## Remarks of FCC Commissioner Michael O'Rielly OnGo Commercial Service Launch: Share. Connect. Innovate., Washington, DC September 18, 2019

Thank you, Dave, for that very kind introduction and for inviting me to join you today. Oh my goodness, it is so great to be here. How many of us thought this day might never come? It is my sincere pleasure to be present among so many distinguished guests to help launch the initial commercial deployment (ICD) of OnGo and celebrate now that the 3.5 GHz Citizen Broadband Radio Service, or CBRS, is finally before us. It is an absolute honor to represent the Commission at this event, both as someone who has been intimately involved with the issue, and on behalf of my colleagues and agency staff, especially the dedicated professionals within the Wireless Telecommunications Bureau, Office of Engineering and Technology, and Office of Economics and Analytics.

It certainly has taken a lot of blood, sweat, and tears to get to this point. Harriet Tubman once said, "Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world." When it comes to CBRS, no words have ever been more fitting. But for this gem of an idea, collaboration between the public and the private sector, and immense patience, we would not be here today. From the FCC, NTIA, and DOD to equipment and handset manufacturers, software developers, Spectrum Access System (SAS) and Environmental Sensing Capability (ESC) system operators, and wireless providers big and small, urban and rural, fixed and mobile, each played a role in this collaborative process to maximize the uses of this valuable mid-band resource. Add to this some help from the Lord Almighty, and it proved a winning team.

I would be remiss if I didn't properly recognize the enormous efforts of FCC leadership. That all starts with Chairman Pai. Without his direction and commitment, we would not be celebrating the successful launch of this new band for commercial wireless services. I wish he could be here to rightfully receive your appreciation, because, without his determination, this project would have been dead in the water. At the same time, we must acknowledge the work of former-Chairman Tom Wheeler, who promoted the policies that are at the heart of the CBRS framework and was willing to adjust certain details, albeit not all, when he heard concern. Lastly, I need to thank my frequent compatriot on unlicensed spectrum, Commissioner Rosenworcel, for her immense work on the matter over the last many years.

Ultimately, it is truly amazing what ingenuity occurs when one's back is against a wall. The frequencies we discuss today are encumbered. Faced with this difficulty, the relevant stakeholders in industry and the federal government were able to come together to solve a complex problem with a new sharing paradigm that not only protects incumbents but, for the first time, also contemplates licensed and unlicensed-like spectrum for next-generation wireless services in the same band.

While the Commission has previously dipped its proverbial toe in the water when it comes to using databases for spectrum assignment, we are now diving in head first. I applaud the efforts of those who have spent countless hours developing, testing, and reviewing the ESCs and SASs, including the staff of NTIA's Institute for Telecommunication Sciences, under the able direction of Acting Administrator Rinaldo. The culmination of this group effort was the FCC's public notice, released Monday, stating that the first group of SAS providers could start commercial service. Clearing spectrum should always be the goal, but the dynamic sharing model that has been created will serve as a blueprint for when sharing is the only option, not only in the U.S. but also for the many nations that have been carefully following this proceeding.

This process certainly wasn't always pretty, took a little longer than I would have liked, and provided some unexpected twists, but valuable lessons were gained along the way. For example, we started with large exclusion zones, which would have prevented service in all coastal population centers, but through collaboration, ingenuity, technology, a lot of perseverance, and a few kicks in the pants, today we rely mostly on protection zones.

When the idea of opening the CBRS band first came about, the term "innovation band" was readily dropped into the discussion. It always struck me as an interesting question: was it innovative because of the new sharing mechanism, or the services to be eventually offered, or because it was designed to accommodate the largest and smallest U.S. wireless providers, innovators, and everything in between by providing licensed and unlicensed-like spectrum in the same band? Well, yes to all.

What people didn't envision – and I certainly didn't expect – was the speed at which an entire ecosystem would be created. When we look back, this may be where the 3.5 GHz band and OnGo turned out to be truly innovative. Who really thought that there would be commercially available handsets equipped with 3.5 GHz chips before the testing phase even came to an end?

On top of this, CBRS offerings will have snazzy OnGo branding and benefit from established test labs, a certification program, and LTE-based standards, with 5G standards on the horizon. All of this activity demonstrates the pent-up demand for this spectrum, and the crucial role mid-band spectrum will play in next-generation systems. Experts differ on how this spectrum may eventually be used, be it a component to the Internet of Things, fixed wireless service, enterprise and campus connectivity, wireless backhaul and offloading, or fully integrated 5G mobile service. I, for one, am simply excited for the full plate of prospective services, which the market will sort out in the end. But, suffice it to say, while there were many doubters about whether 5G would take hold in this band, I think it is now safe to acknowledge that 3.5 GHz will be one of the first 5G spectrum bands in the U.S. because of your efforts.

Of course, our work does not end here. As you all know, the Commission will consider the related auction procedures at its September 26th Open Meeting, which will also set the Priority Access License (PAL) auction to start on June 25, 2020. Many of you worked closely with me as I reviewed the 3.5 GHz licensing structure at the Chairman's request, and I know you were eagerly awaiting this announcement and getting PALs out into the marketplace. The compromise reached should promote a wide variety of innovative uses when they become available, and I'm sure some day Commissioner Rosenworcel will be able to forgive me for changing the size of the license blocks. In the meantime, the ICDs we launch today will serve as the ultimate proof of concept, permitting operators to go live under the unlicense-like framework, or general authorized access.

Along the way, I am sure that we will find some things to tweak and improve. I hope that, as the federal incumbents become more comfortable with 3.5 GHz operations, we can review and further fix the protection zones, technical rules, and power limits to ensure that they are no larger or more protective than necessary. Specifically, I want to take Mr. Moorefield up on the offer he made in Charlotte to give serious consideration to increasing the allowable power. And, we need to tackle the second round, or Phase II, SAS and ESC applications that remain pending.

Finally, we all must redouble our efforts to identify additional spectrum for next-generation wireless systems, especially in the mid bands. You can't blame me for taking this opportunity to talk a little about spectrum policy, especially when many of the bands I have been focusing on bookend 3.5 GHz.

The C-band, which is directly above CBRS at 3.7 to 4.2 GHz, has been a topic of much debate in Washington. This spectrum is crucial, because it can be combined with CBRS to provide the large spectrum channels needed for the development of 5G services. I will continue to serve as lead advocate for moving reallocation forward as quickly as possible. Despite this, even more spectrum will be needed to meet the growing demand for wireless services. It is time to make a far more serious effort to clear the spectrum between 3.45 to 3.55. Also, the frequencies between 3.1 to 3.45 GHz should be studied to see which, or whether potentially all, can be cleared, or, if necessary, how commercial deployment might be facilitated by a CBRS-like sharing model. And don't forget 7 GHz, which needs to be explored as well.

I will end my remarks by once again thanking each of you, and the CBRS Alliance, for all of your efforts in bringing the CBRS vision to reality.

Standing here today, I feel a great sense of accomplishment from being able to see your work on the CBRS band turn into the OnGo service. It is rare that you get to be involved in a project from fairly early in the process to eventual fruition. We are all blessed on this fine day.

Thank you.