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**SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION  
UNITED STATES SENATE**

**“SPECTRUM AND NATIONAL SECURITY”**

**Thursday, March 21, 2024**

Chair Cantwell, Ranking Member Cruz and members of the Committee, thank you for the opportunity to testify today. I serve as the Executive Director of WifiForward, and have over 30 years of experience helping foster U.S. leadership in Wi-Fi technologies.

Thank you for holding this national security hearing that enables us to consider how Wi-Fi technologies play an important role in our national defense and safety. I will focus on just three dimensions of that topic. First, how the U.S. Wi-Fi industry has been battling Chinese interests that would obstruct Wi-Fi growth globally. Second, how Wi-Fi provides communications resilience and redundancy. Third, the hidden strength of Wi-Fi – its ability to coexist in the same set of spectrum frequencies used by others, including federal and military users, without causing harmful interference, thereby fueling economic growth and technology innovation without relocating federal systems.

Wi-Fi has been in the center ring fighting against China’s global spectrum priorities. The Chinese Communist Party has prioritized influencing spectrum allocation decisions worldwide-- both to maximize Huawei’s and ZTE’s global influence and power, and to undercut U.S. leadership.

In 2020, the FCC led the world to open the 6 GHz band for unlicensed Wi-Fi. But as countries moved to follow our lead China advanced its own agenda seeking to

make 6 GHz a band for exclusive, licensed mobile use in dozens of proceedings around the world.

Late in 2023, at the World Radio Conference, China aggressively worked to dismantle the U.S.-led momentum for unlicensed spectrum, urging a global plan to advantage Chinese government-sponsored companies by allowing only exclusive, licensed mobile networks in the upper half of the 6 GHz band. Thanks to U.S. leadership, China's attempts largely failed.

Post-WRC, U.S. companies can and will continue to engage country by country to encourage harmonized unlicensed use, which benefits the U.S. That said, we already see that China has simply changed venues – its vigorous campaign for Huawei and ZTE, positioned as a fight against Wi-Fi, continues. We therefore appreciate this Committee's focus on how spectrum policy advances U.S. national security and economic interests both at home and abroad.

Second, Wi-Fi enables the public to reliably connect and communicate in places such as their homes, businesses and schools. When a major cell phone carrier recently experienced a widespread network outage, it notably advised its customers to use Wi-Fi communications until cellular service could be restored. Consumers connected to Wi-Fi barely noticed any disruption, and were able to access a number of Wi-Fi voice and messaging applications to communicate during the outage, all because Wi-Fi networks are ubiquitous where people live and work. And, these Wi-Fi networks are resilient by design due to the tremendous investments Wi-Fi providers and developers have made to keep pace with consumers' growing demands for the technology. In fact, the vast majority of data that we consume each day is delivered via Wi-Fi. For at least one mobile provider, 87% of its customers' smartphone traffic is carried over Wi-Fi.

Network outages also occur when natural disasters strike, making redundant Wi-Fi and other networks important to ensuring connectivity. For example, operators frequently open their Wi-Fi networks to any and all users in the wake of natural disasters, such as the recent wildfires in Maui and Hurricane Ida in 2021.

Third, the coexistence capabilities of Wi-Fi are a U.S. national security strength. Coexistence means more spectrum can be provided for commercial use without resource-consuming relocation of federal systems that support critical national security missions. Whether in the 5 GHz band for Wi-Fi, or for CBRS in a band

used by Navy radars, we have seen the U.S. Government able to commercialize valuable federal spectrum resources, and unleash economic growth and innovation, without incurring exorbitant costs to displace and relocate critical federal incumbents, like DOD, NASA, or NOAA, among others.

Wi-Fi technology is a bedrock of our nation's connectivity here at home and is pivotal to our national security and global competitiveness. Thank you for the opportunity to share this information with you, and I look forward to your questions.