

**BROADBAND
FOR
THE DALLES, OREGON**

The QualityLife Intergovernmental Agency

(A Case Study on Bringing Broadband to a Rural Community)

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THE COMMUNITY OF THE DALLES, OREGON

The Dalles is located in the Columbia River Gorge National Scenic Area, 86 miles east of Portland. It lies at the side of the magnificent Columbia River. The Dalles has served as the seat for Wasco County since the county was established over 150 years ago. The City has been a documented regional trading center for over 10,000 years and is the economic hub for nearly 70,000 residents in Oregon's Wasco, Sherman and Hood River Counties and Washington's Klickitat and Skamania Counties.

ECONOMY

The diverse economy of The Dalles is bolstered by a variety of industries. Forest products and agriculture have traditionally been strong contributors to the local economy. Cherry processing employs hundreds of workers year-round and seasonally produces crops valued at more than \$30 million dollars annually. The aluminum industry was a historic, major employer in the region. Wasco County has more than 137,000 acres of commercial forest, 83,000 acres of dry land grain, 5,800 acres of orchards, and 24,000 acres of other farm land.

As the region's commercial center, The Dalles attracts buyers from both the Oregon and Washington sides of the Mid-Columbia area. Retail sales average over \$145 million annually.

THE CHALLENGE

In recent years the economy has slowed. The community's largest employer, Northwest Aluminum, operated two aluminum plants in the region. Economic challenges have immobilized approximately 1,200 Aluminum employees for almost three years.

Unemployment rates for Wasco County are well above the national and state rates.

	<u>U.S.</u>	<u>Oregon</u>	<u>Wasco County</u>
December 2001	5.4	7.3	10.6
December 2002	5.7	6.8	8.1
December 2003	5.4	7.0	10.6
December 2004	5.1	6.7	10.6

One of the challenges we were experiencing in attracting new industry was limited telecommunication options. As an example, the community lost a bid for a 100 employee service center to another Oregon community that did have Broadband. The local telephone company was telling us it would be 3 to 5 years before DSL would be available to the community.

OPPORTUNITY

The U.S. Bonneville Power Administration installed a high speed broadband optical fiber telecommunication line between its many facilities in the Northwest. Their design included excess capacity that was made available in Washington through a partnership of public/cooperative utilities known as “Northwest Open Access Network” (NoaNet) Washington.

In Oregon, a cooperative corporation known as NoaNet Oregon has formed to utilize the BPA fiber in Oregon. NoaNet Oregon is primarily comprised of electric cooperatives. They acquired capital through the National Rural Utilities Cooperative Financing Consortium for the purpose of building up the off ramps and complimenting lines for the backbone of their system in Oregon. Each of the members guaranteed a portion of the debt based on the population they serve.

NoaNet Oregon created an opportunity for public entities to join as non-member participants. The BPA Big Eddy Sub-Station on the east end of The Dalles is a strategic

point of presence for both the NoaNet Washington and the NoaNet Oregon systems. The local community was invited to participate in the Oregon system.

EARLY EFFORTS TO PARTICIPATE IN THE OPPORTUNITY

The local electric Peoples Utility District (Northern Wasco County PUD) initially (2000-01) took a look at this opportunity to bring broadband to the community. They funded a \$15,000 Business Plan and engineering study to review the potential concept of a local fiber loop. They invited Wasco County (County), the City of The Dalles (City) and the Port of The Dalles (Port) to investigate this opportunity with them. The four entities formed a committee to look at the possible formation of an Intergovernmental Agency to bring broadband to the community. The partners agreed to call the system QualityLife Intergovernmental Agency (QLife) because of the intent to increase the quality of life of the residents by “bringing high-speed, broadband telecommunications services to The Dalles, similar to those available in northwest metro areas with prices similar to those northwest metro areas.” Each of the four agencies provided \$7,000 in seed money. In addition, grant funds were obtained from two regional grant programs; one funded with State funds and one funded with Federal funds. Services of a law firm specializing in intergovernmental agreements and an engineering firm familiar with broadband were purchased with this funding.

A four agency Intergovernmental Agency was formed in May 2001 with all four partners’ governing Boards affirming their participation in June by Ordinance or Resolution.

A local attorney that had long been an advocate of telecommunication advancement in the State of Oregon was hired as the Agency’s attorney. Engineering was completed on the 17 mile fiber optic loop, identifying costs and the technical aspects of the loop by mid-2001.

A contract was entered into with Mid-Columbia Economic Development District in August 2001 to perform or develop or prepare a financial analysis using a model

developed by NoaNet Oregon and with information provided by various QLife partners. This initial financial analysis, completed in December 2001, indicated it would take six years before the QLife system could meet annual operating and debt retirement costs and be able to turn a profit. During those six years a line of credit would be needed equaling \$800,000.

In March 2002, a telecommunication study was prepared or developed for Wasco County to help identify whether or not a need existed for this Broadband Project. The study indicated both a need and support for QLife.

OPPOSITION

During these early development phases, the local telephone provider became very involved in a position of opposition. The local telephone provider, Internet Service Providers (ISP), and cable TV provider (who also provide internet services) were invited to participate. The telephone company and at least one ISP became active opponents of the project and marshaled all the political and community support they could to show the project was not needed and was ill-conceived. Early on in this process, the Port, who had limited staff and other projects that consumed their time, decided it was in their best interest to withdraw from the Intergovernmental Agency.

Three primary points of opposition were developed by the opponents:

- 1) There is already sufficient redundant fiber in the community at an affordable price. Further on in the project, this assertion was proved to be inaccurate.
- 2) The sole purpose of government is to provide services that private enterprise can not provide and local government should not enter into competition with the current providers for telecommunication services. This philosophical argument could be countered with: The telecomm monopoly that existed at that time, along with capital investment constraints, could not be overcome without public

involvement. There are still those who would never accept this argument because of strong opposition to any interference of government.

- 3) Can the Intergovernmental Agency operate the proposed system in a cost efficient manner without subsidy from local taxpayers? It was determined early on that the project should not move forward if it looked like any subsidy or contribution into initial construction or operation was required by the local taxpayers. This case cast some doubt on the project. The \$800,000 projected loss the first six years of operation gave legitimacy to the opponent's arguments.

One of the things that the intense concern of government involvement created was the development of limitations on the QLife project so that it would primarily be that of a middle-mile broadband provider through a fiber optic loop. Under certain conditions, QLife will extend fiber lines to certain customers in order to enhance the overall benefit of the fiber optic loop to the community and allow it to serve its primary goal of economic development. QLife is an open access network and, as such, any potential user may connect at an appropriate location in accordance with this and other Board approved policies.

A NEW BUSINESS PLAN

The QLife Board determined the current (2001-2002) business approach was not acceptable and a new Business Plan was needed. The primary principle of the new business approach was that when sufficient revenues (grants, debt and/or sales to customers) were secured for construction, debt retirement and operation of the system as shown through actual multi-year customer agreements, sections of the full 17 mile looped system would be constructed. The loop was broken into six potential phases.

As the Wasco County telecommunication plan was being completed in March and April 2002, a stakeholder meeting was held at the Mid-Columbia Medical Center where development of specific customer needs and intent to participate were developed. Subsequent meetings were held with stakeholders who showed an interest in specifically

purchasing services from the new broadband system. Initial letters of intent were requested through the local public media from interested parties. From those letters of interest, we developed letters of intent where potential customers identified specific services they would be willing to purchase and the cost parameters of those services.

The final step taken to solidify the customer base prior to actually committing to construction of any phase was signature of a preconstruction agreement between the customer and QLife where the customer specifically agreed to purchase a specific product at a specific price.

Those willing to sign preconstruction agreements of this nature were considered the Agency's Charter or Primary Customers who would lock in a commitment to purchase services at a specific rate for five years. The rate developed was for Ethernet service up to 100 Mbps data transport were generally at the same price that the customer was currently purchasing T-1 or multiple T-1 lines for. As a minimum, each customer had to purchase at least 100 Mbps sites for at least \$400 or a one gigabit site for \$1,000. Any additional connection could be at a lesser amount equal to their current cost. As a result, cost for a single connection varied from \$180 to \$600 for those who had multiple connections.

QLife was including in each phase, in addition to constructing the loop, the cost of spur and service lines to the point of demarcation (location of equipment). Customers were required to purchase the necessary switches and electronics to transport the data to QLife electronics. Those electronics then became the property of QLife maintained by QLife.

NOANET OREGON CONNECTION

Prior to being able to construct the middle-mile-loop with service directly to Charter Customers, it was necessary for the QLife system to be connected to NoaNet Oregon for long haul services. In order to become a non-member participant, QLife had to pay a cash contribution and provide a line of credit financing for specific amounts that were developed through a formula required for all members and non-member participants involved in the QLife system. QLife's cash fee was \$167,200. This cost was added into

the construction cost of the initial phase of the project. In addition, and more difficult to secure, was the \$680,000 line of credit. Because of the limitations Oregon law placed on the ability of public entities to incur public debt, the partners were unable to provide this line of credit. They therefore needed to find someone else willing to provide this guarantee for a line of credit that NoaNet Oregon needed to have in place for a two year period, during which they would pay all principal and interest with final payment of the principal at the end of a two year term.

One of the Charter members, a local bank who had grown into a regional banking interest, agreed to provide the line of credit on those terms if a guarantor could be found. Part of the due diligence of the bank prior to making this offer was an independent review of our new Business Plan. We passed with flying colors. Mid-Columbia Medical Center, a Charter member and largest individual customer, agreed to provide the guarantee, as long as QLife would make reasonable attempts to help them recover any loss they may have from that guarantee, from reserve funds QLife would have in the next five year period.

CONSTRUCTION BEGINS

Preparations to begin the construction of Phase I were pursued when we received our first direct Federal appropriation through the efforts of our Congressional Delegation, with Senator Ron Wyden taking the lead. Senator Wyden's position had been that broadband was the next Oregon Trail for rural communities and was an essential part of any economic stimulation and recovery program. About this time, the opposition intensified. The PUD was sued over its ability to participate. Although they won the lawsuit, the expected legal fees from an appeal of that decision prompted the PUD Board to withdraw from the Intergovernmental Agency so that their legal challenges would not become an obstacle to completion of the project.

This left the City and County as the sole members of the Intergovernmental Agency. Several critical votes were taken and the City Council developed a three-to-two position in favor of the project. The opposition crystallized around two concerns:

1. Public competition against private businesses, and
2. Financial liability to local taxpayers.

The latter part of 2002 was an intense period of fund raising and development of customer base necessary to proceed with different phases. It was also during a period of time when the governing Boards were placed in a position of making decisions to the point of no return on proceeding with actual construction of the project. In January of 2003 the Wasco County Commissioners with a unanimous vote and the City of The Dalles City Council on a three-to-two vote, approved the final business plan, financing package, and commitments to construct Phases I and II of the project. Bids were sent out.

This phase would provide service to Mid-Columbia Medical Center and several of its office and business interests and all of the schools and College served by the Region 9 Service Education District in the eastern part of the community. After approximately two months, the final package was a second Federal application for Phases III and IV, which extended the system to the remaining medical facilities and into the downtown area to include the Regional Bank's Corporate Offices, City of The Dalles, Wasco County, Northern Oregon Regional Corrections facility (NORCOR), and two ISP's. The financial packages for these four phases were integrated, although two separate construction contracts were awarded.

By the end of 2003, all four phases were completed. QLife began full service to all customers by January 2004. At this time, the community received a third Federal appropriation for the fiber optic loop. This allowed QLife to secure additional financing to extend the loop to three additional school facilities in the western part of the community and complete the loop. All the school facilities with student attendance were connected and fully operational by the start of the 2004-05 school year. The total development, engineering, and construction costs of the initial loop and all of its spurs

and service lines was approximately \$1.5 million with 57.5% funded by grants, 40% funded by loans, and 2.5% funded locally.

One of the decisions made when we went to a phased approach was to move from a fully redundant SONET operating system for the full loop to an Ethernet point-to-point system. This provided us significant savings on electronics. We also made a cost saving decision to not have any employees. We would function through contracts for service.

OPERATIONAL APPROACH

The current operation strategy for QLife is to contract with others for operational and financial management and for maintenance of the system plant. We currently have four contracts:

1. The City of The Dalles, through a contract with QLife, provides financial, clerical, and general administrative services at personnel costs.
2. Legal services are received through a contract local attorney.
3. Line Maintenance, including extension of service lines and repairs of overhead lines is performed by a company in the Portland area based on a list of fixed fees.
4. Two local Internet Service Providers have entered into an agreement to provide management services for the system. This includes monitoring performance, trouble-shooting problems, and connecting new customers.

This approach allows us to not acquire too much overhead and with costs being no more than those specifically needed to further the project.

As part of the compromise during the public process to approve the QLife Agency, it was agreed that whenever possible, Internet Service Providers would be given opportunities to market the QLife system. With the exception of its initial Charter members, Agency

partners and NoaNet Oregon members, QLife relies on Internet Service Providers to connect new customers. To date, the system does not work well although a new Internet Service Provider, who is also developing a new dial tone service in the area may change that experience.

BENEFITS TO THE COMMUNITY

We believe the benefits to the community have come in two areas:

1. The benefit of competition to current providers, and
2. Cost efficient services provided to Charter Customers.

1. The Benefit of Competition to Current Providers

Initially the local telephone company informed us it would be some time before DSL service would be provided to the community, within a few months after it became apparent that we were going to construct our system, DSL service was available. We believe that without QLife being brought in, this would not have happened as quickly. We also have an Internet Service Provider who has opened a dial tone service in the community who should be connecting to QLife within the next couple of months and will be bringing in additional competition to the community. Through partnership with this Internet Service Provider, we are now able to provide a connection from our system and the larger NoaNet Oregon system into the local telephone central office. This will open the door to additional new customer base.

2. Services to Specific Customers

The following is a brief description of the benefits that our Charter Customers and the community received as part of this project:

Mid-Columbia Medical Center (MCMC) – MCMC, the community’s largest employer, has been able to connect fifteen of their off-site offices, including Doctor’s offices and a family clinic to the main hospital complex through dark

fiber. They also have a 100 Mbps connection to Pittock Building over NoaNet Oregon long haul. As a result, they feel they have created at least four new jobs. They have increased data transport speed between local offices and areas outside the community. They have been able to obtain this ability for about one third of the cost that they would have had to spend for the same level of service from the local provider. They are currently looking at implementing a voice-over IP phone system that will bring them this cost savings.

Region 9 Education Service District – The Service District was providing all Internet and data transport activity for Columbia Gorge Community College and the school districts. All schools in the community are now on one area network via dark fiber. In addition, they have been able to switch their entire Internet and other data transport services to the NoaNet Oregon system. Under their old system, they were limited to the T-1 capacity and were unable to afford anything more. They now have 100 Mbps capacity outside the community at the same cost.

Columbia Gorge Community College (CGCC) – CGCC recently landed a \$1.2 million Department of Labor Grant for expanding its Nursing Program. Without the broadband services they now have, this would not have been possible. They are also looking at locating a National Guard Training Center and a First Responder Center on the Campus. This would not be able to be done without the addition of broadband. The College is currently expanding to a campus in Hood River, located twenty miles to the west. Broadband capability has helped connect those two campuses. A voice-over IP phone system is in the near future. The College is looking at additional distant learning opportunities that once before was not available to them. In the past, when they looked at these opportunities, the first question was “Do you have broadband?” When the answer was “No.”, the dialog stopped at that point.

Wasco County – Wasco County has been able to create a wide area network, bringing together five different facilities. As a result, they have purchased a new

IP phone system that will eventually save them over \$40,000 per year in telephone costs. Their GIS mapping system is now directly tied to both City and County offices. They have been able to decrease the costs of tying in some of their health services activities with State agencies. They have also received increased quality in the video arraignment they do with the NORCOR Correctional Facility at the other end of town.

Columbia River Bank – Columbia River Bank is a locally grown regional bank that recently centralized its administrative activities in The Dalles. Previously, they were split between several communities. The reason they chose to locate in downtown The Dalles was because the efforts to bring broadband to the community has resulted in saving 35 jobs in the community and bringing in an additional 40 to 45 jobs. Their core IT function has been moved to The Dalles. The bank is now in the process of using the NoaNet Oregon system of tying all its branches through broadband, which greatly increases its productivity and cost effectiveness in data transport. An example is a disaster recovery operation that is now possible because of off-site data back-up over the high speed broadband. One bank explained it as the core to their flow of data which is what banking business has become.

City of The Dalles – The City has received two benefits:

- a. The ability to have video arraignment with the NORCOR Correctional Facility. Previously, we had Police Officers spending one to two hours per morning transporting prisoners for arraignment. This is a significant savings. We now also have access to this data base.
- b. The second benefit is being able to connect directly to Wasco County's GIS system.

ISP's – Two are connected to the system. Both have decreased their cost and increased reliability. Twice over the last year the local telephone has failed for several hours. Those connected to the QLife system have not had that loss in transport. We are in the process of hooking up a third Internet Service Provider who did suffer down time both times.

Northern Oregon Regional Correction Facility (NORCOR) – They have been able to increase the use of video arraignment, not only with the City of The Dalles and Wasco County, also the four county area that they serve. There has been a considerable cost savings as a result.

In recent months, we have had several inquiries regarding our middle-mile system. The largest is from an international Internet search engine company that is finalizing negotiations for using our system and bringing additional jobs to the community.

LESSONS WE LEARNED

1. Assemble the right players with the right mix of resources, knowledge, needs, and motivation to carry your project forward.
2. Expect opposition, particularly from those who currently provide the service.
3. Objectively survey current conditions, unmet needs, and ways those unmet needs could be satisfied.
4. In our case, “build it and it will come” worked only after we “built it because they were there.” We may not have survived until they came if we had taken the other approach.
5. Be flexible and be willing to adjust your approach to meet your community’s specific needs.

6. Do not try to be all things to all people. We limited our product line to “Data Transport”. This reduced the overall financial risk while providing an economic development tool.

7. Our product line can be expanded in the future by adding electronics.