



kuhf houston public radio

public radio news and fine arts twenty four hours a day from houston, texas

KUHF Business News

Tuesday AM September 7th, 2010

by: Ed Mayberry

Rice University researchers have won a \$1.8 million federal grant to test wireless technology that uses dormant television channels to deliver high-speed broadband internet service. Ed Mayberry reports.



The grant allows researchers to take advantage of new federal rules that allow the use of unused sections of the TV spectrum. The new grant pays for development and testing of custom-built networking gear, as well as smart phones, laptops and other devices that can receive these so-called "white space" signals, as Rice's Edward Knightly explains.

"White space frequencies are the frequencies that aren't currently being used by digital TV stations. So the FCC is still in the process of making final rulings on how those can be used, but currently if there is an unused TV station, then it can be used for wireless networking. The use of white space is very much in the research phase. There are a small number of prototypes being developed. Microsoft Research has one. And this project is the first to deploy it directly to the users."

Knightly says such a wireless signal might provide better reception than traditional Wi-Fi distribution.

"White spaces do have a much better propagation range than the higher-frequency Wi-Fi. So the good news is that it will be able to get through walls and trees and outdoor scenarios that Wi-Fi can't really handle today. On the other hand we won't have the same transmitter power that a TV station has, so it won't be just a very, very small number of towers. We'll still have more towers, more base stations, but

the propagation will be much better than Wi-Fi."

The grant also allows Rice social scientists to conduct extensive studies to find out how people interact with and use the new technology.

> [return to previous page](#)