REMARKS OF COMMISSIONER GEOFFREY STARKS
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Thank you for inviting me to speak with you today. It's overwhelming to consider how much has changed since I spoke with you last year in Los Angeles. Our country faces unprecedented challenges on multiple fronts. The COVID-19 pandemic has brought into sharp relief a host of problems that at their core are about fairness—issues of racial justice, economic security, and the digital divide, among others. I am an optimist, and believe that technology, and the wireless communications sector in particular, has an important role to play here.

All around the nation, people are relying on connectivity more than ever, and they're using their smartphones to document both injustice and inspiration. In 1963, television journalists recording the vicious beatings of peaceful protestors by police and racist mobs in Birmingham, Alabama galvanized public support for the civil rights movement. That public outcry propelled the first Civil Rights Act to passage one year later. Today, the rise of smartphone and modern wireless technology is fueling a new wave of civil rights activism. In 2011, only 35 percent of Americans owned a smartphone. That number has climbed to more than 80 percent of Americans. Those devices—and the always-on wireless connectivity they enable—allow us to advocate for change by sharing large video files, interacting on social media, and organizing social movements.

These events support a longstanding point that has only become clearer during the pandemic: full participation in civil society requires an internet connection. That's why we must do more to make high-quality, affordable broadband, including 5G wireless service, available to everyone. Our collective 5G success will rely on smart policy decisions, and industry execution. We've made available hundreds of megahertz of spectrum, in low, mid, and high bands. Our capital investment per capita is on par with or ahead of other developed countries, and our wireless companies spend far more on research and development than their overseas counterparts. This is good, and that trend has proven to be durable and reliable; even the COVID-19 pandemic doesn't appear to have appreciably disrupted 5G supply chains or deployments. We must continue our efforts by working with our federal partners on spectrum like the lower 3 GHz band, encouraging partnerships between cities and providers for ubiquitous infrastructure deployments, and investing in digital readiness so all consumers understand the benefits of 5G.

I've seen the great work that the wireless industry has done throughout the pandemic, particularly for students from vulnerable communities, when connectivity has become more critical than ever. I recently announced the first group of honorees for my Digital Opportunity Equity Recognition (or DOER) program, which seeks to acknowledge the efforts of Americans seeking to close the digital divide in communities without access to affordable, reliable broadband. Those honorees include several wireless representatives who are working hard to ensure that no one gets left offline during this crisis.

For example, I was honored to celebrate the tremendous work of Dr. Kiesha Taylor, who is the National Education Administrator for T-Mobile for Education. Dr. Taylor oversees T-Mobile's EmpowerED 2.0 program, which provides eligible schools and school districts with up to $200 per student for the purchase of mobile internet devices and free and reduced mobile broadband service. Through T-Mobile and Dr. Taylor's efforts, more than 1,000 schools and school districts – and over 600,000 low-income students – have received internet connectivity and devices to stay connected and continue their educations online. The DOER honorees also included several wireless rural or tribal providers, including NISHNANET in Iowa; NTUA Wireless for the Navajo Nation; and Triad Wireless serving Arizona.

This is great work, but much work remains to ensure that everyone shares in the benefits of advanced wireless service. According to the Pew Research Center, a disproportionate number of Black and Latinx Americans rely solely on their mobile devices to connect to the internet. Even before 2020, mobile phones were the only way many in these communities could access online education, health care, and employment. 5G must reach these wireless-only households. They share the ubiquitous need to access the most innovative telehealth treatments, participate in sophisticated distance learning from the kitchen table or the city bus, and be as productive working from home as from the office.

Every American deserves the opportunity to participate in the 5G revolution, even if they don't live in the wealthiest center. We otherwise risk devolving into two Americas: one in which those with much get even more, another that is stuck in the past and falling further behind every year.

One of the most exciting aspects of 5G is its ability to support networks of sensors for use cases ranging from smart cities, to manufacturing, to public safety, to connected cars and wearables. According to one study, over the next 10 years, the number of connected IoT devices will increase from 7.6 billion to 24.1 billion.[i] Using wireless connections, these sensors will relay critical data that will allow us to strive towards environmental justice, increase industrial efficiency, identify potential hazards before they get out of control, and live healthier, more productive lives. Every community deserves these opportunities.

We'll need sophisticated artificial intelligence to make the most effective use of the data generated by these massive IoT networks. But we must take care that the AI used to sort this data is not tainted by conscious or unconscious bias that reinforces inequality instead of creating opportunity. Algorithms aren't inherently good or bad, but they can have serious consequences for things like job or housing opportunities, health care and policing. Indeed, just last month, the National Institute of Standards and Technology (NIST) released data showing that facial recognition software used by police departments and military bases around the country continue to struggle to accurately identify the faces of people of color.[ii]

Because software is created by human beings, it often reflects the conscious or unconscious bias of its creators or some persistent inequities in our society. Policymakers and companies therefore must adopt measures to increase the transparency and scrutiny of these algorithms, and increase the diversity of the people who create and oversee them. Moreover, to

the extent these AI datasets are based on online activity, we risk excluding the many Americans without access to technology or broadband. Those without service may never learn about the well-paying job or the affordable mortgage, exacerbating growing inequality in this country.

Thus, even as we focus on 5G, we shouldn't forget that many people can't afford even basic wireless service during this national crisis. That's why we should take a fresh look at the Lifeline program, which currently provides only 1,000 voice minutes and 3 GB of mobile data per month to the poorest Americans. Because COVID-19 has forced so much of daily life to be online-only, these folks now must choose between talking to their families and using their limited service to connect with doctors' offices or government agencies. The situation has been worsened by the closings of publicly available Wi-Fi spots like restaurants and libraries. As a result, even as they limit their usage to essential communications, Lifeline recipients struggle to stay connected to our larger society. To that end, we need to meet this moment and ensure Lifeline recipients receive unlimited voice and data for the duration of the pandemic. We want all Americans to remain engaged and involved, and Lifeline recipients deserve a program that meets this pivotal moment.

While we're working to update the Lifeline program, we must remember that privacy shouldn't be a luxury good. I was outraged to learn that some Lifeline customers have received phones loaded with malware that allows outside parties to install programs without the owners' knowledge or consent.[iii] Both the Commission and Lifeline providers need to do a better job of ensuring that Lifeline recipients get the same level of privacy protections as other consumers.

The threats aren't just to our personal privacy—they're also to our national security. Since I joined the Commission, I've been vocal about the need to secure our communications networks. In particular, I've called for Congress and the FCC to address the problem of equipment from untrustworthy vendors in our wireless networks. I'm glad that the agency has taken steps to identify and remove that equipment, and that Congress has passed supportive legislation.

But much work remains. Neither the FCC nor Congress has detailed exactly how this equipment will be removed and replaced or how that effort will be funded. Small wireless carriers have repeatedly expressed their need for help to replace equipment that they bought legally and in good faith. Funding delays are creating serious issues for some of these carriers, which face potentially significant expenses with no relief in sight. We must work with Congress to ensure that sufficient funds are appropriated soon, and that a remedy can be provided quickly and responsibly.

Any such remedy should consider Open RAN (O-RAN) technology, which enables a single distributed system of interoperable hardware. With interoperability, individual components can be interchanged without replacing whole systems. This granular approach reduces the barriers to entry for radio access network component vendors, particularly small-scale or specialized suppliers, and creates an opportunity for American companies to reassert their role in the communications equipment sector. While O-RAN may particularly appeal to carriers constructing new networks, this responsiveness should also allow carriers to

harmoniously merge legacy and next generation wireless systems as they replace existing equipment.

So here's a new idea. I've recommended that we explore whether carriers receiving taxpayer funds to remove and replace untrustworthy equipment should be required to consider solutions offered by an O-RAN provider. No one would be forced to purchase O-RAN technology, but requiring consideration of O-RAN solutions would achieve many of our goals, including encouraging global competition with Huawei, capitalizing on U.S. software advantages, accelerating the development of O-RAN as a product-model and a business-case, and allowing for alternative vendors to enter the market and offer specific network solutions. If American taxpayer dollars are going to rebuild these networks, Americans should get the best value and the most benefit.

These are challenging times in so many ways, but we have the tools to build a shared future that benefits all Americans. Working together we can make our country more just, prosperous and secure. Thank you for having me today.

[i] https://www.prnewswire.com/news-releases/global-iot-market-will-grow-to-24-1-billion-devices-in-2030--generating-1-5-trillion-annual-revenue-301061873.html#:~:text=At%20the%20end%20of%202019,published%20today%20by%20Transforma%20Insights.
[ii] https://venturebeat.com/2020/09/09/nist-benchmarks-show-facial-recognition-technology-still-struggles-to-identify-black-faces/
[iii] https://www.cnet.com/news/phones-for-low-income-users-hacked-before-theyre-turned-on/