INTERNET WARRIORS
WiredWest takes up battle to gain 'last mile'

BY JOHN TOWNES

Taming the Wild West of rural Berkshire County in terms of providing the advanced telecommunications services needed for today's Internet and e-commerce culture has been a tough challenge and – so far – elusive goal over the past several years.

That may soon be changing. Taking up the fight today is WiredWest, a community-based initiative with the ambitious goal of providing universal direct access to advanced telecommunications services by bringing fiber-optic lines to all homes, businesses and other sites in participating municipalities.

The basic strategy of WiredWest is for municipalities to jointly create a regional entity to build community-owned, open-access local "fiber-to-the-home" networks that cover all sections of the participating municipalities.

These would be the so-called "last-mile" lines linked to the primary "middle-mile" regional network which is currently being developed by the Massachusetts Broadband Institute.

The project is intended to enable individual towns to pool their resources on a regional basis and benefit from economies of scale. It also can take on the expense of building such a network without the pressures that private companies face, according to Monica Webb, a member of the WiredWest steering committee.

"You often hear that it is too expensive to bring fiber-optic lines to every home, business and institution in a rural area," said Webb, who lives in the remote southern Berkshire town of Monterey. "But that only means it's too expensive for the business model of private-sector companies who have to show profitability in a very short period. It is not too expensive if it is done by the communities themselves on a basis that does not have to meet those market demands."

WiredWest organizers compare their strategy to the original electrification of rural areas. Webb noted that this approach has been taken in about 40 other regions in the United States, and their research indicates that it is possible for such a project to be financially self-sustaining.

WiredWest (wired-west.net) grew out of local efforts to look for telecommunications solutions for under-served rural areas, including the Southern Berkshire Technology Committee, which was initially created by the Berkshire Regional Planning Commission. These efforts coalesced into an umbrella organization over the past year.

Monica Webb is among the ranks of rural residents longing for access to advanced Internet and telecommunications services. The Monterey resident is a spokesperson for WiredWest, a grassroots organization involved in a new effort to bring such services to dozens of under-served communities in the region.

WiredWest has initially been an all-volunteer effort guided by a nine-member steering committee. In addition to Webb, the committee includes David Greenberg (who is its chair), Bob Armstrong, Larry Klein, David Kulp, Kimberly Longey, Jim Lovejoy, Tim Newman and Edward Zyszkowski.

During the recent town-meeting season, WiredWest submitted ballot items in communities authorizing the individual towns to participate in this initiative on a preliminary basis. These were passed by voters in all of the town meetings where they were submitted. (In Egremont and Lanesboro, it was adopted by the local select boards instead.)

In total, 47 towns in Berkshire, Franklin, Hampden and Hampshire counties have voted to join WiredWest on a preliminary basis. Representatives from these communities officially convened on June 26 for an inaugural meeting in Cummington.

Next steps

As the next step, WiredWest organizers and representatives from the towns will develop a formal organizational structure and business model for the project. This phase is expected to be completed within about six months, according to Webb. When they have a completed plan, it will be submitted to the towns for another vote on whether to formally join the project.

Webb said it is too early in the process to predict how long the actual build-out might take. However, if all goes well, she said they hope to have a system in place within several years.

"This is a critical need, and everyone wants to do it as rapidly as possible," she said.

Webb noted that the initiative is initially focused on towns that are predominantly rural and lacking in suitable broadband and other advanced telecommunications services.

"The under-served towns are where the need is most acute, and that's what we're concentrated on," said Webb. "We have not approached Pittsfield and other towns and cities that already have adequate services like cable broadband. But, as we move forward, it's possible that these other communities could join this initiative, too."

The Massachusetts Broadband Institute has provided the group with funds to contract with Dr. Andrew Cohill, founder of Virginia-based Design Nine, to assist with the planning. Cohill is a broadband architect whose company advises communities in the design and management of community-owned and open-access networks. He met with WiredWest organizers and town representatives in conjunction with the group's June 26

meeting, and will be working throughout the planning process.

WiredWest also has access to a municipal lawyer provided through grants from the Berkshire Regional Planning Commission and Franklin County Council of Governments.

Numerous options

Webb said there are numerous possible alternatives for the project's governance and structure. The group has been doing research into the options, and they have studied what has been done in other communities that have undertaken similar efforts.

These options include the formation of a co-op business, a nonprofit organization, a regional utility authority, or some form of municipal entity, among possibilities.

They will also be looking into various potential financing sources. The system is intended to be financially self-sustaining without relying on local budgets or taxes for funding (other than a possible small contribution for initial start-up administrative costs).

The potential sources include state and federal funding, other grants, loans, bonds or an investment offering, among others.

While the organization would install and own the lines, it will not be a service provider. The network will be open access, and available to private-service providers for a usage fee. Webb said these fees would be the primary source of income to cover its operational costs, debt service and repayment of capital investment within a reasonable time frame.

Whatever form the final project might take, Webb said there are certain basic principles WiredWest is committed to.

"Our primary requirement is to build a system that is owned and controlled by the community and whose main purpose is to serve the interests of the people who live and work there with affordable services," she said. "We also want to ensure that the network is not subject to being sold off in the future to private interests."

Webb also emphasized that WiredWest is not intended to compete with existing or potential service providers, such as cable and telephone companies, ISPs or other telecommunications businesses. Instead, it is designed to enhance and complement their role, by providing them with an advanced infrastructure and delivery system to these local markets.

"We will not be operating the services ourselves, but simply making it available for providers to use," she said. "This will ultimately be to their benefit, and we want to work with them."

WiredWest's Monica Webb says the organization is initially focusing its efforts on towns that are predominantly rural and lacking in suitable broadband and other advanced telecommunications services. "The under-served towns are where the need is most acute, and that's what we're concentrated on."

Fiber-optic cables are not the only available delivery system. Other technologies are also available to expand coverage, such as wireless Internet networks which do not require the costly installation of fiber-optic lines.

However, Webb said the organizers of WiredWest studied all of the possibilities and decided that fiber-optic cable is the technology most suitable for quality services, while also providing the capacity to handle the ever-increasing demand for bandwidth.

"It's important to have a future-proof system," said Webb. "The use of the Internet and advanced telecommunication services is going to increase exponentially in the years ahead, and it will be necessary to have the capacity to support that. You don't want to build a network that is going to be obsolete or inadequate in five or 10 years. Instead, it's vital to have a network that will be able to handle projected needs into the foreseeable future."

Limitations hit home

Webb, a marketing consultant who works at home, said one reason she got involved in the volunteer-based WiredWest project was her own experiences as a resident of an area with limited Internet access. While she does occasionally use the high-bandwidth

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Internet service available at her husband Terrence Webb's financial-services office in Great Barrington, she said it is very difficult to conduct online business or personal activities at home.

She and her husband initially had to rely on dial-up service for their home, and then eventually subscribed to satellite access. Webb noted that satellite service also has bandwidth limitations, and users can be periodically cut off at unpredictable intervals.

"Satellite has its own problems," she said. "For example, I can't send or download very large files for clients without worrying about getting cut off before it's finished."

She said the importance of quality Internet access really hit home when she and her husband were planning a project to incorporate sustainable technologies into their house.

"I had to do a lot of online research for that, and it was painfully slow and difficult," she recalled. "Later, people asked me if I could do the same kind of research for them, and I had to turn them down because I couldn't go through that again. That experience made it clear to me how crucial it is to make quality broadband service available to everyone."◆