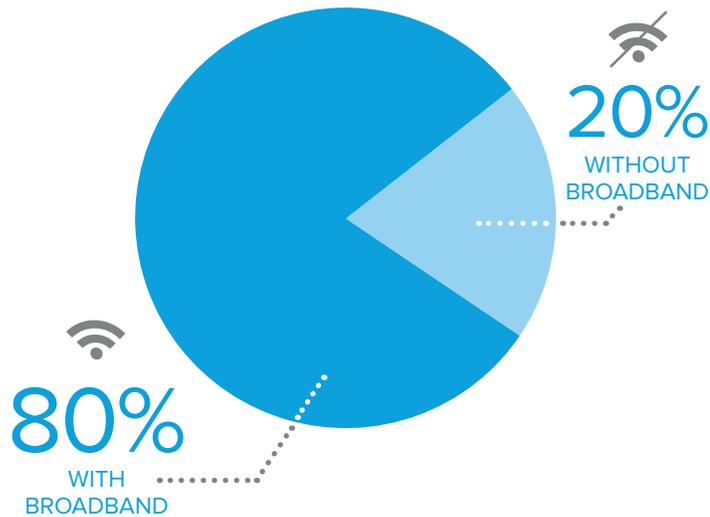


# WANT WIRELESS BROADBAND TODAY? TRY A WISP

ISPs aren't the only game in town—especially in small towns. WISPs, or wireless Internet service providers, would like a chance to connect you as well.



## ACCESS POINT FOR A TOWN OF 100 HOMES IN RURAL GERING, NEBRASKA

According to the cable and phone companies, ISPs are the only way to get broadband. And many people are all too ready to believe that. Still, for millions of Americans, especially those in rural areas that have been left behind, the wind of change has come, in the form of wireless Internet service providers—WISPs for short.

“Cable ignores so many people in this country, and often we’re able to beat their rates,” says Marlon Schafer, president of Odessa Office Equipment. “If it weren’t for us, whole towns would be without the Internet.” And Schafer isn’t exaggerating: His foray into WISPs started in his town of Odessa, Washington. Phone companies said they’d never bring DSL connections to his community, so Schafer connected a T1 from one end of town to the hospital. “Wouldn’t you know it, three months later the cable companies all of a sudden wanted to offer service where we were,” Schafer laughs.

WISPs, Schafer explains, are like upside-down satellite dishes. Instead of pointing toward the sky, a tower reaches down into the ground to connect to fiber-optic lines, and long-range wireless routers installed in each customer’s house point sideways toward the tower. Beyond that, the equipment can vary. “We use a lot of different equipment and technologies that can give near-T1 speed—much greater than DSL. An example is an installation I did for a woman 15 miles from town. We used a MikroTik RouterBoard 433 as the access point, similar to a wireless router in a house, except the outdoor version.” He also fitted the customer’s laptop with a special Ethernet-to-wireless adapter.

Still, for those who have access to both cable or DSL and wireless, the decision can be tough. On the one hand, the bigger names will stay in business, and seem a safer bet. On the other, Schafer is quick to point out the MCIs and US Wests of the world, big companies that went down and took their customers’ ability to download with them. “Consumers may believe that we don’t offer as strong a setup, but I can bring 10-meg service a good deal of the time. Many

cable companies have a hard time competing with that,” Schafer says. As for the speed consumers need, Schafer says there are very few customers who are so demanding that WISP speeds won’t cut it for them. “I knew a guy who three weeks ago was working broadband through Windows 95. It wasn’t the fastest, but we’re still basically looking at an Ethernet connection.”

In terms of the number of WISP customers nationally, Schafer believes there could be upward of three million users, though getting concrete data is a challenge. There are approximately 100 WISPs filed with the FCC, for example. Matt Larsen, owner of Vistabeam in Gering, Nebraska, says the WISP opportunity has come from a lack of respect, particularly for rural customers. “There’s this idea floating around that rural communities aren’t technologically savvy,” he says. “They are. They just lack the connectivity. I have an access point that sits in the middle of a cow pasture for a town of 100 homes. Eighty of those homes are getting broadband. Does that sound like a place that doesn’t care about technology?”

Dustin Jurman, president of Tampa’s Rapid Systems, sees WISPs as a community service, not just as opportunity for independents to grab market share. He learned this firsthand when his home state dealt with a natural disaster. “Florida obviously got hit badly by hurricanes over the years, and we were a big part in setting up places with the Internet again,” he remembers. “It was a way of helping out fellow service providers and showing our value.”

His problem is overcoming the perception that WISPs are just know-nothings with routers. “Sometimes I don’t like the term because people think of it as small-time,” he says. “We have tons of wireless infrastructure. The point is, a WISP can involve hybrid networks bringing infrastructure up a lot quicker than waiting for a phone line.” In fact, one of the company’s top testimonials came from AT&T, which utilized Rapid Systems’ technology to unwire the White House press corps during a presidential visit. Still, Jurman points out that most people’s needs aren’t on that level. “Customers need to understand that they’re asking for more speed than they’ll actually ever want. They think they need the cable company because of the high-meg pipes they talk about, but when are you going to use it? We can deliver anywhere from 10 to 150 megs.” Bob Moldashel, the owner of Lakeland Communications in Holbrook, New York, firmly agrees. “I’ve serviced companies with 30 employees all listening to Internet radio stations at once,” he recalls. “I doubt they were even using 10 megs.”

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*Matt Larsen, owner of Vistabeam Gering, Nebraska*



## PUTTING THE "SERVICE" IN SERVICE PROVIDER

As much as anything, WISPs know they can beat the cable companies one way: service. To compete with million-dollar marketing campaigns, they have to build their business through word of mouth and through being on call when others won't be. "The biggest complaint," says Jurman, "is that the cable companies take forever to fix your problems. They'll say 'We'll be there next Friday,' and you have to take a day off from work and wait around for a 12 to 8 p.m. window. The best WISPs fix the problem the next day—if not the same day." In addition, Jurman says larger companies are reluctant to offer any unusual extras. "Let's say you and a buddy want a private setup for Apple songs. A small WISP will make those network changes easier, while a larger one doesn't have the time or the talent to do it." How can they promise such impressive levels of customer service? It's primarily a factor of size; wireless ISPs usually serve smaller markets with fewer customers. Having fewer customers means more attention to each individual.

Moldashel thinks customers appreciate his WISP's low-pressure approach to sales. "It's great that the cable company does triple play, but do you need phone, Internet, and TV from one provider?" he asks. "You need to look at the individual parts and see the lowest cost. It can easily be a savings of \$500 to \$1,000 a year." Chuck McCown of Lakepoint, Utah's Wireless Beehive agrees, citing low overhead as one reason WISPs are a lower-price alternative. "Customers don't realize that they're paying the cost of all the cable employees and offices," McCown says. "The cable company has to earn so much per customer to stay in business. We thought it was a badge of honor when Comcast took out a full ad and mentioned us by name as a competitor to watch out for!" he laughs.

## TAKING THE BAD WITH THE GOOD

But Schafer admits there are clear limitations to WISPs. "From the consumer side, start-up costs tend to be more expensive," he says. "You may also be more likely to see a greater fluctuation in performance, especially for gamers and VoIP." In addition, a limited spectrum means links systems can get more heavily loaded and even extra pieces of hardware mounted to the house can create an aesthetic issue. "You can have bolts through the wall or the roof," Schafer says. "With wires running through the house from outside to inside, some installations aren't so dissimilar from satellite TV."

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*Dustin Jurman, president of Tampa's Rapid Systems*

But the buzz from those few unsightly installations has had widespread repercussions. Although WISPs like to paint themselves as having the can-do spirit of the little guy, they will acknowledge that some in the group have been weighing down their reputation. Moldashel can understand how WISPs got a bad name, but feels (or at least hopes) that their day is coming. "Slowly but surely we're getting rid of the people who install things with rubber bands and tape," he says. "They never last because their reputation becomes terrible. I believe WISPs will be working harder to set standards for everyone to live up to because we want to become the preferred method, not just a cheap alternative."

## THE WIMAX FACTOR

Although WISPs are surviving now, there's doubt about what the future holds for them. After all, WiMAX is coming. Short for Worldwide Interoperability for Microwave Access, WiMAX is an increasingly popular standard designed to supply wireless broadband access and promote interoperability. And in the WISP world, which often relies upon esoteric proprietary connections, the impact it will have has yet to be determined.

Rapid Systems' Jurman says the improved technology will be on the side of the little wireless guys. "Better modulation and WiMAX means more bits per hertz," he says. "Bigger pipes and faster speeds means you can further build in rural areas. WiMAX can link well over 15 miles, and third-generation tech should stretch that further."

Moldashel of Lakeland Communications also sees WiMAX as critical to future connections, but not necessarily to the advantage of WISPs. "I was just at the WiMAX show, and they're talking about a chip for cell phones carrying 100 megs," he says. "To me, that means you'll just be plugging [your phone] into your computer and won't need a lot of [Internet service] companies. But that also means a lot of smaller WISPs won't be needed either."



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