Eugene Area Telecom Development Activities

BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM (BTOP)

Eugene, as a member of the Regional Fiber Consortium, and as a separate match contributor, facilitated the successful completion of a Broadband Technology Opportunities Program (BTOP) project that brought broadband services to 26 communities in three counties, providing fiber optic connectivity to 131 anchor institutions in Douglas, Klamath and Lane counties.

Lane Council of Governments (LCOG) applied for and received a round-one BTOP grant of \$8.3 million thanks to the match provided by the Regional Fiber Consortium, the city of Eugene and LCOG. The terms of the grant limited connectivity to anchor institutions. BTOP and match funds were used to bring fiber for the first time to two hospitals and 23 medical clinics, to 29 school buildings, nine libraries, 27 police and fire stations, four higher education institutions and 37 other federal, state and local government of-fices.

This BTOP project installed 100 miles of multistrand fiber, and lit 450 miles of fiber, much of it for the first time. While connections were restricted to anchor institutions, additional strands of fiber were installed throughout the area for other uses. These additional strands have already been used to support a new call center and extend ODOT's Intelligent Transportation System (ITS) system.

An independent review for the BTOP program by ASR Analytics interviewed several anchor institutions, just as the project concluded. Among the positive impacts documented by ASR Analytics:

Days Creek School District 15 is a small, rural district in Douglas County with an elementary school in Tiller and a middle and high school in Days Creek. The district serves about 250 students. Before BTOP, the district connected all three schools with a single 1.5 Mbps T1 line. Now, they share a 100 Mbps fiber connection from Douglas Fast Net. With the T1 circuit, the Internet functioned too slowly for either administrators or teachers to use it effectively, and students often could not complete online tests. Now, teachers use streaming media in the classrooms, and staff have a reliable connection to the student data system which can now be hosted at the Douglas Educational Service District (ESD). The school has begun a program for struggling students to use online content outside of the normal class schedule, and has seen an improvement in student performance and test scores.

continued

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BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM (BTOP) - CONTINUED

Bethel School District, serving northwestern Eugene, is the third largest school district in Lane County. Approximately 5,700 students attend the district's 11 schools. Lane Educational Service District (Lane ESD) is the ISP for Bethel school district and 13 other districts in the county. Lane ESD provisions bandwidth to each district based on average daily student population. Bethel School District shares a 100 Mbps Internet connection among all of its schools. Five of the schools in the district received fiber connections through the project in the summer and fall of 2012, replacing the T1 circuits each had used previously to connect to the district office. Each school now has a 1 Gbps connection to the district office. The district is planning to upgrade these connections to 10 Gbps. The total price of the connections between each of the five schools and the district office decreased from \$25,000 per year to \$5,000 per year after connecting to the LCOG network. One of the schools that received a fiber connection, Prairie Mountain School, is using the increased bandwidth to support administration and to increase the use of technology resources in the classroom. Teachers now use iPads to keep students more engaged, and staff use Google Docs to communicate about students' academic progress. The school is now able to host open computer lab hours in the morning for students and parents.

The Klamath Tribal Headquarters house the council chambers and the administrative offices of the Klamath Tribes which include the Klamath, Modoc and Yahooskin people of southern Oregon. Before BTOP, the headquarters paid \$700 per month for a 1.5 Mbps T1 connection which was used by all 15 departments and approximately 100 staff members in the building. The tribe was unable to implement several desired initiatives including video conferencing, Voice over Internet Protocol (VoIP) and remote monitoring of tribal buses. By early 2013, the Tribes were connected to the BTOP-funded network and were planning to subscribe to service over the network. They expected to subscribe to 100 Mbps, and were quoted a price under \$500 per month for this service. The tribe is considering providing Wi-Fi to the public in the main building. The Tribal Headquarters also hosts a fiber hut for the LCOG fiber route.

Before BTOP, **The City of Florence** did not have broadband connections between most of its facilities, and shared a 1.5 Mbps T1 connection between City Hall and the Justice Center. Now, the City has 1 Gbps fiber connectivity that connects City Hall, the public works department, the police department, the Justice Center, and the Florence Events Center in a wide area network (WAN). The new fiber infrastructure inspired a five-year IT plan, and the City has transitioned to VoIP telephone service, new accounting software, and updated hardware to take advantage of the broadband. The fiber also has a secondary impact of promoting economic development in the area. While the City's economy is largely dependent on tourism, the fiber opens opportunities for local entrepreneurs and businesses as well as attracting broadband-dependent companies to a business park.