



PROJECT DESCRIPTION

1. GENERAL INFORMATION

Organization Name: WiredWest Communications
Mailing Address: PO Box 312, Ashfield, MA 01330

Contact: David Greenberg, Chair, 413-624-6557
Website: www.wiredwest.net

Mission

WiredWest's mission is to plan, build and operate a community-owned, open-access fiber-optic network that enables the provision of comprehensive, affordable, reliable and high-quality Internet, telephone, and television services as well as many new and enhanced services to all the residents, businesses and institutions of WiredWest towns who are interested in participating.

Values

Universal Access: We believe every home and business that requests it deserves access to 21st century telecommunications.

Community-Owned: Participating towns have a role in governance and oversight of the organization to ensure policies represent the best interests of our communities and our region.

Financially Sustainable: The business model must be realistic in its assumptions, and be built on the premise that revenues will cover operational costs, debt service and repayment of capital investment within a reasonable timeframe.

Focus on Service and Affordability: We will strive to enable the provision of comprehensive, high quality services, with secure, reliable connections at affordable rates.

Future-proof: Building a high capacity network for our region is essential – but the upfront costs are high. Thus, the network must last a long time and be capable of highly scalable, economic upgrades as needs increase.

Impact

The WiredWest fiber-optic network will enable our region to have control over its economic future. Our investment in this infrastructure will create a level playing field for all area businesses and will close the digital divide for local residents. It will result in more choice of internet service providers and lower costs for internet-related services. And it will create a lasting community-owned asset that will result in new private sector business opportunities, local job creation, reduced local government costs, improved health and safety, dramatically- increased educational opportunities, and increased property values. Most of all it will help create a better quality of life for all who treasure Western Massachusetts.

Rationale

Our existing internet infrastructure is obsolete.

With bandwidth usage increasing dramatically over the last few years due to growing use of bandwidth-heavy audio and HD video applications, the speed of accessing information and applications over limited-bandwidth technologies like DSL, cable modem and wireless has begun to hit capacity.

Private companies have deemed urban and suburban areas as worthy of investment in future-proof fiber-optic networks, while rural areas are left to struggle with limited service from obsolete technologies. The only way to ensure our region will have the future-proof telecommunications infrastructure we need is to take the initiative ourselves and build a community owned fiber-to-the-premises network. The network will be available to all who request access.

WiredWest's primary purpose is to build and operate the network. We are building the infrastructure, not providing internet services, and this concept is important to our business planning and business model.

Building a future proof broadband network will create a community-owned asset for our region.

The current substandard internet infrastructure in Western Massachusetts disadvantages our businesses and institutions, our workers, our students, our medical professionals and their patients, and our local governments, including public safety. In turn, that affects the vitality of our communities. Our ability to retain young people and families, and to attract businesses and top talent to relocate to our area, is reduced.

Building a universal, open-access, community-owned fiber-to-the-premises network will fundamentally change the outlook for our communities. The WiredWest network will provide better opportunities for business; employment; government efficiency; education; health and welfare; and better quality of life. And it will ensure our communities remain diverse and vibrant.

A community-owned broadband network is sustainable.

The average Western Massachusetts household currently pays between \$1,000 and \$3,000 annually for internet, phone and television to out-of-state corporations – at higher rates for inferior service compared to our urban and suburban counterparts. Almost all of this revenue is leaving the region.

The WiredWest broadband network will serve as economic stimulus to the region by employing local people to build and operate the network and by creating a regionally-owned asset that will keep revenues for service in the region.

Target Area

Our target area is the un-served and under-served communities located in the four westernmost counties (Berkshire, Hampshire, Hampden and Franklin) of the Commonwealth of Massachusetts. Currently there are 47 towns participating, covering 1,445 square miles (924,802 acres). *Please see Attachment A for a complete list of participating towns and a target area map.*

We have established a waiting list for communities that are not located in our initial target area. There are 3 towns within our initial target area that have not yet joined. There are 5 towns outside of the initial target area that have expressed interest in joining. Once our business plan is complete WiredWest may expand the initial target area to include those towns that are eager to participate.

Organizational Structure

Participants: WiredWest is currently an unincorporated association of 47 towns who have affirmatively agreed – through Town Meeting vote or Selectboard action – to join together for the purposes of establishing a universal, open access, financially self-sustaining communication system for the provision of broadband service, including high-speed Internet access, telephone and television to the residents, businesses and institutions of the participating towns.

Leadership: WiredWest is led by a Steering Committee. Steering Committee members serve as volunteers and have experience in business, financial services, community economic development, engineering, public policy, fundraising, marketing, farming, local government, education, cabinet making, technology, and social entrepreneurship. Individually and collectively the Steering Committee has demonstrated capacity to plan and implement complex projects in the for-profit, not-for-profit, and government sectors. *Please see Attachment B for full bios of the Steering Committee.*

Town Delegates: Each participating Town, through its Board of Selectmen, has appointed a primary and alternate delegate to WiredWest. Town delegates represent their communities' needs and interests in WiredWest business matters, and serve as liaisons between WiredWest and their respective town residents, businesses, and community leaders. Delegates are accountable to their Boards of Selectmen. Delegates may serve on WiredWest committees, including its Steering Committee.

Committees: WiredWest has the following established committees, with more than 30 volunteers (in addition to town delegates) supporting the work:

- **Steering:** conduct business development, business planning and project management during WiredWest start up phase. Serve on and coordinate work of other committees.
- **Data:** coordinate with regional planning organizations, councils of governments, towns and state agencies to compile and evaluate a range of demographic and economic data. Work with utility companies to collect information on utility pole locations and condition.
- **Governance:** identify and evaluate available governance structures that will be suitable for our target area communities and the WiredWest project. Liaise with municipal attorneys, Secretary of State and area legislators to discuss governance options.
- **Marketing/Outreach:** conduct branding, public relations, advertising/promotion, market research, and messaging. Promote the project through traditional and new media. Build and maintain website. Create and disseminate print materials.
- **Finance:** create start up budget for WiredWest. Work with business planning consultant to develop project development and operating pro-formas. Meet with representatives of financing entities, including state agencies, municipal bonding authorities, private financing companies and others.
- **Technology:** provide oversight during network design, engineering and construction.
- **Town/Selectboard:** maintain strong connection with participating towns by liaising with town delegates, providing frequent updates on WiredWest project and facilitating public education and organizing to support the WiredWest project.

Proposed Governance Structure

The Project will be structured as a Public Cooperative of participating towns as defined by Massachusetts General Laws, Chapter 164 Sections 34, 36, 47C, and 47E. The statute that permits the Public Cooperative is over 100 years old. This structure was originally designed to authorize towns to provide street lighting and other electric infrastructure in the early part of the twentieth century, and in the 1990s the statute was amended to allow towns to build and manage telecommunications and broadband infrastructure. Four towns in Massachusetts have taken this route to build broadband networks: Braintree, Norwood, Taunton, and Holyoke.

The Public Cooperative structure meets all of the requirements we believe are essential for this project: to succeed: current law allows the project, it will ensure that WiredWest remains strongly vested in the community; and it can access long term public and private financing.

BUSINESS PLANNING AND OPERATIONS CAPACITY

Business Planning: WiredWest has retained the services of Design Nine, a Virginia corporation, founded in 1987 by Dr. Andrew Cohill to provide technology advice and services to community, business, and public clients. Over the years, the company has grown steadily and now offers a comprehensive array of technology advisory services, telecommunications project management, and broadband design assistance. Design Nine is one of a very few firms in the United States with experience in open access broadband networks. More information is available at <http://www.designnine.com/>. *Please see Attachment C for Dr.Cohill's bio.*

Design Nine represents the interests of the organization or community, rather than the interests of vendors. Design Nine's main office is in Blacksburg, Virginia. Design Nine has satellite offices in Santa Fe, New Mexico, Raleigh, North Carolina, and Pittsfield, Massachusetts. Design Nine business planning deliverables fall into eight categories:

1. Needs assessment, review of related experience, bandwidth projections and demographic analysis for the region.
2. Governance and ownership recommendations
3. Broadband survey development and support
4. Pro forma business plan, recommendations for a specific business model, and a ten year pro forma financial analysis that includes estimates for a full build-out.
5. Funding strategies for financing the network
6. Incumbent and service provider strategy
7. Analysis of the value of pilot project study areas and accompanying costs
8. Executive Summary of recommendations

Financial support for Design Nine services to WiredWest is provided by the Massachusetts Broadband Institute.

Legal: WiredWest has retained the services of attorney David J. Shaw, a skilled negotiator, advocate, government law, and infrastructure project specialist with eleven years' experience in utilities and municipal law. Attorney Shaw has significant expertise in all legal aspects of telecommunications and municipal representation and has served as general counsel for the Utah Telecommunications Open Infrastructure Agency (UTOPIA), a nationally recognized community-based broadband network.

We have also secured the services of Lawrence Greenapple, an attorney with more than 50 years experience representing business enterprises, their organizers, financiers and operating principals in the founding, financing and management of their businesses. Attorney Greenapple has expertise in public financing transactions, including work with government agencies and securities exchanges registration statements relating to public offerings of debt and equity securities.

Both attorneys will work with the Steering Committee, Town Delegates, Dr. Cohill and others to determine the optimal governance and financing structure for WiredWest and position the organization for successful operations over time. *Please see Attachment D for Attorney Shaw's bio and Attachment E for Attorney Greenapple's bio.*

Operations: In addition to the hundreds of hours of volunteer labor to date, Wired West Steering Committee members and volunteers have contributed more than \$2,000 to early project costs (website planning retreats, stakeholder meetings, copies, supplies, and educational materials).

WiredWest has also leveraged more than \$75,000 in direct and in-kind support from the following organizations and businesses:

- Berkshire Regional Planning Commission: grant for data collection in Southern Berkshires; pro-bono legal support.
- EC Fiber: advice and guidance on municipal broadband network, with specific focus on a 26 town network in East Central Vermont.
- Franklin County Council of Governments: grant for pro-bono legal support; sharing of data previously collected by others.
- Graymatterhost.com / Constant Contact: in-kind donation of 1 year subscription to a constituent relationship management software tool for use by WiredWest to communicate to its mailing list.
- Massachusetts Broadband Institute: direct financial support of Design Nine's consulting to WiredWest.
- Steeplechase Networks: in-kind donation of website hosting.
- Technology in Education Partnership: in-kind donation of database development work and organizational support.

Project Sponsorship: Hilltown Community Development Corporation, a 29 year old non-profit organization, and WiredWest have entered into a sponsoring agreement for the period August 2010 through July 2011. Hilltown CDC will create an Agency Advised Fund and receive contributions for support of WiredWest start up activities, including business planning, legal, public education, and community organizing. Hilltown CDC's economic development programs are offered in all four Western Mass counties, and its 20 town target area is contained within WiredWest's 47 town target area. Hilltown CDC's mission is in direct alignment with WiredWest's mission and its other program and project activities are offered in all four counties of the WiredWest service area. This sponsoring agreement will provide the needed capacity for WiredWest to ramp up its next phase of organizational development.

In addition, members of the WiredWest Steering Committee have conducted a number of meetings with experts in various areas relevant to WiredWest, including state legislators; municipal investment bankers; a top U.S. community broadband attorney; a legislator who enabled his own community's fiber build out; General Managers of community broadband networks throughout the U.S.; and several national community broadband experts.

2. INFORMATION ABOUT TARGET AREA

Demographic Data

Note: data is based on US Census with 2009 estimates. Data is compiled for the initial target area towns. Data is subject to change if towns join or leave.

Population: 66,647 (2009 estimates, extrapolated from US Census)

Number of households: 27,292 (2009 estimate, extrapolated from US Census)

Businesses: 2,932

Institutions: approximately 150 to 200 (most towns have town library, public safety, community center, some have schools and health centers)

Land Area 1,445 square miles

Economic Data

Median household income (per annum): The total target area has an approximate median household income of \$48,400 (2000 US Census).

There is a sizable difference in household income throughout the Wired West Target area. The most isolated northern and eastern towns have a median household income ranging from \$25,000 to \$41,000. The more affluent southern Berkshire towns have a median household income from \$45,000 to \$60,000. The centrally-located Hilltowns have a median household income from \$43,000- \$54,000.

Jobs: The data below is from 2008 Industry Sector report for all four Western Mass Counties sorted by North American Industry Classification (NAIC) code:

Number of high tech jobs: approximately 16,441 (includes information and professional and technical services)

Number of education service jobs: approximately 47,629

Number of manufacturing services jobs: approximately 36,300

Number of service sector jobs: approximately 18,667

Anchor Institutions:

Each of the towns in the target area has its own municipal, library, fire/EMS, police, and council on aging offices (often in separate small town buildings or sharing portions of a few town buildings). Each town has its own United States Post office. Many, although not all, have K-12 school buildings. These places are central congregating places and are often the cornerstones of information exchange.

3. INFORMATION ABOUT BROADBAND SERVICE PROVIDERS CURRENTLY OPERATING IN THE REGION

According to the Massachusetts Broadband Institute, approximately 36% of households in the WiredWest target area have access to copper broadband services such as DSL.

While cable subscription data is partially available, DSL subscription data is not available. We estimate between 50% and 80% of households that have access to broadband Internet service are currently subscribing. The rate differs by region within the Wired West target area and also differs within participating towns.

Approximate monthly expenditure by household and business on current telecommunications services (including telephone, TV and Internet): \$125

Approximate monthly expenditure on broadband internet services only: \$40

Current Providers of High Speed Internet Services (DSL, Cable modem, wireless, fiber)

- Verizon: DSL service only to portions of target area
- Comcast: cable only to portions of target area

- Warwick Broadband: a single town municipal Wireless Internet Service Provider
- Crocker Communications: DSL in select Franklin County towns
- Richmond Networx: in select Berkshire County Towns
- WiSpring: Fixed wireless in portions of a few Berkshire County Towns

4. COMMUNITY DEMAND FOR A FIBER-OPTIC NETWORK

Our organization has been in formative stages for the past 18 months. Leaders of our organization have been active over the past decade in numerous local, regional and statewide efforts to assess the availability of, access to, and appetite for broadband services in our towns.

We have ascertained the interest in a fiber to the premises solution for our region through a variety of ways over the last 36 months. Surveys conducted by target area towns document the lack of availability of broadband services. Numerous public forums have been held in the region between 2007 and late 2009, in which residents, business owners, and community leaders have spoken out about the need for broadband services.

Wired West (then called the Western Mass Community Fiber Network) convened a kick off meeting February 6, 2010, at which over 50 people representing 30 towns expressed strong commitment to the formation of our organization and for a preference to focus on a fiber to the premises (FTTP) solution for our target service area.

Between late February and early June, WiredWest volunteers conducted popular education and community organizing throughout the entire target region. We met with 50 target area towns (some towns requested multiple meetings). We convened 18 community information sessions across the region to educate residents and business owners about the benefits of broadband service to the economic, civic, environmental and social health of their communities. At each meeting and through our website we provided a range of information about broadband technology, municipal broadband networks, business models and potential financial costs and financing options. Many of the educational materials are available on our Website at: <http://wiredwest.net/resources/downloads/>

By the last week of June 2010, 47 towns within the target area affirmatively agreed – through Annual Town Meeting vote or Selectboard action – to join WiredWest. All actions were by resounding majority vote, with all but a few towns unanimously voting to join.

5. BENEFITS OF A FIBER-OPTIC NETWORK

Building this type of network will have numerous important positive effects for our region. *Not* taking the initiative will stifle future prospects for our communities.

High-speed internet access is necessary for:

Regional commerce – Today, and even more so in the future, true high-speed internet access is a requirement for conducting business. Having this kind of network means the businesses in our region can compete on a level playing field with business located elsewhere in the Commonwealth, the nation, and across the globe.

Western Massachusetts has the highest proportion of home-based businesses in the state. The WiredWest network will help businesses reduce costs because they will be able to locate anywhere (including in the home), rather than only in areas where access already exists.

Our region already is well known for its physical beauty and quality of life. Universal, accessible and available broadband internet access will entice more people of all ages to remain in, or relocate to the

area. This benefits our region by increasing the tax base and demand for locally provided goods and services, and also contributes to the vitality and diversity of our communities.

Public/private partnership development of shared digital roads, managed just as traditional roads are managed, lowers costs for private sector service providers and creates new opportunities for start-up companies.

Broadband networks are “green”. Affordable broadband services to homes enable employees to work from home and students to telecommute to school. This reduces the use of fossil fuels and can provide significant reductions in road maintenance expenses for towns and the Commonwealth.

The WiredWest network can be used for energy conservation management by electric utilities, and Wired West intends to explore mutual opportunities with the electric utilities in the region. Other community network projects have already begun designing Smart Grid services and applications. As one example, remote meter reading can save up to 5% on consumer electric bills as well as reducing fossil fuel use by the utility for the meter reader vehicles.

Education – Local educators in our target areas cannot assign internet-based homework because not all students have adequate home internet access. And when internet-based research is required, many of our students have to travel miles to reach an internet access point. It is not uncommon to see people sitting in cars in the local library parking lots – often after hours – to access the internet.

The WiredWest broadband network will increase our students’ exposure to technology; increase opportunities and efficiencies in learning and research; and provide access to distance learning.

Health–Telemedicine enables health care professionals and patients to use digital communications to save money, time, and travel – and most importantly – improve the quality of care. This includes everything from monitoring patient prescriptions, to diagnostic video conferencing with specialists, to remote monitoring of patients to safely allow older adults to remain in their homes. This is particularly important for rural areas lacking comprehensive medical facilities.

Government Operations – There is increasing pressure on local government to make more services available online, so residents can access information 24/7. Communication between other levels of government (regional, state, federal) is increasingly difficult with slow or no internet connection. Our towns miss opportunities for funding, information and peer-to-peer support.

Broadband networks can assist police, fire and other law enforcement personnel in many crisis situations, allowing them to access and distribute large amounts of critical information quickly and securely, thereby reducing response times.

6. OTHER COMMUNITY BROADBAND FIBER NETWORKS

Wired West is working with Design Nine (our business planning consultant) to study other community-based broadband network efforts to identify best practices, to understand better what has worked well, and to understand what has not worked.

We are, so far, highly encouraged by what we have learned. Contrary to some reports, community-owned broadband networks are operating successfully in many parts of the U.S. Where they have been put into place, the cost of telecommunications (including Internet access) has declined. Communities with affordable fiber services are attracting new jobs and businesses, and in rural areas, new work-from-home opportunities are developing. Local governments and K-12 schools are seeing increased use of high-bandwidth Internet applications, dramatic declines in the cost of their telecom services, and financial savings in other areas as a benefit of increased bandwidth at lower cost.

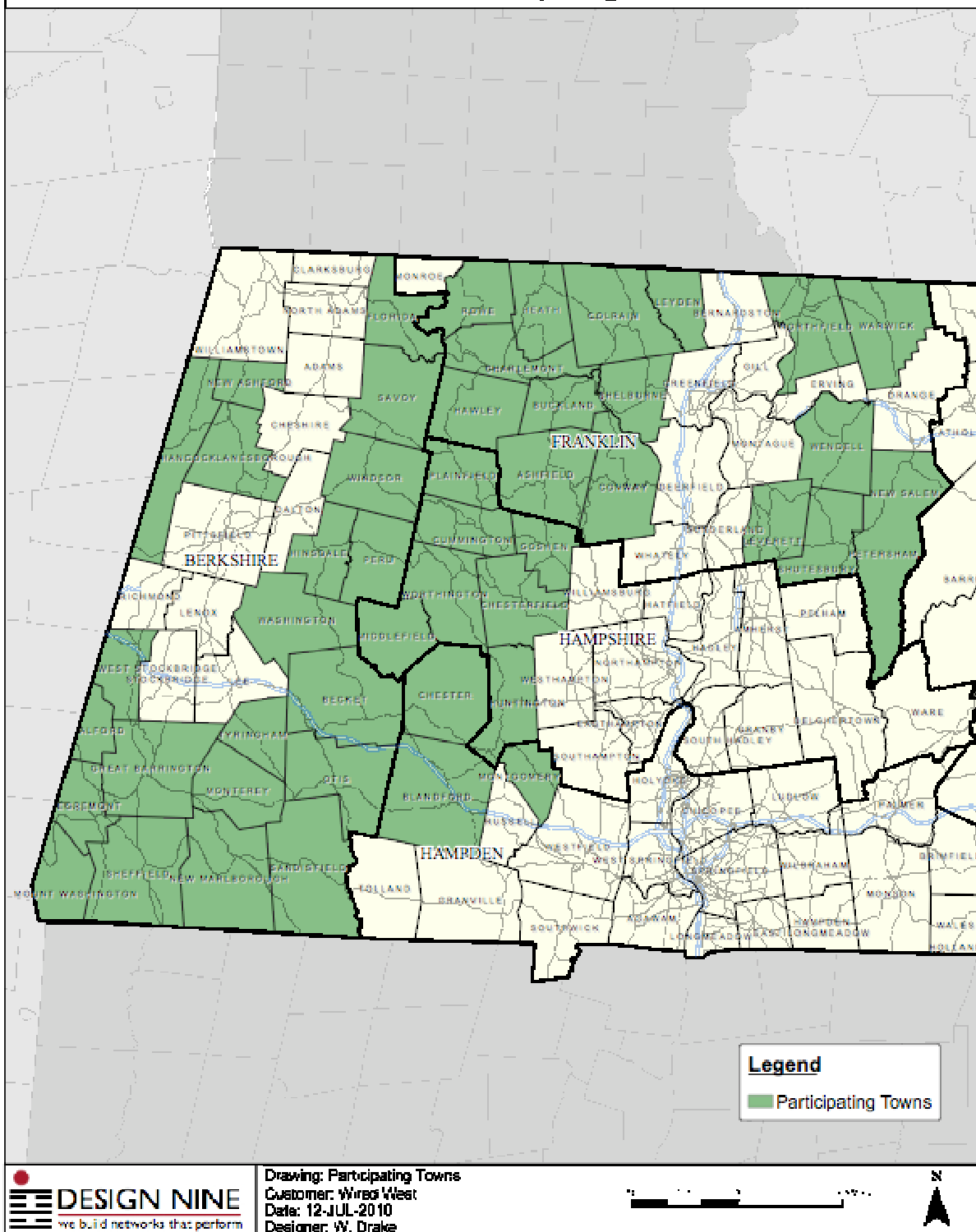
These community-owned networks are being successfully managed and are delivering “carrier class” and business class services economically and without great stress or strain. These network operations are creating new well-paying local jobs, with local employees operating and maintaining these networks. Some examples of other successful networks we are studying include:

- The Wired Road (www.thewiredroad.net): The Wired Road is a collaboration of Carroll and Grayson counties and the City of Galax. The goal is to provide the businesses and residents of the region with access to world class broadband services using a fully integrated fiber and wireless network.
- nDanville (www.ndanville.net): nDanville has been operational since the fall of 2007, and is the first municipally owned open access, open services network in the United States. This is a regional project with a service area not only in the City of Danville but in three adjacent counties. All services are provided by private sector service providers, and one of the local service providers delivering services using nDanville has only one complaint: That the City is not connecting new businesses and residents to the network quickly enough.
- Utopia (www.utopianet.org): UTOPIA was formed by 16 Utah cities as a way to provide critical telecommunications infrastructure to their residents.

Appendix A – List of WiredWest participating towns

Alford	Monterey
Ashfield	Montgomery
Becket	Mount Washington
Blandford	New Marlborough
Buckland	New Ashford
Charlemont	New Salem
Chester	Northfield
Chesterfield	Otis
Colrain	Peru
Conway	Plainfield
Cummington	Rowe
Egremont	Sandisfield
Florida	Savoy
Goshen	Sheffield
Great Barrington	Shelburne
Hancock	Shutesbury
Hawley	Tyringham
Heath	Warwick
Hindsdale	Washington
Huntington	Wendell
Lanesborough	West Stockbridge
Leverett	Windsor
Leyden	Worthington
Middlefield	

Wired West - Participating Towns



(current as of July 13, 2010)

Attachment B: Steering Committee Bios

Bob Armstrong (Conway)

Bob designed computer systems for Digital Equipment Corporation including implementations of the PDP-11 and VAX architectures. In 1980 he moved to Western Mass and wrote CAD software from home for automatically placing and routing Digital and Compaq Printed Circuit boards. In 2002 he retired from Hewlett Packard and wrote business application software and web applications for Blue Fox of Shelburne Falls. He then worked for the Center for Intelligent Information Retrieval at UMass under a DARPA grant.

Bob has a bachelor's degree in Electrical Engineering/Computer Science from MIT. Bob is currently chair of the Conway Broadband committee negotiating Conway's Cable relationship with Comcast. He served on the committee to develop the computer strategy when Conway built its new elementary school and provided many years of computer support for the school and Conway community.

David Greenberg (Colrain)

David is Chair of the WiredWest Steering Committee, as well as the Data Committee.

He has a long history as an educational technologist. He has an M.Ed. and is a Mass. certified teacher. Formerly the Director of Technology for the Mohawk Trail Regional School District, he is now the Executive Director of the Technology in Education Partnership (TEP), a consortium of over 75 K-12 schools primarily in western Massachusetts. TEP advocates for the appropriate use of technology in schools and is acutely aware of the need for broadband access for the students of the Commonwealth. David also designs online courses for the Professional Licensure program at the Hampshire Educational Collaborative. An able administrator, and longtime broadband advocate, he is well prepared to lead WiredWest toward its goal of a last mile FTTH network.

Larry Klein (Monterey)

Larry is the Chair of the WiredWest Technology Committee.

Larry had a distinguished career in the engineering and technology sector that included senior positions at Sperry Systems Management Corp, where he was responsible for computer and digital systems design and integration, from 1960 to 1982. He then went on to co-found Robocom Systems International, a company specializing in the Automation of Warehouses and Distribution Centers, where he served as Executive Vice-President prior to his retirement. During his tenure at Robocom, the company grew in international sales and went public. He consults from his home in Monterey, which he finds challenging given the restrictions of Satellite internet access.

An avid pilot and former Navy Carrier Based Flier, he is also building an Experimental Van's RV10 four seat high performance aircraft in his garage. He also devotes much time and energy to local interests, and is an active board member of a number of community and town organizations, including the Monterey Planning Board and the Southern Berkshire Technology Committee. Klein has a Bachelor of Science in Electrical Engineering, and a Masters of Business Administration, Finance.

David Kulp (Ashfield)

David is the Town Delegate Liaison for WiredWest.

He has spent 20 years involved in scientific research, software development, information technology and project management. He received his PhD from UC Santa Cruz where he played a key role in the international human genome sequencing project. He then helped start a bioinformatics company, Neomorphic, in the San Francisco Bay area in 1997. The company was acquired in 2000 by biotechnology instrumentation company Affymetrix, where he then directed the development of next generation GeneChip microarrays and related scientific tools. David joined the faculty of Computer Science at UMass Amherst in 2003, where he continued his research in genomics for several years.

Today David devotes much of his time to local interests — serving the local town government, the Ashfield Community Preschool board of directors, writing for the local newspaper, and working with WiredWest. At home now with his young daughters, he spends his time on scientific consulting and software development during the cold months of the year, and during the growing season he works a small farm specializing in small fruits and cut flowers for the local retail and wholesale markets.

Kimberly Longey (Plainfield)

Kimberly has lived in Plainfield since 1986 and has 24 years experience building, growing and re-inventing nonprofit and for profit businesses. She serves as Chief Operating Officer of Free Press, a national organization working to reform the US media system. Kimberly has strong strategic thinking, financial management, project development, and fundraising skills. She has served as Deputy Director of Proteus Fund and Executive Director of Hilltown CDC and held numerous elected and appointed local government positions. Kimberly volunteers for the Frances and See Forward Funds, two related philanthropic organizations promoting justice and sustainability with thought leadership and grant making. She also serves on the steering committee of the Old Creamery, in an effort to return this 123 year old business to cooperative ownership.

Kimberly holds a master's degree in community economic development from the University of Southern New Hampshire. When not working she's paddling her kayak, moving rocks from one place to another, or planning her next trip to Italy.

Tim Newman (New Marlborough)

Tim is the Co-chair of WiredWest's Governance Committee.

Tim is an award winning multi-faceted creative individual with a broad range of experience in film and the visual arts. His credits include directing, producing, writing, cinematography and editing. At the same time, he is a seasoned business executive who has partnered in and founded production companies in New York and Los Angeles, in addition to managing large and complex multi-million dollar projects for others. His credits span advertising, marketing and entertainment. His talents have been lent to museums and public space retail concepts as a consultant, conceptual exhibit designer and media producer.

A native Californian, Newman studied physics and economics before being lured to New York City, where he abandoned his intention of a career in science, and instead began pursuing his awakening creative impulses. Since moving to the Berkshires in 2002, he transformed the closed village general store in the town where he now lives into a thriving cafe and bistro. He continues to develop creative projects for various media – most recently with a focus on local food and agriculture and sustainable living for rural communities. He envisions a time in the not too distant future when fiber-to-the-door broadband connectivity will generate an explosion in creative and entrepreneurial opportunities in rural western Massachusetts.

Monica Webb (Monterey)

Monica is the Spokesperson and Chair of the WiredWest Marketing Communications Committee.

She spent most of her career working in the financial services industry in Toronto, progressing through leadership roles in marketing and management, and eventually joining the senior management team of a financial technology venture. She was renowned for bringing strategic focus, organizational competence and innovation to her work. Much of her tenure was spent at Trimark, then Canada's largest mutual fund company and most respected financial brand. The only two national marketing programs developed during her tenure that are still used today, 11 years later, were ones she led from their inception.

Monica brings expertise in marketing communications and electronic media; event and project management; and business analysis to the WiredWest efforts. She also brings grassroots community organizing experience. Since moving to the Berkshires, Webb has operated a marketing consulting agency, built a green home and farm, and worked on civic issues of the environment, local affordable housing, and rural broadband equity in Western Massachusetts. She has served on a number of non-profit and town boards, including as Chair of the Town of Monterey's former broadband committee, and is currently Chair of the Southern Berkshire Technology Committee, a regional 11-town broadband consortium involved in the early co-operative efforts that led to WiredWest. At home, her best option is Satellite internet, and as a result, she shares the frustration of her fellow residents for 21st-century broadband. Monica has a B.A. in English from the University of Western Ontario.

Edward Zyszkowski (New Marlborough)

Edward is a highly-regarded visionary and scientific pioneer whose technical expertise is tempered with strong business acumen that has enabled him to build many successful companies. After his success in building robotics systems for the Space Shuttle during his tenure at Lockheed Martin, he went on to create many of the earliest "data mining" technologies and text search systems while at Thinking Machines. He founded and headed Torrent Systems, which was ultimately acquired by IBM and provides the basis for their Information Server system. He led and sold technology companies to both Yahoo! and Google. Mr. Zyszkowski holds a number of patents and was a very successful investor and executive in numerous technology ventures.

Ed completed his undergraduate degree and graduate studies in Biophysics at the Johns Hopkins University and his MBA at Babson College. In addition to serving as CEO of Steeplechase Networks, he is chairman of the Electrical and Computer Engineering Advisory Committee at Johns Hopkins.

Attachment C: Andrew Cohill Bio

Dr. Andrew Michael Cohill is the President and CEO of Design Nine. He is a broadband architect with an extensive background in open access broadband network design and broadband planning. Cohill has been helping communities develop effective broadband strategies since 1993, when he began directing the start of the Blacksburg Electronic Village, the world's first Internet-based community broadband project. Cohill has an international reputation for his work advising communities on broadband and telecommunications issues. In the United States, he has worked with clients across the country, with recent work in Minnesota, South Carolina, New Hampshire, Virginia, Illinois, New Mexico, Louisiana, Pennsylvania, and Texas, and is currently working on broadband feasibility studies and on the design and engineering of fiber build-outs in six states. Design Nine has guided the development of groundbreaking open access networks in the U.S., including nDanville (www.ndanville.net), The Wired Road (www.thewiredroad.net), and Palm Coast FiberNET (www.ci.palm-coast.fl.us/PalmCoastFiberNET).

Advanced education and training in architecture, computer science, and ergonomics, along with more than thirty years experience in business, academia, and the telecommunications industry enable him to develop creative and fresh solutions to community challenges and opportunities. He has worked for both large and small businesses, and in the eighties worked for AT&T on a variety of telecommunications and technology projects. He founded Design Nine in 1987 to provide technology advice and services to communities, government, and businesses.

He is a widely published writer, and author and co-editor of the popular book about Blacksburg (*Community Networks: Lessons learned from Blacksburg, Virginia*). His numerous papers and reports are widely circulated, and his technology news blog (www.designnine.com/news) has thousands of readers per month.

Cohill served four years on the Board of Directors of the Association for Community Networking (AFCN), and completed two terms as President of the AFCN. He has served on the Board of Directors of the Rural Telecommunications Congress. He has been on the Advisory Board of Communities of the Future since 1997, and works regularly with the COTF on joint projects.

In 2000-2001, he designed, developed, and managed Hewlett-Packard's \$15 million Digital Villages initiative. More than 220 communities submitted proposals that were reviewed and analyzed by Cohill and his project team. During this period, he was co-chair of the Virginia Governor's Task Force on eCommunities. The group published an extensive guide to broadband initiatives that was aimed primarily at small and rural communities. In 2001, he was one of a small handful of technical experts asked to review and comment on the National Research Council's comprehensive study and book, *Broadband: Bringing Home the Bits*.

Attachment D: Attorney David Shaw Bio

Attorney David Shaw is a skilled negotiator, advocate, draftsman and transactional, government law and infrastructure project specialist with eleven years' diversified experience and particular emphasis in utilities and municipal law. Shaw has served as expert counsel and director of legal policy for a complex governmental agency on a broad range of issues, including regular interaction with mayors, city council members, city managers and city attorneys.

PROFICIENCY AREAS

- Telecommunications
- Multimillion Dollar Infrastructure Finance
- Information Technology Law
- Contract Negotiation, Structure and Review
- Television Video Content Licensing
- E-Commerce
- Indefeasible Rights of Use – Asset Lease/Purchase Agreements
- Government Procurement
- Real Estate Easements / Licenses
- Software Licensing and Internet Policy
- Open Meetings, Open Records and Free Speech
- Data Privacy and Protection
- Universal Service Fund

Attorney Shaw, in his work for UTOPIA, is accountable for all legal aspects of an advanced communications network including direction of legal matters related to issuance and management of \$181.2 million in public and government-owned bonds. He is directly responsible for UTOPIA's compliance with federal, state and local regulations and oversight of all litigation. As Counsel, he has:

- Facilitated Agency application, review and approval of \$66.2 million in federal loans from the United States of America, Department of Agriculture, Rural Utilities Service, by successfully shepherding complex legal negotiation involving at least ten attorneys representing various parties including multiple commercial lenders.
- Represented Agency in issuance of \$85 million and \$30 million Taxable Adjustable Rate Telecommunications Bonds by liaising with multiple legal and financial advisors. Without the issuance of the bonds the Agency's core mission would have immediately ceased.
- Structured, drafted and negotiated 100% of Agency agreements including data center operations and management, co-location space, construction, equipment purchases, professional services, and other vendor agreements. Representative counterparties with Agency include: Tetra Tech, Alcatel-Lucent, Amino Communications, AT&T, MStarmetro.net, XMission, Veracity Communications, Integra, Allied Telesyn, and Canopy Group.
- Negotiated complex real and personal property matters, including indefeasible rights to use fiber optic lines from Nevada to Idaho, long and short-term asset lease/purchase agreements, easements and property licenses.
- Successfully helped Agency customer become the first company in the United States with full authority to distribute internet protocol television by negotiating contracts with major studios (NBC, Discovery, Fox, etc.).

Attachment E: Attorney Lawrence Greenapple Bio

For more than 50 years, I worked as a lawyer in New York City representing business enterprises, their organizers, financiers and operating principals in the founding, financing and management of their businesses. My services included participation in the negotiation of transactions and then drafting instruments to establish partnerships, corporations, cooperatives, condominiums and joint ventures as well as contracts among these entities. I was responsible for preparing and filing with appropriate government agencies and securities exchanges registration statements relating to public offerings of debt and equity securities, processing such filings to effectiveness and then listing the securities for trading. I represented issuers and underwriters before the Securities and Exchange Commission and the New York State Attorney General. I participated in planning documenting and conducting annual and special meetings of shareholders and directors, including the preparation and distribution of proxy materials. I consulted with and counseled managers, directors and officers in the performance of their duties and the discharge of their responsibilities including compliance with laws and regulations governing share ownership, changes in ownership, acquisition of interests in domestic and foreign enterprises, and compliance with regulations governing their operations. I also managed business related litigation in state and federal courts, regulatory agencies and arbitral panels. I served as a commercial arbitrator for the American Arbitration Association and on the panel of mediators for the United States District Court, Eastern District of New York and the New York Supreme Court, New York County.

EDUCATION: JD, Cornell Law School, 1952; AB, Cornell University, 1950; Member Board of Editors, Cornell Law Quarterly, President, Cornell Debate Association, Winner, Class of 1894 Declamation Contest; Diploma, Boys High School, Brooklyn, NY, 1946, Class Salutatorian, President, Debate Association.

BAR ADMISSIONS: New York State, November, 1952; U.S. Supreme Court, U.S. Court of Appeals, 1st Circuit, 2nd Circuit, District of Columbia Circuit, U.S. District Court, Eastern and Southern Districts of New York and District of Columbia (1958 – 1965), Republic of Korea, (Honorary, 1954).

CAREER: US Army, Korea, JAG office, 7th Transportation Major Port (1952-1954); Bigelow Teaching Fellow, Law School, University of Chicago, (1954-1955); Associate, Berlack, Israels & Liberman, (1955-1958); Partner, Glass & Greenapple (1958-1966), Otterbourg Steindler Houston and Rosen (1966-1972), Bobrow Greenapple & Skolnik, and successor firms (1972-2005); Lecturer, Practicing Law Institute; Member, American Bar Association, Business Law Section; New York State Bar Association; President, Civic Association at Roslyn Country Club.