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www.grassley.senate.gov
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## United States Senate

CHARLES E. GRASSLEY

WASHINGTON, DC 20510-1501

December 19, 2018

940

The Honorable Ajit Pai  
Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, D.C. 20554

Dear Chairman Pai:

Enclosed please find a letter from JAGID Management in Bloomfield, Iowa regarding the issue of TV White Spaces for use in providing high speed internet connections to residents who currently do not have access to broadband connectivity. Over the course of the past several years, I have received many letters from constituents supporting the deployment of this technology. I sent you a letter in 2017, asking that this matter be given all due consideration. I once again ask that the thoughts expressed by my constituents be given all due consideration as you continue to deliberate on this matter.

Broadband connectivity is vital to personal and professional success in the world today and many parts of Iowa still lack adequate service. I know that closing the digital divide is the foremost mission of the FCC under your leadership. I support exploring all options to help Iowans receive the critical services they need.

It is my understanding pilot projects using TV white spaces to deliver broadband are underway in many areas of the country, including in Iowa. I am sure that the lessons learned in these pilot projects will help to inform your decisions as you consider how to move forward with this technology.

Thank you again for your time and attention to this matter important to rural America. Please do not hesitate to contact my Washington, D.C. office if I can be of assistance in facilitating information regarding this matter.

Sincerely,



Charles E. Grassley  
United States Senator

Committee Assignments:

CHAIRMAN,  
JUDICIARY

AGRICULTURE  
BUDGET  
FINANCE

CO-CHAIRMAN,  
INTERNATIONAL NARCOTICS  
CONTROL CAUCUS

Dear Senators Grassley and Ernst,

As you know, to operate in the world of today, businesses of all sizes throughout the planet truly need fast and reliable internet connections. Sometimes, particularly in rural America, access to internet is limited or not available at all. This is particularly true of highspeed and broadband speed internet connections. You've long been champions of rural broadband and I thank you for that support.

One of the new opportunities to get broadband coverage in underserved areas, without the huge investments in infrastructure required by traditional fiber broadband, is utilizing TV white spaces. This technology has the potential to provide broadband speed coverage to millions of Americans who currently lack this critical connection in their homes, schools, and their large or small businesses. Several providers have started rolling this technology out in pilot projects including in one recently announced for Eastern Iowa which has great potential. However, without certainty from the FCC, I'm not sure we will see this type of technological advancement grow to the scale we need.

I've enclosed a copy of the letter many of the companies providing these pilot projects sent recently to the FCC. In this letter, these companies, including the one providing pilot project coverage in Iowa, clearly spell out what they need the FCC to make decisions on to expand and grow their technology and the broadband coverage it can provide.

The FCC is currently considering several questions around the use of vacant TV channels for broadband technology. I think using this currently unused spectrum for such an important purpose would have a huge positive impact on communities and businesses like mine in Southeast Iowa. I'm hoping you will weigh in with the FCC and ask them to decide these questions favorably and quickly so more Iowans can soon take advantage of this opportunity to get connected.

Access to broadband is critical for economic development and quality of life and can really help turn communities around. I was excited to move home to Iowa, relocate my business here, hire locally, and even start two new business to help revitalize my hometown, but continued growth is only possible with strong broadband connectivity. As a fellow innovator, I appreciate these companies thinking outside the box to bring coverage to Americans who have been left behind when it comes to the opportunities a good internet connection affords.

Thank you!

Jake Williams  
JAGID Management  
4 Bader Street  
Bloomfield, Iowa 52537



## CONNECT AMERICANS NOW

November 2, 2018

### Ex Parte

Marlene Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Re: ET Docket No. 16-56, ET Docket No. 14-165, MB Docket No. 15-146, RM-11745, GN Docket No. 12-268

Dear Chairman Pai, Commissioner O'Rielly, Commissioner Carr, and Commissioner Rosenworcel:

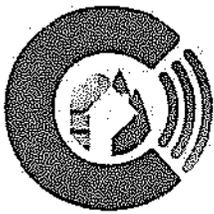
We are a group of forty-four (44) companies and organizations working across the country to develop technology and expand broadband in rural America. Our communities are often remote, thinly populated, and geographically challenging. But we are committed to serving more Americans living in these areas and bringing them broadband, and we are making real and tangible progress. An important part of our effort is the use of White Spaces technologies. These technologies are ideal for delivering broadband to our communities because they operate on low frequencies that allow us to cover very large areas economically.

As network operators, equipment providers and rural broadband advocates, we are working together to provide broadband to people we could not serve without White Spaces technology. We appreciate the FCC's efforts to date to make this possible.

But with your help we can go further. Our deployments are giving us real-world experience in how a set of pragmatic changes to FCC rules would allow us to reach even more Americans, without causing harmful interference to incumbent licensees. Microsoft filed a letter with the Commission on October 2 describing these ideas and why they are so important. We therefore write to you today to request that you issue a Further Notice of Proposed Rulemaking in your existing White Spaces docket that proposes to adopt these improvements. Specifically, we request that you propose:

1. Higher power for fixed devices in rural areas where we can operate without causing harmful interference to broadcasters;
2. Antenna placement at larger heights above average terrain governed by a new protection mechanism;
3. Narrowband IoT operations to support important applications such as precision agriculture and environmental sensing; and
4. Geofenced operation on moving vehicles.

We share your goal of expanding broadband to every American and appreciated the opportunity to talk with your staff about how we are evolving TV white spaces technology and leveraging it to provide broadband



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to consumers in rural America. Considering the improvements noted above in a further notice will give us the chance to show you how these powerful new tools can advance broadband connectivity in rural America. Thank you for your consideration.

Sincerely,

Carri Bennet, General Counsel, RWA – The Rural Wireless Association  
Aaron Bennett, VP-Fixed Wireless, Pulse Broadband  
Bill Brown, President/ CEO, Metric Systems Corporation  
Jim Carlson, CEO & President, Carlson Wireless Technologies Inc.  
Pasquale Cataldi, Head of Wireless Technology, Nominet  
Jim Connor, CEO, BridgeMAXX  
James DaBramo, COO, LICT Corporation  
Tad Deriso, President & CEO, Mid-Atlantic Broadband Communities Corporation  
Jonathan Dowler, Director of Sales & Marketing, Virginia Broadband  
Fred Engelmann, Principal Consultant, Adirondack Internet & Rainmaker Network Services  
Lowell Feldman, CEO, Evolve Cellular  
Robert Foster, CEO, Auton Inc.  
Vern Fotheringham, CEO, ARK Mediacom, Inc.  
Craig E. Gates, CEO, Hill Country Electric Cooperative and Triangle Communications  
Ryan Guerra, Founder & CEO, Skylark Wireless  
Tom Harshbarger, Senior Director, Cloud Platform and Services, Synnex  
R. Cory Heigl, Vice President, Packerland Broadband at CCI Systems, Inc.  
Kari Hoffman, General Manager, Network Business Systems Inc.  
Steve Hubbard, CEO, RTO Wireless  
Greg Jarman, COO, Watch Communications  
Mark Kimball, Co-Owner, Essex Farm  
Jeff Kohler, Founder & Director, JAB Wireless, Inc. d/b/a Rise Broadband  
Emmanuel Lelekis, Founder & CTO, Point Broadband  
Dale Merten, VP & COO, ToledoTel  
Andrew Metcalfe, CEO, Native Network, Inc.  
Peg Molloy, President & CEO, VistaLifeSciences, Inc.  
Adi Nativ, VP, Global Business Development, RADWIN  
Bob Nichols, CEO, Declaration Networks Group, Inc.  
Mark Ouellette, CEO, Axiom  
Heng Pan, CEO, HuWoMobility  
Kyle Quillen, Founder & CEO, Agile Networks  
Matthew Rantänen, Director of Technology, Tribal Digital Village  
Joseph Sawasky, President & CEO, Merit Network, Inc.  
Beth Schiller, Owner, CvWireless LLC  
William Seiz, Manager, Final Mile Communications Inc.



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Garrett Shankle, Director of Technology, Virginia Broadband , LLC (VABB)

Ted Solomon, VP of Strategy and Corporate Development, National Rural Telecomms. Coop. (NRTC)

Dan Spray, President, Precision Technology Inc.

Haiyun Tang, Founder & CEO, Adaptrum

Gino Villarini, Founder & President, Aeronet Wireless Broadband Corp.

Caleb Weiss, VP of Network Operations, Edge Spectrum Inc.

Simon Westlake, CEO, Sonar Software

Thomas Whitehead, VP, Federal Government Affairs, Windstream

Robert S. Wu, Founder & CEO, 6Harmonics