

# Google Gets FCC Nod to Promote TV White Space Use for Broadband

Google is now eligible to help move forward plans in the United States to use portions of the unused television broadcasting spectrum for broadband Internet access in remote areas where traditional cable hookups are too costly and difficult to provide.

Called "[TV white space](#)," those unused broadcasting frequencies have been eyed in the last several years as a potential way to distribute broadband Internet to users who can't get it because they live too far from cities and towns where adequate infrastructure exists.

To help make that happen in the future, Google has been seeking certification from the Federal Communications Commission (FCC) to become a certified database administrator for those segments of TV white spaces across the United States.

That final certification from the FCC has now occurred as Google's database of white space has recently been [accepted by the agency](#), according to a June 28 post by Alan Norman, principal of Google's Access team, on the *Official Google.org Blog*.

The certification of Google as a database administrator means that Google will be able to [provide information to service providers](#) about which areas of the TV white band will be available for providing Internet use, according to the FCC's approval letter.

"This is an exciting step forward," wrote Norman. "With FCC certification, we can do more to help make spectrum available. We are ready to work with leaders in the wireless industry—those developing certified devices that can talk to a database—to help them gain access to TV White spaces spectrum to help bring new technologies and services to market."

Google's [white spaces database](#) is available for viewing on the Google Spectrum Database Web page.

"Our database has already helped to show that there is available spectrum out there—if you know where to look," wrote Norman. "For example, we used the database to help visualize available spectrum in Cape Town, South Africa, and [Dakar, Senegal](#). And, with spectrum-sharing enabled by a database, multiple users can share spectrum, accessing what they need when they need it, and allowing others to use it when they don't."

In March, Google launched a [trial white space project in South Africa](#) where the company wants to see if it can use the same idea to bring Internet access to more communities inside the developing nation.

The idea for tapping into the unused TV white space originally came back in 2008, when Google saw it as a possible way to push Internet access to rural areas in the United States where getting such service was difficult and expensive.

The South African trial involves [10 schools in the Cape Town area](#) that will receive wireless broadband over a white space network. One advantage of using white space is that its low-frequency signals can travel longer distances than other broadcast signals.

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Google began a [white space trial](#) in the United States in 2010 after two years of delays following its initial 2008 announcement of the effort. The first tests were done at Hocking Valley Community Hospital in Logan, Ohio. Google helped the hospital outfit first-responder vehicles with the network.

TV broadcasters and wireless microphone makers had opposed freeing up the white space spectrum for Internet transmissions, claiming it would interfere with their broadcast signals and wireless microphones. These groups [sued](#) the FCC in 2009 to stop the spectrum from going public.

The TV white spaces are vacant airwaves between TV channels that can power speedy wireless broadband networks. TV airwave signals can travel far and deep—through walls, in fact—making the spectrum well-suited for mobile devices that connect wirelessly to the Web, such as smartphones and tablet computers.

Google, Facebook and other Internet companies [covet this spectrum](#) because they want to propagate their Web applications on smartphones, tablets, TVs and any device that will connect to the Internet.

The FCC had [preapproved](#) white space use for the public in 2008, but the effort eventually became bogged down.

Google often works on projects that aim to expand the availability of Internet access around the world. In June, the company announced that it is experimenting with a series of [high-altitude balloons over New Zealand](#) to build a high-speed Internet network that could be used to bring affordable Internet service to far-flung locations around the world for the first time.

The experiment, called Project Loon, is being touted as a high-tech way to create Internet connections for two-thirds of the people in the world who current-

ly don't have Internet access due to high costs and the difficulty of stringing connections in rural and far-flung parts of the world. The balloons will float in the stratosphere, twice as high as airplanes and the weather, and can be steered by rising or descending to an altitude with winds moving in the desired direction, according to Google.