 9, 2010). *Verizon-Google Legislative Framework Proposal*, August 10, 2010. Internet http://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en/us/googleblogs/pdfs/verizon_google_legislative_framework_proposal_081010.pdf, accessed September 1, 2010 (Verizon-Google proposal).

The PaPUC supports a modified common carriage approach that preserves joint jurisdiction and the mandate of non-discrimination for broadband access to telecommunications and communications facilities and services. The FCC must not preempt state law or impose forbearance results that prevent state commissions from resolving real “on the ground” issues. This includes intercarrier compensation, interconnection between competing carriers, and protection of consumer interests including adequate quality of and non-discriminatory access to various services that are provided over broadband access facilities.

Pennsylvania law gives the PaPUC limited authority over retail end-user “rates” or “consumer protections” for certain Voice over the Internet Protocol (VoIP) retail services. 73 P.S. § 2251.4. That same law preserves PaPUC authority in many critical areas. These include arbitrating interconnection disputes and ensuring that carriers who own facilities are properly compensated, or compensated at all, for common carrier services that are rendered on their networks. The PaPUC has authority in “public policy” areas, like support for 911, universal service, Telecommunications Relay Service (TRS), and “protected” intrastate services that continue to be provided under tariffs.³

The PaPUC positions have consistently attempted to mesh federal and state law with federal and state concerns.⁴ Today’s comments examine modified common carriage with Internet Protocol (IP) and legitimate network management of IP, particularly given the evolving market for transmission of “broadband internet service” using IP technology.

³ These include basic local exchange, touch-tone, switched and special access, and ordering, installation, restoration and disconnection of these services. See 73 P.S. § 2251.6 and 66 Pa. C.S. § 3012.

⁴ See, *In re: USF and Joint Board*, Docket Nos. 96-45 and 03-109 (July 30, 2010) (*PaPUC 2010 Joint Board Comments*); *Framework for Broadband Internet Service*, Docket Nos. 10-127 and 09-51 (July 15, 2010) (July 2010 PaPUC Comments); *In re: Section 706 Inquiry*, Docket No. 09-137 (December 21, 2009) (December 2009 PaPUC Comments); *In re: High-Cost Universal Service Support and Federal-State Joint Board*, Docket Nos. 05-337 and 96-45 (PaPUC Comments: April 17, 2008) (PaPUC April 2008 Comments).

Modified Common Carriage, IP Technology, and Interconnection.

The PaPUC does not believe that the introduction of IP “packet technology” over fiber or available spectrum has so dramatically altered “telecommunications” or “communications” compared to earlier copper networks and analog technology that a new regulatory classification is necessary. The copper-analog technology was subject to Title II common carriage and Joint Jurisdiction between the FCC and the states. The current fiber-digital technology should be classified as Title II modified common carriage. While the technology differs, the underlying principles remain the same. Importantly, joint FCC and state authority must be preserved.

With both technologies, citizens communicate with each other. The major difference is that with fiber-digital technology there are more applications, more providers, and more platforms that generate revenues from providing IP-based communications. The new applications and technology allows citizens to separate, or combine, their voice communication (including texting) with data or video. Previously, there was little integration and no texting on copper-analog networks confined to voice.

The new IP packet technology used to provide these communications is not the result of a purely “free market” innovation funded by investors and private venture capital. IP was created for the publicly-funded DARPA-Net.⁵ In turn, DARPA-Net was a network funded by the U.S. Department of Defense Advanced Research Projects Agency (DARPA) so that nuclear researchers at university and defense institutions could communicate over a national security network not otherwise available for commercial use. When the ban on commercial use of DARPA-Net was removed in the 1990s, the newly-privatized network became the Internet. It now delivers voice, data, and video using IP technology.

⁵ <http://www.inetdaemon.com/tutorials/internet/history.shtml>

IP technology relies on “packets” with three components. These are headers (which identify the origin, nature, destination, and speed of a communication), load (the communication), and footers (information at the end of a load). IP technology relies on standard protocols and bursts of light to send packets at the speed of light through routers and services on networks. Invariably, the transmission of IP-based traffic with and through the traditional public switched telephone network (PSTN) still relies on conversions and re-conversions of IP-based traffic to Time Division Multiplexing (TDM) protocols.

The wireline physical facilities used to deliver IP “packet technology” in this interconnected manner are mainly within the province of two groups of facility owners and operators that may also provide their own content such as video and various information services, i.e., the cable and telecommunications companies.⁶ On the other hand, approximately 95% of the nation’s wireless wholesale minutes are provided by three carriers all of whom are substantially unregulated affiliates of incumbent local exchange carrier⁷ (ILEC) holding companies. These ILEC holding companies still have a considerable market presence and a significant degree of reliance on the TDM transmission protocol of their more traditional PSTN facilities that nevertheless includes significant capital investment in both retail and wholesale broadband facilities.

Above these Internet-TDM connections and protocol conversions, IP networks use “peering” between Tier 1 network owners and Tier 2 providers.⁸ There, Tier 1 network owners exchange traffic on a “bill and keep” basis whereas Tier 2 providers and others below that Tier 2 pay proprietary rates to Tier 1 owners for transmission. Importantly,

⁶ *In re: IP-Enabled Services*, Docket 04-36, MCI Comment, (May 28, 2004), pp. 13-20; *In re: IP-Enabled Services*, Covad Comment (May 28, 2004), pp. 7-17. Their comments endorsed “information service” for services and “telecommunications” for the facilities consistent with Pennsylvania and federal law. *Fiber Technologies v. DQE*, Docket EB-05-MD-014 (February 27, 2007); *In re: Time Warner*, WC Docket 06-55 (March 1, 2007).

⁷ *In re: Applications for Consent to the Transfer of Control from Nextel Communications, Inc. to Sprint Corporation*, WT Docket No. 05-63, Joint Declaration of Stanley M. Besen, et al. (February 8, 2005), para. 51, p. 9.

⁸ See generally http://en.wikipedia.org/wiki/Tier_1_network and <http://www.bing.com/search?q=peering&src=IE-Address>.

the majority of the current Tier 1 backbone connection providers are themselves associated with large incumbent carriers, either nationally or internationally.

Given these considerations, the PaPUC broadly supports classifying the “internet connectivity service” used to provide broadband Internet service under a Title II modified common carriage framework that maintains an appropriate role for state regulatory agencies. Moreover, the service provided over that Title II connection is the Internet, a network now providing voice, data, and video content.

State utility commissions have increasingly utilized Title II common carrier principles and state laws consistent with applicable federal law in order to resolve intercarrier compensation disputes that involve the wholesale telecommunications transmission function of IP-based traffic such as VoIP.⁹ The FCC and the states are within the law to classify “managed service” or “wireless” as Title II modified common carriage given the public interest in “Internet connectivity service” on telecommunication network facilities and Pennsylvania law is consistent with federal law in this respect.¹⁰

Modified Common Carriage and Packet Management.

While IP technology is used to provide voice, data, and video service, all IP-packets are not alike.¹¹ Voice packets require “real time” priority to prevent jitter, latency, and dropped conversations. Data packets can be disassembled and rearranged without a noticeable decline in service quality. Video relies on “buffer” memory to store, and resend, transmission without a noticeable decline in quality.

⁹ Compare 73 Pa.C.S. § 2251.1 et seq. (Pennsylvania’s “VoIP Freedom” law); *Palmerton Tel. Co. v. GNAPs*, (Pa. Docket No. C-2009-2093336 (Pa. PUC March 16, 2010); *Rural Telephone Company Coalition v. PaPUC*, 941 A.2d 751 (Pa. Cmwlth. 2008) with *Fiber Technologies v. North Pittsburgh*, File No. EB-05-MD-014 (February 23, 2007) (*Fiber Technologies*) and *In re: Time Warner*, Docket No. 06-55 (2007).

¹⁰ Compare 73 Pa.C.S. § 2251.1 et seq. (the “VoIP Freedom” law); *In re: GNAPs*, Docket No. C-2009-2093336; *Rural Telephone Company Coalition v. PaPUC*, 941 A.2d 751 (Pa. Cmwlth. 2008) with *Fiber Technologies v. North Pittsburgh*, File No. EB-05-MD-014 (February 23, 2007) (*Fiber Technologies*) and *In re: Time Warner*, Docket No. 06-55 (2007).

¹¹ Edward W. Felton, “Nuts and Bolts of Network Neutrality,” 24th Annual Institute on Telecommunications Policy and Regulation, 223-334 (Practicing Law Institute: 2006), pp. 223-334.

These packet differences necessitate network management in definitions adopted as a component of modified common carriage. Current federal law contains a definition of “telecommunications” that generally excludes “information service” from telecommunications subject to Title II. However, the “information service” definition contains an exception for network management. In that case, the network management “exception to the exclusion of information service” puts network management within Title II. The network management exception applies here.

Based on that, the PaPUC urges the FCC to recognize these differing packet needs and develop the appropriate classes for “packets” as part of the modified Title II reclassification of “managed service” and “wireless” service. These could be “packet management” and “packet discrimination” in general rules.

The “packet management” classification, if adopted as a component of modified common carriage, could recognize the legitimate and differing needs of voice, data, and video packets. This requires management of networks to ensure that voice packets get the “real time” priority needed to prevent jitter and latency. In addition, there may be instances where public health (telemedicine), public safety (homeland security or 911 calls), public access (at schools and libraries), or discrete types of communications (e.g., various forms of telecommunications relay service or TRS) could warrant “real time” prioritization based on the public interest. Federal law and consistent state laws and regulatory practices already and largely address these areas.

The “packet discrimination” classification, if adopted as a component of modified common carriage, could prohibit network management practices in which a network facility owner competing to provide content with other content providers prioritizes their “data” or “video” packets over competitor packets and voice or public interest packets. This would include any network owner attempts to wrongfully block access to lawful content, access to websites, allocating preference to affiliated packets over unaffiliated

packets, or using technology like deep packet inspection¹² (DPI) to engage in “packet discrimination” in the guise of “packet management” of a network. A Title II modified common carriage approach would recognize, and address, prioritization of voice and public interest packets in general rules. The PaPUC believes that those general rules will provide network owners, content providers, and end-users with predictability and flexibility that are better than uncertain case-by-case adjudications.

Modified Common Carriage and the Proposed Exclusions for Some Wireline Service.

The *Further NOI* seeks comment on the treatment of “specialized” or “managed” or “other” services provided over a wireline network that is providing voice or Internet connectivity service. Several considerations support a modified common carriage approach equally applicable to shared or single purpose networks.

A network owner faces a fiduciary responsibility to maximize benefit for shareholders and generate the profits needed to attract private investment. The failure to do otherwise may constitute a violation of state and federal law. A network owner that is also a content provider cannot be expected to voluntarily accept a modified common carriage mandate that potentially limits their ability to maximize shareholder benefit by marketing higher-priced, and unregulated, “managed” or “specialized” service to unaffiliated content providers.

The FCC and the states must address the public interest arising when a network owner with a scarce resource, such as control over “last mile” wireline facilities, seeks to allocate those scarce resources to the highest bidder using “paid prioritization” for “managed” or specialized” service. Of necessity, the owner or provider’s fiduciary duties

¹² <https://www.dpacket.org>; <http://www.deeppacketinspection.ca>;
http://www.ranum.com/security/computer_security/editorials/deepinspect

may and can encourage “packet discrimination” that would most likely favor affiliated or highest-bidder packets over unaffiliated or lower-priced voice or public interest packets.

A modified common carrier approach is necessary and appropriate given these competing fiduciary duties i.e., one to the private sector and the other to the public sphere. Public oversight is needed to balance a revenue maximization duty with the public interest duty that is broadly based on historic and well founded non-discriminatory common carriage principles.

In addition, modified common carriage is a tried and true approach, not least because it allocates joint jurisdiction between the FCC and the states. It provides network owners and content providers multiple forums for dispute resolution. Some matters are far more local or national than others. A single forum – namely the FCC - focused on doing all disputes will face various timely enforcement difficulties and administrative burdens.

On the other hand, states continue to possess and develop the required legal and technical expertise to address the same issues with better knowledge of local market conditions and a much better focus on consumer protection whether the consumer is an end-user or wholesale customer of broadband interconnectivity access services.

In sharp contrast, the Verizon-Google Proposal would concentrate the requisite regulatory authority and case-by-case enforcement at the FCC while delegating the necessary fact-finding to “non-governmental dispute resolution processes established by independent, widely-recognized Internet community governance initiatives,” with the FCC giving “appropriate deference to decisions or advisory opinions of such groups.”¹³ The Verizon-Google Proposal goes on to state that its “proposed framework would not affect rights or obligations under *existing* Federal or State laws that generally apply to

¹³ Verizon-Google Proposal at 2.

businesses, and would not create any new private right of action.”¹⁴ However, this framework does not adequately explain *how* it will interact with existing federal (e.g., TA-96) and state laws, particularly those that affect the rights of end-user consumers who purchase broadband connectivity services and may have certain legally founded expectations of reliability, adequacy and privacy.

Modified common carriage also ensures an appropriate alignment of network costs with network revenues using an “interstate and intrastate” revenue allocator similar to that under consideration in the *Separations* docket at Docket No. 80-286.

A modified common carriage approach also avoids the regulatory problems created by the *Vonage Order* with its limited preemption, interpreted by some courts to apply only to “nomadic” VoIP and not “fixed” VoIP. This approach also avoids the *pulver.com* exclusion of “information service” that is free and does not touch the public network from “interconnected VoIP” or other undefined “information service” as well.

A modified form of common carrier classification further avoids the need to differentiate “information service” for voice service under the FCC and state authority in the Communications Act from “information service” under the Law Enforcement Agencies (CALEA) statute which exempts “information service” from compliance with the CALEA mandates. The FCC ultimately parsed the legal definitions of “information service” in both statutes to support the inclusion of “interconnected” VoIP within CALEA notwithstanding *Vonage* and *pulver.com*.¹⁵ The parsing illustrates the long-term consequences of agency decisions that are “result driven” or use “case by case” adjudications as contrasted to the utilization of rules with general applicability.¹⁶

¹⁴ Verizon Google Proposal at 2 (emphasis supplied).

¹⁵ *In re: CALEA*, Docket No. ET 04-295 (August 9, 2004).

¹⁶ See *In re: Review of Data Collection Practices of the Wireless and Wireline Competition Bureaus*, Docket Nos. 10-131 and 10-132, Comments of Professor Frieden (State College: Penn State University). The long-term problem of unpredictability and result-driven analysis undermines the general rule of law, an emerging phenomenon. Jonathan Turley, “Do Laws Even Matter Today”, *USA Today* (June 14, 2010).

Moreover, any exclusion for “managed service” from any “Internet connectivity service” subject to a modified common carrier classification will likely swallow the general rule. That will probably occur because higher-priced, and unregulated, “managed service” or “specialized” or “other service” will be providing the functional equivalent of Internet connectivity service albeit at the higher price some content providers may be able and willing to pay. This ability to leverage these exceptions and undermine the general rule will be compounded if the excluded services are removed from the states’ current authority to resolve interconnection or intercarrier compensation disputes for those services under state law and/or Section 251 of federal law, 47 U.S.C. § 251.

The PaPUC does not support case-by-case adjudications compared to the promulgation of general rules because individual adjudications are more costly than the development of general rules. Adjudications also increase the likelihood of unpredictable “result driven” decisions compared to general rules that provide more predictability. General rules also have the benefit of providing consistency to network owners, content providers, and retail and wholesale end-user consumers of broadband connectivity services. General rules must be broad enough to address most situations yet detailed enough to prevent “packet discrimination” practices.

The *Further NOI* also seeks comment on the advisability of allowing the “bypass” of Title II Internet connectivity service for “other” specialized service. For the reasons set out in these Further Comments, the PaPUC does not support that approach.

Modified Common Carriage and the Proposed Exemption for Wireless Internet Connectivity Service.

The PaPUC does not support any exemption for wireless Internet connectivity service. The proposed exemption is not competitively neutral compared to modified common carriage for wireline service. An exemption would favor wireless service, despite its clear spectrum and capacity constraints, by permitting network owners to

potentially engage in “packet discrimination” to enhance revenues from higher-paying packets. Meanwhile, wireline networks could be held to a modified common carriage mandate, including an obligation to prioritize lower-priced voice or public interest packets.

The PaPUC recognizes that changes in technology for mobile Internet service may be the only way to eliminate current spectrum and capacity constraints. This change, however, does not eliminate the appeal of “packet discrimination” practices if that enhances revenues. Wireless network owners could still market “paid prioritization” for higher-paying packets over lower-paying voice or public interest packets without any accountability because that service is not common carriage. In that case, certain types of mobile services and wireless broadband connectivity may be confined largely to higher income consumers.

Modified common carriage practices should be applied to wireless Internet connectivity service given the capacity and spectrum constraints in the wireless markets.¹⁷ Otherwise, the exclusion from modified common carriage will combine with this volume and capacity service. The end result will likely be more, not less, packet discrimination. That likelihood is even more likely given the absence of regulatory parity in the wireless and wireline markets, most evident in the failure to address the “handset exclusivity” practices allowed for wireless service but prohibited for wireline service.¹⁸

Modified common carriage, on the other hand, gives the FCC and the states regulatory authority to ensure the appropriate “packet prioritization” for voice or public interest packets over other packets. This also ensures that unaffiliated content providers have equal access. Modified common carriage is better than a regulatory exemption that

¹⁷ The AT&T-LEAP proposal to deliver wireless Internet connectivity service priced by volume and capacity appears to allow measured service for IP packet transmission similar to that already provided by measured local service or long-distance calling on a per minute basis in the wireline industry. The major difference is that there is no modified common carriage component in the AT&T-LEAP proposal.

¹⁸ *Petition for Rulemaking Regarding Handset Exclusivity Arrangements*, RM-11479 (RCA Ex Parte Letter of Rebecca Murphy Thompson, August 18, 2010).

will potentially mask “packet discrimination” behind walled gardens in the guise of “network management” of spectrum and capacity constraints.

The adoption of the proposed exemption for wireless Internet connectivity service is inadvisable given the current spectrum and capacity constraints. Moreover, the FCC can no longer rely on its Title I ancillary authority to prohibit packet discrimination for wireless Internet connectivity service given the *Comcast* decision.

Specific Issues in the Notice of Further Inquiry

The Five Principles.

The *Further NOI* identifies five principles in this proceeding. These are:

1. Broadband providers should not prevent users from sending and receiving the lawful content of their choice, using the lawful applications and services of their choice, and connecting the non-harmful devices of their choice to the network, at least on fixed or wireline broadband platforms.
2. Broadband providers should be transparent regarding their network management practices.
3. With respect to the handling of lawful traffic, some form of anti-discrimination protection is appropriate, at least on fixed or wireline broadband platforms.
4. Broadband providers must be able to reasonably manage their networks, including through appropriate and tailored mechanisms that reduce the effects of congestion or address traffic that is unwanted by users or harmful to the network.
5. In light of rapid technological and market change, enforcing high-level rules of the road through case-by-case adjudication, informed by engineering expertise, is a better policy approach than promulgating detailed, prescriptive rules that may have consequences that are difficult to foresee.

The PaPUC notes several problems with these principles. First, the FCC has to define “lawful” content from other content. A major question is the definition of what constitutes “lawful” when applying “what” law is controlling. Second, there must be a better degree of clarity and guidance that delineates the concepts of reasonable network management and reliability with undue discrimination. Under existing federal and state law, the majority of the states adjudicate interconnection disputes under the federal Tele-

communications Act of 1996 (TA-96) where wholesale broadband interconnectivity issues among competing wireline and wireless carriers are often implicated. Finally, the FCC must clearly delineate the roles of the states in the adjudications of various disputes and the contemplated role of outside engineering expertise consistent with applicable federal and state procedural rules.

The FCC proposal segregating “wireless” Internet connectivity service from “wireline” Internet connectivity service is not competitively neutral. The CTIA’s presentation on the limitations of spectrum and capacity underscores the necessity of a modified Title II common carrier approach. Title II provides transparency and forums to resolve disputes. Given these CTIA-identified limits, the exclusion of wireless Internet connectivity service compared to wireline Internet connectivity service has the potential of encouraging wireless “packet discrimination” to maximize revenues for video or data packets compared to Title II “packet management” for voice or public interest packets.

The proposed exemption for wireless Internet connectivity service fails to address how the public and regulators can ensure the “packet management” for voice and public interest packets that is needed if those packets are competing with more lucrative packets for priority on various privately owned broadband access networks. And even if it did, there is no effective enforcement mechanism that would ensure competitive neutrality. A case-by-case adjudication provides less predictability than general Title II rules.

The Six General Policy Issues

The *Further NOI* seeks comment on six general policy goals for this NOI. These are (1) definitional clarity, (2) classification of “specialized” services compared to Title II Internet connectivity service; (3) disclosure of terms and conditions; (4) the advisability of non-exclusivity in packet practices; (5) appropriate limits on any “specialized” service exempted from Title II; and (6) delivery of guaranteed capacity of packet transmission.

Definitional Clarity. The PaPUC proposes some definitional classes. The first is “packet management” for network management given the differing packet needs of voice, data, and video. The second is undue or unlawful “packet discrimination” which would be prohibited.

Specialized Service. The PaPUC supports a modified common carriage approach for any wireline “managed service” or wireless service to the extent they are “specialized” service.

Modified common carriage provides joint jurisdiction and forums to resolve interconnection and intercarrier compensation disputes. Modified common carriage ensures that voice and public interest packets will get the “packet prioritization” they need as well. Finally, modified common carriage reconciles the fiduciary obligation to generate revenues that network owners have with the equally compelling fiduciary duty to preserve open access so that content providers can compete to deliver voice, data, and video content to citizens.

Disclosure. The PaPUC also supports the development of appropriate disclosure mandates as well. A Title II modified common carriage approach necessitates the development of federal disclosures sufficient to prevent “packet discrimination” or misleading retail and wholesale end-users of broadband connectivity services. A federal minimum disclosure mandate, which allows the states to impose supplemental requirements, is better than “case by case” adjudications on “information service” decided at the FCC. The FCC should not rely on Title I ancillary authority to impose “Title II Light” mandates given the recent *Comcast* decision.

This modified common carriage is more defensible so long as state authority is preserved as well. This joint jurisdictional approach provides network owners, content providers (affiliated or otherwise), and end-users with equal access to broadband

connectivity services. This also provides an enforcement vehicle to ensure delivery of packets and prevent fraud as well.

Exclusivity and Limits on Specialized Service. The PaPUC supports a modified common carrier “non-exclusivity” approach to packet transmission service over shared or sole purpose facilities. This reconciles universal access and legitimate packet management needs on networks with the interest that content providers and network owners have in providing a “specialized” or “managed” service. The only difference is that managed service would be a transparently priced and available common carrier service and not a service excluded or exempted from modified common carriage.

Delivery Speeds. Modified common carriage allows the FCC and the states to address guaranteed delivery of purchased transmission speeds to packetized providers of voice, video, or data. The FCC and the states can also use modified common carriage to ensure delivery of the transmission speed purchased by end-user consumers. Finally, the FCC could delegate federal minimums to the states. Those states with authority to enforce minimums could do so to the extent they are consistent with federal law.

Summary

The PaPUC supports a modified common carriage so that all providers seeking to deliver services to customers over the PSTN, albeit a Public Switched Transportation Network or a Packet Sending Transmission Network, have access and pay rates that reflect the need to finance broadband deployment and the delivery of voice, data, and video packetized services. Modified common carriage is the most effective, if not the only, way of reconciling open access, packet management, access to facilities, and support for whatever programs the FCC supports from the FUSF.¹⁹

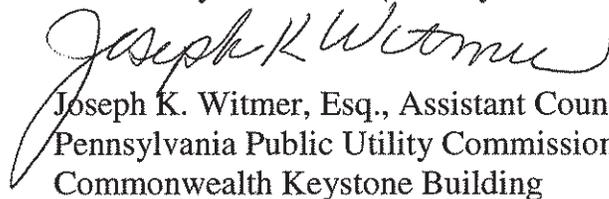
¹⁹ *In re: High-Cost Universal Service Support and Federal State Joint Board*, Docket Nos. 05-337 and 96-45 (PaPUC Comments April 17, 2008), pp. 22-23; *In re: Framework for Broadband Internet Service and A National Broadband Plan for Our Future*, Docket Nos. 10-127 and 09-51, (PaPUC Comments December 21, 2009, pp. 2-3 and July 15, 2010, pp. 2-6

The PaPUC is gravely concerned, and could not support, a result in which the FCC preempts the states or reaches a forbearance decision that leaves the states with no viable role while excluding “managed service” and “wireless Internet connectivity service” from a modified Title II regulatory framework. An FCC decision that reclassifies the “broadband interconnectivity service” as “telecommunications” or “telecommunications service” is appropriate based on the considerations set out above. It is also consistent with current state and federal law.

The PaPUC appreciates the opportunity to file these Comments. The PaPUC reiterates that the positions taken in these initial Comments are general and may change, particularly following review of the other filed Comments.

Respectfully Submitted On Behalf Of,

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