

# WSU to lease spectrum for wireless use

*May allow networks in 35-mile radius*

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CRAIN'S DETROIT BUSINESS

Wayne State University plans to lease out valuable air waves it has controlled since the 1960s, a move that could help clear the way for next-generation wireless systems and devices in metro Detroit.

Previously used for TV broadcasting, the 107.6 megahertz of radio waves are capable of carrying vast amounts of data, reaching out in a 35-mile radius from a tower at Eight Mile Road and Wyoming Avenue in Royal Oak Township.

The waves are strong enough to support emerging technologies such as WiMax and Ev-Do, both of

which let users access high-speed Internet using various devices such as phones and laptop computers from anywhere within signal range.

Patrick Gossman, director of academic technologies and customer services at Wayne State University, said he didn't want to comment on how much a lease or leases could fetch. He said he expects a request for proposals to be issued Friday.

By comparison, the board of regents at Arizona State University approved a 15-year agreement with Overland, Kan.-based Sprint Corp. Wednesday to lease out 48MHz in the Phoenix, Ariz., area for \$4 million along with discounts for school faculty, staff and students for wireless broadband service.

"Leases go for lots of money, especially in the larger markets, because the number of wireless options is increasing every day," said Mark Fratrick, vice president of Chantilly, Va.-based BIA Financial Network, a research company that, among other things, tracks



## RADIO-WAVE RADIUS

The Wayne State spectrum waves have a radius of 35 miles from Eight Mile Road and Wyoming Avenue in Royal Oak Township.

# Wireless: Wayne State to lease spectrum space

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the value of spectrum. "There are substantial amounts of money that are going to be spent on this spectrum."

The FCC ruled June 10, 2004, that spectrum held and controlled by schools could be leased to commercial entities. The FCC is finalizing details such as what kind of services may be offered on the spectrum.

"Wayne State ... has been an integral part of working in Washington, D.C., to change the rules for this spectrum from being a broadcast TV-type spectrum to ... being a spectrum that can be used for all kinds of communications," Gossman said. "The real target of this is wide-area high-speed Internet services."

The school plans to issue the request for proposals of about 107.6 megahertz in the 2.5 to 2.7 gigahertz portion of the radio wave spectrum. Digital personal communication services today are in the 1.9 gigahertz portion of the spectrum and older mobile devices are in the 800 megahertz portion.

The school plans to lease out four broadband radio service channels and 16 educational broadcast service channels. The 16 channels are capable of supporting mobile, high-speed Internet access, Gossman said, and are of the most interest to potential vendors.

Gossman said that the FCC considered the spectrum "junk" in the 1960s. Not knowing what to do with it, the spectrum was turned over to universities and other educational institutions.

Originally dubbed Instructional Television Fixed Service, it's the only portion of the radio spectrum licensed exclusively for formal educational purposes. More than 330 colleges and universities hold licenses for more than 750 ITFS stations.

Traditionally, ITFS waves offered users a broad range of services, such as in-service training for teachers and classroom instruction for students.

Wayne State, along with **Detroit Public Television** and **Detroit Public Schools**, formed the nonprofit **Community Telecommunications Network** in 1987, using the airwaves to broadcast educational programming in metro Detroit. At its peak, 29 different cable systems picked up the signal. Programs in subject areas from foreign languages to math were broadcast by CTN.

But Gossman said as the number of stations evolved, cable companies couldn't make room for CTN programming. It stopped broadcasting in June, he said.

"Back when the cable companies had 30 channels, they had all the room in the world for us," said

Gossman, who also serves as executive director of CTN. "When they had a couple hundred, they didn't have room anymore."

Wayne State, CTN and others lobbied the FCC to allow other uses for the spectrum, Gossman said. His primary interest in pursuing expanded use of the spectrum is to improve communication for Wayne State students and staff, he said. The FCC said the waves could be leased but not sold.

FCC law requires Wayne State to maintain 5 percent of its total spectrum. The other 95 percent will be leased, Gossman said.

Wayne State's purchasing department sent an inquiry to about 30 potential bidders to determine their level of interest. Gossman said he didn't want to identify any of the companies or how many responded, but said interest was high enough to pursue a request for proposals.

One of the companies interested is Rochester-based **SpeedNet L.L.C.**

"SpeedNet will be a big responder to that RFP and if successful, we will gain sufficient spectrum to deploy WiMax throughout the entire metro Detroit area, including as far north as Port Huron and as far south as Ann Arbor," said John Ogren, CEO of SpeedNet.

SpeedNet already offers limited WiMax services to customers in

area of northern Lower Michigan.

WiMax is a faster and more reliable connection than Wi-Fi and is being billed as the next alternative to cable or digital subscriber line services. Imbedded devices, such as laptops with WiMax-enabled receivers, are expected to begin appearing in 2006-2007.

Research company **Infonetics** said it expects WiMax to be a \$124 million market in 2005, up from about \$16 million in 2004.

Gossman said partnering with a third party or parties such as SpeedNet will cost less and benefit the school more than if it were to try and do something with the spectrum itself.

An executive summary of the Arizona State/Sprint deal estimates it would cost the school \$30 million to develop its own broadband network in Phoenix.

"If we can have a partnership with someone who creates broadband services throughout southeast Michigan and also has roaming capabilities nationwide, it would seem to me that would be a better service than setting something up that covers a three- to five-mile radius around the campus," Gossman said.

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