

## *Broadband, and Google, Come to Rural Oregon* A Beautiful Columbia River Gorge Setting Wasn't Enough to Save The Dalles; Fiber Did It

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The rural community of The Dalles, Oregon will soon be a new home of Google, the mega-giant technology company. The town is nestled in the Columbia River Gorge two hours by car from Portland.

Google's interest was a surprise to many people, but not to Nolan Young, City Manager of The Dalles. It was the culmination of a project that Young and his team had been working on for years. His vision was to use community resources and a coalition of local community groups to build a broadband fiber optic network that could lure new business to this economically limited part of the world.

To be sure, Young makes it clear that luring Google to The Dalles hinged on several significant issues, not just a robust broadband network. In addition, Google will not discuss its move, nor will those involved in the project disclose any detail that has not been previously discussed in earlier corporate press releases or news articles.

There are a number of factors that encouraged Google's move to The Dalles. First, its location on the Columbia River is beautiful, with inexpensive land, housing and good public schools. Its proximity to the Bonneville Dam meant that Google's high demand for inexpensive power could be satisfied by the U.S. Bonneville Power Administration (BPA). In addition, with the location right on the river, water could be used to cool its massive server-filled facility directly rather than relying on more expensive air-conditioning.

But without a doubt, a major reason for Google's move is QLife, the newly constructed fiber loop network built by the City of The Dalles and its partners, that is now available to provide the broadband connectivity Google requires, and at reasonable rates.

### **Job Loss Spurs Backbone**

After two large aluminum manufacturing plants closed, the economically distressed City of The Dalles (population approximately 15,000) faced an unemployment crisis that threatened to destroy the vitality of this rural community. City Manager Nolan Young realized the need to replace those lost jobs with others.

But attracting jobs to The Dalles was not simple. It is a small isolated community, with limited resources. This is true of much of Oregon, a mostly rural state with large population centers, including Portland, close to its western edge. What's more, over the

past few years, similar Oregon communities including Bend, Hood River and La Grande, were attracting new businesses and growing. The Dalles had been competing for many of the same businesses that chose those communities instead. One reason was the lack of a good broadband fiber network that would allow companies to move data at a competitive cost. It became clear to Young that if The Dalles was to become a player and encourage economic development, he needed to become proactive and build a fiber network for the community.

After approaching the local telecommunications provider and being told that it would be another three to five years before DSL services would be available in The Dalles, Young decided the city would have to take matters into its own hands.

Four community groups, including the City of The Dalles, Wasco County, the Port of The Dalles and the People's Utility District (Northern Wasco County PUD) created a committee that looked at the potential for bringing broadband to the community. In May, 2001 these four agencies formed a new corporation, agreeing to call the system QualityLife Intergovernmental Agency (QLife) with the goal of "bringing high-speed, broadband telecommunications services to The Dalles, similar to those available in northwest metro areas with prices similar to those in northwest Metro areas."

At about the same time, in both Washington State and Oregon, two non-profit corporations emerged in partnership with BPA to use excess Bonneville fiber to provide a backbone network throughout both states where such fiber networks were lacking. In Washington State, BPA made its excess capacity available through a partnership with public and cooperative utilities known as NoaNet Washington (for Northwest Open Access Network).

### **Federal-State-Local Partnerships**

In Oregon, a different arrangement was made with BPA and the electric cooperatives. With funding acquired through the National Rural Utilities Cooperative Financing Consortium, the goal was to build the off-ramps and complimentary lines for a backbone fiber system throughout the state. NoaNet Oregon, now known as LS Networks, also allowed public entities to join as non-member participants. The Dalles chose to participate.

Initially, Young explains, they had a "build it and they will come" approach to developing the network. Unfortunately, early on in the process, this approach did not seem to work. Instead, they decided to go with a phased approach. With the help of the Oregon congressional delegation, they put together a three year proposal with a staged funding request. Out of a \$1.7 million request, they received an initial \$700,000. With these early funds, and other state loans and grants, construction began on the initial loop. By mid 2001, engineering the first 17-mile loop, identifying costs and technical issues was complete. In 2003, that first phase was built. A second phase, a new fiber connection to the Port of The Dalles, is being built now.

Eric Orton, project manager for Sparling, the engineering company hired to plan, design, engineer, and oversee construction of the network, describes the 17-mile backbone fiber loop. “Because of the expansive and rural nature of the network, much of the QLife network was built with aerial cable, attached to the NoaNet fiber backbone. The fiber creates a backbone with multiple laterals and 34-35 connections” encircling The Dalles and the nearby surrounding area.

“NoaNet facilitates the transport and the QLife network makes it feasible for low cost broadband to exist in this area,” says Orton. “Numerous businesses now have fiber to their premises.” Orton supplied the pictures that illustrate this article.

### **Outsourcing**

One way that costs are being kept low is that contractors, rather than full time employees, are being used to run and manage the network. Aristo Networks, a subsidiary of NetConnect, a local ISP, has been hired to maintain the network switches and electronics and to oversee the contractors working on the network. Billing and other back office functions are handled by the city of The Dalles itself, with a staff that already existed.

John Amery, co-owner of Aristo Networks and manager for QLife, explains the community interest in having a fiber network. “Previously, we were limited in our ability to connect to major communities. But now, with the fiber capabilities that we have locally, we can be competitive with any company...As a local ISP, we were limited by the technology available to us in the rural area, which was not only limited but also very expensive.”

NetConnects and the other local ISP are now able to offer new services, such as Web hosting, which enables the ISP not only to grow in its local market, but also to offer services nationwide. That’s something it could not do previously.

Amery says there is interest by others in this new market. It is now “easier, better, and cheaper than in other urban areas, to do business in The Dalles” says Amery. “The Dalles is now on the map as having the capabilities to do this, and it is only a matter of time before others will realize that they can do this also.”

### **Local Job Creation**

While Google is certainly attracting great interest in the new network, there are many other economic benefits that the QLife network facilitates by allowing existing businesses to expand. Mid-Columbia Medical Center has been able to connect twelve of its off-site offices, including doctors’ offices and a family clinic, to its main hospital complex. This created new jobs in a shorter time than would be typical if an entirely new venture had appeared. The Region 9 Education Service District was able to switch all its Internet and data transport activity to one economic and much faster network, increasing bandwidth for local students while cutting costs.



Columbia Gorge Community College recently landed a \$1.2 million Department of Labor grant for expanding its nursing program. Without the broadband capabilities offered by the new network, this would not have been possible. In addition, the college is currently expanding to a campus in Hood River, a community located 20 miles to the east. Broadband connects the two campuses.

The Columbia River Bank, a locally grown regional company, recently centralized its administration activities in downtown The Dalles. With the broadband network, the bank was not only able to save 35 jobs in the community but also bring in as many as 45 new ones. The bank is now in the process of using LS Networks (NoaNet) to tie together all its branches through broadband. Disaster recovery operations are now possible because of off-site data backup over the high speed broadband.

This is not only great for the bank and the jobs it brings, but the relocation of the bank to downtown The Dalles has spurred new retail development, including new restaurants that have sprung up. There is a new sense of life in this old western style community. Now, aside from Google coming to town, The Dalles is well on its way toward becoming an economic development success story. Using the new fiber optic network, broadband telecom services have improved access to government agencies, given local schools access to the rest of the world, and provided better services for hospitals and clinics. Broadband provides the infrastructure necessary for businesses to thrive. The Dalles is now open for business – and the Columbia River Gorge welcomes all. BBP

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