

The Last Mile



OPENING UP LANE COUNTY'S **INTERNET ACCESS** *by Camilla Mortensen*

In the 1950s and '60s the new faster freeways of the Interstate Highway System could make or break the businesses of the towns they went through or bypassed. Oregon towns with freeway exits off I-5 often expanded, thanks to the advantages of being close to shipping and travel, while businesses in towns far from the new roads withered. Once upon a time, the same was true for towns along railroad tracks.

Former Lane County commissioner Cindy Wood-Weeldreyer says she knew that history of connectivity when she first became aware of what many in the '90s liked to call the "information superhighway," and she kept it in mind when she began working to bring fiber-optic cable to the area. "You follow the blueprint of history when you see opportunities coming down the road," Weeldreyer says.

In the 21st century high-speed internet access is becoming as essential to business, government, health, education and everyday life as telephones and highways were in the previous century. Lane County started off a little ahead of the game when it came to broadband, thanks to early work bringing broadband fiber to the area, and has continued to install fiber throughout the region. But if businesses such as those in Eugene's growing tech community, known as the Silicon Shire, want to expand, and if new businesses in rural areas want to grow, then more of our unused "dark fiber" needs to be lit up. We need to find ways to get more people faster access to the internet.

As the Federal Communications Commission (FCC) debates "net neutrality" — the belief that governments and internet service providers (ISPs) should treat all internet data equally and not create fast lanes only for those who can afford it — Lane County is still working to get broadband internet access to all its residents who need it.

Fiber Frontier

If you heard Lane County Commissioner Faye Stewart touting his work with the Regional Fiber Consortium during the May Primary election, you might have thought he was helping sheep farmers network their wool. In a sense, the consortium might actually do just that, but fiber in this case refers to the fiber-optic cable network that Stewart and others have worked to install and extend in order to improve broadband internet access in Lane, Coos, Douglas and Klamath counties.

Fiber-optic technology converts electrical signals carrying data to light and sends the light through transparent glass fibers about the diameter of a human hair, according to broadband.gov. Milo Mecham of the Lane County Council of Governments, who has been working on the broadband issue since the late '90s, says the fiber is flexible and easily expandable to allow more users to connect to it.

While Stewart points to how far the area has come in terms of getting internet access to people and institutions, Kevin Matthews still sees the glass as half empty. Matthews

was one of Stewart's challengers in the election for the rural East Lane seat, which Stewart won in the end. Matthews, who says he has a pretty strong background in social media, found himself using what he calls more "classical" means for campaigning in rural areas such as Oakridge because of a lack of connectivity. Some users in that area are still dialing up the internet via phone lines, he says, and are a little bitter about it since a high-speed fiber-optic line happens to run right through the small rural town.

Matthews says, "My impression is that some progress has been made in getting basic fiber-optic trunk lines out some of the corridors, but very little progress has been made getting connections from those trunks to regular people in their houses." That connection is what is called "the last mile" — the way your house connects to your internet service provider, through a phone line, coaxial cable, fiber-optic line or other option.

The last mile is where that little spinning icon telling you your webpage is still loading comes in, because even if a blazing fast fiber-optic line runs past your house, the speed of your internet access is also affected by how you connect, or don't connect, to that line.

In the 2013 White House report "Four Years of Broadband Growth," the Obama administration says that since 2002, internet access has contributed an average of \$34 billion a year to the economy. Akamai, which produces a quarterly "state of the internet" report, says in a 2013 study that the average U.S. internet connection is about 40 percent slower than the world's fastest, South Korea, and leaves us behind Latvia and the Czech Republic. We also pay more money for slower speeds.

Regional Fiber

Weeldreyer says when she was first elected commissioner representing East Lane County in 1995 she focused on health and human services issues and on improving communication between the County Commission and its rural residents. One issue Weeldreyer was dealing with was that while people in the metro area could attend commission meetings or watch them on community television, the broadcasts were not available to rural residents. With this in mind, she went to a telecommunications conference in 1997 thinking she would learn more about expanding community TV. What she got was a crash course in the Telecommunications Act of 1996 and the need to expand internet services.

"All I knew was my rural community, which had a natural resources-based economy that never recovered from the '80s, to compete in global marketplace would need that infrastructure," she says.

Weeldreyer became a "rural telecommunications evangelist." Two regional consortiums were formed: Regional Fiber Consortium and Fiber South Consortium, which later merged into one consortium under the name of the Regional Fiber Consortium in 2007.

Weeldreyer spearheaded an effort to bring fiber optic to Eugene and surrounding towns in the late '90s when she discovered that a private telecommunications company was laying fiber-optic cable from Seattle to San Diego. "It's the I-5 of the future and they are just going to punch it through," she thought.

At that time Eugene was developing what some called a "Silicon Forest," with high-tech companies like Hyundai (Hynix) and Sony moving in, but Weeldreyer feared the