HOUSE ENERGY AND COMMERCE COMMITTEE
Subcommittee on Communications and Technology

"REPURPOSING THE C-BAND TO BENEFIT ALL AMERICANS"

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TESTIMONY OF

JEFF CAMPBELL
VICE PRESIDENT, GOVERNMENT AFFAIRS
CISCO SYSTEMS, INC.

Thank you for the opportunity to testify this morning on the topic of how to transition a key part of the 3 GHz band from one commercial use to another. Cisco is a San Jose, California-based company that produces a wide range of technologies that address both the needs of service providers, government, and private enterprise. Cisco's CEO Chuck Robbins has called 5G a "step change" in networking technology, but one that requires additional spectrum allocations.

Cisco believes the 3 GHz band should be opened as promptly as possible.

For several years, Cisco has been involved in the effort to open mid-band spectrum for terrestrial mobile services. Early on, we took the view that the private auction approach held promise as a faster mechanism than any other transition mechanism available to the FCC, and we urged its consideration.

To be clear, we are not wedded to any particular mechanism for the transition of spectrum from one use to another. We do believe that, historically, government-led spectrum transitions have been tremendously difficult and slow, and that in the case of 3 GHz, the US needs to put a priority on dispatching this work at a faster clip.

Why does Cisco believe this?

One obvious reason is consumers. Cisco has forecast that mobile services traffic will rise five-fold through 2022, reflecting both the continued use of powerful 4G networks and the initial deployment of 5G networks and devices. A lesson learned – if you build it, they will come.

But a less obvious reason is that national economic interests are at stake, to the level of potentially impacting GDP. Unlike previous mobile technologies, 5G technology for the first time makes possible a ubiquitously available set of wireless capabilities that can make our economy work better, by facilitating operations that are data driven and more efficient. In some cases, it enables a wireless solution where one does not exist, while in others, it makes a wireless solution easy to utilize relative to existing solutions.

For example, today you can automate the timing of traffic signals and change the timing from a central control room. But without having data on the density and speed of traffic, how do you make informed decisions about how to set the timers? There is no wireless technology available today that would give you that data. But 5G can.

A farmer today can use existing sensor technology and Wi Fi to generate critical data about his or her crops and soil conditions, but that requires spending some portion of the workweek managing the farm's IT. What if that farm were blanketed by 5G, and the same data is delivered to the farmer from his service provider?

Or, what if a trucking company that specializes in food distribution wants to monitor its vehicles comprehensively – for route efficiency, refrigeration temperature, and time spent loading or unloading? There is no single technology today that can perform all of those functions. However, 5G could.

3 GHz is important to 5G because spectrum is available in bands wide enough to address these, and many other, use cases. The spectrum is capable of being deployed across wide areas; it goes through walls; it can be deployed for small cells to enable dense coverage. From a network designer's point of view, 3 GHz is all purpose.

That's why the speed of this transition is important. Networks built on 3 GHz spectrum can flexibly address the many use cases that networks will need to support.

What we must recognize is that business applications for 5G do not exist today for the most part. They have to be defined, and the networks have to be configured to support them. That's a big challenge for the mobile industry, which up until now has made its living from selling a limited set of services – namely, wireless broadband to people. So, there is a lot to learn. The sooner service providers and businesses can get to work defining these new services, the better our economy will run. That means spectrum must get into the hands of people who will build 5G networks with it.

Other nations are moving quickly, recognizing this dynamic as one that could boost their prospects globally or leave them behind. At best, a government-run auction would likely occur sometime in 2021, and the C-Band bill puts the date sometime in 2022. That compares to CBA's view that it could run an auction by mid-2020.

In short, the value of an auction is that it puts a useful resource in the hands of those who generate economic activity from it – and it is that which boosts national economies. Auction proceeds capture headlines but are dwarfed by the underlying benefits of putting spectrum to productive use. And in the case of 5G technologies in the 3 GHz band, there are national competitive interests at stake that we believe mitigate moving expeditiously. Thank you.