

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

In the Matter of	)	
	)	
The Uniendo a Puerto Rico Fund and	)	WC Docket No. 18-143
The Connect USVI Fund	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
ETC Annual Reports and Certifications	)	WC Docket No. 14-58

**COMMENTS OF NEPTUNO MEDIA, INC. D/B/A NEPTUNO NETWORKS**

Neptuno Media, Inc. d/b/a Neptuno Networks (“Neptuno”), pursuant to Section 1.415(a) of the Commission’s Rules<sup>1</sup> submits these comments in response to the NPRM released by the Commission on May 29, 2018.<sup>2</sup>

**I. INTRODUCTION**

Neptuno is a leading wireless Internet service provider (“WISP”) based in Puerto Rico and serving all of Puerto Rico and the U.S. Virgin Islands. Neptuno offers Layer 2 and Layer 3 MPLS VPNs services, Internet services, VoIP services, network consulting, integration services and managed services to small and medium-sized businesses, government agencies, public and private educational institutions and hospitals, as well as major enterprise customers that require an infrastructure capable of supporting their mission-critical business around Puerto Rico and the U.S. Virgin Islands. Since its foundation in June 2000, Neptuno has grown into a profitable services business by providing quality, reliable and cost-effective solutions to its customers’ voice, data,

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<sup>1</sup> 47 C.F.R. § 1.415(a).

<sup>2</sup> *In the Matter of The Uniendo a Puerto Rico Fund and the Connect USVI Fund; Connect America Fund; ETC Annual Reports and Certifications*, Order and Notice of Proposed Rulemaking WC Docket Nos. 18-143, 10-90, 14-58; FCC 18-57 (rel. May 29, 2018) (“NPRM”).

and video requirements. Today, Neptuno has thousands of enterprise customers, including the major telecommunications carriers in Puerto Rico, and it has partnered with leading providers of IP-based wireless broadband equipment to develop a completely independent wireless backbone structure.

As the Commission is aware, the 2017 hurricane season caused catastrophic devastation in Puerto Rico and the U.S. Virgin Islands. The damage wrought by hurricanes Irma and Maria affected all aspects of life on the islands and touched nearly every industry, including the telecommunications industry. Like others in Puerto Rico and the U.S. Virgin Islands, Neptuno's networks were directly impacted by the destructive effects of the winds from the storm, the inability to access cell sites due to impassable roads, and the lack of access to fuel to keep backup generators running. In the immediate aftermath of the hurricanes, and continuing to today, Neptuno and its team of dedicated employees have worked tirelessly to restore its network and services across the entirety of Puerto Rico and the U.S. Virgin Islands, despite extremely difficult conditions.

While some progress has been made in restoring communications networks much more remains to be done. That is why the establishment of the Uniendo a Puerto Rico Fund and the Connect USVI Fund to provide immediate and long-term funding for the restoration of communications networks is vital. Neptuno fully supports the Commission's efforts in this regard and offers these comments in respect of the Commission's Stage 2 funding proposal. Neptuno focuses its comments on (1) the importance of a technology-neutral Stage 2 funding process to ensure efficient and responsible allocation of funds; (2) Neptuno's recovery efforts to date and the benefits of fixed wireless service; and (3) affording all fixed providers the opportunity to

participate in the Stage 2 funding process. Neptuno looks forward to engaging with the Commission on these issues and to further exploring long-term recovery efforts in Puerto Rico.

## **II. THE COMMISSION SHOULD ENSURE THAT THE STAGE 2 FUNDING PROCESS IS TECHNOLOGY-NEUTRAL**

Neptuno encourages the Commission to ensure that the Stage 2 funding process does not favor one technology over another. The process must be technology-neutral and allow participation by both wireline and wireless providers, both large and small. This is consistent with Neptuno's prior recommendations set forth in its response to the Public Safety and Homeland Security Bureau's December 2017 Public Notice seeking comment on hurricane response efforts in which Neptuno encouraged the "involvement of all stakeholders in the post-storm restoration process" and that the Commission should "allow both landline and wireless providers to participate" in any separate fund created to facilitate the recovery efforts.<sup>3</sup> Now that the Commission has created the Uniendo a Puerto Rico and the Connect USVI Funds Neptuno reiterates its prior recommendations that the funds be open to participation by all providers.

Technology neutrality will ultimately promote the Commission's goals of restoring and expanding service in Puerto Rico and the U.S. Virgin Islands while also ensuring that these valuable funds are allocated responsibly and efficiently. By ensuring the ability of both wireline and wireless providers to participate in the Stage 2 process the Commission can encourage meaningful and thoughtful competition among participating providers to make proposals to the Commission that highlight and utilize the most advantageous aspects of their business models, technologies, and services. Neptuno submits that this competition will ultimately lead to higher

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<sup>3</sup> See Comments of Neptuno Networks, *Response Efforts Undertaken During 2017 Hurricane Season*, PS Docket No. 17-344, at 10, 12 (filed Jan. 22, 2018) ("Neptuno Hurricane Response Comments").

quality proposals that will promote the Commission's goals with respect to telecommunications services in the region. It will also lead to a fiscally responsible and efficient allocation of funding that does not continue to privilege antiquated wireline technology over technologies that are more robust and adaptable. Neptuno notes that a technology-neutral approach is also wholly consistent with the Commission's intention to "transition[] universal service to an efficient, technology-neutral system."<sup>4</sup>

### **III. NEPTUNO'S RESTORATION EFFORTS TO DATE DEMONSTRATE THAT THE COMMISSION SHOULD NOT FORECLOSE WIRELESS-BASED PROVIDERS FROM PARTICIPATING IN THE STAGE 2 FUNDING PROCESS ON EQUAL FOOTING WITH WIRELINE PROVIDERS**

As noted above, significant work remains to be done in order to achieve full restoration of voice and broadband service in Puerto Rico and the U.S. Virgin Islands. However, it is important to understand the restoration work that has already been undertaken in the region by Neptuno and other providers. Neptuno and others have been working diligently, and with limited resources, to facilitate restoration of service. Neptuno's restoration efforts have been successful and sometimes critical in setting up and restoring telecommunications capabilities following the storms. Neptuno attributes the success of these efforts, at least in part, to the unique characteristics of fixed wireless networks as compared to wireline networks. Fixed wireless carriers, like Neptuno, represent a critical element in restoring and expanding service in the region in connection with the Uniendo a Puerto Rico and Connect USVI funds.

Instrumental in Neptuno's post-storm restoration efforts has been the faster recovery of wireless-based networks as compared to wireline-based networks. As has been acknowledged by other providers and the Puerto Rico Telecommunications Regulatory Board the wireline networks

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<sup>4</sup> *In the Matter of Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 10-90 et al., 26 FCC Rcd 17663, ¶ 120 (rel. Nov. 18, 2011).

in the region were badly damaged by the storms.<sup>5</sup> Recovery and rebuilding of these networks is still ongoing. Like Puerto Rico's wireline providers, Neptuno also suffered damage to its infrastructure, most notably to the third-party towers and structures to which the company deploys wireless backhaul services to other wireless carriers.<sup>6</sup> One key difference between the damage sustained by Neptuno and that sustained by the wireline providers is that wireless-based networks like Neptuno's are quickly and cheaply repaired in comparison to wireline networks, which "incur extensive . . . repair costs."<sup>7</sup> In practice, this means that providers like Neptuno are more adaptable and flexible during the recovery process.

The faster recovery times for fixed wireless networks are more than hypothetical as evidenced by Neptuno's successes following the storms. As an initial matter, Neptuno and other carriers "played a critical role in setting up telecommunications capabilities for the command center that the government of Puerto Rico established in the convention center and assisted many of the larger carriers with short-term solutions to reestablish parts of their networks."<sup>8</sup>

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<sup>5</sup> Comments of Puerto Rico Telephone Company, Inc., *Response Efforts Undertaken During 2017 Hurricane Season*, PS Docket No. 17-344, at 5-6 (filed Jan. 22, 2018) ("PRTC Hurricane Response Comments") (noting that "PRTC's wireline network suffered extensive damage as well" and that "PRTC facilities built with Connect America Fund support, which totaled about \$31.5 million in 2013, to provide broadband services to unserved areas have been almost completely destroyed."); Comments of Puerto Rico Telecommunications Regulatory Board, *Response Efforts Undertaken During 2017 Hurricane Season*, PS Docket No. 17-344, at 1 (filed Jan. 22, 2018) (noting that Hurricane Maria "caused 91% damage . . . to the private telecommunications infrastructure, primarily antennas and fiber affecting the government, retail, banks, pharmaceutical, developers, food, transportation and other businesses.")

<sup>6</sup> See Neptuno Hurricane Response Comments at 3.

<sup>7</sup> See, e.g., The Carmel Group, *Ready for Takeoff: Broadband Wireless Access Providers Prepare to Soar with Fixed Wireless – The BWA Industry Report: 2017*, at 9, available at [https://carmelgroup.com/wp-content/uploads/2017/12/TCG\\_2017\\_BWA\\_Full\\_Report.pdf](https://carmelgroup.com/wp-content/uploads/2017/12/TCG_2017_BWA_Full_Report.pdf)

<sup>8</sup> Neptuno Hurricane Response Comments at 10.

Additionally, in the months since the storms, Neptuno has worked with customers across numerous industries including healthcare, pharmaceuticals, banking, and local government to reestablish voice and broadband service. Neptuno's efforts have led to commendations from these constituencies, evidencing the important role that adaptable providers like Neptuno have already performed.

As a WISP, Neptuno's scalable and flexible voice and broadband solutions cover all of Puerto Rico and the U.S. Virgin Islands. This island-wide coverage area has been instrumental in facilitating Neptuno's expeditious recovery efforts because Neptuno has not needed to engage in costly network planning and infrastructure investment in order to restore service, including to the most rural and difficult to reach parts of Puerto Rico and the U.S. Virgin Islands. Instead, Neptuno's resources have been directed to restoring its *existing* island-wide coverage area, leaving greater room to focus on improvements to service in the long-term. Though the process of repairing and, in some cases, replacing damaged equipment has been both time-consuming and costly, Neptuno has partially restored its backhaul links and power redundancy, which is critical to maintaining operations before, during, and after a storm, has been partially restored. Neptuno is also still working on getting backup generators to certain remote locations. From the perspective of long-term rebuilding, improvement, and expansion of service Neptuno respectfully submits that its existing island-wide coverage area means that the company is ideally positioned to not only restore service but also to improve and expand service consistent with the Commission's goals.<sup>9</sup>

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<sup>9</sup> See NPRM ¶ 28.

#### **IV. ALL FIXED PROVIDERS WHO PROVIDED SERVICE AS OF JUNE 2017 SHOULD BE ELIGIBLE TO PARTICIPATE IN THE STAGE 2 FUNDING PROCESS**

Finally, Neptuno supports the Commission's proposal to permit all providers that, "according June 2017 FCC Form 477 Data, had an existing fixed network and provided broadband service in Puerto Rico or the U.S. Virgin Islands prior to the hurricanes" to be eligible to participate in the Stage 2 funding process.<sup>10</sup> Neptuno agrees that "existing providers with established track records present a smaller risk of defaulting on their service obligations," an especially important consideration in the context of hurricane recovery.<sup>11</sup> However, Neptuno would not limit eligibility to providers that "served as least some residential locations."<sup>12</sup> All providers, including those serving only or primarily residential customers, only or primarily business customers, or a mixture of both should be fully eligible to participate. Like residential consumers, Puerto Rico's business interests rely on the services provided by Neptuno and others for the basic functioning of their businesses. Excluding business-only providers would be detrimental to the recovery and expansion of services because such providers are uniquely attuned to the telecommunications needs of Puerto Rico's business community, upon which many jobs depend. More importantly, Neptuno and other providers help facilitate the provision of residential service by other carriers that incorporate Neptuno's wireless services into their own networks to serve residential customers. In line with Neptuno's comments above the Commission should cast a wide net with respect to eligible providers to allow for greater competition and participation in the Stage 2 funding process.

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<sup>10</sup> *Id.* ¶ 42.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

## V. CONCLUSION

Neptuno appreciates the opportunity to provide comments on this important Commission initiative. As the Commission knows, the challenges that Neptuno and the rest of the telecommunications industry in Puerto Rico and the U.S. Virgin Islands have faced following the storms continue to be daunting. While Neptuno and others have enjoyed some success in restoring services, much remains to be done. Neptuno contends that the Uniendo a Puerto Rico and Connect USVI funds are the critical next steps in the process. Neptuno looks forward to continuing to work with the Commission, the government of Puerto Rico, and other stakeholders in this process.

Respectfully submitted,

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NETWORKS

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