

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)
)
Improving Outage Reporting for Submarine) GN Docket No. 15-206
Cables and Enhancing Submarine Cable)
Outage Data)
)

REPLY COMMENTS OF VERIZON

Commenters agree that any approach to outage reporting for submarine cable landing licensees should take into account submarine cable systems' history of reliability, as well as their methods of operation, repair, and governance. Industry data confirm that system "outages" or "faults" are few and far between, especially in U.S. territory.¹ And when they occur, most U.S. undersea cable systems offer built-in redundancy and extensive traffic re-routing capabilities. Yet the *NPRM*'s proposed rules² would impose the same reporting obligations on both redundant and non-redundant systems, even though a redundant system is less prone to service-affecting events and even if a particular event did not affect service to users of the system. The proposed reporting regime would thus create the false impression that both redundant and non-redundant systems provide the same reliability features, and unfairly burden redundant systems with unnecessary requirements.

The Commission instead should focus on improving non-regulatory efforts, including its current voluntary reporting program, to achieve its legitimate interests in gathering information and improving government oversight. These could include creating an information

¹ See AT&T Comments at 5-6; NASCA Comments at 3-6.

² *Improving Outage Reporting for Submarine Cables and Enhancing Submarine Cable Outage Data*, Notice of Proposed Rulemaking, 30 FCC Rcd 10492 ("*NPRM*").

clearinghouse and improving coordination among Federal agencies, completing ongoing efforts in the CSRIC V, enhancing the existing Undersea Cable Information System (“UCIS”) reporting platform, and improving stakeholder education for that voluntary system.³ But should the Commission adopt new outage reporting requirements, the rulemaking record offers a path forward that advances those interests more effectively than the *NPRM*.

I. REPORTING THRESHOLDS SHOULD PRIORITIZE SERVICE-AFFECTING INCIDENTS AND REFLECT HOW UNDERSEA CABLES ARE OPERATED AND REPAIRED.

Any new rules should seek to achieve two principal objectives. First, they should target those incidents with the greatest potential to adversely affect users of submarine cable systems.⁴ Second, they should take into account system operators’ established monitoring, operational repair capabilities and practices.

A. Reporting Should Not Be Required for Incidents with Successful Re-Routing of Traffic or No Significant Loss of Connectivity.

A “fault” that prompts traffic to be re-routed through redundant paths should not be a reportable outage.⁵ The Commission recognizes in other contexts the common sense notion that outage reporting should be unnecessary when re-routing prevents a consumer-affecting outage from occurring in the first place.⁶ That recognition rewards service providers that design

³ See NASCA Comments at 5-6, 36-41; see also AT&T Comments at 21-22.

⁴ See NASCA Comments at 14.

⁵ See *id.* at 13-16, 31-34; SCC Comments at 4-6; see also AT&T Comments at 5-6.

⁶ See 47 C.F.R. § 4.5(e)(1) (PSAP connectivity outage does not occur if a “reroute for all end users was available . . .”); *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 ¶ 80 (2004) (noting that redundancy can “prevent the occurrences of outages”); see also *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*, Report and Order, 27 FCC Rcd 2650, ¶ 35 (2012) (VoIP outage data will help

redundant systems. Contrary to the proposal in the *NPRM*, the Commission should not abandon this basic principle of outage reporting and should instead focus only on events for which re-routing of traffic is not available and when service is adversely affected.

In cases where traffic is not re-routed, AT&T's proposed definition of a reportable outage – the loss of any fiber pair for at least 30 minutes that results from the loss of all connectivity in receive or transmit mode due to failures in the undersea cable segment or major power failure – can be applied across a diversity of cable systems.⁷ It would avoid any need to quantify capacity loss, as would be necessary under the *NPRM*'s proposal and which would be difficult to apply across different cable systems and events.⁸ It also would preserve a degree of proportionality between the severity of the incident and the resulting burden on the Commission by helping exclude from reporting routine maintenance and minor non-service-affecting incidents, such as card failures affecting terminal equipment and cable stations.⁹

B. The Record Supports Several Improvements to the Proposed Reporting Thresholds and Filing Periods to Reflect How Cable Systems Are Repaired and Governed.

If the Commission adopts new rules, the specific reporting thresholds and filing periods for each of the proposed Notification, Interim Report and Final Report requirements, as well as the overall transition period, should reflect the challenges and realities of undersea cable repair

determine “the extent to which network rerouting is successful *in preventing outages*.” (emphasis added)); *Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications, New Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration, 30 FCC Rcd 3206, ¶¶ 24-30 (acknowledging that simplex events in which “traffic is diverted to a back-up circuit” should not be treated as reportable outages within the duration of a maintenance window).

⁷ See AT&T Comments at 13-15.

⁸ See AT&T Comments at 13-14; NASCA Comments at 11-13.

⁹ See AT&T Comments at 15-16; NASCA Comments at 10; SCC Comments at 6.

and system governance. Commenters recommended several modifications of the proposed rules that would achieve this goal.

Notification. NASCA's and SCC's proposal that the reporting licensees notify the Commission of covered outages within 48 hours after discovery, rather than 120 minutes as proposed in the *NPRM*, will better reflect the capabilities of many existing systems and provide adequate time for all reporting licensees to include meaningful information with the notification.¹⁰ As AT&T points out, the Root Cause Analysis ("RCA") and pinpoint location of the failure are rarely available so early in the assessment and repair process, and should be excluded from the notification.¹¹

Interim Report. With a more reasonable period to file the notification, the Interim Report proposed in the *NPRM* is unnecessary.¹² If an Interim Report is required, however, AT&T's proposal that it be filed within 72 hours from when the licensee responsible for the repair distributes the Plan of Work to other parties on the system would enable the responsible party to provide more useful information to the Commission than the repair scheduling trigger proposed in the *NPRM*.¹³ The *NPRM*'s proposed 120 minute period from the triggering event does not provide adequate time to prepare and submit the Interim Report because operational tasks such as scheduling the repair and receiving the Plan of Work may occur several time zones away.¹⁴

¹⁰ See NASCA Comments at 19-20, 34-35.

¹¹ See AT&T Comments 16-18.

¹² See NASCA Comments at 20.

¹³ See AT&T Comments at 18-20.

¹⁴ See *id.* at 18-19.

Final Report. Companies should be able to meet the *NPRM*'s proposed filing deadline and provide most of the proposed information for the Final Report of 7 days after repair completion. AT&T correctly points out, however, that completion of the RCA for outages at some facilities, such as repeater failures, can take several months to complete.¹⁵ Reporting licensees should therefore have flexibility to supplement the RCA as needed.

Transition Period. Finally, if the Commission does adopt reporting obligations, companies will need time to not only operationalize any new reporting requirements, but to enable system licensees to sort through the governance challenges unique to submarine cable systems. Different systems have different monitoring and technical capabilities, and any new monitoring capabilities would likely require deployment of yet additional communications capabilities, Information Technology (IT) upgrades, and training procedures – not just in the U.S., but potentially on the foreign end(s) of a system. And unlike most Commission licensees in other services, which are typically publicly- or privately-held companies, consortia or other joint venture-type entities consisting of multiple U.S. and foreign telecommunications companies typically govern submarine cable systems. Submarine cable systems also use various arrangements and third parties – some of which may not have a direct presence in the U.S. – to manage and monitor system faults. Submarine cable system licensees will thus require more time than other Commission licensees to sort through the underlying operational and financial responsibilities for implementing any new outage reporting requirements. AT&T's proposed 15-month transition period would accommodate these fundamental transactional challenges in most cases.¹⁶

¹⁵ *See id.* at 20-21.

¹⁶ *See id.* at 12.

II. ACCOUNTABILITY CAN BE ACHIEVED WITHOUT JOINT AND SEVERAL LIABILITY AMONG ALL SYSTEM LICENSEES.

While some commenters may have conflicting views, the overall record supports giving licensees the option of mutually designating a single party with exclusive responsibility *and* liability for filing outage reports on behalf of the system. Commenters uniformly recognize the unfairness of imposing liability on all system licensees. NASCA properly explains that system licensees need flexibility to determine their respective operational and financial responsibilities for reporting outages under any new rules.¹⁷ Further, NASCA and SCC both show how a *per se* rule of joint and several liability can be inequitable.¹⁸ And AT&T agrees that the Commission should not impose across-the-board enforcement on all licensees.¹⁹

Instead of blanket enforcement, submarine cable system owners should be able to designate a single entity with compliance and enforcement liability. In many cases, that would allow licensees to align regulatory compliance responsibilities with system management and operational arrangements, which typically designate a single entity with management or network operations center responsibilities. Under this approach, licensees and other non-licensee consortium members on the system would be free to negotiate and allocate the underlying risk and financial responsibility based on factors relevant to a particular consortium such as individual parties' voting interests, existing role(s) in managing system operations, capacity usage, and the location and severity of the fault. And the Commission would have a single entity to hold accountable for compliance, while avoiding the complications of equitably allocating

¹⁷ See NASCA Comments at 17-18

¹⁸ See *id.*; SCC Comments at 9-10.

¹⁹ See AT&T Comments at 9-10, n.18 (supporting joint and several liability, but suggests licensees not be subject to "potential enforcement action").

responsibility across all of the licensees. In many systems, licensees have varying degrees of voting clout in governance and some have no relevant operational responsibilities.

III. CONCLUSION.

The Commission should first pursue voluntary, non-regulatory efforts to improve information gathering and oversight of submarine cable systems. But if it instead adopts new reporting requirements, they must reflect how those systems are operated, reward redundant systems, cover only consumer-affecting events, and allow systems flexibility to apportion roles to meet accountability thresholds. Any new rules should thus: exclude incidents with no significant loss of connectivity or that are remedied through re-routing; reflect moderate changes in the proposed reporting thresholds; provide a reasonable 15-month transition period; and allow flexibility for cable system licensees and other owners to designate filing responsibility and liability.

Respectfully submitted,

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