

March 21, 2019

Honorable Ajit Pai, Chairman  
Honorable Michael O’Rielly, Commissioner  
Honorable Brendan Carr, Commissioner  
Honorable Jessica Rosenworcel, Commissioner  
Honorable Geoffrey Starks, Commissioner

c/o Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, District of Columbia 20554

RE: *Amendment of Part 15 of the Commission’s Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, Amendment of Part 74 of the Commission’s Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and 600 MHz Duplex Gap, ET Docket No. 14-165; Amendment of Part 15 of the Commission’s Rules for Unlicensed White Space Devices, ET Docket No. 16-56, RM-11745; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268*

Dear Ms. Dortch,

ACT | The App Association (the App Association) applauds the Federal Communications Commission (FCC or Commission) for taking a necessary step in opening unused television white space (TVWS) spectrum bands by voting on an Order related to the above-captioned proceedings.<sup>1</sup> We are excited to see the Commission using its authority to remove regulatory barriers so that every American can participate in the digital economy.<sup>2</sup> In that vein, its action today furthers the FCC’s unfettered commitment to bridging the digital divide and will better

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<sup>1</sup> *In the Matter of Amendment of Part 15 of the Commission’s Rules for Unlicensed White Space Devices, et al.*, Report and Order and Order on Reconsideration, ET Docket No. 16-56, et al. (2019). Available at <https://docs.fcc.gov/public/attachments/FCC-19-24A1.pdf>.

<sup>2</sup> *E.g.*, *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Second Report and Order, WC Docket No. 17-84 (2018). Available at <file:///Users/joelthayer/Downloads/DOC-350769A1.pdf>; *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling, Report and Order, 33 FCC Rcd 9088 (2018). Available at [file:///Users/joelthayer/Downloads/FCC-18-133A1\\_Rcd.pdf](file:///Users/joelthayer/Downloads/FCC-18-133A1_Rcd.pdf).

position the United States to facilitate greater internet of things (IoT) capabilities in the upcoming 5G ecosystem for consumers and enterprises, particularly in rural America.

Our membership represents small to medium-sized app developers across all 435 congressional districts. In particular, many of our members are located in rural areas that traditional networks cannot reach. TVWS-enabled wireless connectivity, along with all the Commission's work related to wireless infrastructure deployment, will allow these small businesses to grow and contribute to local economies.

The App Association<sup>3</sup> is an industry organization comprised of more than 5,000 app companies and information technology firms in the mobile economy who drive the \$950 billion app ecosystem.<sup>4</sup> We advocate for an environment that inspires and rewards innovation while providing resources to help our members leverage their intellectual assets to raise capital, create jobs, and continue innovating. Although the FCC's action today is a great step, it is imperative that the Commission continue to vote on items related to these proceedings expeditiously so we are one step closer to getting quality and reliable broadband for every app innovator, irrespective of where they choose to start their business.

#### **I. The FCC's Mission to Bridge the Digital Divide is Better Realized by Allowing Industry Stakeholders to Leverage TV Bands for Unlicensed Broadband Use**

The ever-growing need for broadband access in rural areas is an ongoing concern for the Commission. In fact, over 90 percent of the FCC's Lifeline program is wireless and the demand for wireless broadband is only going to increase, especially for app companies.<sup>5</sup> As the Commission is aware, TVWS can cover vastly larger expanses than traditional Wi-Fi routers. For this reason, the FCC chose TVWS as a proposed solution to service un-served rural areas, stating in 2010 that access to TVWS "enable[s] more powerful public [i]nternet connections...with extended range, fewer dead spots, and improved individual speeds;" and also ameliorates overly-congested wireless networks (a phenomenon typically referred to as "spectrum crunch").<sup>6</sup>

TVWS could be particularly helpful for our member companies that are located outside of Silicon Valley. In Birmingham, Alabama, App Association member MotionMobs operates out of an office building that was only equipped with DSL broadband. This simply did not get

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<sup>3</sup> See ACT| The App Association, ACTONLINE.ORG (last visited March 8, 2019)

<sup>4</sup> See *State of the App Economy*, ACT| THE APP ASSOCIATION (2018). Available at [http://actonline.org/wp-content/uploads/ACT\\_2018-State-of-the-App-Economy-Report\\_4.pdf](http://actonline.org/wp-content/uploads/ACT_2018-State-of-the-App-Economy-Report_4.pdf).

<sup>5</sup> Comments of the Nat'l Lifeline Ass'n, WC Docket No. 17-287 et al, 9 (filed Feb. 21, 2018).

<sup>6</sup> *E.g., In the Matter of Unlicensed Operation in the TV Broadcast Bands, Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, ET Docket No. 04-186 & ET Docket No. 02-380, Second Memorandum Op. & Ord., 25 FCC 18661 (2010).

the job done for a business transmitting almost immeasurable amounts of data across a network, but there were few options locally for quality broadband. Out of necessity, MotionMobs had to contact its local ISP to pull a new underground line to its office from an existing line—estimated at about a few hundred feet—at the enormous cost of almost \$200,000.<sup>7</sup> If TVWS-enabled services were available, they would provide MotionMobs with a cost-effective alternative or complement to get that necessary resource essential for growth and to perform MotionMobs’ basic operations (e.g., data storage, multiple coders working on projects on the network, etc.). TVWS-enabled broadband can provide cost-effective alternatives to traditional broadband buildout schemas; small businesses, such as MotionMobs, can leverage these technologies to thrive in their local economies as opposed to being forced into other highly-concentrated tech markets (e.g., Brooklyn, New York, or Silicon Valley). Moreover, if this cost-saving option were available, MotionMobs could have instead oriented those resources to hiring more developers into its fold or investing in new projects as opposed to spending it on retrofitting an entire building to get reliable broadband.

Even the Commission’s leadership has commented on the value unlicensed TVWS bands have to the internet ecosystem.<sup>8</sup> In a speech, Chairman Pai congratulated wireless internet service provider (WISP) innovators on developing “TV white space solutions that help[ed] WISPs extend their reach.”<sup>9</sup> The App Association believes unlicensed TVWS bands play an integral role in this interconnected world and hopes that the Chairman also views them as a solution to promote building out the infrastructure needed to support the progress and broad adoption of future IoT.

## **II. The Commission Should Continue Its Work on Opening Up Spectrum for Unlicensed Use by Expediently Resolving Issues Encumbering TVWS-Enabled Broadband**

The Commission certainly sees unlicensed spectrum as an invaluable resource to the 5G ecosystem and has made positive strides in that regard generally.<sup>10</sup> In 2015, the Commission furthered its mission to increase connectivity to rural areas through unlicensed TVWS bands when it promulgated rules opening the 600 MHz guard bands, duplex gap, and Channel 37 band.<sup>11</sup> Much like the rationale it maintained in its previous proceeding, the

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<sup>7</sup> Shane Tews, *5G for Main Street America and Small Businesses: Implications for 5G as an Engine of Job Growth*, ACT | The App Association, at p. 3 (2018). Available at <http://actonline.org/wp-content/uploads/5G-for-Main-Street-America-and-Small-Businesses-1.pdf>.

<sup>8</sup> E.g., Ajit Pai, Commissioner, FCC, Remarks at WISPapalooza (Oct. 15, 2014), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-329969A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-329969A1.pdf) [hereinafter WISPAPOLOOZA SPEECH].

<sup>9</sup> WISPAPOLOOZA SPEECH.

<sup>10</sup> E.g., *In the Matter of Unlicensed Use of the 6 GHz Band, et al.*, Notice of Proposed Rulemaking, ET Docket No. 18-295, et al. (2018). Available at <https://docs.fcc.gov/public/attachments/DOC-354364A1.pdf>.

<sup>11</sup> PART 16 R&O.

FCC recognized that TVWS technology's impressive reach has the extraordinary potential to bridge the digital divide without the traditional constraints of costly wireline or wireless deployments.<sup>12</sup> The Commission distinguished the capabilities TVWS bands have to “provid[e] high data throughput service to un-served or under-served areas of the country at relatively low cost.”<sup>13</sup> The App Association agrees that TVWS technologies should serve as a cornerstone solution to promote broadband access in these far-to-reach areas by addressing two critical issues in spectrum management: access to wireless broadband for rural areas and mitigating spectrum crunch.

These proceedings demonstrate a truly bipartisan effort to bring more broadband to rural Americans as both Republican and Democratic commissioners agreed on advancing these items originally.<sup>14</sup> This vote represents a critical step in providing our members with an incredible resource, TVWS-enabled broadband. The App Association respectfully asks the Commission to continue its long-held bipartisan tradition on this issue and continue to move forward on key items related to making TVWS readily available.

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<sup>12</sup> See *id.* (advocating that “[t]he fixed devices that are being deployed today are typically used to provide backhaul services for Internet connectivity offered by wireless internet service providers (WISPs), schools and libraries.”).

<sup>13</sup> Part 16 R&O at 9552.

<sup>14</sup> *In the Matter of Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, and Duplex Gap, and Channel 37 and Amendment of Part 74 of the Commission's Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and 600 Mhz Duplex Gap*, ET Docket No. 14-165 & GN Docket No. 12-268, Rep. & Ord., 30 FCC Rcd. 9551, 9730-37 (2015), [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-15-99A1\\_Rcd.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-99A1_Rcd.pdf) [PART 16 R&O].

As always, the App Association appreciates the opportunity to address these issues, and we thank the Commission in advance for its time and consideration of our views.

Sincerely,

A handwritten signature in black ink that reads 'Morgan Reed'. The signature is written in a cursive, flowing style.

Morgan Reed  
President  
ACT | The App Association

CC:  
Nicolas Degani  
Erin McGrath  
Will Adams  
Umair Javed  
William Davenport