

Attachment—Additional Questions for the Record

**Subcommittee on Communications and Technology
Hearing on
“Accountability and Oversight of the Federal Communications Commission”
December 5, 2019**

The Honorable Geoffrey Starks, Commissioner, Federal Communications Commission

The Honorable Anna G. Eshoo (D-CA)

- 1. The decision to increase minimum service standards was proposed in conjunction with a port freeze. Coupling these items was essential for increasing service, while also reducing waste, fraud, and abuse. Why is the FCC moving forward with just increasing minimum service standards which has caused carriers to cease providing Lifeline services?**

Response: The Lifeline program is the only federal subsidy that exists that provides our most low-income Americans a way to get connected to vital communications services. During a number of visits to homeless shelters in cities, including San Francisco, Los Angeles and Washington D.C., I have seen first-hand that without the Lifeline program, we have a number of Americans who are unable to get in contact with potential employers, locate social services, make medical appointments or remain connected to family and friends. This program needs to be protected at all costs, and one of the reasons why I voted against the Commission's decision to alter the minimum service standards was because the majority failed to conduct a robust study about the Lifeline marketplace before making changes to the minimum service standards. As a result, there is increased uncertainty for both service providers and Lifeline customers. Although we do not yet know the impact of the change of the changes in the Lifeline minimum service standards, it is safe to say that in an era of increased income inequality, this Commission is not doing everything in our authority to connect our most vulnerable Americans. We have a duty to ensure all Americans are connected to both voice and broadband services and it is time for the Commission to do more for our most marginalized consumers.

- 2. The FCC found that “the large increase in the minimum standard for mobile broadband usage could unduly disrupt service to existing Lifeline subscribers.” Would the FCC suspend the implementation of next year’s minimum service standard if a similarly large increase is anticipated again?**

Response: The decision to suspend the implementation of next year's minimum service standards lies with the Chairman, but in my prior dissenting statement regarding Lifeline, I stated my support for pausing the Lifeline minimum service standards prior to the December 2019 changes. Until the Commission has completed its report on the Lifeline marketplace and until that report has been thoroughly analyzed, we should refrain from making any additional changes

without the necessary data to make informed decisions. There was overwhelming support in the prior record that stated that a pause in minimum service standards was necessary and I have serious concerns about what service standards will be implemented in 2020, and more importantly how those standards will subsequently impact Lifeline consumers.

3. Is the FCC considering opening a new proceeding to revisit the appropriate formula for calculating minimum service standards for Lifeline mobile broadband service?

Response: A decision to open a new proceeding to revisit the appropriate formula for calculating minimum service standards is under the direction of the Chairman's office. I've previously stated that good policy decisions related to Lifeline or even the funding of broadband infrastructure cannot be made without reliable and accurate data. The Commission cannot afford to make decisions that put our most vulnerable Americans at risk for losing communications services that impact every aspect of their lives.

4. Thank you for convening experts and releasing a report on the cybersecurity of our wireless networks, especially with respect to threats from compromised suppliers, such as Huawei and ZTE. It's critically important that the FCC and our Subcommittee have taken action on this matter.

Beyond supply chain issues, what else do you recommend we focus on as it relates to securing our nation's wireless networks—for example, SIM swaps, carriers' usage of dated encryption and authentication algorithms, and the threats of cell simulators or IMSI catchers?

Response: When it comes to wireless networks, our adversaries are determined and creative. I agree wholeheartedly in the security threats you have listed, and they demand our immediate attention. And those threats will only become more critical as 5G networks and devices create a flood of new data. I am optimistic that the 5G standard will include new security solutions—from virtualization to the expanded use of encryption. But those tools have to be actually deployed to be effective, and as a country we should be working toward upgrading our older, more vulnerable networks to the latest standards as quickly as possible.

In addition to the issues you identified, I believe that election security must be a focus of our efforts. We know that many states are still using voting equipment that connects to the same cellular networks we use for our mobile phones. Once a device is connected to a wireless network, it's subject to the same security threats as other wireless networks. Because of these risks, I have reached out to the major wireless carriers to discuss how they're protecting the security of their networks and working with election officials.

5. Some are proposing allocating spectrum in the 6 GHz band for licensed use, by relocating incumbents to the 7 GHz band, though that band is currently occupied by government entities, including the Department of Defense. How long has the FCC been working with the federal government on allocation of 7 GHz?

Response: As you note, as part of their proposal to allocate a portion of the band for licensed use, certain parties in the 6 GHz proceeding have proposed relocating incumbents in the upper portion of the 6 GHz band to the 7 GHz (7.125-8.4 GHz) band. The FCC has historically worked closely with the federal government on the allocation of all spectrum bands, including 7 GHz. In fact, more than 10 years ago, the Commission worked with federal users to relocate their microwave backhaul operations in the 1710 MHz to 1755 MHz band to the 7 GHz band. Currently, while the Chairman handles inter-agency coordination on policy matters, I am personally unaware of any discussions with NTIA or federal users on revising the allocation of the 7 GHz band.

- 6. As you have recognized, the need for unlicensed spectrum is as high as ever, and it's growing. Some have raised concerns about harmful interference to microwave services if unlicensed devices would be allowed to operate in the 6 GHz band. Do you have the data necessary to create rules for these two services to coexist?**

Response: While I strongly support the goal of making available as much unlicensed spectrum as possible, I also strongly believe that any plan to do so must protect incumbent microwave services from harmful interference. I am optimistic that power and geographic limitations, coupled with a robust Automated Frequency Control (AFC) system, will accomplish the latter goal. I look forward to reviewing the expert analysis of the Commission's engineering staff and will review their recommendations.

- 7. One promising innovation in wildfire mitigation is the Falling Line Conductor that uses low-latency, private LTE networks to depower a broken line before it hits the ground and becomes a fire hazard. Do you have a view on how such technologies can help mitigate wildfire threats and the need for preemptive electrical shutoffs? When will the FCC complete its 900 MHz proceeding that impacts the ability of utilities to use such technologies?**

Response: The Chairman is in the best position to address your question about timing on the 900 MHz proceeding. The recent wildfires in California have focused policymakers across government on the need to use our communications networks to protect against and respond to natural disasters. The Falling Line Conductor capability is particularly promising, as it would allow utilities to use 900 MHz private LTE broadband to remove power from a broken line before it can hit the ground and cause a fire. This technology could also be helpful during a hurricane response, as construction and recovery crews often face costly delays due to live power lines blocking roads.

- 8. On June 11, 2019 at a USTelecom Forum on robocalls, Chairman Pai said "Now that the FCC has given you the legal clarity to block unwanted robocalls more aggressively, it's time for voice service providers to implement call blocking by default as soon as possible." I couldn't agree more. Have carriers responded to this call to action? Have companies raised legal, technical or other objections with these actions requested?**

Response: Multiple voice service providers and trade associations have responded by filing comments and meeting with the FCC to discuss their efforts to implement call-blocking services. I strongly agree that this is a consumer protection issue that must be a focus of our efforts. The industry collectively has expressed strong support, and many individual companies have confirmed their implementation of call authentication using the SHAKEN/STIR framework as well as participation in industry-led call trace back efforts to identify and stop those engaging in illegal robocalling. At the same time, other industry representatives have raised concerns about the need for standards and protocols for certain enterprise calling scenarios to ensure that such calls are not mislabeled or blocked based only on SHAKEN/STIR information. Still others stress the importance of ensuring that inmate calls are not inadvertently blocked by call blocking programs because, for example, they begin with an automated message as do many illegitimate robocalls.

- 9. At the same USTelecom event in June, Chairman Pai said that “USTelecom has been particularly helpful in making sure that we can quickly trace scam robocalls to their originating source.” How successful has USTelecom’s Industry Traceback Group (ITG) been in combatting robocalls?**

Response: Both the FCC’s Chairman and Enforcement Bureau Chief have acknowledged the USTelecom-led Industry Traceback Group’s (ITG) valuable contributions to efforts to trace illegal robocalls and spoofed calls, and the Federal Trade Commission has acknowledged the assistance of USTelecom in reaching a proposed settlement with a prolific violator of rules intended to protect consumers from illegal robocalls and deceptive practices like caller ID spoofing. State Attorneys General have also taken notice of the group’s effectiveness; as a result, they have teamed up with and secured a commitment from voice service providers to respond promptly to traceback requests from both law enforcement and the ITG. Although I cannot quantify empirically the scope of the ITG’s success in combatting robocalls, their partnerships with federal agencies and state and federal law enforcement suggest they have been both effective and successful in helping to identify the sources of such calls.

- 10. A *Wall Street Journal* article titled “Small Companies Play Big Role in Robocall Scourge, but Remedies Are Elusive” states that “The FCC has asserted limited jurisdiction over VoIP providers, an agency spokesman said.” What prevents or limits the FCC from using existing statutory authority to take enforcement actions against VoIP providers?**

Response: The FCC to date has not classified VoIP service as either a telecommunications service or an information service. Because the FCC’s authority over call blocking and call authentication was traditionally based on its Title II jurisdiction over telecommunications carriers, the FCC initially declined to assert that authority over providers of non-interconnected VoIP service. The FCC later determined that it could regulate call blocking by VoIP service providers regardless of their classification, either under Title II as common carriers or by exercising ancillary authority under Title I. Moreover, the FCC in its most recent *Call Blocking Third Further Notice* has asserted broader jurisdiction to mandate caller authentication for all voice service providers under section 251(e), which grants the Commission plenary jurisdiction over the North American Numbering Plan resources in the United States. Thus, I believe any

remaining questions about the FCC's authority to take enforcement action against VoIP providers for failure to comply with regulations seeking to prevent unwanted robocalls are largely moot.

- 11. The FCC's "Report on Robocalls" (CG Docket No. 17-59; February 2019) states that "Five providers that had been identified as uncooperative in traceback have taken steps to participate going forward." Have these five providers continued cooperating with traceback efforts? Do *any* providers remain that are not being cooperative?**

Response: I don't have any substantive knowledge of the performance of the five providers at issue other than what has been reported by the Chairman.

The Honorable Peter Welch (D-VT)

- 1. A lack of broadband connectivity can impact all aspects of our lives: keeping children on the wrong side of the homework gap from realizing their full potential, posing barriers to telehealth solutions that can improve care, keeping farmers from capitalizing on advancements in precision agriculture, and limiting economic opportunities for workers and small businesses. However, I have been encouraged by the Commission's support of innovative solutions, specifically TV white space, that can enhance the pace, reach and cost-effectiveness of broadband deployment in rural communities. The adoption of a final order in the TV white space (TVWS) reconsideration proceeding earlier this year marked an important first step, and I encourage the Commission to build on this step by issuing a Further Notice of Proposed Rulemaking (FNPRM) to address remaining regulatory hurdles to greater TVWS deployment as soon as possible. By taking this step, the Commission can update its rules surrounding TVWS, which will increase the potential for rural broadband deployment and, subsequently, the availability and adoption of Internet of Things (IoT) applications throughout rural areas.**
 - a. Will the Commission make the adoption of a TV White Space Further Notice of Proposed Rulemaking a priority to complete as soon as possible and no later than the first quarter in 2020?**

Response: The Chairman controls the Commission's agenda and is in the best position to address your question about timing on next steps for the TV White Space proceeding. I am encouraged by recent progress in discussions between stakeholders, and I hope that the Chairman will circulate a Further Notice of Proposed Rulemaking that reflects those discussions as soon as possible.

The Honorable Tom O'Halleran (D-AZ)

1. **Commissioner Starks, as rural communities begin gaining more access to modern broadband technology, I believe it is imperative that communities are empowered to understand how to best use broadband to thrive with e-learning, access telemedicine, and compete in our global economy. I also understand schools, libraries, and community centers in rural areas have begun local digital literacy training programs to teach communities how to leverage modern applications through the internet.**

- a. **How can the FCC incentivize the creation of more digital literacy training programs for rural communities?**

Response: I believe digital literacy training programs can help those who have been negatively impacted by internet inequality achieve the necessary skills to use the internet as an empowering tool. I believe the FCC should find innovative ways to partner with anchor institutions, direct service providers, and other community-based organizations to highlight and offer digital literacy training programs. For example, I believe libraries can be 21st-century tech hubs because they are a trusted institution in so many communities across this nation. It is the place people visit when they need assistance with computer training, filling out a job application, or a school research project. That is why I believe that libraries and local community organizations can be assisted by grant programs such as what has been introduced in the Digital Equity Act. I publicly applaud Congressional efforts that prioritize digital inclusion in our communities for we know that infrastructure, affordability, and an understanding of how to navigate the internet all go hand in hand.

- b. **What role can discount internet offerings from internet service providers to persons already in federal assistance programs (food stamps, housing, etc.) further increase broadband *adoption* in rural communities? Has the FCC examined adoption rates in light of these programs?**

Response: I believe that discount internet offerings from internet service providers can serve as a meaningful way to address internet inequality in both rural and urban communities. I am supportive of these programs and I encourage more carriers to both participate and expand them so all, regardless of geographic location or income-status, can use the internet to empower themselves and their communities.

I am aware that in 2012, the Wireline Competition Bureau conducted a low-income broadband pilot that tested adoption barriers for low-income consumers; however, this program did not include some of today's widely used discount internet offerings such as Comcast's Internet Essentials.

- c. **How can schools and libraries continue to expand Wi-Fi hotspot lending programs to help close the homework gap?**

Response: When I visited Bossard Memorial Library in Gallipolis, Ohio, I learned that their wi-fi hotspot lending program had a six-week long waiting list. I support the efforts of the librarians and school leaders who have such programs; however, I also know that in the United States, we should not have people on such lengthy waiting lists for a tool that is as crucial as broadband. The members of our community that are dependent on these programs are already overburdened and the Commission should be assisting in the strategic deployment of broadband in our most disconnected communities so they have one less burden to bear. It is the FCC's mission to ensure that every American is connected to high-speed broadband.

2. Commissioner Starks, it is becoming clearer that our election systems nationwide still need federal support to ensure they are secure from vulnerabilities and interference.

a. What is the FCC doing to exercise risk mitigation practices for voting systems that are still connected to wireless networks?

Response: The FCC has a statutory obligation to secure our communications networks to protect the national defense. In my mind, the security of our elections—which are increasingly tied to those networks—clearly falls under this obligation. Some states continue to use voting equipment that transmits election information, potentially including results, using the same networks we use for our mobile phones. Once a device is connected to a wireless network, it's subject to the same threats as other wireless communications. Voting results could be blocked or altered by criminals or adversary states using IMSI catchers or by hacking untrustworthy or insecure routers. Despite its expertise on these communications issue, it's not clear to me that the FCC is engaged with this critical issue at all.

The Honorable Robert E. Latta (R-OH)

1. As the author of the Precision Agriculture Connectivity Act that was included in last year's Farm Bill, I am interested in the economic benefit of GPS to the agriculture sector. Talking to farmers in my district, I know GPS can improve farm planning, field mapping, soil sampling, tractor guidance, crop scouting, variable rate applications, and yield mapping. All this innovation relies on connectivity, including that provided by GPS. How will the Commission continue to protect GPS services from harmful interference?

Response: The FCC remains committed to eliminating harmful interference with all authorized radio communications, including global positioning system (GPS) operations. In addition to continuing to police the use of GPS "jammers" or similar devices designed to intentionally block, jam, or interfere with GPS service, which violates federal law, the FCC has two open dockets (IB Docket Nos. 11-109 and 12-340) in which it is considering applications to build out a terrestrial broadband network/mobile satellite service in certain spectrum bands near spectrum used for GPS service. Before approving such applications, the FCC must fully consider the concerns raised by GPS operators, the federal government, and others.

The Honorable Adam Kinzinger (R-IL)

1. During the hearing, I asked Chairman Pai the following questions:

Are there cybersecurity or physical security concerns if information and communications technology companies allow non-cleared or un-vetted personnel access to software development kits or application programming interfaces for 5G networks?

Is there a common standard to use vetted personnel, AI, or machine learning to analyze source code that will be distributed or used in patches for software updates of 5G equipment?

While the Chairman provided thoughtful answers in response, I ask that the Commission follow up with the Committee to offer any supplemental information or ideas regarding the ways in which the Commission, using existing authorities, or Congress, by enacting new legislation, can bolster the physical security and cybersecurity of our 5G networks. Please be as detailed as reasonably possible, and if the Commission feels that these responses are best conveyed to the Committee in a confidential manner in order to protect our national security, please indicate as much to the Committee and we will work with you all to make appropriate arrangements.

Response: I am optimistic that new features in the 5G standard will greatly enhance the security of wireless networks. I remain concerned that the security benefits of 5G—like all of its benefits—will be unevenly distributed. If 5G networks are not deployed in low-income and rural areas, those Americans will remain vulnerable. Congress can support efforts to improve security by redoubling its efforts to combat internet inequality and ensure that 5G reaches all Americans quickly.