
Before the
Federal Communications Commission
Washington, DC 20554

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

To: The Commission

**REPLY COMMENTS OF
THE UNITED STATES INTERNET
SERVICE PROVIDER ASSOCIATION**

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October 7, 2011

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The United States Internet Service Provider Association ("US ISPA") hereby offers its comments in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM") concerning the extension of its Part 4 outage reporting rule to Voice over Internet Protocol ("VoIP") providers and broadband Internet Service Providers ("ISPs").¹ The *NPRM* follows an information-gathering process put in motion last year by a Public Notice seeking comment on the same general issues.²

¹ *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 11-82, *Notice of Proposed Rulemaking*, 26 F.C.C.R. 7166 (2011), 76 Fed. Reg. 33686 (June 9, 2011), *erratum*, 76 Fed. Reg. 36892 (June 23, 2011).

² *Public Safety and Homeland Security Bureau Seeks Comment on Whether the Commission's Rules Concerning Disruptions to Communications Should Apply to Broadband Internet Service Providers and Interconnected Voice over Internet Protocol Service Providers*, ET Docket 04-35 *et al.*, *Public Notice*, 25 F.C.C.R. 8490 (PSHSB July 2, 2010) ("Public Notice").

OVERVIEW

Founded in 2002, US ISPA is an association of businesses that operate Internet networks and/or provide Internet services. Its members include ISPs, network operators, and providers of Internet portals and other online services. US ISPA participates on behalf of these industries in conferences, panels, and government proceedings, including filing comments in response to the Public Notice.³

In those comments, US ISPA took the position that the Commission should not require broadband ISPs to submit outage reports — a position that US ISPA reiterates today. As we indicated last year, there are significant differences between the Internet access services provided by ISPs and the services offered by basic telecommunications networks, and between their failure modes. We noted the difficulty of defining outages in the IP network context, because of the many different potential sources of service disruption, including heavy usage by customers or even events completely external to the ISP's network and out of its control, such as capacity constraints or malfunctions at an Internet destination.⁴

In last year's comments, US ISPA noted that there are a variety of existing sources of information about network conditions that would give the Commission a continuous overview of the state of the Internet, making outage reporting unnecessary, such as Arbor Networks' ATLAS (Active Threat Level Analysis System) and various Internet "traffic report" or "weather report" sites.⁵ In addition, we pointed out some of the government and

³ See Public Notice Comments of US ISPA, ET Docket 04-35 *et al.* (filed Aug. 2, 2010).

⁴ *Id.* at 2.

⁵ See *id.* at 3.

private sector organizations promoting best practices for dealing with the very challenges outage reporting is aimed at — including the Commission’s own Communications Security, Reliability, and Interoperability Council (“CSRIC”) and the private sector consortium, the Alliance for Telecommunications Industry Solutions (“ATIS”).⁶ Moreover, we opposed a mandatory outage reporting program because it would divert critical resources away from broadband investment and deployment as ISPs are seeking to carry out the Commission’s top goal of making 100 Mb/s Internet access affordably available to 100 million homes by 2020.⁷

US ISPA’s comments on the Public Notice also stressed the need for a well-reasoned, sustainable legal theory for the Commission’s authority to adopt rules imposing requirements on ISPs.⁸

I. THE *NPRM* FAILED TO RESOLVE THE ISSUES IDENTIFIED IN THE COMMENTS TO THE PUBLIC NOTICE

The *NPRM* did not meaningfully move toward resolution of the issues raised in comments filed in response to the Public Notice. For the most part, the *NPRM* sets forth questions similar to those raised in the Public Notice, at greater length and in greater detail, but without any meaningful address of the problems that had been raised in comments on the Public Notice. The rule amendments that were proposed were largely arbitrary and seem to have been drafted without consideration of the comments.

⁶ See *id.* at 3-4.

⁷ See *id.* at 4 (citing FCC, CONNECTING AMERICA : THE NATIONAL BROADBAND PLAN, at 25 (2010), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf>).

⁸ See *id.* at 5.

For example, many parties (including US ISPA) responded to the Public Notice by stressing the significant differences between the Internet and telephone networks that make it impracticable to extend “outage” concepts designed for telephone networks to the very different field of Internet access, and that simply using different metrics would not work.⁹ The *NPRM* shows little or no recognition of these fundamental problems — it does not appear the comments were acknowledged or fully processed. It simply asserts that broadband Internet outages are an increasing problem (based on anecdotal evidence of brief isolated failures on a handful of occasions stretching back ten years)¹⁰ and proceeds to ask what metrics and thresholds to use when it applies its Part 4 rules to broadband.¹¹

Parties commenting on the *NPRM* were perplexed that the Commission overlooked the earlier comments showing that the Internet is not simply a telephone network on steroids and ignored the fundamental differences that make it nonsensical to simply extend Part 4 rules from legacy networks to broadband Internet networks (at both the retail provider and backbone levels) with a few tweaks to the metrics.¹² The *NPRM*

⁹ See, e.g., Public Notice Comments filed in ET Docket 04-35 *et al.* by ATIS at 4; CTIA at 2-4; NCTA at 7-11; Qwest at 11-12; Verizon and Verizon Wireless at 6-9 (filed Aug. 2, 2010 in each case).

¹⁰ See *NPRM* at ¶ 38 & n.96 (citing a one-hour outage by Frontier in 2000), ¶ 31 & n.88 (citing an outage in 2005), ¶ 38 & n.97 (citing an XO outage in 2010), ¶ 3 & nn.9-13 (citing several outages in 2010).

¹¹ See *NPRM* at ¶¶ 40-43, 47-49, 55.

¹² See, e.g., *NPRM* Comments of CTIA at (“The Commission’s rigid Part 4 network outage reporting rules are premised on a service provider’s deployment of legacy circuit-switched telephony networks and do not provide an appropriate framework for an IP environment. The unique nature of Internet traffic and the manner in which broadband networks are deployed to handle such traffic means that facility disruptions will have limited, if any, impact on an end user.”); *NPRM* Comments of USTelecom at 6 (“Reporting outages of the public switched telephone network (PSTN), particularly at the time the Part 4 rules were adopted, required a very limited universe of service providers to measure a binary (*i.e.*, on/off) characteristic: Failure generally meant

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acknowledges comments saying that the Internet is designed to reroute traffic,¹³ but fails to recognize the more important point made in the comments on the Public Notice — that broadband Internet networks differ architecturally from legacy circuit-switched voice networks in ways that make Part 4-style outage reporting both difficult and pointless.

USTelecom lays this out:

The hierarchical architecture of the PSTN provided simplistic alternate routing at higher levels. . . . In contrast, IP Networks have grown increasingly decentralized and complex throughout their developmental history. . . . Unlike the PSTN, which requires a physical circuit to be set up for each phone call, IP networks operate using protocols that allow for communications between and among multiple platforms. Thus, in contrast to the simple point-to-point paradigm of the PSTN, IP networks are highly decentralized.

These design characteristics make it impractical and technically difficult, if not impossible, to associate network disruptions with any particular communications or application element in an IP network. . . . Consequently, any reporting mechanism designed to address IP network outages will, by design, only capture a small slice of a much larger network ecosystem — and provide a skewed view of the source and frequency of outages. Decentralized, non-hierarchical, autonomous systems-based IP networks simply do not lend themselves to traditional regulated legacy reporting rules or systems.¹⁴

(footnote continued)

a call was not completed. . . . IP Networks differ significantly from the traditional PSTN in terms of structure and complexity, and as such, they do not lend themselves to traditional outage reporting.”); NPRM Comments of XO at 3 (“IP-based networks are also fundamentally different than traditional networks in ways that materially impact the potential usefulness of outage reporting and the ability of broadband network operators to detect and report outages. . . . [F]ailure of any specific facility within an IP-based broadband network typically does not correlate to end user impact the way a failure in a circuit-switched network can. Therefore, the data gathered from the proposed outage reporting requirements likely could not be relied upon to draw accurate and complete conclusions about end user impact.”).

¹³ NPRM at ¶ 21.

¹⁴ *Id.* at 6-7 (footnotes omitted).

Several commenters on last year’s Public Notice, in addition to US ISPA, had also urged the Commission to consider using existing sources of data as an alternative to a reporting program.¹⁵ The NPRM ignores these suggestions, asking only about “regulatory alternatives.”¹⁶ It also ignores T-Mobile’s suggestion, in response to the Public Notice, of a step-by-step approach, first considering “the threshold issue of whether and to what extent a broadband ISP . . . provider genuinely experiences a service ‘outage,’” then to determine whether a reporting regime “truly is necessary given the dynamic nature of broadband networks,” and, if so, then to work with industry to test various reporting criteria in a voluntary program.¹⁷ The Commission makes no mention of this approach, and it devotes only a single sentence to a token question about voluntary reporting.¹⁸

II. THE FCC LACKS LEGAL AUTHORITY TO REQUIRE BROADBAND ISPS TO ENGAGE IN OUTAGE REPORTING

The Commission acknowledges in the *NPRM* that many commenters had contested or questioned the agency’s legal authority to adopt a broadband ISP outage reporting program.¹⁹ Accordingly, the *NPRM* lays out various sources of legal authority that the Commission believes support its proposal to mandate broadband ISP outage reporting.²⁰

The Commission’s primary legal gameplan is to rely on its authority under 47 U.S.C. § 615a-1(c) to adopt rules to implement 47 U.S.C. § 165a-1(a), which places a duty

¹⁵ See Public Notice Reply Comments of T-Mobile, ET Docket 04-35, at 5 & n.12 (Aug. 16, 2010); Public Notice Comments of NCTA at 12; Public Notice Comments of US ISPA at 3; Public Notice Comments of Verizon and Verizon Wireless at 10.

¹⁶ *NPRM* at ¶ 59 (emphasis added).

¹⁷ Public Notice Reply Comments of T-Mobile at 1-2; *see id.* at 2-10.

¹⁸ *NPRM* at ¶ 59.

¹⁹ *NPRM* at ¶ 72.

²⁰ *NPRM* at ¶¶ 67-69; *see also* ¶¶ 70-71.

on VoIP providers to provide 9-1-1 services.²¹ The problem is that the Commission’s rule-making power under § 615a-1(c) is limited. It has three subsections. Subsection (c)(1) is not relevant — it requires the FCC to adopt certain initial implementing regulations within 90 days after enactment. Likewise, Subsection (c)(2) is irrelevant — it merely directs the FCC to establish rules for interconnected VoIP provider registration and contact points. Subsection (c)(3) is the only remaining rulemaking provision. It authorizes the FCC to “modify such regulations” (*i.e.*, the regulations under (c)(1) and (c)(2)) “as necessitated by changes in the market or technology, to ensure the ability of an IP-enabled voice service provider to comply with its obligations under subsection (a) and to exercise its rights under subsection (b).”

However, the FCC is not proposing, in its *NPRM*, to modify its regulations adopted under Subsections (c)(1) and (c)(2). The regulations adopted under Subsection (c)(1) are the Part 9 rules that were adopted in 2008.²² They apply to interconnected VoIP providers and the owners and controllers of capabilities used for providing 9-1-1 services, not to broadband ISPs (except to the extent a broadband ISP acts as a VoIP provider).²³ The Commission has not yet adopted regulations under Subsection (c)(2). The rules that the FCC has proposed adopting in this proceeding are amendments to rules in Part 4, which contains outage reporting requirements that currently have nothing to do with ISPs, in-

²¹ *NPRM* at ¶ 67.

²² 47 C.F.R. §§ 9.1, 9.3, 9.7; *Implementation of the NET 911 Improvement Act of 2008*, WC Docket 08-171, *Report and Order*, 23 F.C.C.R. 15884 (2008) (“*NET 911 Order*”).

²³ The Commission listed the types of entities that were considered to be owners and controllers of capabilities used in interconnected VoIP as: Incumbent LECs; CMRS Providers; States, Localities and PSAPs; Third-Party Commercial Providers; and Interim RNA. *NET 911 Order* at ¶¶ 15-19. There was no suggestion that ISPs were owners and controllers of such capabilities.

terconnected VoIP providers, or the owners and controllers of capabilities used in interconnected VoIP. Accordingly, the FCC's rulemaking authority under Subsection (c)(3) does not appear to support adoption of amendments to Part 4 of its rules that would subject broadband ISPs to outage reporting requirements.

Next, the *NPRM* proposes to rely on “ancillary authority.” Other commenters have shown the proposed mandatory outage reporting requirements for ISPs cannot be justified as ancillary to ensuring a VoIP provider’s ability to satisfy its 9-1-1 duties. AT&T, for example, notes that “networks are temporarily disrupted, the disruption is corrected, and service continues. There is nothing in extending the Part 4 rules that will change that fact. Indeed, Congress did not expect, and the Commission cannot ensure, that networks over which 911 Services ride will never be disrupted.”²⁴ Moreover, given that ISPs are not even addressed in § 615a-1, the Commission has to assert ancillary authority first over VoIP providers and then over the ISPs — and it is doubtful that doubled-up ancillary authority such as that would be upheld by a court.

III. THE COMMISSION HAS SHOWN NO NEED FOR ISP OUTAGE REPORTING BASED ON QUALITY OF SERVICE METRICS

As noted above, the *NPRM* points to anecdotal evidence of a few isolated incidents in which there have been broadband Internet outages.²⁵ It does not, however, demonstrate or even suggest that there is any systemic problem requiring the extensive and burdensome outage reporting (or, more accurately, Quality of Service reporting) requirements. It has selected various metrics and thresholds for its proposed rules with

²⁴ Comments of AT&T at 4.

²⁵ See note 10 above.

little or no indication of why they were picked. For example, the rules propose that an average packet loss of 1%, a round-trip latency threshold of 100 ms, or jitter of 4 ms would be among the triggers for outage reporting subject to certain additional criteria.²⁶ The only explanation for selecting these figures in the *NPRM* is suspiciously reminiscent of “we pulled them out of a hat” —

Based on an examination of commercial practices, and considering the apparent lack of standardized values for the metrics presented here, we believe that the appropriate values should be packet loss of one percent or more, round-trip latency of 100 ms or more, or jitter of 4 ms or more from the source to the destination host in order to trigger outage reporting. Are these values appropriate for all types of broadband Internet access service providers? Are there more appropriate values? What are they and why are they better?²⁷

The *NPRM* does not claim that it proposed metrics that are increasingly exceeding those values and disrupting Internet access for users. It does not claim that it proposed those values as accepted, standardized thresholds beyond which Internet access is sufficiently impaired to be deemed an outage. In fact, the Commission acknowledges that there is a “lack of standardized values” for these metrics, and it picks them only because it “believe[s]” them to be “appropriate.” There is no basis whatsoever for requiring “outage reporting” when those thresholds are exceeded for any length of time, especially in light of the considerable burden involved in monitoring and gathering relevant data, and making the necessary reports.²⁸

²⁶ *NPRM*, proposed rule section 4.9(h)(2)-(3).

²⁷ *NPRM* at ¶ 42.

²⁸ We note that President Obama’s Executive Order 13563 directs executive agencies to use the “best available science” and to “identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends.” In addition, in a July 11, 2011 Executive Order, the President asked independent agencies to comply with E.O. 13563 and to make decisions only after

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CONCLUSION

The ISP outage reporting mandate proposed in the *NPRM* is a non-solution to a non-problem that is arbitrary and lacking in any legal authority. It was proposed without any serious attempt to address the comments to the 2010 Public Notice, which made clear that ISP outage reporting was burdensome, unnecessary, and unworkable. The Commission should terminate the proceeding as to ISPs without adoption of any new rules.

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considering the costs and benefits. Chairman Genachowski announced that same day that the FCC is following that policy, and he reiterated that in a series of Congressional letters on September 12, 2011. Accordingly, the Commission should give close consideration to the fact that the proposed rules impose considerable burdens and yield few or no benefits.