Open Access Saves a Municipal Broadband System

The telecommunications system built by Ashland, Oregon, couldn't compete with the local cable provider – until the city invited competitive providers into the system

By Joseph Franell ■ *City of Ashland, Oregon*

Should local governments be able to provide broadband communications products to their citizens? The big cable and phone companies will tell you "No." They say it is unfair for government to compete with them.

Of course they do – any threat to the revenue stream generated in a monopoly market naturally makes the big incumbents fret. Why wouldn't they fight a community's desire to provide leading-edge, competitive broadband in a market? A blanket exclusion of municipal broadband would condemn small communities across the United States to technological neglect as the major providers target the larger, more densely populated areas for the launch of their new product lines.

Their focus on the most densely populated areas is not surprising, nor is it necessarily bad. After all, these are businesses and their purpose is to make money. So how do we bridge the gap? How do we enable small communities to diversify and grow their economies? The answer is clear. Often, people have to do it themselves. They have to provide their own broadband technology. And so, municipal broadband is necessary.

Ashland's Early Missteps

If you have followed the growth of municipal broadband across the US, you have probably heard of Ashland, Oregon, and the Ashland Fiber Network (AFN). Ashland, a geographically isolated community, was one of the early builders and operators of a municipally owned broadband system and suffered some missteps along the way.

One of the biggest was promising cable prices 20 percent lower than the competition and then trying to go toe-to-toe with a national incumbent cable compa-

ny. Ouch. Needless to say, the incumbent had much deeper pockets and was able to offer a full digital package, including all premiums, for less than $35 a month - significantly below cost. Purchasers of this package were grandfathered in indefinitely. AFN's trying to compete against this kind of pricing, with programming costs continuously escalating, resulted in long-term operational losses.

Why are cable television programming costs so high, anyway? Did you know that most cable providers pay more than $3 per subscriber per month for the most popular sports channel? Some of the premium channels can cost more than $10 per subscriber per month. When you add up the programming costs for all of the channels and add in the capital costs associated with offering cable (headend, broadband network, digital boxes, etc.), very few cable companies can make much if any money on this product. Often, the smaller cable providers like AFN actually lose money being in this business. That is where we found ourselves up until last year.

What changed? How did a small muni-broadband system finally become operationally profitable? Simply, AFN's unique structure finally began to pay off.

Privatizing Video Services

So what makes AFN unique? The answer is a concept that was visionary from the very beginning: the implementation of an open network. Many people talk about open networks today – even the FCC – but very few open carrier networks are actually operating in the United States. The Ashland Fiber Network was designed originally as a hybrid open network. It was open on the data side, with multiple private-partner ISPs offering high-speed

Internet service. Originally, the city operated the video (cable TV) system as a retailer; now, even the cable TV is being offered through a third party over the AFN network. The city leased its CATV headend to one of the ISPs, which pays a percentage of its gross revenues back to AFN – turning the formerly money-losing operation into a moneymaker for Ashland.

In a town of just over 20,000 residents, there are eight ISP's operating on AFN, in addition to the incumbent cable provider and the phone company. Not only has this level of competition resulted in better service through more choices, it has had the surprising effect of encouraging the development of niche providers. These niche providers specialize in serving either customers with a specific technology or specific kinds of customers, such as small businesses. As a result, Ashland customers receive not just better service, but service tailored to their specific needs.

The presence of advanced broadband services in a community like Ashland has also spurred tremendous economic health. As you can see from the two maps, the number of registered businesses in Ashland has grown significantly since 1997, when AFN was started and broadband became available. You will notice that those businesses are not just located along commercial corridors but are dispersed throughout the town.

Home businesses, powered and enabled by broadband Internet connections, have become commonplace in Ashland. Business owners are able to have a successful international presence while enjoying living in a small college town. Competitive broadband services in small communities across America can and will enable the same results
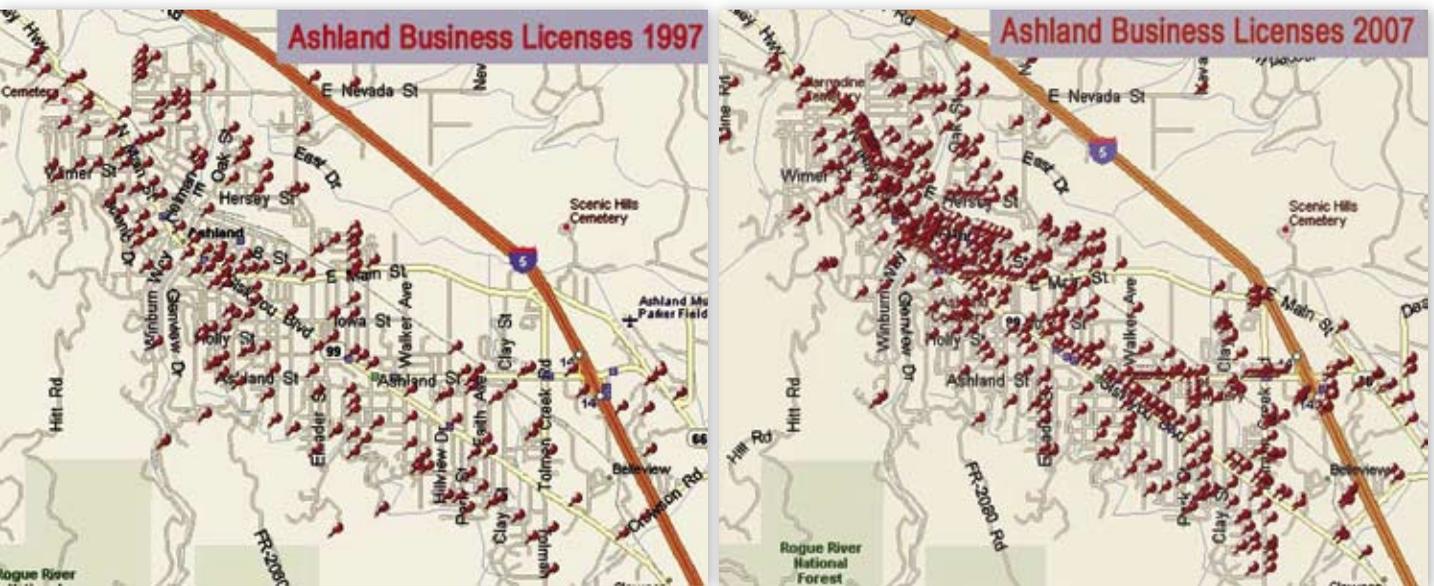
Ashland's growth over the past decade is easy to see in person, or on these maps.

over time. The key is deploying services in a competitive manner.

Monopolistic technology offerings, by their very nature, are slow to advance. Where there is a high rate of return on investment with old technology without any threat of competition, monopolistic incumbents have little reason to improve their networks and/or product offerings. The startling evidence of this is the widening gap between Internet speeds in the US and those in other parts of the world. In some cases, the US trails other countries by more than 50 Mbps.

Fiber for the Future

What about the future? AFN was built as a hybrid fiber coaxial (HFC) network. Last year, we launched an 802.11b wireless network that currently covers about 30 percent of the market and we have a VoIP provider on AFN providing competitive, E911-enabled dial tone. Going forward, our five-year business plan includes a two-pronged approach to further enable our community with technology.

First, we plan to migrate from the HFC platform to a fiber-to-the-premises (FTTP) model. We already have direct fiber customers on AFN and continue to build on that customer base. As applications drive demand for

bandwidth, we expect to see the need for clusters of FTTP connections grow, so our network will convert to meet that demand.

Secondly, we plan a WiMAX deployment within the next two years. The 802.11b wireless network was intended from the beginning as an interim solution to mobile Internet access demand. Having been on the bleeding edge of technology deployment in the past, and understanding the costs associated with early adoption, the AFN team decided to wait until the dust settled a bit on WiMAX technology prior to beginning a deployment.

What we want to accomplish is to positively affect the lives of our citizens; enable clean, sustainable, high-wage economic development; continue to prove the benefits of muni-broadband; and enable other communities to benefit from the lessons we have learned (good and bad).

Our broadband technology continues to affect citizens' lives in many ways. We're about to implement an integrated mobile data computer (MDC) solution for Public Safety and Public Works employees. Properly designed and deployed tools like the MDC increase efficiency, accuracy of work, and overall quality of service to the community. We are also running fiber to our hydroelectric genera-

tion facility to allow remote management and monitoring, and we've just completed replacing an old microwave communications system used for police radio communications with fiber optics connected to the AFN network in order to provide significantly greater reliability.

We are also upgrading our cable modem capabilities to allow for Internet speeds of 10 Mbps and higher. And the City is partnering with three of the ISPs to launch an integrated community Web site and TV channel that will become the central community informational tool.

Finally, through continued planned improvement to the telecommunications infrastructure, we will enable healthy economic growth well into the future. The AFN team takes every opportunity to be good ambassadors, telling the story of the need for and the benefits of a well-planned and well-managed municipal broadband system. Municipal broadband truly is the hope for the future if small-town America is going to stay competitive economically and continue to provide good places to live and work. **BBP**

About the Author:
Joseph Franell is Director of Information Technology for the City of Ashland, Oregon.