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March 24, 2017

HON. GAMALIEL A. CORDOBA  
Commissioner  
National Telecommunications Commission  
BIR Road, Diliman  
Quezon City, Metro Manila  
Philippines

Re: NTC's draft Memorandum Circular on the use of TV White Spaces on a secondary and non-interfering basis

Dear Commissioner Cordoba

On behalf of the Dynamic Spectrum Alliance (DSA)<sup>1</sup>, I am writing to reiterate our support for the NTC's plan on "Allowing Use of Unassigned and Unused Allocated TV Broadcast Channels (TV White Space) on Secondary and Non-Interfering Basis".

As explained in more detail in our submissions in December 2014<sup>2</sup> and February 2015<sup>3</sup> as the NTC developed its interim framework, allowing dynamic shared access to TV white space spectrum enables a more efficient utilization of finite spectrum resources and supports key policy priorities such as digital inclusion and economic development.

The Philippines has been at the forefront of using TV white space technology. A pilot project brought broadband to remote areas on the island of Bohol using white space technology to support sustainable fishing practices<sup>4</sup>. Following the Bohol earthquake and the subsequent Typhoon Haiyan, the technology was repurposed to establish communication channels in order to assist with disaster relief efforts<sup>5</sup>.

The technical feasibility of TV white space technology has been proven in numerous trials and pilot projects in more than 25 countries across the world. These deployments have provided Internet access to schools, universities, libraries, community centers, healthcare facilities,

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<sup>1</sup> The DSA is a global organization advocating for laws and regulations that will lead to more efficient and effective spectrum utilization. Our membership spans multinationals, small-and medium-sized enterprises, and academic, research, and other organizations from around the world, including the Philippines, all working to create innovative solutions that will increase the amount of available spectrum to the benefit of consumers and businesses alike. A full list of DSA's 51 members is available on the DSA's website at [www.dynamicspectrumalliance.org/members/](http://www.dynamicspectrumalliance.org/members/).

<sup>2</sup> <http://dynamicspectrumalliance.org/assets/submissions/2014-12-17%20Dynamic%20Spectrum%20Alliance%20Comment%20on%20Philippine%20Memorandum%20Circular.pdf>

<sup>3</sup> <http://dynamicspectrumalliance.org/assets/submissions/15-02-23%20Dynamic%20Spectrum%20Alliance%20Letter%20on%20Philippine%20Memorandum.pdf>

<sup>4</sup> <http://www.rappler.com/nation/54742-tv-white-space-fisherfolk-bohol>

<sup>5</sup> <https://customers.microsoft.com/en-us/story/tv-white-space-technology-helps-in-disaster-response-a>

government offices and small and medium-sized business. More information on these projects is available on the Dynamic Spectrum Alliance's website<sup>6</sup>. Based on these experiences, it is clear that unlicensed devices can use vacant television bands without causing harmful interference to incumbent users, and that such use provides valuable public interest benefits.

With the publication of the final Memorandum Circular, the NTC will further its leadership in this innovative approach to spectrum management by joining five other countries – the US, UK, Singapore, Canada and South Korea – in establishing permanent rules to allow the use of TV white spaces.

### **The importance of allowing TVWS on a nationwide basis and without restrictions**

In letter the DSA wrote to you in February 2015, we urged the NTC to permit deployments throughout the Philippines without restricting it to particular areas, and to allow TV white space technologies to be used without limitation to customer classes, applications, and services. This is because nationwide markets are needed to attract equipment and solution providers and to leverage the economies of scale of a global TVWS radio supply which will help to further reduce the costs of, and ensure a faster rollout of, infrastructure in the Philippines.

For this reason, it is also important to align the rules to those already in place in five countries mentioned above – the devices and equipment have been designed with those existing rules in mind, for instance with an initial focus on operating in the UHF band along with plan for future support in the VHF band.

### **The role of databases in ensuring protection and providing flexibility**

Dynamic access to TV white spaces is controlled by databases, which preclude TV white space devices from using frequencies that have been assigned to broadcasters and other licensees. By providing TV white space devices with daily (or even more frequent) updates on licensed operations, TV white space databases ensure that incumbent licensees are always protected from interference, as has been proven in the numerous trials across the globe. As well as preventing interference, the fact that the databases can be seamlessly updated to reflect changes in allocation provides flexibility and control to the overseeing regulatory authority. As a result, hard-wiring conditions and restrictions into the regulatory framework can and should be avoided.

Please do not hesitate to contact me if you or your staff would like to discuss any issues raised in this letter or more generally ensuring that you can take advantage of this innovative approach to spectrum management to extend Internet access in the Philippines.

Respectfully submitted,



Kalpak Gude  
President, Dynamic Spectrum Alliance

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<sup>6</sup> <http://dynamicspectrumalliance.org/pilots/>