

## KILLERAPP

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TELEMEDICINE BRINGS  
MAMMOGRAPHY  
TO THE REZ

BY NICOLE FAWCETT, UNIVERSITY OF MICHIGAN

Native American women living in North Dakota and South Dakota are coming to the University of Michigan Comprehensive Cancer Center for breast cancer screenings without ever leaving the reservation.

In traditional mobile mammography, a large truck equipped with mammography machines travels to rural sites, and the mammograms are printed and read days later when the truck returns to a hospital or imaging center. Radiologists at the University of Michigan decided to improve on this method.

“Mobile mammography is a critical way for Native American women to get a mammogram,” explains Dr. Marilyn Roubidoux, professor of radiology at the University of Michigan Medical School and a member of ‘the Spirit of Eagles,’ a

leadership network that promotes cancer control research among Native Americans. “But what happens when a woman needs to be called back for more images?”

Images Beamed  
Cross Country

The radiologists found that by using digital mammography instead of films and adding satellite capability, they were able to beam the digital mammograms back to Ann Arbor, Michigan, to be read.

In the pilot program whose results Roubidoux presented at the annual meeting of the Radiological Society of North America, a mobile mammography unit owned by the Indian Health Service visited seven American Indian reservations in North

*A satellite link allows Native American women to get real-time readings of mammograms taken by a mobile unit.*



The Indian Health Service mammography van

Dakota and South Dakota and performed 515 digital mammograms between March and July of this year. The digital images were transmitted via satellite to radiologists in the Breast Imaging Division of the University of Michigan Radiology Department. The average time between sending the films and obtaining a report for these women was 50 minutes. In ideal technological and weather conditions, it was as fast as 30 minutes.


Of the 58 women who needed additional images, 72 percent were able to get those tests done immediately, or returned within three days for more imaging.

Radiologists found the mammogram images transmitted via satellite were of excellent quality, on a par with the digital mammograms they read daily in the clinic.

## Making Health Care Accessible

Only about 10 percent of Native American women over age 40 get a yearly mammogram. In many cases, women live on rural reservations where they must drive as far as 100 miles to have a mammogram. After the test, it can take up to a week before a woman receives the results. If additional tests are needed, it is often difficult to arrange for that followup.

“What I used to have to do is drive about 90 to 100 miles to get a mammogram done,” said one Native American woman who participated in the mobile mammography. “It was real convenient to have that unit come directly to our home town. There are a lot of women in our town who need to have the mammograms done that usually don’t come.”

The Indian Health Service plans to implement this service again in 2007, with collaboration from the University of Michigan. 

*Nicole Fawcett is a media coordinator for the University of Michigan Comprehensive Cancer Center.*

# FIBER-WIRED CITY ATTRACTS MANAGED SERVICES BUSINESSES

BY GEOFF DAILY

The Internet is often described as the 21st-century equivalent of the 19th-century railroad network: locations without access to it are left off the economic map, while locations with the best access are poised for growth. That’s why cities and towns have been trying to spur economic growth by building their own broadband access networks.

But does municipal broadband really make a difference to local business? And do higher network speeds have proportionally higher impacts? The evidence is still anecdotal, but it’s mounting. This is one of those anecdotes.

## Fiber-to-the-Premises in Jackson

The Jackson Energy Authority, a publicly owned utility, recently built a fiber-to-the-premises system in its home town of Jackson, Tennessee and surrounding areas, and opened the system to service providers who sell telephone, Internet access and cable television to local residents and businesses. Cinergy Communication and Aeneas Internet and Telephone both offer high-speed Internet access over the fiber network, at speeds that range up to 10 Mbps.

*For a small city, Jackson, TN, boasts a high concentration of firms that provide off-site computing resources for other businesses. The reason: its state-of-the-art fiber network.*

At least three companies in Jackson are taking advantage of this state-of-the-art network to deliver technology-based services and applications to the businesses of Jackson and beyond: Trinity Solutions, Xpert Systems Integration ([www.xsysi.com](http://www.xsysi.com)), and Interworks ([www.interworks.us](http://www.interworks.us)). All of these companies actually locate servers in Jackson Energy’s operations center.

These three companies have positioned themselves as providers of IT support services for small businesses. “We’re an IT department for a company that’s too small for an IT department,” says Paul Brian, president of Interworks.

“Whether it’s an attorney, a doctor’s office, or real estate, why not let companies keep doing what they’re doing and we’ll do the IT work for them?” asks Ted Beck, president of Xpert Systems Integration. “We do the infrastructure all the way up to the end-user experience.”

And Michael Laffoon, CEO of Trinity Solutions says, “We provide any type of computer solution for the west Tennessee area – we’ve written software applications, we’ve done networks with firewalls, and all the way down to troubleshooting why your printer isn’t working.”