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

In the Matter of	)	
	)	
The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers	)	PS Docket No. 11-82

COMMENTS OF VERIZON AND VERIZON WIRELESS

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Verizon and Verizon Wireless ("Verizon") have long taken steps to ensure the availability and reliability of their services. To survive in the highly competitive marketplace, Verizon and other communications providers must be able to offer services that are available when customers wish to access them – even during disasters, severe overloads, cyber attacks, cable cuts, equipment failures, or other unforeseeable events that threaten to disrupt communications. Verizon spends billions of dollars each year – recently estimated around $17 billion – to build, maintain, and protect the health of its networks.[1] Verizon's wireline and wireless broadband networks have a high degree of redundancy and other protective measures in place to keep the networks up or to quickly restore them. As Verizon's then-CEO Ivan Seidenberg explained, "Our job is to make

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[1] *See* Ivan Seidenberg, Defense Information Systems Agency (DISA) Customer Partnership Conference Keynote Address, http://www22.verizon.com/onecms/LeadershipTeam/Speeches/Speeches.htm (Apr. 21, 2009) (last visited Aug. 4, 2011).

certain those networks are safe and reliable enough for the security of our nation – and our world – to depend on."[2]

Information on broadband availability and reliability is available to the Commission from other government and private entities as well as its own tests of network performance. Rather than mandate a new and redundant collection of data that would divert providers' resources from responding to outages as they occur or adding further protective measures to their networks, the Commission should utilize this data. Should it need to supplement this data, the Commission could also encourage industry stakeholders to develop a process to voluntarily report IP outages. Both of these steps would be far more consistent with President Obama's recent commitment to limiting the burdens associated with unnecessary regulation.

If the Commission nonetheless pursues the adoption of rules, the existing Part 4 rules are not a good model. Those rules need to be reformed – not replicated and expanded for IP providers, particularly in light of the significant differences between PSTN and broadband networks. And because none of the numerous sections of the Act cited in the *Notice*[3] provide the authority for the Commission to regulate IP services, the Commission should refrain from attempting to mandate reporting requirements.

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2 *Id*.

3 *See The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, Notice of Proposed Rulemaking, 26 FCC Rcd 7166 (2011) ("*Notice*").

DISCUSSION

I. Verizon Already Invests in Features for Its Broadband Networks That Enhance Availability.

Throughout its history of providing communications services, Verizon has constructed its network knowing that it was important that the network continue to function despite the existence of disasters or other events that could potentially disrupt service. Verizon well understands the need for customers to have communications available and acts promptly to restore service in the event of an outage. Drawing from this experience as a provider of reliable voice services, Verizon deployed its broadband networks to minimize the risks that the network would not be available. Verizon's extensive experience, ranging from local storms to the terrorist attacks of 9/11, has enabled it to hone its processes and safeguards to better withstand future events, whether large-scale disasters or more localized incidents. The key processes and safeguards that Verizon employs are discussed below.[4]

First, Verizon sets an internal goal for the availability of its wireline and wireless broadband networks that is similar to its goal for its voice networks. That is, Verizon endeavors to maintain greater than 99.99% availability for its broadband network infrastructure, even for its lower priced, "best effort" broadband services. Verizon tracks its performance against its internal goals and makes changes in the networks, including purchasing new equipment and augmenting network capacity, to handle increased consumer demand for bandwidth where required. With respect to its wireless broadband

[4] The descriptions are at a relatively high level to avoid providing wrongdoers with a roadmap that would allow them to circumvent Verizon's protective measures.

networks, Verizon closely tracks the same metrics for capacity and throughput as well as specific metrics for failed connection attempts and lost connections.

Second, Verizon's broadband networks are designed with a degree of redundancy. Verizon's wireline network is designed to be redundant all the way until the "last mile" to the customer premises. Specifically, for its residential broadband networks, Verizon typically employs dual-path redundancy from the Internet backbone through the LATA core router to the gateway router. In these redundant-deployment scenarios, Verizon utilizes two circuits in diverse pathways and houses dual LATA core routers in physically separate buildings. Each of the dual paths in Verizon's network is sized to carry 100% of anticipated network traffic and is available for use at all times so that traffic is automatically routed over one path if the other path fails. Thus, Verizon's redundant network architecture is able to respond to outages in individual network segments due to unforecasted events.

Moreover, even when both paths are available, Verizon's Network Operations Centers (NOCs) closely and proactively monitor the network for early indications of congestion. Similarly, if traffic volumes over particular circuits reach the internal relief threshold, Verizon will augment that segment with additional capacity. Verizon also has processes to ensure that facilities are being optimally utilized and to relieve potential overloads in any one given path. Finally, with respect to enterprise and government customers of Verizon's enterprise VoIP services, Verizon supports a range of broadband access service arrangements, including back-up circuits, diverse entrance facilities at the customer premise, and physically diverse routing options, to ensure that such customers can purchase diverse circuits to meet their needs.

Verizon's wireless broadband network also has redundant assets to help ensure its availability to customers. As with its wireline network, Verizon employs dual path redundancy from the Internet backbone to the mobile switching centers. Cell sites supporting broadband traffic are provisioned with redundant backhaul paths to the mobile switching centers. Furthermore, Verizon's cell sites in urban areas are overlapping. That is, if one site goes down, neighboring sites have capacity in place to handle the downed site's traffic. When necessary, Verizon can augment that capacity. Verizon has mobile assets, such as Cells On Wheels (COWs) and Cells On Light Truck (COLTs), that it can rapidly deploy when additional capacity is required. Verizon is equipping its COWs and COLTs with LTE equipment and providing the corresponding devices and services.

The benefits of Verizon's network redundancy and its efforts to manage capacity were illustrated by President Obama's Inauguration, which did not adversely affect Verizon's wireless networks despite increases in traffic levels of 100-200%. Verizon moved assets into place ahead of time to handle the expected traffic load. And on that morning, Verizon carefully monitored traffic in real-time and tuned the network by adjusting the footprint of neighboring cell sites to pick up traffic from sites with surges of use. As a result, Verizon experienced a normal day's performance on Inauguration day.

Third, Verizon employs internal physical security practices, including perimeter fences, access control systems, alarms, and video surveillance, to guard its critical wireline and wireless network infrastructure. As with other components of the network, the standards to protect Verizon's voice network were used to help develop physical safeguards employed for Verizon's wireline broadband network (which are often located in shared facilities). Buildings are constructed to mitigate risks of natural disasters that

are pertinent to the areas in which the buildings are located (e.g., floods, earthquakes, hurricanes, etc.). Moreover, Verizon typically maintains battery backup in local backbone sites (e.g., central offices) and in Internet backbone sites. In these sites, Verizon also employs fully independent backup generator systems. In the wireless network, Verizon's mobile switching centers and the vast majority of its cell sites have alternate power supplies via battery backup and generators.

In sum, all these features work together to enhance Verizon's broadband consumers' ability to access the Internet at any time they want. Such access is a necessity for Verizon to participate in the broadband Internet marketplace, which is highly competitive and becoming more so every day. Verizon, like other broadband providers, already has a substantial incentive to keep its networks up or to quickly restore them and is actively taking steps to do so. As a result, Verizon is presently advancing the Commission's purported outage reporting goal of "ensur[ing] to the extent possible that broadband networks are prepared for natural and man-made disasters."[5]

II. Information on Broadband Reliability Is Already Collected and Could Be Supplemented Via an Industry-Developed, Voluntary Reporting Program.

Verizon, like many other communications companies, works closely with the federal agencies and governmental bodies that monitor broadband networks. For example, the National Coordinating Center for Telecommunications (NCC), a part of the National Communications System (NCS), facilitates the exchange among government and industry participants regarding vulnerability, threat, intrusion, and anomaly information affecting the telecommunications structure, including broadband networks.

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[5] *Notice* ¶ 11.

Verizon has an employee on-site with NCC to enhance Verizon's ability to share relevant status information about its networks should a catastrophic event occur.

In addition, Verizon is engaged with the Communications Sector Coordinating Council (CSCC), which works to protect the United States' communications critical infrastructure and key resources from harm and to ensure that the communications networks and systems are secure, resilient, and rapidly restored after a natural or manmade disaster. The CSCC coordinates with the other 17 critical infrastructure sectors through the Partnership for Critical Infrastructure Security (PCIS) to address cross-sector issues and interdependencies. The PCIS provides senior-level cross-sector strategy coordination through partnership with the Department of Homeland Security and the sector-specific federal agencies or SSAs.

In light of the already-established government resources devoted to understanding the availability of broadband networks, the Commission should work with these government bodies to obtain information directly from them during disasters and other large-scale events. With respect to outages of a smaller scale, there are other resources from which the Commission can obtain data to further its understanding of these outages.

Indeed, the Commission itself has recently funded and completed a study into broadband network performance that includes tests for network availability. Those test results demonstrate that network outages for broadband access services are rare events and that broadband consumers today enjoy robust, highly-available broadband services regardless of the specific technology they choose.

In addition, QuEST Forum, an association comprised of global communications service providers and suppliers, developed a quality management system for the

communications industry known as TL 9000.[6] TL 9000 specifies measurements for companies to help evaluate the effectiveness of quality implementation and improvement programs and requires the reporting of quality measurement data to a central repository.[7] Such quality measures include customer outages.[8] On a periodic basis, aggregate data, both provider-specific and industry-wide, are reported.[9] Verizon and other broadband providers participate in this association.

To the extent the Commission may require additional data on broadband reliability to perform its statutory obligations, the Commission could promote the industry's establishment of a voluntary IP outage reporting program. The Disaster Information Reporting System (DIRS) in place today may be a good model. Industry stakeholders could collaborate to establish appropriate reporting thresholds and a reasonable process to convey that information to the Commission. A voluntary reporting program has a key advantage over mandatory rules: flexibility. The reporting thresholds and process could be readily adjusted by the industry to keep up with the rapid changes that the industry is experiencing.

Obtaining information in this manner would be consistent with the President's and the Chairman's commitment to regulatory humility and to limiting the burdens associated with unnecessary regulation. As President Obama first recognized in January and reaffirmed last month, and Chairman Genachowski echoed, the regulatory system should "promot[e] economic growth, innovation, competitiveness, and job creation . . .

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6 *See* http://tl9000.org/index.html

7 *Id*.

8 *See* http://tl9000.org/sots/process.html

9 *Id*.

.[and] use the best, most innovative, and least burdensome tools for achieving regulatory ends."[10]

To further those interests, the Commission and other federal agencies must "adopt a regulation only upon a reasoned determination that its benefits justify its costs" and "tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulation."[11] In the case of "industries [that] face a significant number of regulatory requirements, some of which may be redundant, inconsistent or overlapping . . . [g]reater coordination across agencies could reduce these requirements, thus reducing costs and simplifying and harmonizing rules."[12]

Similarly, as the Chairman has recognized, avoiding unnecessary and costly "red tape" and "remov[ing] barriers and eas[ing] the regulatory burden, where possible," are important steps that the Commission can take to encourage broadband investment and deployment.[13] Indeed, the Chairman specifically noted that "eliminat[ing] unnecessary data collection" can be one such step as part of the effort to avoid "needlessly hurting businesses and our national economy."[14]

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10 *See* President Barack Obama, Executive Order 13563 (Jan. 18, 2011), 76 FR 3821 (2011) ("*January Executive Order*"); *and* President Barack Obama, Executive Order 13579 (July 11, 20110), 76 FR 41857 (2011) ("*July Executive Order*"); *see also* Chairman Genachowski, "Prepared Remarks of Chairman Julius Genachowski at the Broadband Acceleration Conference," http://www.fcc.gov/Daily_Releases/Daily_Business/2011/db0209/DOC-304571A1.pdf, at 4 (Feb. 9, 2011)("*Genachowski Speech*"). The *July Executive Order* extended the terms of the *January Executive Order* to independent regulatory agencies.

11 *January Executive Order* § 1(b); *see July Executive Order* § 1(c).

12 *January Executive Order* § 3.

13 *Genachowski Speech* at 2.

14 *Id*. at 3-4.

Relying on available data that could be supplemented with data from an industry-developed, voluntary reporting program – rather than regulatory mandates for providers to report data – would benefit both consumers and providers. Consumers would potentially encounter shorter outages as providers could focus their efforts and resources on fixing the conditions that caused an outage, rather than worrying about making accurate, complete, and timely filings within specified windows. Complying with the proposed rules would impose significant costs on providers, and the threat of an enforcement action is ever-present in light of the Commission's recent consent decrees containing substantial voluntary contributions. Providers may share pertinent data more freely with a private party that would only report anonymized, aggregated data and with the Commission when there is not a risk of enforcement actions and forfeitures. And broadband providers' resources could be better used to add further protective measures to their networks or to further deploy broadband.

III. Outage Reporting Rules for PSTN Voice Networks Should Not Be Extended to Broadband Networks.

If the Commission nonetheless continues to pursue the adoption of rules to obtain information on broadband reliability, which it should not do, the rules requiring outage reports for PSTN voice networks are not a good model.

Those rules themselves need to be reformed due to the heavy burdens they impose on providers, with no apparent corresponding benefit to the reliability of PSTN networks. In Section IV. below, Verizon suggests certain modifications to the existing Part 4 rules, including changes to outage thresholds and changes to the timing and process of reporting, that the Commission should adopt to help relieve the burden on providers, while still ensuring that the Commission has relevant information. Such problematic

rules should not serve as a basis for the adoption of new reporting requirements in another sector.

Moreover, there are significant differences between voice and broadband services. For example, while Verizon's model for its PSTN voice network has been providing service for over 100 years with many network elements in the legacy network being 30 or more years old, Verizon's advanced broadband networks were generally constructed within the past 10-15 years. Verizon Wireless' LTE network, currently the largest in the world, is less than one year old. As a result, Verizon has adopted the best systems and processes from its reliable voice network, including those that may have been learned through trial-and-error. Thus, Verizon's broadband networks are likely to utilize newer equipment, contain self healing designs, and be engineered for greater redundancy.

Broadband networks use multiple hardware and software platforms to perform connection set-up, routing, user validation, traffic management, and a host of other functions that are handled in the PSTN with fewer types of purpose-built systems, hard-wired connections, and a far smaller array of supported service. Broadband network traffic itself contains address and content info that can interact with, and be acted upon, by network elements at either end of a connection or anywhere in between. Broadband network operators routinely design and build in automatic redundancy at all those critical points and critical paths in the networks that are shared by large numbers of customers.

In addition, due to the extensive redundancy described in Section II, outages in Verizon's broadband networks tend to affect far fewer customers than outages in the voice network. While outages may occur when a problem exists in the "last mile" of Verizon's wireline broadband network, such outages would typically be expected to

impact no more than 1,000 to 2,000 of the millions of customers served, with a majority of these events normally affecting even fewer customers. By comparison, on the PSTN voice network, a single switch outage could affect tens of thousands of customers.

Finally, unlike for voice services, the availability of the broadband service is but one of many factors that impact a consumer's broadband experience. The technology customers use to communicate via a PSTN call is relatively straightforward: two telephones, one for the calling party and one for the called party. The communication can proceed as long as dial tone exists and the connection is maintained.

By contrast, a consumer's broadband experience could be adversely affected by a variety of technological issues that are wholly unrelated to the broadband network. For instance, a consumer may experience a problem with the technology at his or her premise. There could be an issue with the functionality of the home router, whether wired or WiFi, or there could be hardware or software problems on the PC, such as a malfunctioning wireless card or a virus. These problems could slow the consumer's broadband traffic or even impede the consumer's ability to connect to the Internet.

Moreover, the content or application provider that maintains the particular website the consumer seeks to access may be experiencing problems of its own. A fully functioning broadband network does the consumer little good if he cannot utilize the sites he is able to reach because of operational issues at those sites. Email, for example, continues to be a popular application through which consumers communicate with others via broadband, and consumers depend on their email sites to be working. The media and the sites themselves have sometimes publicly reported significant email outages,

including the string of outages in 2008-09 suffered by Gmail,[15] which reportedly has over 170 million users.[16] Website outages, however, are not limited to email. In the spring of 2011, Sony's PlayStation and Qriocity networks were shut down due to an unauthorized intrusion.[17] Outages in Apple's MobileMe calendar and contacts applications, Amazon's S3 storage service–upon which many other web applications rely–and Netflix's video streaming service have been reported in the media.[18] Congested servers operated by content providers could also significantly impair a consumer's experience.

Indeed, customer reports to Verizon's support centers demonstrate the extent of these customer-impacting issues that are completely unrelated to the availability of the broadband network. Over a recent ten week period, around 98% of the customer reports to Verizon's FiOS support centers that customers could not connect to the Internet were *not* due to outages on Verizon's broadband network. The vast majority of such reports

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[15] *See* JR Raphael, http://www.pcworld.com/article/160153/gmail_outage_marks_sixth_downtime_in_eight_months.html, PC World (Feb. 24, 2009) (chronicling six significant outages of Gmail since July 2008); Posting of Ben Treynor to GmailBlog, http://gmailblog.blogspot.com/2009/09/more-on-todays-gmail-issue.html (Sept. 1, 2009, 18:59 PM) (explaining the cause of the September 1, 2009 Gmail outage).

[16] *See* Posting of Charles Arthur to Guardian Technology Blog, www.guardian.co.uk/technology/blog/2010/jun/28/microsoft-frank-shaw-numbers-analysed (June 28, 2010, 12:10 BST) (reporting 173 million Gmail users).

[17] See Posting of Brian Seybold on PlayStation.Blog, http://blog.us.playstation.com/2011/04/22/update-on-playstation-network-qriocity-services/ (April 22, 2011) (explaining April 20th network shutdown indefinitely due to "external intrusion").

[18] *See* Rob Pegoraro, *Online Outages, Outrage and Ordeals*, The Washington Post, May 24, 2009; *see also* Posting of Steven Musil to CNET News Digital Media, http://news.cnet.com/8301-1023_3-20081303-93/netflix-outage-prevents-streaming-to-some-devices/ (July 20, 2011, 10:03 PM PDT) (Noting widespread consumer reports of overnight outage, despite no official confirmation from Netflix).

were caused by other issues, such as failures in customer premises equipment, spyware, wireless signal strength on home WiFi networks, and PC network configuration.

But the Commission has no visibility into these communication-disrupting outages beyond the media reports or content provider announcements. It follows that requiring *only* providers of broadband networks to file outage reports – but receiving no such information from content and application providers or hardware manufacturers – would give the Commission an incomplete and insufficient view into the Internet user experience.

IV. The Commission Should Not Adopt Its Proposed Rules.

The Commission's proposed rules are problematic. Among the most significant concerns are that the proposed rules: (i) would impose time frames for reporting outages that are too short and inappropriately utilize a three-report system; (ii) would require providers to report events that do not impact a material number of consumers; (iii) would unnecessarily set reporting thresholds pertaining to the quality of the service; and (iv) would cause over-counting and over-reporting by calculating customer impact based a flawed methodology that uses IP addresses.

A. The Time Frames and Reporting Structure in the Existing Part 4 Rules Are Problematic.

The Commission's proposed rules contain time frames that mirror those in the Part 4 rules. Specifically, the Commission proposes that events become reportable if they are at least 30 minutes duration and meet certain criteria. Providers would have to notify the Commission of such events within 120 minutes of discovery. Neither of these time frames makes sense here.

The 30-minute duration for an outage to become reportable is too short; if anything, it should be extended to at least 60 minutes, and possibly longer. As the *Notice* indicates, Japan requires reports of outages that last two hours or more.[19] There is no reason why the Commission should set a threshold for reporting that is *one-fourth* that period. Even an extension of the threshold to at least 60 minutes would allow providers to direct their attention to restoration – rather than reporting smaller events.

The industry's experience with today's Part 4 rules makes clear that 30 minutes is far too low a threshold. When setting the reporting thresholds, the Commission estimated that the industry would file "substantially less than 1,000 [reports] annually."[20] Yet Verizon understands that the total industry filings of final reports are multiple times that estimate. Providers must devote substantial resources to filing complete and accurate reports of every event on time, and the Commission must sift through numerous reports of small events to find the significant ones. The Commission miscalibrated its requirements in 2004 by selecting 30 minutes as a threshold and should not repeat that mistake here.

Moreover, the proposed rule that would require that providers have 120 minutes from discovery to report outages to the Commission is also too restrictive. Even an extension of the discovery threshold to four hours would allow providers more time to investigate events to determine whether they do in fact meet a reporting threshold. Verizon's experience with the existing Part 4 rules is that a number of reports are filed in an abundance of caution to meet the 120 minute requirement, but are subsequently

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19 *See Notice* ¶ 58, n.125.

20 *New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 16830, ¶ 168 (2004) ("*Outage Order*").

withdrawn when providers learn new information that renders the event not reportable. Verizon withdraws a significant percentage of the Notifications it files after further investigation, but has little choice but to continue this practice in light of the Commission's aggressive enforcement actions related to late-filed outage reports. Indeed, the Commission has recently asked providers to report the time of discovery of the outage in order to facilitate such enforcement actions.

If the Commission had a more reasonable reporting threshold, withdrawn reports would be virtually eliminated, and the Commission would not have to devote resources to examine reports of events that do not meet the Commission's thresholds, which are already too low. Reports that do meet the thresholds would contain significantly more accurate information because providers would have more time to investigate the event. And providers would be able to direct their immediate attention to restoration, while still having time to complete and file a report.

Finally, the proposed rules would replicate Part 4's problematic reporting structure that requires the filing of three reports. A two-report system, in which providers file a notification within four hours and a final report within thirty days, would make more sense. A two-report system would still provide a measure of "situational awareness" to allow the Commission to become involved in significant outages early should it so choose. Final reports would still give the Commission the opportunity to obtain the full details within the same timeframe as it does so today. But eliminating the initial report would reduce providers' workloads considerably, and if implemented in conjunction with a four-hour window for the notification, would likely still provide the Commission with ample information at the outset of the outage.

Thus, rather than attempting to replicate and expand the existing Part 4 rules, the Commission should launch a rulemaking and adopt further improvements to those rules that would relieve the considerable compliance burdens on providers that were largely unanticipated when the Part 4 rules were adopted.

B. The Proposed Rules Would Require Providers to Report Outages That Do Not Significantly Impact Consumers.

While the Commission's proposed rules contain the same the time requirements as today's Part 4 rules, the *Notice* suggests thresholds for IP reporting that extend far beyond today's rules. That is, the Commission proposes that providers report outages of certain network elements *even when there is no end user impact*. The Commission should not adopt these proposed requirements.

In particular, the proposed rules require a provider to report an outage of at least 30 minutes in any of the following network elements even in the absence of any end user impact:

Interconnected VoIP Provider. Call Agent, Session Border Controller, Signaling Gateway, Call Session Control Function, or Home Subscriber Server.

Broadband Internet Access Service Provider. ISP-operated Domain Name System server, Dynamic Host Control Protocol server, or Home Subscriber Server.

Broadband Backbone ISP. PoP, Exchange Point, core router, root name servers, ISP-operated Domain Name System servers, or Dynamic Host Control Protocol server.

Verizon utilizes many of these elements in its wireline and wireless broadband networks and closely monitors them to help ensure that it is providing a high quality

service to its customers. Many of these network elements are deployed in a redundant, diverse manner, such that an outage on a given network element may have no impact on subscribers' ability to establish and maintain a channel of communications. Yet the proposed rules would require reporting, even in the absence of any user impact. This may require Verizon to undertake the additional burdensome steps of ensuring that each network element is alarmed sufficiently to alert Verizon of a significant degradation in functionality in time to trigger filing at the Commission's proposed thresholds; monitoring such alarms; and establishing processes to report those alarms to the Commission three times within a short time frame. While Verizon has implemented appropriate network management arrangements sufficient to alert Verizon of issues in these network elements in time to take steps to address such issues, overhauling those processes and providing system and process linkages to Verizon's FCC reporting operations would take over a year to complete at a substantial cost.

Even if there were no burden to providers, reports of outages of these network elements are unnecessary to the extent there is not an impact on consumers that would exceed the proposed 900,000 user minute threshold. As noted above, Verizon deploys redundancy and other protective measures on its broadband networks to avoid or minimize any impact to consumers should a particular network element fail. For example, backbone outages – even in a pair of PoPs – do not necessarily result in end user outages because many access broadband providers are multi-homed and therefore traffic will automatically be routed via one of the remaining links. The Commission should not impose reporting obligations for failures of network elements when those outages have no material impact on consumers.

This end-user based approach would be consistent with that taken by the Commission in the *Outage Order*. The existing Part 4 rules are focused on events that have a significant consumer impact – not on those events that solely impact specific network elements. The Commission has called this end user focus "the key issue that the Commission has always stressed" and one that "is even more important today."[21] Straying from that approach with respect to IP outage reporting is inappropriate and would impose additional reporting burdens on providers.[22]

It follows that rules requiring *any* reporting by broadband backbone providers should not be adopted. The proposed rules for backbone providers contain no threshold for end user impact as the Commission recognizes that a backbone provider would have no ability to reasonably calculate that impact. To the extent an event in the backbone causes an impact to customers, that event would be visible to the broadband access provider and reported if it met the proposed 900,000 user minute threshold. Duplicative reports of the event from a backbone provider would be unnecessary.[23]

Finally, the Commission should not require broadband providers to report outages of certain network elements when competing providers of such elements have no such requirements. For example, Google, Open DNS, and other entities provide domain name servers, but may not be covered by the Commission's jurisdiction. Similarly, other Internet infrastructure, including root name servers and exchange access points, is often

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[21] *Outage Order* ¶¶ 55-56.

[22] For the same reasons, the Commission should eliminate the requirement in the existing Part 4 rules to report simplex conditions in one or more DS3s through the rulemaking proceeding to review the existing rules that Verizon recommends.

[23] For the reasons discussed in Section IV.C. below, the Commission should not adopt the proposed quality of service metrics that would apply to backbone providers.

operated by entities that may not fall within the Commission's jurisdiction. To the extent they do not, imposing costly regulatory obligations on some providers of those services, but not others would severely distort competition, thus defeating the Commission's long held goal of regulatory parity.

C. The Commission Should Not Adopt Quality of Service Thresholds.

Likewise, the Commission's proposed rules would go beyond today's Part 4 rules by establishing certain quality of service thresholds. The existing Part 4 rules make clear that a potentially reportable outage does not mean a total loss of service – rather, just a "significant degradation" in service. The Commission does not define a "significant degradation," and it does not require reporting today on quality metrics for the PSTN, such as line noise thresholds for telephone service or slip errors or framing errors on DS1 circuits. Instead, providers today must make reasonable determinations whether to report a particular event in which service is available, but degraded.

There is no evidence that providers under-report outages that are service degradations today. If anything, the number of outage reports filed each year suggests over-reporting when compared to the Commission's 2004 estimate. As a result, the Commission should not expand on that approach with respect to IP outages. If the Commission persists in attempting to impose these rules, reporting requirements would have to be based solely on a "significant degradation" in the ability of end users to establish and maintain channels of communications. Adopting thresholds for some, but not all, specific types of IP network service degradations based on quality of service measures, such as jitter, latency, and packet loss, would be inappropriate.

As an initial matter, jitter, latency, and packet loss cannot be reliably captured in a manner that would be meaningful. These measurements only have relevance in the context of the specific end points being measured. But packet-based communications on the Internet could occur between virtually limitless points-of-interest for individual end user communications, and these measurements can vary significantly depending on each consumer's destination or end point. Accordingly, collection of these metrics over the measured path may have no relevance to any particular end user's communications. Similarly, given the any-to-any nature of Internet communications, trying to calculate whether 900,000 user minutes were potentially affected by a performance degradation of just one path in the network may often prove to be a fruitless exercise.

In addition, issues affecting packet loss, jitter, and latency could occur at any point along the path, and thus could potentially escape detection by any given provider for communications that span multiple networks. While it might be theoretically possible to measure packet loss, latency, and jitter to myriad testing locations throughout the country, including locations that are off a provider's network, the metrics collected may have little to no relevance with respect to a particular customer's experience. As a result, measurements to test locations would not be indicative of whether customers using an IP network are experiencing a significant degradation of service for a specific period of time. Mobile end user devices introduce still more variables and further complicate the service provider's problem of gathering meaningful data on service degradation.

Furthermore, adopting quality of service thresholds would impose considerable costs on providers as providers would have to install probes throughout their entire network to run these tests *every five minutes*, which themselves could cause network

congestion. Even though Verizon has significant visibility into its broadband networks today and employs tools that test certain network functionality for its interconnected VoIP customers in frequent intervals, Verizon does not have probes in place today that can measure jitter, latency, and packet loss throughout its networks.[24] Verizon estimates that installing these probes on every router could take over two years and would cost over $75,000 per site, with a total cost well above $100,000,000. These resources could be better used elsewhere, including efforts to upgrade Verizon's networks or for future broadband deployment.

Finally, given the significant innovation in the Internet ecosystem, providers of various VoIP and broadband services have likely developed a myriad of tools to enable them to manage their networks effectively and efficiently and to deliver the services they offer.[25] The highly competitive marketplace requires that providers continue to innovate or consumers will switch to a different provider that does. The proposed rules, however, would stifle such innovation by requiring all providers to undertake the same approach to track Commission-mandated service quality criteria. This back-door regulation of

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[24] While Verizon's agreements with enterprise customers may include Service Level Agreements (SLAs) with quality of service metrics, including latency, jitter, and packet loss, those agreements pertain to enterprise services – not the "best efforts" service available to mass market customers. The metrics in the SLAs for enterprise customers are not used to manage Verizon's networks and are not alarmed for notification to Verizon's NOCs. Nor are they integrated with any underlying outage reporting mechanisms. To obtain credits for missed SLAs, Verizon's enterprise customers must notify Verizon. Finally, the SLA metrics are targets that Verizon calculates by taking samples and averaging them on a monthly basis. By contrast, the Commission's proposed thresholds would require tests on all parts of Verizon's networks over every five minute interval.

[25] For example, Verizon's SIP-agent registration provides Verizon's NOCs with helpful information that may be indicative of certain potential network issues, but it does not capture any of the proposed service quality metrics and was not engineered and implemented with an eye towards these proposed IP outage reporting criteria.

network management practices would significantly hamper innovation and investment in new communications technologies and network architectures. It would also raise costs of deployment of broadband and VoIP services, as new and existing providers of services would be compelled to implement and maintain expensive telemetry networks on top of their service networks for no purpose other than reporting outages to the Commission.

D. The Commission Should Not Require the Calculation of User Minutes Based on IP Addresses.

The Commission's proposed rules would calculate user minutes for wireline broadband access providers based on the number of IP addresses affected.[26] But this approach would lead to significant over-counting of affected end users, who routinely have more than one IP address. In fact, as the industry moves to IPv6, every device that an end user has in his car, home, boat, pocket, or elsewhere that connects to the network will have its own IP address. Customers may have many devices, but not all may be on the Internet at the same time. And many of these devices, such as set-top boxes for cable service, game players, and other consumer electronics items bear no relationship to the 9-1-1 emergency communications capability that the Commission is relying on for its authority to impose IP outage reporting obligations. Similarly, a standard based on IP addresses fails to identify how to account for technologies such as network address translation, whereby the number of private IP addresses routed in a consumer's home network or other private network is far greater than the single publically-routable IP address assigned by the broadband provider to the subscriber's gateway router.

Just as the current Part 4 rules do not contemplate calculating the user minute reporting threshold based on the number of telephones, fax machines, or computer

[26] *See Notice* at Appendix A, Proposed Rule § 4.7(e)(2).

modems a user has in her house, an analogous approach would be most appropriate if the Commission persists in attempting to adopt rules here. Subscriber accounts would be more of a reasonable proxy for the number of affected end users and would not run the risk of over-counting end users and thus over-reporting for small events.

V. The Commission Lacks Authority To Compel Interconnected VoIP and Broadband Providers To Report Outages.

From a legal standpoint, the threshold question is whether and to what extent the Commission has authority to impose the proposed regulations in the first instance. The Commission is a creature of statute and thus can only exercise authority delegated to it by statute. There have been limited instances where courts have upheld the Commission's exercise of authority to take certain actions that, while not explicitly authorized in the Act, are needed to carry out those functions that expressly have been delegated to it. But, as the courts also have made clear, that authority is necessarily cabined. The Commission cannot simply take any action it views to be in the public interest simply because it involves the regulation of communications.

In its *Notice*, the Commission asserts that it has authority under the Act for its proposed requirements for interconnected VoIP, broadband Internet access, and broadband backbone providers to report outages.[27] As explained below, none of the sections of Act cited by the Commission in the *Notice* – nor any other sections of the Act – provide direct or ancillary authority for the Commission's attempt to further regulate the Internet.

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[27] *See Notice* ¶¶ 67-72.

A. The Commission Lacks Direct Authority To Impose the Proposed Rules.

"[T]he FCC's power to promulgate legislative regulations is limited to the scope of the authority Congress has delegated to it."[28] Indeed, the Supreme Court has required an *express* delegation from Congress before interpreting a statute as empowering an agency either to "regulate an industry constituting a significant portion of the American economy,"[29] or to resolve issues that have "been the subject of an earnest and profound debate across the country."[30] The Sections of the Act cited by the Commission as potential sources of direct authority for its proposed rules requiring outage reporting by interconnected VoIP, broadband access, and broadband backbone service providers do not provide such authority.

Sections 307(a) and 316(a)(1). The *Notice* proffers Sections 307(a) and 316(a)(1) as sources of authority. These sections authorize the granting or modification of wireless station licenses if in the judgment of the Commission such action will promote "the public interest, convenience, and necessity." But they cannot be interpreted so broadly as to support the Commission's claim of direct authority for outage reporting by wireless broadband providers.

Title III established a federal licensing process to resolve spectrum management problems that had plagued the industry in the chaotic absence of centralized coordination

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28 *Am. Library Ass'n. v. FCC*, 406 F.3d 689, 698 (D.C. Cir. 2005) (citation omitted).

29 *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000).

30 *Gonzales v. Oregon*, 546 U.S. 243, 267 (2006) (internal quotations, citation omitted).

of the radio waves.[31] The Commission thus is empowered "to maintain the control of the United States over all the channels of interstate and foreign radio transmission," 47 U.S.C. § 301, but it "is given no supervisory control of the programs, of business management or of policy."[32] Moreover, the Commission's authority to act in the public interest is "not to be interpreted as setting up a standard so indefinite as to confer an unlimited power."[33] Affording the FCC unbounded authority to grant and modify spectrum licenses would render the congressionally-established parameters of the Commission's licensing authority set forth elsewhere in Title III – e.g., 47 U.S.C. § 303(a)-(h), id. § 308(b) – mere surplusage.[34]

To strike the necessary balance, a spectrum license grant or modification under Sections 307 and 316 must be tied to the substantive grants of authority found elsewhere in Title III.[35] The particular "delineations of authority and responsibility" in Title III "define the realm in which the public interest standard shall be applied."[36] Here, the Commission has neither attempted to tie the assertion of its Section 307 license-grant or Section 316 license-modification authority to any other provision of the Act nor

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31 *FCC v. Sanders Bros. Radio Station*, 309 U.S. 470, 474 (1940); *see also NBC v. FCC*, 319 U.S. 190, 210-16 (1943).

32 *Sanders Bros.*, 309 U.S. at 475; *NBC*, 319 U.S. at 219 ("Congress did not give the Commission unfettered discretion to regulate all phases of the radio industry.").

33 *NBC*, 319 U.S. at 216 (citation omitted); "Congress did not simply delegate a general power to regulate willy-nilly all electronic communications by wire and radio." Glen O. Robinson, *The Federal Communications Act: An Essay on Origins and Regulatory Purpose, in A Legislative History of the Communications Act of 1934*, 3, 15 n.54 (Max D. Paglin ed., 1989).

34 *See Qi-Zhuo v. Meissner*, 70 F.3d 136, 139 (D.C. Cir. 1995)

35 *See Office of Commc'n of United Church of Christ v. FCC*, 707 F.2d 1413, 1424 (D.C. Cir. 1983).

36 Robinson, supra, at 14; *see also NBC*, 319 U.S. at 216.

otherwise explained how these rules requiring outage reporting would advance Title III's spectrum management purposes.

In addition, these provisions do not apply to rulemaking proceedings aimed at categories of licenses. Both of these sections are "concerned with the conduct and other facts peculiar to an individual licensee."[37] Accordingly, Section 316 sets out protective provisions that may be exercised by an individual "holder of the license or permit," such as being afforded "reasonable opportunity, of at least thirty days, to protest such proposed order of modification."[38] Because these provisions are not at all in line with generic rulemaking procedures such as this, the Commission cannot construe that Congress intended this to be used as authority to modify general classes of licenses through a rulemaking. Thus, none of these provisions vests the Commission with authority to regulate when and how providers must communicate with the Commission regarding service outages. Finally, even if these sections did provide authority, they would apply only to wireless IP outage reporting – not wireline.

Section 309(j)(3). For many of the same reasons, Section 309(j)(3) falls short of providing the Commission with authority over wireless IP outage reporting. That provision gives the Commission the responsibility to "include safeguards to protect the public interest" and to "seek to promote the purposes specified in section 1 of this Act." However, it provides as a vehicle to achieve these goals only authority to "establish a competitive bidding methodology." The Commission may "design" auctions to distribute

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37 *WBEN, Inc. v. United States*, 396 F.2d 601, 618-19 (2d Cir. 1968) (internal quotation marks, citation omitted) (addressing § 316).

38 47 U.S.C. § 316(a)(1).

licenses, but it may not use this section to regulate the networks or such spectrum afterwards.

Sections 4(k) and (o). The Commission also relies on subsections of Section 4 of the Act as a basis for its direct authority. Section 4(k) concerns the Commission's requirement to prepare an annual report to Congress containing "information and data collected by the Commission as may be considered of value" in determining regulation of communications. Section 4(o) directs the Commission to study "all phases of the problem" to obtain "maximum effectiveness" from the use of communications in connection with "safety of life and property."

In the *Outage Order*, the Commission appropriately characterized these two sections in a manner equivalent to ancillary authority: "the Communications Act authorizes the Commission to collect information it needs to perform its duties."[39] But unlike in the *Outage Order*, the issue here is whether the Commission's has "duties" with respect to these IP services. It is well-established that the Commission's "duties" are only those delegated by Congress. But the Commission has no such duties with respect to broadband access and backbone "information services" and only limited duties with respect to interconnected VoIP. Provisions in Title I cannot be the source of such duties as Title I is merely a general jurisdictional grant and delegates to the Commission no substantive authority.[40] Accordingly, the Commission cannot interpret the terms of Section 4 as open-ended authority to collect data from services that are, for the most part, not subject to Commission regulation.

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39 *Outage Order* ¶ 4.

40 *E.g., Am. Library Ass'n*, 406 F.3d at 691-92.

Furthermore, given that the services are not regulated telecommunications services, the proposed rules do not further the purposes of Section 4(o). The Commission's ability to obtain "maximum effectiveness" of these services by collecting outage data is entirely speculative. The Act grants the Commission no authority to mandate improvements in the reliability of IP services, even for interconnected VoIP service, which the Commission has not designated as a "telecommunications service." The Commission admits as much when it suggests that outage reports will allow the Commission to "refine and develop best practices" to better prepare networks for emergency situations.[41] While Verizon strongly prefers voluntary best practices to prescriptive rules, any best practices should be developed by industry stakeholders that have the expertise acquired by running networks and responding to events and threats – not developed by the Commission. And Commission-mandated outage reports are not essential inputs to industry-developed best practices.

What's more, the Commission's main use of the PSTN outage reports it receives today appears to be as a vehicle for enforcement actions relating to late or incomplete reports, which diverts providers' resources from fixing problems in the network when they occur and enhancing network reliability and survivability. The Commission should not compound those unintended consequences of its existing rules by requiring outage reporting from providers of services over which the Commission has no authority to regulate.

Finally, various reporting thresholds in the proposed rules are irrelevant to the "safety of life or property" as required by Section 4(o). As discussed in more detail

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41 *Notice* ¶ 11.

below, none of the proposed reporting thresholds for broadband backbone providers require *any* end user impact. Nor do the thresholds pertaining to outages of certain network elements for interconnected VoIP and broadband access providers. In the absence of an end user impact, there can be no connection to the "safety of life or property." As such, the Commission cannot rely on Section 4(o) for authority for these sub-sections of its proposed rules.

Section 706. Likewise, Section 706(a) does not provide direct authority for the outage reporting rules proposed here. The Commission previously has held that this subsection is, as its terms suggest, a general policy provision intended to "encourage the deployment" of advanced services through the use of other sources of regulatory authority.[42] In *Comcast*, the D.C. Circuit noted that "the Commission remains bound by its earlier conclusion that section 706 grants no regulatory authority."[43]

The Commission's efforts in the *Net Neutrality Order* to recast 706(a) as granting broad authority over broadband services are unavailing.[44] The Commission is still bound by the *Wireline Deployment Order* because it has not properly overruled or reversed that decision.[45] Any reversal could not be justified in light of the plain language of Section 706(a) that has also been interpreted by the Supreme Court. Section 706 is a mere "congressional policy" statement setting forth Congress's "general instruction" to the

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42 *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order, and Notice of Proposed Rulemaking, 13 FCC Rcd 24011, ¶¶ 69-77 (1998).

43 *Comcast Corp. v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010).

44 *See Preserving the Open Internet; Broadband Industry Practices*, Report and Order, 25 FCC Rcd 17905, ¶¶ 117-123 (2010) ("*Net Neutrality Order*").

45 *See Comcast*, 600 F.3d at 659.

FCC and state regulators.[46] And "[p]olicy statements are just that—statements of policy. They are not delegations of regulatory authority."[47]

Nor does Section 706(b) grant authority for the outage reporting rules. That provision only authorizes the Commission to take "action to accelerate deployment" of broadband to unserved geographic markets for which there has been a finding of inadequate deployment. The outage reporting rules apply far beyond any isolated geographic areas that remain unserved. In addition, the Commission would have to rely upon a finding that arbitrarily contravenes five prior agency determinations of reasonable and timely deployment when approximately 95 percent of American households have access to broadband.[48]

In any case, imposing outage reporting requirements on broadband access and backbone providers would be *inconsistent* with Section 706. This section generally concerns the deployment and availability of broadband facilities to users, and the Commission has repeatedly determined that a "light touch" regulatory policy is most likely to lead to greater investment and deployment. Conversely, onerous reporting obligations would discourage investment in and deployment of such facilities and thus cannot be reasonably ancillary to Section 706. As former Commissioner Baker aptly stated in response to the *Net Neutrality Order*, "prescriptive and investment-chilling

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[46] *See Nat'l Cable & Telecomms. Ass'n, Inc. v. Gulf Power Co.*, 534 U.S. 327, 339 (2002).

[47] *Comcast*, 600 F.3d at 654.

[48] *See, e.g.*, *Connecting America: The National Broadband Plan*, http://download.broadband.gov/plan/national-broadband-plan.pdf, at 20 (2010).

action . . . erects, not removes, barriers to broadband network infrastructure investment."[49]

B. The Commission Also Lacks Ancillary Authority.

Likewise, the Commission does not have indirect authority and cannot rely on ancillary authority to encompass the reporting rules proposed here. As an initial matter, the continuing validity of the ancillary authority doctrine is unclear. As Judge Randolph observed in the *Comcast* oral argument, ancillary authority "seems so out of step with contemporary Supreme Court jurisprudence."[50] The Supreme Court has not upheld an exercise of ancillary authority since the plurality opinion in *United States v. Midwest Video Corp.*[51] And the last Supreme Court decision to address the doctrine was *Midwest Video II*, where the Court, in rejecting the exercise of ancillary authority, reiterated that *Midwest Video I* had "[strained] the outer limits" of the doctrine.[52]

Over the course of the intervening decades, the Supreme Court took a fundamentally different approach to questions of agency authority — inquiring whether Congress has affirmatively delegated statutory authority to an agency to take the disputed action, not whether the agency lawfully took that action *despite* the fact that it lacked direct authority.[53] Indeed, the Supreme Court's decision in *Chevron*, which limits agencies to a gap-filling role under direct delegations of authority, was issued after the

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49 *Net Neutrality Order*, Dissenting Statement of Commissioner Meredith Attwell Baker at 11-12.

50 Transcript of Oral Argument at 20, *Comcast*, supra.

51 406 U.S. 649 (1972) ("*Midwest Video I*").

52 *FCC v. Midwest Video Corp.*, 440 U.S. 689, 708 (1979) ("*Midwest Video II*") (quoting *Midwest Video I*, 406 U.S. at 676 (Burger, C.J., concurring in result)).

53 *See* James B. Speta, *FCC Authority to Regulate the Internet: Creating It and Limiting It*, 35 Loy. U. Chi. L. J. 15, 25 & n.56 (2003).

Court's ancillary authority precedents; thus, the doctrine may not have survived that watershed case.[54] More broadly, the notion of ancillary authority is inconsistent with modern Supreme Court jurisprudence on statutory construction, including, for example, decisions analyzing the existence of implied causes of action.[55]

To the extent the ancillary authority doctrine is still viable, the Commission must, even where it has subject-matter jurisdiction, justify the exercise of ancillary authority by: (1) identifying a substantive statutory provision to which the proposed action is ancillary; (2) showing that the action is needed for the effective performance of that provision; and (3) ensuring that the action is not otherwise inconsistent with the Act.[56] There is also a constitutional limitation to the use of ancillary authority as a sweeping assertion untethered from any meaningful statutory standards would create significant non-delegation problems. Under the separation of powers embodied in the Constitution, Congress cannot delegate lawmaking powers to an agency without providing sufficient standards and principles such that the agency is doing no more than executing Congress's will.[57] An expansive interpretation of Commission jurisdiction that provided it a roving mandate to regulate the Internet in the absence of Congressional standards would run headlong into this constitutional limit. Neither Sections 615a-1 nor 706, cited by the

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54 *See Chevron USA, Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

55 *See, e.g.*, *Touche Ross & Co. v. Redington*, 442 U.S. 560, 578 (1979) ("[I]n a series of cases since [1964] we have adhered to a stricter standard for the implication of private causes of action . . . ."); *Roosevelt v. E.I. Du Pont de Nemours & Co.*, 958 F.2d 416, 420 (D.C. Cir. 1992) (Supreme Court "has exercised greater restraint in the implication of private rights of action").

56 *See United States v. Sw. Cable Co.*, 392 U.S. 157, 178 (1968); *Midwest Video II*, 440 U.S. at 700-02; *Comcast*, 600 F.3d at 646.

57 *See generally Whitman v. Am. Trucking Ass'ns.*, 531 U.S. 457, 472 (2001); *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928).

Notice, satisfy these requirements and thus do not support the Commission's claim of ancillary authority here.

Section 615a-1. Section 615a-1 imposes a "duty of each IP-enabled voice service provider" to provide 9-1-1 service to its subscribers in accordance with the Commission's requirements. The Commission claims that collecting outage information from interconnected VoIP providers is reasonably ancillary to ensuring that VoIP providers are able to satisfy this obligation "and to enable the Commission to assist in improving the reliability of these mandated services."[58]

Yet, as noted above, the Commission has provided no explanation in the *Notice* regarding how its proposed requirement that interconnected VoIP providers report certain outages to the Commission would result in more reliable VoIP 9-1-1 service and is necessary for interconnected VoIP providers to meet their statutory obligation. Even if there were a nexus between outage reporting and improved VoIP 9-1-1 service, the Commission's proposed reporting requirements extend far beyond 9-1-1 outages and encompass not just instances when the network is down, but also various measures of the service quality of functioning networks. Such measures include latency, jitter, and packet loss, and situations where there are failures of certain network elements, even in the absence of any indication that such a failure resulted in an outage. Reports of events that do not materially impact interconnected VoIP 9-1-1 calls cannot be reasonably ancillary to a statutory section focused solely on 9-1-1.

Finally, there is no evidence – empirical (which this Commission has repeatedly stated it prefers) or even anecdotal – that interconnected VoIP providers experience

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58 *Notice* ¶ 68.

recurrent, widespread outages such that reports of those outages would be necessary for the Commission to fulfill its statutorily mandated responsibility with respect to 9-1-1. As explained above, the evidence is to the contrary. Interconnected VoIP providers and their underlying broadband access and backbone providers employ significant redundancy and other protective measures to prevent outages from occurring and to minimize any impact on customers.[59] The Commission has empirical evidence from its network performance tests that confirms this.[60]

For the same reasons, the Commission's attempt to apply the ancillary authority argument to broadband access and backbone providers is unavailing. The outage reporting rules would also be inconsistent with Section 615a-1. There is nothing in that section that imposes any requirements on the underlying broadband access or backbone providers – entities that Congress undoubtedly would have recognized as necessary components of interconnected VoIP service. In fact, Congress identified the specific topics for the Commission's regulation in Section 615a-1(c), but did not mention any such regulations applying to "information services" like broadband access or backbone providers.

Finally, even if the Commission had ancillary authority to require outage reporting by interconnected VoIP providers, outage reports from the underlying broadband providers would contain essentially the same information and thus would be unnecessary. Accordingly, the Commission could not extend any ancillary authority to

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[59] *See, e.g.*, Comments of the Alliance for Telecommunications Industry Solutions, *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket Nos. 11-60 & 10-92, EB Docket No. 06-119, at 12-13 (July 7, 2011) ("Survivability NOI Comments"); *see also* Verizon and Verizon Wireless Survivability NOI Comments, at 8-9.

[60] See http://www.fcc.gov/measuring-broadband-america#data.

broadband access and backbone providers when doing so would only result in reporting of duplicative information.

Section 706. As with respect to direct authority, Section 706(a) would not provide the Commission with ancillary authority. Section 706(a) does not delegate any substantive function to the Commission to which the outage reporting rules proposed here could be ancillary.

CONCLUSION

Network reliability is already a priority for Verizon, and sufficient information on broadband reliability is already collected by various entities, including the Commission. If the Commission needs to supplement that information, it should promote industry-developed, voluntary reporting. Not only are the proposed IP outage reporting rules flawed, but the Commission lacks the legal authority to adopt them.

Respectfully submitted,

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