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

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

JOINT COMMENTS OF SUBMARINE CABLE COALITION

The Submarine Cable Coalition ("Coalition"), composed of Columbus Networks USA, Inc., GlobeNet Cabos Submarinos America, Inc., GU Holdings Inc. and Servicio di Telecomunicazion di Aruba N.V. ("SETAR"), submits the following Joint Comments in response to the Federal Communications Commission's ("FCC" or "Commission") Notice of Proposed Rulemaking ("NPRM") proposing to extend mandatory outage reporting requirements to submarine cable operators in the above-captioned docket.

The Coalition does not, in principle, object to outage reporting but urges the Commission to adopt reasonable standards and triggers for reporting that account for unique circumstances faced by submarine cable operators that are not faced by terrestrial systems, as further discussed herein.

The Coalition members are a diverse group of submarine cable operators. In addition to meeting their own internal needs for communications capacity, these companies provide dark and lit fiber services, international traffic services, private line services, and enterprise services including MPLS and VPN.

- Columbus Networks USA, Inc., operates the ARCOS-1 and CFX-1 submarine cable systems linking the United States and multiple countries in the Caribbean, and Central

and South America; offering broadband and IP services to carriers, Internet service providers, cable operators, network integrators and others;

- GlobeNet Cabos Submarinos America, Inc. operates a high capacity submarine cable system between the United States, Bermuda, Brazil, Colombia and Venezuela and provides capacity for other carrier and enterprise customers; and

- GU Holdings, Inc. is a subsidiary of Google, Inc., and is the United States landing party for the Unity Cable System, an international consortium that developed the 9,620 km undersea cable system connecting Japan and the United States. The Unity system provides capacity to sustain the increased growth in data and Internet traffic between Asia and the United States. In addition, GU Holdings has applied for authority to land (i) the Monet Cable System, a high-capacity submarine system connecting Brazil and the United States; and (ii) the FASTER Cable System, a state-of-the-art cable connecting Japan, Taiwan and the United States.[1]

- SETAR is the incumbent telecommunications provider of Aruba and a member of the consortium operating the Pacific Caribbean Cable System ("PCCS Cable") connecting the United States with several destinations in the Americas. SETAR also holds minority interests in other cables in the United States.

I. THE DEFINITION OF A REPORTABLE OUTAGE SHOULD BE CLARIFIED TO PREVENT UNNECESSARY OUTAGE REPORTING

Under Part 4 of the Commission's rules, "outage" is defined as "a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider's network."[2] The Commission proposes to define a reportable disruption for submarine cables as "when either: (i) an event occurs in which connectivity in either the transmit mode or the receive mode is lost for at least 30 minutes; or (ii) an event occurs in which 50 percent or more of a cable's capacity in either the transmit mode or the receive mode is lost for at least 30 minutes, regardless of whether

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[1] Applications for submarine cable landing licenses for the Monet and FASTER Cable Systems are currently pending with the Commission. *See* File Nos. SCL-LIC-20150408-00008 and SCL-LIC-20150626-00015.

[2] 47 C.F.R. § 4.5(a).

the traffic is re-routed."[3] The Coalition submits that the definition, as proposed, is too broad and could yield to potentially hundreds of reportable events *annually per system* depending on interpretation, as opposed to the estimated "50 reportable events" total anticipated by the Commission each year.[4] For example, connectivity may be lost on a particular wave without affecting a majority of cable users. These disruptions can be caused by minor changes in a single customer's equipment while the system as a whole would not be affected.

Given that the underlying purpose of the outage reporting requirement is to monitor significant degradations in the performance of a cable as a whole, including cable cuts or other catastrophic events, the Coalition recommends that the threshold for reporting be based solely on events affecting fifty percent or more of the fiber pairs in a given system. Moreover, to qualify as an "outage," the amount of time when connectivity is lost on a system should be extended to coincide with the current state of technology in the submarine industry.

Specifically, the Coalition submits that the definition of an "outage" proposed by the Commission be amended and the reporting requirement should be triggered only when "there is an event related to damages or replacements of a portion of submarine cable system between the submarine line terminal equipment ("SLTE") at one end of the system and the SLTE at another end of the system, that disrupts traffic provisioned on fifty percent or more of the fiber pairs in the system for more than three hours."

The above definition is more in line with the realities of the submarine industry and the Commission's goal of requiring licensees to report outages only when communications on a

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[3] NPRM, ¶ 31.

[4] NPRM, ¶ 44.

particular cable system are indeed disrupted. Even when there is a situation affecting traffic on a majority of the fiber pairs in a system, submarine cable operators are often able to adjust and rebalance power feeding equipment to restore traffic within a relatively short period of time without necessitating a large-scale repair operation. A thirty minute threshold, as currently proposed, would likely result in over-reporting of less serious outages, whereas a modest, three-hour threshold would provide submarine cable operators with a more realistic amount of time to diagnose and resolve most minor events and to isolate more significant outages that should be reported.

II. OUTAGE REPORTING OBLIGATIONS SHOULD NOT BE TRIGGERED FOR REROUTED TRAFFIC

The Commission further proposes to extend the mandatory outage reporting requirement for submarine cable outages and significant disruptions "regardless of whether traffic traversing that cable can be re-routed to an alternate cable."[5] The Coalition respectfully disagrees with this proposal. Given the potentially significant reporting requirements and tight timelines associated with each outage, outages that do not result in transmission losses because either the traffic has been rerouted or because of a planned outage, should not be subject to the same reporting thresholds as unplanned outages that sever voice or data services for U.S. residents, businesses or government entities.

The Commission recognizes that where "service providers are driven by business reasons to monitor for service outages, it follows that tracking such information under our rules should

[5] *See* NPRM, ¶ 30.

not be unduly burdensome."[6] To limit the burden of reporting requirements, the Commission has adopted less stringent reporting obligations, where appropriate, with respect to other technologies. For example, the Commission limits VoIP outage reporting to events that result in "complete loss of service or connectivity" to a critical number of users or special offices and facilities.[7] The Commission also permits longer reporting timelines for systems that have built-in redundancies. For example, the Commission currently requires reporting for terrestrial simplex outages, configured with built-in path protection that permits traffic to be rerouted when a circuit fails, to be reported after five days.[8]

Reportable outages for submarine cable licensees should be limited to unforeseen and catastrophic events that actually result in a significant degradation in the ability of a majority of users in the cable to establish and maintain a channel of communications where traffic is not rerouted. Requiring licensees to take on the additional time and expense of completing timely three-step reports for outages that submarine licensees have already dedicated resources to guard against through rerouting or redundancies and which do not themselves result in any service

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[6] *See The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Rule To Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers*, PS Docket No. 11-82, Report and Order, 27 FCC Rcd 2650, 2671 (2012) ("*2012 Part 4 VoIP Report and Order*").

[7] *2012 Part 4 VoIP Report and Order*, 27 FCC Rcd at 2686 (VoIP providers have an "obligation to report when they have experienced, on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration: (1) that potentially affects at least 900,000 users; (2) that potentially affects any special offices and facilities (in accordance with paragraphs (a) - (d) of section 4.5); or (3) that potentially affects a 9-1-1 special facility (as defined in (e) of section 4.5).").

[8] *See 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*, PS Docket No. 15-80, ET Docket No. 04-35, Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration, 30 FCC Rcd 3206, 3214, para. 24 (2015).

disruptions does little to advance the Commission's goal of protecting communications critical to our nation's economy and national security.

The Coalition recognizes the critical nature of submarine cable communications. In addition to being bound by service level agreements with customers, submarine cable licensees generally purchase protection routes on other cables for redundancy and to guard against disruptions to service.[9] Similarly, planned outages should not be subject to the proposed outage reporting requirements. Planned outages are required to complete routine maintenance or upgrades on submarine cables. Customers are provided with advance notice of such outages and they are accounted for in service level agreements. The Coalition instead proposes that licensees be required to provide a periodic report (annually or quarterly) summarizing all events that otherwise meet the reportable outage definition but only be required to adhere to the more rigorous reporting obligations for outages that affect fifty percent or more the fiber pairs on a cable and where the traffic is not rerouted.

III. THE COALITION URGES GREATER FLEXIBILITY WITH RESPECT TO THE TIMING OF AND INFORMATION REQUIRED FOR THE REQUIRED REPORTS

The Coalition urges flexibility in terms of the type and amount of information that is included in the Notification and Interim Reports. The breadth of information required to be reported in the Notification and Interim Report may be difficult for operators and the

[9] In ring systems, traffic may also be routed in the opposite direction to restore service.

Responsible Licensee[10] to ascertain by the time the reports are due according to the proposed scheme.

With respect to outage report timing, the NPRM proposes a three-report system that requires: 1) a Notification, 2) an Interim Report to inform the Commission when repairs have been scheduled, and 3) a Final Report for each outage event.[11] Given the logistics involved in communicating with a remote Network Operations Center ("NOC") and ensuring that information is relayed to the Responsible Licensee for reporting, the Coalition believes that the proposed 120 minute requirements for notification of a reportable network outage and for providing the Interim Report once the repair has been scheduled set an unreasonable expectation. Once the NOC is alerted of a problem, it takes time for critical personnel to complete diagnostics to make a determination whether a disruption constitutes a reportable event and then to gather the relevant details for the Notification Report and communicate with the Responsible Licensee, who may reside in a foreign jurisdiction, for reporting. Similarly, from the time a submarine cable owner is able to schedule a repair and gather the additional information requested for the Interim Report, to the time that information is communicated to the Responsible Licensee, hours could easily pass, given differing time zones and the transoceanic nature of submarine cables.

The Commission has granted additional time for reporting to other types of licensees. For example, with respect to VoIP outage reporting, the Commission has recognized that providers need more time to work on the outage itself and adopted a 24 hour notification period

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[10] The Commission proposes that in jointly owned cables only one licensee (the "Responsible Licensee") be required to file reports on behalf of the other cable owners. NPRM, ¶ 27.

[11] *See* NPRM, ¶ 36.

for reportable events not affecting 9-1-1 special facilities and a requirement for a final report within thirty days.[12] The Coalition would therefore recommend, at a minimum, 48-hours as a more reasonable turnaround time for the Notification given the unique circumstances facing submarine cable operators.

The Coalition does not, on the whole, object to the proposed contents of the Interim Report, which would include approximate details regarding the location of the event and estimates as to arrival of the cable repair ship and when the cable is scheduled to be repaired, but again notes that the Commission must be flexible as to the details surrounding the information provided.[13] As the Commission notes, there are a limited number of cable repair ships operating globally and they may be located a great distance from the outage site.[14] Unforeseen circumstances such as weather or mechanical issues may cause delay and thus the estimated timeframes initially provided may prove unrealistic. Moreover, details with respect to the scheduled time for repair, repair duration and root cause of the reportable outage may change over time as additional details become available once the repair ship reaches its destination. As with the Notification, the Coalition proposes 48 hours after a repair has been scheduled as the timeframe for submitting the Interim Report. The Coalition submits that given the realities of the submarine cable industry, this is a more realistic time frame to provide the Commission with the information required in this report.

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12 *2012 Part 4 VoIP Report and Order*, 27 FCC Rcd at 2689.

13 *See* NPRM, ¶ 38.

14 *Id.*

The Coalition does not object to the Final Reporting requirement and considers seven days after a repair is completed to be a reasonable amount of time within which to complete and submit the report.[15] As discussed above, however, the Coalition does not believe that planned outages should be subject to the same reporting criteria as unforeseen outages. The Coalition would also encourage the Commission to consider a mechanism by which details of the Final Report may be amended in good faith without running afoul of the attestation provision in Section 4.11 of the Commission's rules,[16] given the number of parties involved in a submarine cable repair and the complexities of pulling together the technical information and other criteria required for the Report.

IV. SUBMARINE CABLE LICENSEES SHOULD NOT BE HELD JOINTLY AND SEVERALLY LIABLE FOR A RESPONSIBLE LICENSEE'S FAILURE TO REPORT.

The Commission proposes to adopt a "Responsible Licensee" reporting model to promote administrative efficiency.[17] Under the proposed system, a single lead licensee would coordinate outage filings for an entire cable. In its proposal, the Commission assumes that (i) outages will cause a disruption for all licensees of a submarine cable; and (ii) all owners in the cable have capacity in all routes of the cable. This is not necessarily the case in all outages, as licensees may only have capacity on a certain portion of the cable or the outage may only affect certain fiber pairs while not affecting others. The proposed reporting framework may be difficult for consortiums to administer and raises questions of liability, enforcement and other similar issues,

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15 *Id.*, ¶ 39.

16 *See* 47 C.F.R. § 4.11.

17 *See* NPRM, ¶ 27.

particularly when compared to reporting requirements that have well-known, established filing deadlines that can be internally monitored by each consortium member. Any administrative efficiencies gained at the Commission from a single report per outage would be offset by licensees having to expend resources to police the Responsible Licensee to ensure that reporting requirements are being met. In the event that the Commission does adopt a "Responsible Licensee" reporting model, enforcement action would only be appropriate with respect to licensees that actually experience capacity or connectivity losses sufficient to trigger a reporting requirement. Parties that do not experience a connectivity or capacity loss sufficient to trigger a reportable outage should not be held jointly and severally liable for any forfeitures that might result from a failure to report by other members of the consortium.

V. CONCLUSION

For the reasons set forth herein, the Coalition respectfully urges the Commission to adopt greater flexibility with respect to submarine cable outage reporting requirements.

Respectively submitted,

/s/ Ulises R. Pin

Andrew D. Lipman
Ulises R. Pin
Morgan Lewis & Bockius LLP
2020 K Street, N.W.
Washington, DC 20006

Counsel for Submarine Cable Coalition

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