

FCC Relaxes Submarine Cable Outage Reporting Rules

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On December 27, 2019, the Federal Communications Commission (Commission or FCC) released an Order on Reconsideration^[1] amending certain aspects of the submarine cable outage reporting rules that it initially adopted in the 2016 Submarine Cable Outage Reporting Order (Order).^[2] The Commission issued the Order on Reconsideration in response to two petitions for reconsideration filed by the North American Submarine Cable Association (NASCA) and the Submarine Cable Coalition (SCC) (collectively, Petitioners) in September 2016. The Commission states that the reporting rules, as amended, will preserve the benefits of reporting on “significant outages,” especially ones with national security implications, while minimizing costs and administrative burdens on submarine cable licensees.

The Order required that licensees submit: (a) a “Notification” within eight hours of a licensee’s determination that there has been a reportable event, which would transition to a four-hour requirement three years after the rules’ effective date; (b) an “Interim Report” within 24 hours of licensees receiving a Plan of Work for any repair; and (c) a “Final Report” within seven days of completing any repair.^[3]

In the Order on Reconsideration, the Commission:

1. Excluded planned maintenance from the outage reporting requirements where the submarine cable operators provide advance notification to affected customers;
2. Retained the requirement to report outages to the Commission when the outage is unplanned regardless of whether traffic is rerouted;

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3. Retained the requirement to report an outage of a portion of a submarine cable system between submarine line terminal equipment (SLTE) at one end of the system and SLTE at another end of the system that lasts for more than 30 minutes;
4. Retained the requirement that licensees submit outage reports as a “Notification” within eight hours of a determination that there has been a reportable event, which will transition to a four-hour requirement three years after the rules’ effective date;
5. Maintained its decision to make the outage rules effective six months following approval of the information collection by the Office of Management and Budget (OMB); and
6. Concluded that the benefits of the modified outage reporting requirements are significant and can reasonably be expected to exceed their costs.

1. Reporting Outages Due to Planned Maintenance

The Order required submarine cable licensees experiencing an outage of greater than 30 minutes on a portion of a submarine cable system between SLTE, or greater than four hours affecting a fiber pair, to report the outage to the Commission, including when an outage is caused by planned maintenance.^[4] The SCC argued in its Petition that submarine cable operators should not incur thousands of dollars in costs to report planned outages, which are already accounted for in wholesale customer agreements. (¶ 12)

On reconsideration, the Commission agreed that planned maintenance work, by itself, does not reflect the kinds of outages that warrant Commission concern. Therefore, the Commission excluded planned maintenance from the outage reporting requirements on the condition that submarine cable operators provide advance notification to affected customers. If an operator does not provide such advance notification to customers, the operator is required to report the outage to the Commission. (¶ 12)

When submarine cable operators provide advance notification to customers of planned outages, the reporting obligation is now limited to planned outages where (a) service is affected for an additional period of time that exceeds the announced scope of the planned maintenance, and (b) this additional period of time, standing alone, would otherwise trigger the outage reporting requirements. If operators send different planned maintenance announcements to different classes of customers, the reporting requirement will be triggered after the event surpasses the shortest announced duration for the planned maintenance. (¶ 13)

The Commission recognizes that planned outages may involve planned remediation efforts such as rerouting and, because customers are notified, have less of an impact on service. Therefore, the Commission clarifies that where a planned outage includes rerouting of traffic, the outage need not be reported. (¶ 18)

2. Reporting Outages for Rerouted Traffic

The Order defined a submarine cable “outage” as “a failure or significant degradation in the performance of a licensee’s cable service regardless of whether the traffic can be re-routed to an alternate path.”^[5] The Petitioners argued that the Commission should exclude outages from reporting where traffic is rerouted based on the fact that there would be no “customer impact.” (¶ 17)

The Commission denied the Petitioners' request to limit outage reporting for events involving rerouted traffic for two main reasons. First, the Commission stated that determining which outages have "consumer impact" would be too difficult and burdensome for providers due to the lack of information submarine cable operators have about customer communication delivery to end users, including for those on the networks owned by the same provider. Second, the Commission concluded that unplanned outages, even where traffic is rerouted, may raise national security concerns. In this regard, the Commission found that it along with its national security partners, not the industry, are in the best position to identify national security implications. Accordingly, except for outages due to planned maintenance as discussed in Section 1, submarine cable providers must report outages to the Commission when the outage is unplanned regardless of whether traffic is rerouted. (¶19).

3. Minimum Duration of Reportable Outages

The Order required reporting of an outage of a portion of submarine cable system between SLTE at one end of the system and SLTE at another end of the system for more than 30 minutes.^[6] The Order explained that 30 minutes is an appropriate timeframe because "damage or repair to facilities between the SLTE likely indicates a long-term problem that will not be cleared quickly, so there is no benefit to further delaying reporting."^[7]

The Petitioners argued that the 30-minute threshold is "too stringent and would capture mundane events." NASCA advocated for reporting of outages lasting four or more hours. SCC argued that an outage be defined as a disruption of traffic on 50% or more of the fiber pairs of a cable system, lasting more than three hours. (¶ 24)

The Commission denied the Petitioners' request, noting that outages of less than three hours may have significant impact on communications networks and remain of interest to both the Commission and other government agencies with national security responsibilities. Specifically, the Commission states that the threshold sought by the Petitioners could impair the government's ability to gather facts and discern patterns with respect to multiple short-term outages across submarine cable licensees that may be related to a single source or issue, such as a malicious actor leveling attacks in bursts over time; or a technical defect or vulnerability that begins to manifest in short, seemingly minor outages. In addition, the Commission stated that short outages may have a significant cumulative effect if they occur simultaneously due to an emergency or other incident, and that it "received classified national-security information from an agency of the United States government that supports these findings." Therefore, the Commission retained the 30-minute outage duration threshold. (¶23)

However, as explained below, the Commission concluded that its decision to provide flexibility in the definition of an outage affecting a fiber pair as codified in Section 4.15(a)(2)(ii) serves to alleviate any concerns that this requirement is "too stringent and will capture mundane events." (¶24)

4. Notification Timeframe

The Order required that licensees submit outage reports as a “Notification” within eight hours of a licensee’s determination that there has been a reportable event, which would transition to a four-hour requirement three years after the rules’ effective date.^[8] The Commission reasoned that the phased-in structure would “give licensees ample time to hone their reporting structure while still achieving . . . prompt situational awareness.”^[9] The Petitioners argued that submarine cable operators need substantially more time than four or eight hours to report an outage given the global nature of cable systems, the low number of employees operating some of the systems, and the possibility that licensees will choose to have legal review of the notification prior to filing. (¶ 26)

The Commission denied the Petitioners’ request for two reasons. First, it stated that Notifications must be reasonably timely for the Commission to help protect national security, and that proposals such as Notifications in 48 hours are insufficient. Second, the Commission found that phased-in timeframe will enable reasonably prompt Notification to the Commission which, in turn, will improve the Commission’s situational awareness and increase the government’s ability to respond as necessary to outages, including those “that could affect homeland security, public health or safety, and the economic well-being of our Nation.” Therefore, the Commission retained the requirement to submit notifications to the Commission within eight hours after discovering a reportable outage, phasing down to four hours after a three-year period. (¶¶ 27-28)

5. Compliance Timeframe

In the Order, the Commission determined that the reporting rules would become effective six months following approval of the information collection by OMB. The Order observed that six months represented “a balance between industry’s needs to adequately prepare for these reporting requirements and the Commission’s need to obtain timely situational awareness of the operational status of the nation’s submarine cable infrastructure.”^[10] The Petitioners argued that operators should have additional time to come into compliance with the rules, with NASCA suggesting 12-18 months and SCC suggesting 12-15 months. (¶ 30)

The Commission denied the Petitioners’ request, reiterating that the outage rules, as modified by the Order on Reconsideration, will become effective six months following approval by OMB. The Commission retained the six-month period because “many providers are already providing some level of outage notification” and because “the number of reportable outages will be significantly smaller” as result of the modifications adopted by the Order on Reconsideration. In addition, the FCC noted that since the final rules, as modified by the Order on Reconsideration have not yet taken effect and still require OMB approval, affected parties have more time to prepare. (¶30)

6. Definition of an “Outage”

The Order defined a submarine cable “outage” as “a failure or significant degradation in the performance of a licensee’s cable service regardless of whether the traffic can be re-routed to an alternate path.”^[11] According to the Commission, the term “significant degradation” was designed to focus on major disruptions—including ones for which “some traffic might be getting through during a period of massive disruption.”^[12] The Order also stated that the “failure or significant degradation of any fiber pair” may also constitute a

reportable outage.^[13] NASCA argued that there is a discrepancy between the narrative text of the Order, which refers to “the failure or significant degradation of any fiber pair,” and the final rule, which requires reporting “the loss of any fiber pair.” (¶ 32)

The Commission agreed with NASCA that the final rule omitted the “failure or significant degradation” language. Therefore, the Commission amended the rule to clarify that an outage that affects a fiber pair occurs not when there is a “loss” but rather when there is an “outage,” which is in turn defined in the rules as a “failure or significant degradation.” (¶ 32)

7. Impact on Costs

The Petitioners argued that the Order’s cost-benefit analysis was deeply flawed because it failed to account for the significant time and costs that the new reporting rules would impose. Notably, the Petitioners referred to then Commissioner Pai’s dissent, in which he noted that the Commission (a) used the wrong number of licensees that would be affected by the Order; (b) arbitrarily assigned a 50-hour annual burden per licensee for compliance with the Order; and (c) arbitrarily assumed a labor cost of \$50 per hour.

The Commission concluded that the benefits of the modified outage reporting requirements are significant and can reasonably be expected to exceed their cost. Specifically, the Commission stated that the changes adopted – such as the change to limit the reporting obligation for outages involving planned maintenance announced to customers – will lower the reporting costs. It noted that the rules require licensees to report only information that they routinely either have or must obtain to restore service. Therefore, the Commission reasoned, the requirements are “unlikely to result in substantial additional information gathering costs to licensees.” The Commission stated that while some licensees may incur one-time costs associated with the modified outage reporting obligations, any such costs will be mitigated “in part by the fact that, due to consortium agreements associated with submarine cables, not all licensees will incur the full scope of review costs.” Lastly, the Commission emphasized that the benefits of the modified submarine cable outage reporting regime are significant, especially for national security and public safety purposes. (¶¶ 34, 36)

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[1] *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, GN Docket No. 15-206, FCC 19-138, Order on Reconsideration (2019) (*Order on Reconsideration*).

[2] *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, GN Docket No. 15-206, Report and Order, 31 FCC Rcd 7947 (2016) (*Order*).

[3] *Id.* at 7969, ¶ 55.

[4] *Id.* at 7559, ¶ 28.

[5] *Id.* at 7955, ¶18.

[6] *Id.* at 7959, 7986, ¶27, Appendix B at ¶5.

[7] *Id.* at 7959, ¶27.

[8] *Id.* at 7966-67, ¶¶47-50.

[9] *Id.* at 7966-67, ¶50.

[10] *Id.* at 7974-75, ¶77.

[11] *Id.* at 7955, ¶18.

[12] *Id.* at 7955-56, ¶20.

[13] *Id.* at 7959, ¶28.