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FCC Hopes White Spaces Vote Appeases Critics

The Federal Communications Commission aims to show that it can successfully walk the fine line between helping consumers and not stifling business innovation.

By W. David Gardner, [InformationWeek](#)

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With its National Broadband Plan and net neutrality efforts likely to remain bogged down in political infighting until after the November elections, the Federal Communications Commission is hoping its Thursday vote on white spaces spectrum will give it a victory and demonstrate that it can still deliver advanced technology for consumers while at the same time promoting business innovation.

A key question still remains: will opponents of white spaces -- the parties who claim their wireless ox will be gored -- be mollified by the course the FCC sets? The FCC is expected to approve access for the white spaces spectrum that exists around licensed spectrum, but broadcasters, wireless microphone providers, and users have complained that activity in the white spaces bands would cause interference. The five Democrat and Republican FCC commissioners have signaled that they favor approving the white spaces spectrum for public use.

The white spaces phenomenon began picking up momentum in 2007 when hardware makers like Motorola and some internet service providers began promoting the unused spectrum to the FCC. Even though its progress has been slow, there are several test sites that give an idea of what white spaces can be effectively used for.

A test site in Wilmington, N.C., has utilized equipment and services from Spectrum Bridge to test white spaces in wetland areas around the city requiring EPA monitoring that couldn't be wired with fiber or reached with Wi-Fi. When fully activated using white spaces spectrum, officials involved in the trial estimate it will save \$100,000. The need for fewer towers represents a major savings.

In another application, Spectrum Bridge has teamed up with Google to build a combo Wi-Fi and WiMax application running over white spaces spectrum in Ohio. Not only has the Hocking Valley Community Clinic used the application to improve connectivity in the hospital, but it also used the network for wireless data transfer from public safety and emergency vehicles racing to the hospital.

Meanwhile, Rice University researchers have been utilizing a \$1.8 million federal grant to develop and test custom networking gear and smartphones. (The most enthusiastic supporters of white space technology hope smartphones and laptops outfitted with the technology will appear by the end of 2011.)

The principal investigator of the Rice project, Edward Knightly, said a major attribute of white spaces should be its capability of eliminating Wi-Fi dead zones.

"As many Wi-Fi users know, you don't have to move very far before you drop out of a hotspot," said Knightly. "Low-frequency TV signals (like white spaces) are different. One more wall or one more tree is not going to push you beyond the reach of the network. That's why rabbit-ear antennas served most of the country quite well before cable and satellite came to dominate the market."

The Rice research will be free and easily available to the public. Many vendors including Google, Microsoft, Intel, and Dell also have major R&D products underway in white spaces technology but much of their research is likely to be held under trade secret protection.



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[FCC Expected To Approve White Spaces](#)

[Google Wants FCC To Consider 'White Space' Spectrum For Handset Broadband](#)

[FCC Proposes Wireless Microphone Ban To Boost 'White Spaces'](#)

[Microsoft Launches Massive Wireless Hotspot](#)

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