

**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 Brendan Carr, 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 provides an incredibly important and valuable service. That is why I was pleased the FCC acted recently to prevent an extraordinary spike in minimum service standards that would have been catastrophic to the program—a spike that would have resulted from changes a prior FCC made to the program. I am glad this FCC acted to provide Lifeline subscribers relief from that prior approach.

- 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 record is still developing on how the program is evolving. I will keep an open mind toward all proposals that would improve the program, and I will consider all options before us that are in the public interest.

- 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:** I am not aware of any new proceeding, but I am always open to new ideas that could improve the program.

- 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:** Securing our telecommunications supply chain is a top priority of the Commission, and I am pleased to see concerted efforts in the Administration, Congress, and Commission to meet this challenge. As you note, the Commission has an open proceeding on supply chain issues. In November, we unanimously approved an order that barred USF funds from being used to purchase equipment and services from companies that pose a national security threat. We initially designated Huawei and ZTE as companies covered by the subsidy prohibition, and the accompanying FNPRM contemplates ripping and replacing existing equipment from potentially dangerous companies.

There is more that policymakers can do to ensure that our networks are secure. I am especially interested in accelerating the use of software and virtualization of our networks to leverage enduring American advantages in research and IP development. Many have observed that certain hardware in our 5G networks lacks a U.S.-based supplier. While we are fortunate to have excellent hardware partners with trusted governance and controls and which are headquartered in allied countries, for our security and economic opportunity, it would behoove the U.S. to have a more robust domestic supply chain. The U.S. is the world leader in software innovation, and that is not happenstance—it is in large part due to our leading research institutions and culture of innovation. As networks advance, the importance of software will increase relative to hardware, which will accrue to our country's advantage, and the likelihood of U.S.-based leaders will increase. To promote this shift towards software, there exist a number of policy levers, including direction of research support and reducing regulatory barriers to deploying both edge and low-latency cloud computing.

- 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:** I must refer you to the Office of the Chairman on the status of inter-agency coordination.

- 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:** The FCC has an active proceeding under way examining the best way to address this issue. I look forward to reviewing the record, assessing the data available, and reaching a determination that is in the public interest.

- 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:** Mitigating the effects of wildfires is incredibly important, so I support all efforts to that end. I must refer you to the Office of the Chairman on timing matters.

**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:** This FCC has elevated robocalls to our primary enforcement priority, and we have issued a number of decisions to combat these unlawful calls. Our work at the FCC is far from done. Therefore, I look forward to continuing to work with my colleagues on the Commission and the private sector to further curtail unwanted calls. I would refer you to Chairman Pai for more specifics on his remarks.

**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:** Our work to combat illegal robocalls is not over. There is more the FCC and the private sector can do to combat these unwanted calls. I look forward to working to achieve that goal. I would refer you to Chairman Pai for more specifics on his remarks.

**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 scope of the FCC’s authority is both defined and limited by the laws Congress passes. Therefore, I would welcome any additional grants of authority that Congress finds appropriate for the FCC to exercise in our work to combat illegal robocalls. While I am not aware of the specific limitation the agency spokesperson had in mind, I know that many robocalls originate overseas, and there are limits on the actions the FCC can take against call originators in that context.

**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 would refer you to the Chairman's Office for the most current information on the FCC's work on this issue.

**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 am a strong proponent of an all-of-the-above approach to closing the Digital Divide and facilitating faster deployment of broadband infrastructure, which includes the use of TV white space technology. While the FCC Chairman determines the timing of agency votes, I look forward to supporting FCC efforts that build on our work to open up TV white spaces.

**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:** I appreciated the chance to join you in Ohio last year and see firsthand the benefits that GPS brings to America's producers. In particular, we had the chance to visit a farm outside of Napoleon, Ohio, and hear directly from farmers about the economic opportunity and increased yields that GPS-powered Precision Ag can enable. I have heard the same stories in rural communities across the country. So while the FCC must always look for opportunities to open up spectrum bands for additional uses, we must also ensure that every FCC decision protects GPS from harmful interference.

**The Honorable Adam Kinzinger (R-IL)**

- 1. The 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:** Last year, I laid out my priorities for the C-Band: that we clear around 300 MHz of spectrum for 5G; that we do so via a transparent process, and that we generate a return for the U.S. Treasury. I am glad that the approach laid out by Chairman Pai will achieve those goals. We must now continue our work to hold the auction in 2020. While the FCC has authority to conduct the auction, I would of course welcome and work to implement any legislation from Congress that expresses a view on how the FCC should conduct the auction or allocate auction revenues.

- 2. 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:** Guaranteeing the security of our next-generation networks is a top priority for me and the FCC. After all, these new networks will not just carry voice calls and emails. Some of our most sensitive information will travel over these platforms. That is why, in 2018, I called on the FCC to expand our efforts and put more options on the table, including the removal of potentially insecure equipment that carriers have already installed in their networks. If equipment poses a threat, it's not enough to stop subsidizing it: it must come out of the network. I am glad that my colleagues joined me in voting in favor of a proposal to do just that late last year. So the FCC will continue to eradicate the threat posed by insecure equipment in 5G and other next-gen networks.

**The Honorable Tim Walberg (R-MI)**

- 1. This Congress, I introduced H.R. 3255 the TOWER Act, this bipartisan legislation is aimed at helping close the skills gap in the telecommunications industry. It reflects the need for a highly-skilled, professional workforce to sustain the ever-expanding deployment of 5G. As a Ranking member on the Committee on Education and Labor this issue is even more important to me.**

- a. Can you talk about the sheer scale of these jobs that will be available?**

**Response:** America now leads the world in 5G. The private sector is building new cell sites and other infrastructure needed for 5G at an accelerated clip. And this work is creating significant demand for new jobs. Industry estimates that it could hire 20,000 tower climbers to meet this demand. These are good-paying, solidly middle class jobs. If you expand beyond just tower climbers to include the lineman and other construction crews that are also needed to support

these 5G builds, I have heard industry estimates that suggest they could use 100,000 more skilled infrastructure workers.

**b. Are there ways where Congress can work together more with the FCC in helping secure the needed talent pipeline?**

**Response:** Last year, I laid out a jobs initiative that looks to community colleges as pipelines for 5G jobs. In the matter of a few weeks or months, someone can learn the mix of classroom and practical skills needed to land a good paying job in the tower industry. I have been working with stakeholders to expand the number of community colleges that offer this type of program. I believe Congress can help support and expand these and other avenues for creating 5G jobs, and I would welcome the chance to work with you and your team on those initiatives.