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 Michael O'Rielly, 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: I am committed to the Commission's obligation to ensure the availability of robust and affordable services for low-income consumers, and I recognize that the minimum standards originally set to go into effect in December 2019 had the potential to disrupt service for many participants. That is why, in November 2019, the Commission granted, in part, a petition seeking waiver of the Commission's 2019 scheduled increase to the Lifeline Program's minimum standards for mobile broadband usage. While that order did not address the issue of port freezes, the decision to pause the minimum standard increase at 3 GB/month will hopefully ensure that the program remains accessible to low-income consumers, while simultaneously reflecting the current marketplace for mobile data usage.

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: I am open to considering further adjustments to scheduled increases to the Lifeline program's minimum standards, should any be necessary.

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: The Commission's agenda is controlled by the Chairman, and I therefore must defer to him on this question.

4. You've raised network security issues as a major concern of yours. Beyond supply chain issues, which the FCC and our Subcommittee have worked on,

what other recommendations can you make relative to securing our nation's wireless networks—for example, addressing SIM swaps, carriers' usage of dated encryption and authentication algorithms, and the threats of cell simulators or IMSI catchers?

Response: Many of the challenges you mention above are being considered by national security and law enforcement agencies. The Commission's authority in this area is limited, but the FCC will continue to work with and advise these other federal agencies, which have greater expertise and information regarding the threats to and incursions into wireless networks. As you know, Congress has passed multiple laws regarding network security and privacy and has declined to give the Commission further jurisdiction. If Congress decides to expand the Commission's role, I will implement Congress's direction.

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: While I am aware of the federal allocations in the 7 GHz band and have spoken of the potential of that band for commercial services, the Commission has not yet considered or voted on any items regarding 7 GHz. At this time, the Chairman is in a better position to discuss whether there are current conversations regarding the possibility of moving any current incumbents into that band or whether the band is capable of accommodating future commercial services.

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: Yes. Data has been submitted and the engineers in our Office of Engineering and Technology are currently considering what protections are needed for existing incumbent licensees. As I have said before, I believe that we will be able to introduce unlicensed services into the band while protecting incumbent operations.

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: I am aware of utility companies' interest in the 900 MHz band and its potential use to prevent damage from falling power lines. While there are benefits to restructuring the band, some utilities – including incumbent users – have previously raised concerns with the various

plans in the record. It is my understanding that the Commission staff continues to work through these issues and that an order may be ready soon for that purpose. As for the exact timing of the order, however, I must defer to the Chairman.

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: In the June 2019 item referenced in your question, the Commission directed the Consumer and Governmental Affairs Bureau (CGB) to issue two reports on the implementation and effectiveness of blocking measures by providers. Pursuant to this directive, in December 2019, CGB sought input from providers and the public on the availability and effectiveness of call-blocking tools and the impact of FCC actions, among other relevant matters. As such, I look forward to reading the staff's report and will wait until it is issued before commenting on service providers' actions in response to the June 2019 Declaratory Ruling.

With respect to objections raised in response to the June 2019 Declaratory Ruling, many parties, including myself, have expressed concern over the vast amount of discretion given to providers to determine what constitutes an "unwanted" call; the vagueness of the term "reasonable analytics" as the standard for offering call-blocking programs on an opt-out basis; and the need for providers to adopt expeditious processes to correct call blocking errors, and ensure that legal, wanted calls are delivered to consumers.

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: I appreciate industry efforts to support law enforcement in traceback efforts and the ITG is a laudable initiative in this respect. In terms of the ITG's success in assisting law enforcement, I would have to defer to the expertise of the FCC's Enforcement Bureau.

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 has never classified VoIP's status under the Communications Act, and I have repeatedly called on the Commission to clear up this confusion and declare VoIP an interstate information service. Despite this ambiguity, VoIP certainly does not exist in a regulatory-free zone. Indeed, the Commission has repeatedly subjected interconnected VoIP to regulatory requirements under the Communications Act's Title I authority, including 9-1-1

obligations, Universal Service Fund contributions, Telecommunications Relay Fund contributions, and requirements under the Communications Assistance for Law Enforcement (CALEA) Act.

Further, interconnected VoIP has always been subject to the Commission's Truth in Caller ID Rules, and, in August 2019, the Commission extended that regulatory regime to apply to oneway VoIP. Therefore, in my opinion, a lack of regulation is by no means responsible for the menace of illegal robocalls. Rather, one reason why it is often so difficult for the FCC to take enforcement actions against illegal VoIP traffic is because much of it originates overseas. Exercising extraterritorial jurisdiction over illegal scammers can be difficult in practice, particularly when they are based in uncooperative nations.

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: Issues related to the call traceback process are handled by the FCC's Enforcement Bureau; therefore, the Commission's Enforcement Bureau and the Chairman are in better positions to answer this question.

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: I have been actively involved with the TVWS community in trying to make the rules more flexible to accommodate additional and higher power services, especially in rural areas. It is my hope that an NPRM could be released in the very near future, but I must defer to the Chairman on the exact timing.

The Honorable Greg Walden (R-OR)

1. As I stated at the hearing, ending diversion of 9-1-1 fees is a priority for me. According to recent reports submitted to Congress pursuant to the New and Emergency Technologies 9-1-1 Improvement Act of 2008, states and taxing jurisdictions are still diverting 9-1-1 fees for purposes other than 9-1-1. What statutory tools would be useful for the Commission, or other entities, to stop states from diverting 9-1-1 fees?

Response: Thank you for your attention to this matter, including your effort to link ending the practice of 9-1-1 fee diversion to eligibility for T-Band-related changes. I especially appreciated your raising this issue at the hearing and look forward to continuing to work with you on this problem, including by providing specific technical assistance on draft text. Two urgent statutory changes that would better equip the Commission to end the reprehensible practice of fee diversion include lengthening the mandatory compliance period from 180 days to at least 5 years for a state to be eligible for federal grants, and broadening the prohibition on diversion to include any fees described as "public safety" fees.

On the latter point, there is one particular state seeking to circumvent the statute by including a separate "public safety" fee that goes to the state's general fund, in addition to its legitimate "9-1-1" fee. As frustrating as this practice may be, some other states have been attempting similar stunts, arguing that they meet the letter of the law because the 9-1-1 portion is clearly accounted for in the statute. However, creating a slush fund under the guise of public safety violates both the law's letter and spirit.

As a further example of abuse, another state flagrantly stole 9-1-1 fees to pay for a state university professor buyout program but attempted to come back into compliance just in time so as not to implicate the 180-day bar on applicants applying for certain federal grants. Thankfully, this mischief can be cleaned up relatively easily. Lengthening the "clean period" to at least 5 years prior to applying for any federal grants would significantly increase the incentive for states to come into compliance and remain so for a longer period of time, and undermine the temptation to divert for one or two years to meet a budget shortfall and then come back into compliance just in time to apply for new grant money. This reform will be even more important as Congress considers additional funding for NG911 and other upgrades in the future to 9-1-1 systems.

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: Whenever the Commission seeks to introduce new services in a band, the Commission not only seeks comment on the issue, but also directs staff to analyze the appropriate mechanisms and technical rules needed to ensure that existing incumbents will be protected from harmful interference. Such an analysis will be done if new services are to be introduced on frequencies being used by GPS or adjacent to GPS bands.

The Honorable Adam Kinzinger (R-IL)

1. Chairman announced just before the Thanksgiving break that the Commission will proceed with a public auction to repurpose 280 MHz of the C-Band. While there was a lot of debate about how the FCC was going to proceed on this band, there was one principle that seemed to be universal—these proceedings need to occur as quickly and efficiently as possible. I personally was open to either mechanism as long as we held to this principle of doing things quickly, plus one other principle—that substantial revenues be raised for the Treasury, hopefully for rural broadband deployment and similar programs.

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

Given that most stakeholders estimate a public auction will take longer than a private sale, what can Congress do to help speed up this public auction?

Does the FCC need new authorities, or new appropriations to hire temporary staff or speed up the auction software procurement process?

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 in terms of new authorities or appropriations that would assist in expediting the C-Band Auction, including the process of preparing for the auction and perhaps the auction itself. Please be as detailed as reasonably possible.

Response: I agree that this auction needs to occur as quickly as possible, which is why speed has been one of my leading principles as well. The Chairman has stated that he prefers an FCC-

led auction, so that is the path the Commission is pursuing. Whether we need additional funds or authority may depend upon the procedures proposed by the Chairman. As you know, there has been much discussion about whether the Commission can use auction funds to provide an incentive for the satellite providers to surrender their rights to the spectrum and how much that payment should be, among other issues. Of course, if Congress wishes to address this matter legislatively, we will implement Congress's direction as instructed. In terms of broader authority, the Commission could benefit from clear instruction and necessary resources to enable it to operate multiple auctions at the same time. Otherwise, those auctions already slotted for action prevent others from being carried out with timely resolution.

2. I appreciate the work the Commission has done on the 24 GHz band in the months leading up to the World Radio Conference (WRC). You may recall I asked you all about 24 GHz band back in the hearing earlier this year. And when Mr. Knapp was here in July, I also expressed my concerns that the government was not speaking with one voice on making the 24 GHz band available for 5G services. Mr. Knapp told me he was confident that 5G and weather services can coexist given the 250 MHz guard band. The work you and your team did, and continues to do, is important and critical as we move closer to a 5G world.

Now that there is an agreement on the protection values—and these values, which were agreed to at the WRC but are different from that contained in the FCC rules—will the FCC open a proceeding to adopt these new protection parameters? If not, then what will the FCC be doing to protect these critical passive weather sensors from harmful 5G interference?

Response: I was – and continue to be – confident that the Commission's rules were adequate to protect weather sensors from harmful interference. I believe that the protection criteria adopted at WRC are overly protective and could have negative repercussions on the 5G services provided by wireless network operators in the lower portion of the 24 GHz band. However, that is what was agreed to at the WRC, and it is likely that all equipment manufactured for the 24 GHz band will be designed to comply with these international metrics, as opposed to the FCC rules. As to whether there will be a proceeding to change our rules, I must defer to the Chairman.

3. 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 programing 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: As you know, the FCC's authority in this area is limited, but the Commission will continue to work with and advise other federal national security and law enforcement agencies, which have greater expertise and information regarding the actual threats to and incursions into wireless networks. In the past, Congress has passed multiple laws regarding network security and has declined to give the Commission further jurisdiction. If Congress decides to expand the Commission's role, I will implement Congress's will.

The Honorable Tim Walberg (R-MI)

- 1. As Co-Chair of the 5G Caucus, it is my priority to ensure the U.S. is leading the world in the innovation of 5G networks. The Committee recently passed my legislation, H.R. 4500, the Promoting United States Wireless Leadership Act, which plays an integral role in providing a unified front of industry and government to assert the United States' leadership in 5G standards worldwide, by directing the NTIA to encourage the participation of American companies and other relevant stakeholders in international standard-setting bodies.
 - a. Can you elaborate on how important it is for us to secure our nation's 5G supply chain and how important it is for U.S. companies to be involved in the development of 5G technologies worldwide.

Response: It is absolutely critical for U.S. companies to be involved in the development of 5G technologies worldwide and to secure the supply chain. I have spoken extensively on this issue and I would like to direct your attention to a speech that I gave last year that provides more details,¹ along with my comments about the World Radiocommunication Conference (WRC). In sum, there are some countries that have tried to use multi-stakeholder organizations to skew standards or delay our progress to favor their service providers and manufacturers, claiming that innovation is happening too quickly or that incumbent operations need extraordinary protections. They have levered these arguments to try to slow down our progress, hinder our ability to be a technology leader, protect their industries, or, in some cases, ensure that there is an adequate return on investment for prior technology generations. Unfortunately, I witnessed this behavior

¹ See, e.g., Remarks of FCC Commissioner Michael O'Rielly before the Brooklyn 5G Summit 2019, Apr. 25, 2019, https://docs.fcc.gov/public/attachments/DOC-357184A1.pdf.

by countries such as China, Russia, and France at the WRC in November 2019. Similarly, in regard to the private sector standards bodies, I am aware of instances where the standards setting process was being used intentionally to slow down U.S. innovation because our technology is ahead of other countries.

Delaying U.S. and other western nations' technology enables Chinese technology to gain a foothold. In fact, China is the nation most likely to exploit international bodies to promote their companies' technologies while delaying U.S. innovation. China's behavior is even more alarming when you combine it with their centrally planned economy. China's companies obtain government-sponsored advantages, such as subsidized labor, low-cost loans, and unlimited operating capital, which they use to lock down their domestic market, expand their reach internationally, and gobble market share in each country they enter.

This clearly anticompetitive behavior, along with Chinese companies' ability to provide cheap equipment and labor, enables China to offer an attractive telecommunications offering to many countries and obtain market share internationally. Further, by exporting equipment that is not interoperable with other equipment brands, Chinese companies ensure that once a wireless provider or country invests in their equipment, they are beholden to that Chinese manufacturer. Not only does this have the potential to push western equipment manufacturers out of the market and increase concentration, but it also has serious national security repercussions, in potentially allowing the Chinese government to access information that touches their equipment or is carried on their networks.