

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

In the Matter of

Amendments to Part 4 of the Commission's Rules
Concerning Disruptions to Communications

PS Docket No. 15-80

New Part 4 of the Commission's Rules Concerning
Disruptions to Communications

ET Docket No. 04-35

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

**EX PARTE COMMENTS OF
THE MASSACHUSETTS DEPARTMENT OF
TELECOMMUNICATIONS AND CABLE**

Commonwealth of Massachusetts
Department of Telecommunications and Cable

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The Massachusetts Department of Telecommunications and Cable (“MDTC”)¹ respectfully submits these ex parte comments responding to the Further Notice of Proposed Rulemaking (“FNPRM”) released by the Federal Communications Commission (“Commission”) on May 26, 2016, in the above-referenced proceedings.² Through the FNPRM, the Commission seeks comment on ways to ensure that its outage reporting system keeps pace with and adequately reflects the ongoing technological change within the communications network.³

¹ The MDTC regulates telecommunications and cable services within Massachusetts and represents the Commonwealth in matters before the Commission. *See* MASS. GEN. LAWS ch. 25C, § 1; MASS. GEN. LAWS ch. 166A, § 16. Silence on any matter not addressed in these comments does not connote agreement or opposition by the MDTC.

² *In re Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, PS Docket No. 15-80 *et al.*, *Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration*, FCC 16-63 (rel. May 26, 2016) (“*Order and FNPRM*”).

³ *Id.* at ¶ 3.

Through anticipated revisions to its outage reporting requirements, the Commission aims to further promote public safety, protect critical infrastructure and communications services, and ensure 9-1-1 reliability.⁴

The MDTC welcomes this opportunity to submit ex parte comments and directs its response to two areas of Commission inquiries for which the MDTC has already provided endorsement: mandatory broadband outage reporting and state access. In particular, due to continued public safety considerations, the MDTC reiterates its support of Commission expansion of its outage reporting rules to account for broadband services and adoption of measures to ensure that states have direct and timely access to the Commission's outage database (the Network Outage Reporting System or "NORS").⁵

I. PUBLIC SAFETY CONSIDERATIONS REFLECT A CLEAR NEED FOR THE COMMISSION TO IMPOSE MANDATORY OUTAGE REPORTING REQUIREMENTS ON BROADBAND PROVIDERS

The Commission observes:

As service providers transition from legacy network facilities to IP-based networks [...], broadband networks and services increasingly characterize the environment for the nation's 9-1-1 and NG911 emergency communications and, thus, are central to the nation's emergency preparedness, management of crises, and essential public-safety communications.⁶

⁴ *Id.* at ¶ 2.

⁵ See generally MDTC Comments, PS Docket No. 15-80 (Jul. 15, 2015) ("MDTC 2015 Comments") (supporting states' access to the NORS database and opposing preemption of states' outage reporting requirements); MDTC Comments, PS Docket No. 11-82 (Aug. 8, 2011) ("MDTC 2011 Comments") (supporting expansion of mandatory outage reporting requirements to interconnected VoIP and broadband providers and advocating for states' direct access to the NORS database); MDTC Comments, ET Docket No. 04-35 *et al.* (Aug. 16, 2010) (supporting expansion of mandatory outage reporting requirements to interconnected VoIP and broadband providers); MDTC Comments, ET Docket No. 04-35 (Mar. 4, 2010) (supporting the California Public Utility Commission's ("CPUC's") request for direct access to the NORS database and urging that the Commission grant all states' access). The MDTC incorporates these comments in their entirety herein for the Commission's consideration.

⁶ *Order and FNPRM* at ¶ 93.

The Commission further observes that broadband networks are “just as vulnerable to physical outages and service disruptions” as the traditional telephone network and are also susceptible “to attacks at the application level” and “to large-scale service outages” that can impact customers across several states.⁷ As a result, in order to further promote public safety, protect critical infrastructure and communications services, and ensure 9-1-1 reliability, the Commission looks to revisit its existing outage reporting requirements and, in part, impose requirements on broadband service providers.⁸ As with its existing outage reporting rules, the Commission proposes to make broadband outage reporting requirements mandatory.⁹ The MDTC generally agrees with this approach.¹⁰

By extending outage reporting requirements to broadband providers, the MDTC believes that the Commission may better enforce existing E-9-1-1 obligations, facilitate the transition to NG911, and analyze root causes of outages, which will improve the overall communications network performance.¹¹ Such an action can also help reduce the number and severity of significant outages that may impact Massachusetts’ consumers and businesses,¹² who account for

⁷ *Id.* at ¶¶ 102-103.

⁸ *Id.* at ¶¶ 102-159. The Commission’s current outage reporting rules are voice-centric and largely apply to interconnected Voice-over Internet Protocol (“VoIP”), wireline, wireless, cable, and other providers. *See generally* 47 C.F.R. §§ 4.1-4.15 (“Part 4 – Disruptions to Communications”). Through these rules, the Commission imposes “requirements pertinent to the reporting of disruptions to communications and to the reliability and security of communications infrastructures.” 47 C.F.R. § 4.1(a).

⁹ *Order and FNPRM* at ¶¶ 105-107.

¹⁰ The MDTC does not address the specific parameters, metrics, or thresholds for outage reporting that should be applicable to broadband providers.

¹¹ Other commenters make similar observations. *See* Washington Utilities and Transportation Commission Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“WUTC Comments”), at 2-3; National Ass’n of State 911 Administrators, PS Docket No. 15-80 *et al.* (Aug. 26, 2016), at 2-3; New York Public Service Commission Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“NY PSC Comments”), at 5-10; CPUC Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“CPUC Comments”), at 3-9.

¹² *See, e.g., Order and FNPRM* at ¶ 103 (discussing various outages) (citations omitted); Boston Globe, “Overnight service woes affect Comcast customers,” Jun. 27, 2016 (discussing company’s overnight outages and the resulting social media consumer reaction), available at <https://www.bostonglobe.com/business/2016/06/27/comcast->

at least 7.7 million basic Internet connections of the more than 341 million reported connections nationwide.¹³ In addition, while IP-based service providers have taken substantial and commendable steps to ensure their networks' reliability, performance, and sustainability, the MDTC continues to view these practices as not removing the critical public safety need for outage data or reporting.¹⁴

According to the Commission, outage reports “have enabled the Commission to facilitate and promote systematic improvements to reliability[.]”¹⁵ and it notes “a marked reduction in wireline outages following a Commission intervention” in 2008.¹⁶ When expanding its outage reporting requirements to wireless and other providers in 2004, the Commission determined that:

Ensuring that the United States has reliable communications requires us to obtain information about communications disruptions and their causes to prevent future disruptions that could otherwise occur from similar causes, as well as to facilitate

[experiencing-outages-boston-area/Z27Itg1zmHSU5XSulUjtnL/story.html](http://money.cnn.com/2016/05/09/news/companies/time-warner-cable-cox-outages/index.html) (last viewed Aug. 30, 2016); CNN Money, “Time Warner Cable, Cox suffer widespread outages in Northeast,” May 9, 2016 (discussing regionwide outage of multiple carriers), available at <http://money.cnn.com/2016/05/09/news/companies/time-warner-cable-cox-outages/index.html> (last viewed Aug. 30, 2016).

¹³ See Wireline Competition Bureau, *Internet Access Services: As of June 30, 2015* (Aug. 2016), at Fig. 35, “Connections by Type of End User by State as of June 30, 2015 (Connections over 200 kbps in at least one direction, in thousands)”.

¹⁴ See, e.g., USTelecom Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“USTelecom Comments”), at 12, 14 (asserting that “the decentralized nature of the [broadband] network, combined with wide adoption of industry best practices, has contributed over time to creating one of the most reliable communications infrastructures in the world” and specifying that dedicated services are “subject to contractual service quality obligations”); AT&T Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“AT&T Comments”), at 5-6 (indicating that the engineering of broadband networks “enables [greater] redundancy and resiliency” than that within the traditional telephone network and that providers “are highly motivated [by competitive forces] to minimize outages and disruptions to the network”); Comcast Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“Comcast Comments”), at 7-11 (discussing how Comcast has designed its network to “mitigate[e] most consumer-facing outages”); *but see* CPUC Comments at 6 (“the claim that competition provides safe and reliable service because customers might have choice of carriers is an issue completely separate from the importance of outage reporting for public safety purposes”).

¹⁵ *Order and FNPRM* at ¶ 104. The Commission has previously noted that its “analysis of industry-wide outage reports has led to improvements in the engineering, provisioning, and deployment of communications infrastructure.” *In re 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, *Notice of Proposed Rulemaking*, FCC 11-74 (rel. May 13, 2011) (“*Proposed Extension of Part 4 Rules NPRM*”).

¹⁶ *Order and FNPRM* at n.316.

the use of alternative communications facilities while the disrupted facilities are being restored.¹⁷

At the time, the Commission pointed to the terrorist acts of September 11, 2001, as “starkly illustrat[ing] the need for reliable communications during times of crisis.”¹⁸ When contemplating expansion of outage reporting to interconnected VoIP and broadband providers in 2011, the Commission similarly discussed events surrounding Hurricane Katrina.¹⁹ It specified that “[d]uring a time when countless calls were placed to 9-1-1, the Commission’s outage reporting data was the Federal government’s primary and best source of information about the condition of critical communications infrastructure in the disaster area [.] [...] The FCC was able to identify specific needs for security, fuel, and other support and help guide and prioritize Federal restoration efforts.”²⁰ Taking these events and observations into account, as well as the Commonwealth’s and other states’ own experiences with the need for ensuring reliable and timely communications and data, most especially in times of crisis,²¹ the MDTC firmly believes that Commission extension of an appropriate level of mandatory outage reporting requirements to broadband providers is necessary – it will ultimately help authorities to further support the

¹⁷ *In re New Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, ET Docket No. 04-35, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 04-188 (rel. Aug. 19, 2004) (“*New Part 4 Report and Order*”), at ¶ 11.

¹⁸ *Id.* at ¶ 10.

¹⁹ *Proposed Extension of Part 4 Rules NPRM* at ¶ 9.

²⁰ *Id.*

²¹ *See, e.g.*, Massachusetts Emergency Management Agency *et al.*, *After Action Report for the Response to the 2013 Boston Marathon Bombings* (Dec. 2014), available at <http://www.mass.gov/eopss/docs/mema/after-action-report-for-the-response-to-the-2013-boston-marathon-bombings.pdf> (last viewed Sept. 2, 2016) (detailing the best practices and lessons learned by the public safety, public health, and medical organizations that played critical roles in the response and recovery activities related to the 2013 Boston Marathon bombings); National Ass’n of Regulatory Utility Commissioners Comments, PS Docket No. 15-80 *et al.* (Aug. 26, 2016) (“NARUC Comments”), at 4 (noting that “State agencies, including NARUC’s member commissions as well as State Offices of Emergency Services, are responsible for maintaining public services, including telecommunications services, before, during and after emergencies”); WUTC Comments at 2 (“state regulatory bodies [...] assist state emergency management agencies when utility outages occur”).

health, safety, and welfare of our citizens and will offer additional insight and facilitate development of the NG911 network.

Finally, such reporting requirements should be mandatory rather than voluntary.²² The Commission specifies that, despite broadband providers' apparent willingness to participate in a voluntary reporting process when it contemplated the issue in 2012, these providers "have not come forward with concrete proposals for such a process or even expressed such an interest in voluntary reporting" over the past four years.²³ States have expressed similar difficulties in coordinating voluntary efforts with providers in related arenas, including state-level cybersecurity initiatives.²⁴ Further, the Commission has previously discussed and dismissed voluntary outage reporting due to the quality of data submitted.²⁵ As a result, to ensure that the Commission receives reliable and consistent outage data, implementation of outage reporting requirements for broadband providers should be mandatory.

II. PROVIDE STATES WITH PASSWORD-PROTECTED ACCESS TO OUTAGE DATA AND DO NOT UNDULY BURDEN, LIMIT, OR FURTHER DELAY STATES' ACCESS TO AND USE OF THAT DATA

According to the Commission, "[t]he record reflects broad agreement that state and federal partners would benefit from more direct access to NORS data," but the Commission then seeks further comment on how real-time broadband outage reporting data could be "properly

²² *Order and FNPRM* at ¶ 107 (seeking comment on the Commission's tentative conclusion to make broadband reporting mandatory).

²³ *Id.* at ¶ 106 (citations to various provider comments omitted).

²⁴ See CPUC Comments at 6, 15; Boulder Regional Emergency Telephone Service Authority Comments, WC Docket No. 15-80 *et al.* (Aug. 26, 2016), at 11; see also Connecticut Public Utilities Regulatory Authority, *Connecticut Public Utilities Cybersecurity Action Plan*, Docket No. 14-05-12 (Apr. 6, 2016), at 17-21 (discussing the results of meetings with telecommunications industry representatives), available at http://portal.ct.gov/uploadedFiles/Departments_and_Agencies/Office_of_the_Governor/Press_Room/Press_Release/s/2016/04-2016/2016.04.06%20Connecticut%20Public%20Utilities%20Cybersecurity%20Action%20Plan.pdf (last viewed Aug. 31, 2016).

²⁵ *New Part 4 Report and Order* at ¶¶ 19-47.

shared” with state and certain other federal authorities.²⁶ In particular, it directs the Public Safety and Homeland Security Bureau to further study the issue and develop data-sharing proposals for consideration.²⁷ While the MDTC appreciates the Commission’s considerations, the answer is clear: at a minimum, the Commission should provide relevant state authorities with password-protected access to the NORS database for state-specific disruption and outage data, and the Commission should not unduly burden, limit, or further delay states’ access to and use of that data.²⁸ The Commission has been contemplating such access since at least 2010, and further delay seems unnecessary.

Despite industry advocacy to the contrary, the Commission need not unduly burden or limit states’ access to the NORS database and related outage information.²⁹ States and local authorities already receive iterations of the NORS-specific data through other avenues permitted by the Commission. For instance, the Commission grants the Department of Homeland Security

²⁶ *Order and FNPRM* at ¶¶ 88-89, 145-148 (citations omitted). The Commission also inquires about broadband and interconnected VoIP providers’ current state-level reporting practices. *Id.* at ¶¶ 147-148. On behalf of the Commonwealth, a simple response is that broadband and interconnected VoIP providers report outage information to Massachusetts officials on a voluntary basis. See MASS. GEN. LAWS ch. 25C, § 6A. The MDTC’s existing mandatory outage reporting requirements are limited to the statewide incumbent local exchange carrier, Verizon, and reflect outage metrics far below those established by the Commission. See, e.g., Verizon Massachusetts, *Quality of Service Report for July 2016* (Aug. 30, 2016) (non-proprietary monthly data reported to the MDTC regarding Verizon Massachusetts’ retail quality of service and which includes data on services outages in the Commonwealth).

²⁷ *Order and FNPRM* at ¶¶ 147-148.

²⁸ In Massachusetts, these entities include both the MDTC and the State 911 Department. While the MDTC is the exclusive state regulator of telecommunications and cable services within the Commonwealth of Massachusetts, *supra* at n.1, the State 911 Department is the agency responsible for coordinating, administering and promulgating standards for the implementation of E-9-1-1 services within the state, and is tasked with reviewing and assessing new communications technologies that may include, but are not limited to, wireless, video, broadband, and IP-based applications that may serve as the NG911 technology platforms. See Mass. Gen. Laws ch. 6A, §§ 18B(d) and (h); see also State 911 Department website, available at: <http://www.mass.gov/eopss/agencies/state-911/> (last viewed Aug. 31, 2016).

²⁹ See AT&T Comments at 21-22; Comcast Comments at 30-31; but see CPUC Comments at 3 (discussing how the CPUC requires and utilizes confidential data “as part of its traditional role”); WUTC Comments at 2 (noting that “[m]aintaining the confidentiality of information provided by network providers is not new to the UTC and safeguards are in place to insure that access to filed information is not divulged without judicial process after a request for confidential information has been received”); NARUC Comments at 5 (discussing why it is unnecessary to limit states’ access to the outage data).

(“DHS”) direct access to the NORS database, and the DHS acts as an intermediary to share that information with state and local authorities “as it deems appropriate.”³⁰ In addition, eligible telecommunications carriers (“ETCs”) under the Connect America Fund report NORS-related outage information to state commissions through the ETCs’ mandatory annual FCC Form 481 filings.³¹ Separately, certain states like California require their providers to report state-specific NORS information to the state commissions,³² and states have long been recipients of proprietary data within the purview of their regulatory authority.³³ Further, most, including the MDTC, agree that the Commission should continue to treat the reported information as presumptively confidential.³⁴

With these considerations in mind, industry offers no compelling reason to otherwise limit or deny states’ access to real-time NORS data.³⁵ State and local entities often serve as the first line of defense for public safety and emergency situations, and delay in acquiring outage data can have serious consequences. As a result, the Commission should act expeditiously in

³⁰ *Order and FNPRM* at ¶ 81; *New Part 4 Report and Order* at ¶ 47.

³¹ *See* 47 C.F.R. § 54.313(a)(2); FCC Form 481 Instructions, OMB Control No. 3060-0986 (High-Cost) (Feb. 2014) at 18 (noting that the outage data collected “should be consistent with the data reported on the [NORS]”), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-328672A1.pdf (last viewed Sept. 2, 2016).

³² *See* CPUC Comments at 3, 15-16.

³³ *See supra* at n.29.

³⁴ *See, e.g.*, NY PSC Comments at 3; WUTC Comments at 2; Comcast Comments at 27-30; USTelecom Comments at 15-17. As advocated by the MDTC previously, the Commission may accomplish this by requiring states to certify that they will keep this data confidential and that they have adequate confidentiality protections in place to do so. *See* MDTC 2015 Comments at 2-3; MDTC 2011 Comments at 8-9. The Commission already takes this approach with states’ access to the Form 477 database and the North American Numbering Plan Administrator database. *See Order and FNPRM* at ¶ 85.

³⁵ *See* CPUC Comments at 6 (“the claim that competition provides safe and reliable service because customers might have choice of carriers is an issue completely separate from the importance of outage reporting for public safety purposes”); *see also supra* at n.29.

moving forward on granting states' direct access to the NORS database and should not otherwise limit or burden states' access to or use of this data.³⁶

III. CONCLUSION

The MDTC commends the Commission for striving to ensure that its outage reporting requirements align with the realities of the existing communications network. Due to public safety considerations, it is clear that the Commission should extend mandatory outage reporting requirements to broadband providers. By so doing, the Commission will help to ensure the continued reliability and security of the entire communications infrastructure and 9-1-1 services relied upon by all consumers. Further, because of state and local authorities' role in public safety matters, the Commission should move forward on granting states' password-protected access to its outage database and should not unduly burden, limit, or delay states' access to and use of that data. Industry offers no compelling reason otherwise. The MDTC thanks the Commission for its consideration.

Respectfully submitted,

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³⁶ The MDTC also urges the Commission to clearly assert that its updated rules will not preempt existing and future state outage reporting requirements.