

**CONNECTING TO OREGON'S ECONOMIC FUTURE:
THE ROLE OF PUBLIC-PRIVATE PARTNERSHIPS
IN OREGON TELECOMMUNICATIONS**

A Policy Paper Proposing a New Initiative for the Oregon Business Plan
www.oregonbusinessplan.org



www.ortcc.org

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November 20, 2003

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A Policy Paper Proposing a New Initiative for the Oregon Business Plan

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OBJECTIVE – WHAT WE ARE TRYING TO ACCOMPLISH

Improve the Oregon economy through promotion and expansion of the capabilities of Oregon's advanced telecommunications infrastructure and services.

Oregon has an opportunity to lead the nation in realizing the benefits of telecommunications technology for economic development and growth as well as for enhancement of critical quality of life factors. When we speak of benefits we are not talking in an abstract sense. We mean jobs, improved access to healthcare, improved access to government services, better educational opportunities, the chance to spend more time with family, and the prospect of relieving traffic congestion and accompanying air pollution. This opportunity will only be realized with the active collaboration of Oregon’s residents, institutions, businesses and communities. We refer to this cooperative and collaborative approach as “public-private partnerships”.

The Oregon telecommunications infrastructure is as critical to business activity today as physical proximity to raw materials and markets in the industrial age. In the information age, it is the telecommunications network that provides proximity and access to resources and markets, both within the state (including rural communities) and throughout the world. Most of Oregon, including much of rural Oregon, now has better telecommunications infrastructure than any other state. Now we need to capitalize on that strategic advantage. Advanced telecommunications capabilities¹ (i.e., Broadband¹ is now as critical to our Oregon economy and quality of life as are highways, bridges, electrical grids and water systems. “Broadband is the answer to the often-asked question, ‘What will it take to help this industry?’”²

The Oregon Telecommunications Coordinating Council (ORTCC) recommended telecommunication-related economic development activities in its “Report to the Legislature”³ that included:

- Generation of awareness of new telecommunications infrastructure and knowledge of how to put it to productive use by business, government and individuals.
- Promotion of e-commerce.
- The continued development and enhancement of backbone networks.
- The continued development and enhancement of local distribution networks and “last mile” facilities to improve access.
- Establishment of funding programs and provision of technical assistance for the development and utilization of telecommunications infrastructure and its usage statewide.
- The Legislature should direct the appropriate agencies to develop and use benchmarks to measure how well the state meets its telecommunications goals and to report the results annually to the Legislature and the Governor.

There are at least four areas in which we could work together to make it even better and to take advantage of the resources we already have. Those areas of cooperation and partnering include:

- Economic Development Partnerships
- Marketing, Demand Aggregation, Training and Support
- Applications Development
- Infrastructure Partnerships⁴

The realization of the objective will support the vision of the Oregon Business Plan and reinforces the 4Ps in a way that promotes the growth and health of Oregon's traded-sector clusters as well as many other aspects of our economy and quality of life. Here is a brief overview of how realization of the objective impacts the five Ps and contributes to a healthy economy:

People – Workforce and Education

Telecommunications provides access to education through distance learning. If you can get to them, Oregon’s educational opportunities are great (albeit at risk of degradation under the cloud of the current budgetary crisis). Many residents live at great distances from classroom-based educational resources. Even for those who reside in our larger cities, access to critical programs is often out of reach. For low-income groups seeking to advance, the opportunity to access distance learning from their living rooms after the kids are in bed can be a significant opportunity. Individuals and organizations can use distance learning programs to effectively meet their education and workforce training needs. Through use of distance education, efficiencies in the costs of program development can be achieved (e.g., a program developed in one area can be shared across the state). Telecommunications can provide the opportunity to access these Oregon programs as well as programs offered throughout the world.

Place – Quality of Life

Through use of telecommunications we can greatly enhance the quality of life for Oregonians by providing greater access and interaction with all levels of government, by providing healthcare services through telehealth and telemedicine, by promoting the fantastic range of recreational opportunities available throughout the state, by reducing air pollution resulting from vehicular and air travel to meetings, by enabling telework and by promoting the wide range of arts and cultural activities available everywhere in the state.

Productivity – Business Costs and Business Climate

Telecommunications can reduce and even eliminate the barriers imposed by distance. These distance barriers not only contribute to travel costs but also to the time required to cover even short distances. Telecommuting eliminates further contributions to air pollution factors. Telecommuting opens up opportunities for expansion of the workforce into areas hitherto not possible, including the advent of home-based workers and businesses. E-Commerce is one of the fastest rising contributors to bringing new revenues into an area. Illustrations of e-commerce potential may be found in all areas of Oregon and in businesses of all sizes that have joined the traded sector through e-commerce (see Appendix 1 – “Oregon Success Stories”).^{5,6} Through telecommunications global markets can now be accessed in ways previously thought to be cost prohibitive. Use of technology is considered one of the driving factors in the growing productivity of our domestic workforce, providing greater opportunities to compete in a global landscape. In March 2002, Oregon was recognized by the Progressive Policy Institute as being first in the nation in supporting Internet use by citizens as determined by state laws, regulations and administrative actions.

Pioneering Innovation and Entrepreneurship

Much of the recent growth in the Oregon economy has been propelled by knowledge-based industries such as electronics, software, and e-commerce – and through innovation and new products from all industries. Many of these advances are in large part due to the availability of advanced telecommunications services that provide the ability to quickly ship knowledge from one corner of the world to another. Knowledge comes in many forms from patented chemical formulas to detailed engineering specifications to the codes necessary to operate a computer-based lathe. Telecommunications infrastructure is the nervous system of all modern industry.

The 5th P - Public Finance:

Throughout the global economy we see a high correlation between the use of telecommunications and wealth-building activities. Interaction within and between clusters increasingly depends on the rapid exchange of information supported via broadband. Companies not availing themselves of these technologies are destined to mediocrity, if not failure. Regions not advocating and supporting the usage of these technologies will lag in many dimensions beyond their economy - healthcare, education, and access to government. Healthy economies are based on healthy businesses, and businesses pay the bills for our public services (directly and through salaries to employees).

We suggest that the public sector and the private sector in Oregon work together in these five areas of need because neither the private sector nor the public sector can do it alone. Working together in cooperative fashion, we can transform the economy of our state, including our rural communities.

BACKGROUND - WHY IT IS IMPORTANT

Overview

In the emerging “new economy,” Oregonians are finding an increased reliance on not just knowledge but the need to share knowledge throughout all corners of the state. The pace and amount of this need for communications continues to increase at an exponential rate. Broadband telecommunications infrastructure and services contribute significantly to meeting this expanding need for communications. It now seems to be

at the center of all discussions dealing with commercial activities necessary for economic development and sustainability. So, too, we find it included in the discussions dealing with quality of life issues such as delivery of health care, expanded opportunities for education, improved access to government, and myriad other factors of daily life. However, technology by itself does not solve problems. It's just a tool. Rather, people working together in a collaborative and cooperative manner to apply the benefits of technology can and will make tremendous strides in improving the lives of residents everywhere in the state.

Telecommunications Supply

A number of Oregon communities now possess and see the benefits of high-speed telecommunications services. We are pleased to note this "supply-side" progress made through a number of projects. A few examples include Qwest/SB 622 improvements that recently delivered significant advances in route redundancy (diversity), Asynchronous Transfer Mode (ATM) services, Digital Subscriber Line (DSL) services, and voice-messaging services across the state; NoaNet backbone and community distribution network partner projects; CenturyTel investments in DSL; Sprint investments in DSL; independent Telco investments in DSL; growth in cable network build-outs; and broadband wireless investments. In July 2003, TechNet, a national network of CEOs and senior executives in information technology, biotechnology, venture capital, investment banking and law issued a report, "*The State Broadband Index*," ranking Oregon eleventh overall and second in the nation in supply-side policies that promote the deployment of broadband.⁷

While we note our considerable progress, many areas of Oregon report they as yet do not have access or affordable access to these critical services and the opportunities provided through them. Some of our rural and underserved communities see dim prospects for achieving access to such services, especially when there is no apparent "business case" for making such investments in their community. In this age of budgetary deficits and economic recession a number of Oregon's most valuable resources, its residents, fear they will be excluded from participating in and contributing to the recovery of the state's economic health. As a state we are only as strong as our weakest community. So we must take action to move all communities into the 21st Century. Let's leave no community behind!

We need to encourage and build stronger alliances between our public and private sectors dedicated to the purpose of serving the needs and wants of the people of this great state. The barriers developed over the years between the public and private sectors to this joint participation in building the telecommunications fabric of the state stem primarily from a polarization rooted in "silo'd" thinking. There is a great opportunity to work together on telecommunications projects, allowing for private sector profits while providing public benefit. Through appropriate incentives to the private sector and with appropriate planning in the public sector, we can provide the services necessary to move Oregon into the 21st Century.

Yes, we have to work in a very difficult economic environment and we salute those who have gone the extra mile in provisioning advanced telecommunications services into those difficult business circumstances. The easy business cases for building infrastructure probably have been made already. Now we have to face those challenging situations that require the best minds working together to build creative solutions. The time is now for a new era of multi-lateral cooperation and collaboration between public and private sectors to create the affordable advanced telecommunications infrastructure critical to the future of all Oregonians. It's time for cooperation and collaboration between public and private sectors to create the comprehensive advanced telecommunications infrastructure critical to the future of all Oregonians. We see tremendous potential for positive synergies and outcomes in building telecommunications infrastructure to provide the advanced services required to bring all of Oregon together and to link Oregonians into full participation in global knowledge sharing.

Building demand - “Build it and they will come” isn’t enough

A number of studies show that while gains are being made on the supply side, the demand side of the equation urgently needs more attention.⁷ Strategic demand, not conditions of supply, is the major determinant of both technological change and economic growth. In other words, you can build it and they still may not come, unless economic conditions are right. Demand is critical to successful deployment.

We can help build demand. It is not enough just to provide and operate the infrastructure and services of advanced telecommunications. Education on a number of levels may very well be the most significant critical success factor in deployment of telecommunications infrastructure and accompanying advanced services in Oregon. Often we find that too few are knowledgeable or comfortable in using the technology. We see this evidenced in low “demand pull” or “take rates” making it difficult to provide the business justification for providing these services. We see the need to educate communities and residents on how to avail themselves of these advances. In many cases it starts with helping a community to create a strategic plan for framing their entry into the 21st Century use of technologies. In many communities, residents, businesses and institutions don’t quite know where to start to plan for increased use of technologies. Building a pathway to the future is a first critical step to building demand for services and is crucial to creating a sustainable delivery of advanced telecommunications services. Somehow these services must be paid for and paid usage will be a metric for defining success. Policies and legislation to spur the planning for and usage of these advanced services will be key to fostering the demand to sustain these vital services.

Education also means providing our children with 21st Century literacy skills. This will require a 21st Century technology architecture. Investing in our children is an investment in the future of Oregon. We have a track record of “brain-drain” and “age flight” in our rural and underserved areas in Oregon. We can help our youth build a future in even the most rural areas of Oregon if we provide the means toward learning and earning a living wage and above living wage.

Education must include training and re-training of our workforce. Many motivated adults find themselves falling behind in their skills and knowledge. Technology evolves at a very rapid pace. Ensuring that our businesses understand the benefits of leveraging technology also means ensuring that our workforce is prepared.

Working together - public-private partnerships

Public-private partnerships are a contractual arrangement whereby the resources, risks and rewards of both a public agency and private company are combined to provide greater efficiency, better access to capital, and improved compliance with a range of government regulations regarding the environment and workplace. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. Public-private partnerships can take a wide variety of forms (see “Types of Public-Private Partnerships” at <http://ncppp.org/howpart/ppptypes.html>). In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility. The public's interests are fully assured through provisions in the contracts that provide for on-going monitoring and oversight of the operation of a service or development of a facility. In this way, everyone wins - the government entity, the private company and the general public. Long-term viability is ensured when all partners are successful.

Public-Private Partnerships have been in use in the United States for over 200 years. Public-private partnerships have been in existence since long before the Revolutionary War. In 1652, the Water Works Company of Boston was the first private firm in America to provide drinking water to citizens. This

contractual arrangement between government entities and private companies for the delivery of services or facilities is used for water/wastewater, transportation, urban development, and delivery of social services, to name only a few areas of application (see Appendix 3 “Examples of Telecommunications Public-Private Partnerships”). Today, the average American city works with private partners to perform 23 out of 65 basic municipal services. Also, governments realize that the combined capital and intellectual resources of the public and private sectors can result in better, more efficient services. The use of partnerships is increasing because it provides an effective tool in meeting public needs, improving the quality of services, and more cost effective.⁸

SPECIFIC RECOMMENDATIONS

Integrate economic development partnerships

Work together to integrate telecommunications with the other factors that are also essential for economic development.^{9,10} Public and private sector advocates need to work together to convince the Governor and the Director of the Economic and Community Development Department that detailing our state’s telecommunications advantages should be a significant part of every business recruitment and business development activity. To do that we need to add the telecommunications skills and knowledge to the infrastructure section of the state’s recruitment and business development teams. To make it happen we need the political support of the private sector telecommunications providers in the state. We have a strong case to make to our potential private sector partners: They will most benefit from the recruitment and development of businesses that are large users of telecommunications services. If the private sector is reluctant to bring their political support to the integration of telecommunications with other economic development programs in state government, public sector advocates of telecommunications for economic development strategies should sit down with our private sector partners to understand their concerns, allay their fears and jointly develop and recommend policies that are mutually beneficial.

Create partnerships between private sector telecommunications providers and local economic development leaders throughout the state. Developers of local industrial, business or science parks need to know from providers what telecommunications facilities can be provisioned to their parks and on what time scale. They need to know how much demand must be aggregated before budgets can be allocated to construct needed facilities that are not already available. This closer integration of private sector telecommunications into local economic development plans was discussed at the Connecting Oregon Telecommunications Conference in Bend in October, 2003. We hope those discussions will be followed-up with specific plans for improved cooperation and communication between local economic development leaders and telecommunications providers so that telecommunications becomes an active part of economic development programs throughout the state.

The Legislature should direct the appropriate agencies to develop and use benchmarks to measure how well the state meets its economic and quality of life goals through use of telecommunications and to report the results annually to the Legislature and the Governor. Metrics that measure types of business attracted should report both successes and lessons learned and would be used to develop planning documents. These documents can then be available as guidelines for struggling communities that need support with planning for smart growth (for an example see the Nebraska IT Community Toolkit at <http://www.nitc.state.ne.us/>).

Both telecommunications providers and economic development people need to be proactive to make such partnerships happen and create the mutual benefit that should result.

Utilize marketing, demand aggregation, training and support

Work together to market existing infrastructure and services, aggregate demand, and provide user training and support. For example, our community colleges and small business development centers could be good partners with the private sector to stimulate increased usage.

- Education to build demand
- Sharing of resources
- Education to support training and support

With all due respect, the incumbent telephone companies often appear better at order taking than at marketing. Telephone companies typically are better at responding to a single order from a large business than at estimating and aggregating the same amount of demand from a number of small businesses. At the same time, we have no illusion that local governments have great marketing skills. But perhaps we can pool what resources we have and get third party help and advice to make improvements in our plans to market advanced services using the excellent telecommunications infrastructure we have. Telecommunications carriers are rightly concerned about the low “take-rate” for broadband services now available. A strategy of “build it and they will come” has not been enough. Local governments could help in the demand aggregation process—combining public sector demand with private sector demand for similar services could result in mutual benefit. Putting government telecommunications business on separate, government-only, networks hurts everyone by making it less likely that advanced services could be profitably offered to the small private sector businesses that are the primary source of economic growth in rural communities.

Another factor contributing to low demand for newly available advanced services is insufficient training and technical support for applications using information technology. Community colleges could be a public sector partner in helping improve availability of training and support. Working together, we should find a way to get mutual benefit from the telecommunications services already available.

Expand applications development

We could work together to develop and expand the applications needed to use the infrastructure we have to bring about economic development. Fiber optic loops don't create jobs or prosperity. It's a tool. How we use them does.

This is the most critical area for the future of the Oregon economy. Self-healing fiber optic rings, broadband wireless and all the other information technologies do not bring economic development or improved quality of life. What will improve our communities is the businesses and jobs we can create in or recruit to our communities, if we use our information technologies more effectively.

In addition to business development and recruitment, three applications areas are particularly critical to rural communities because they are a large percentage of rural economies:

- Health care,
- Education, and
- Government.

All three areas are in financial crisis. Part of the reason for the financial crises in these three public or quasi-public sectors of our economy is that they have not used information technology as effectively as the private

sector has to achieve productivity gains. By productivity gains, we mean the production of more and higher quality services at lower cost.

We have the opportunity to improve the quality of rural health care and hence the quality of life in rural communities through telehealth and telemedicine applications, integrated electronic medical records systems and a general reorganization of how rural health care is delivered using information technology as the catalyst. We have the opportunity to develop e-government applications that will make state and local government services available 24/7 through the Internet with on-going costs equal to or less than what we now pay for less accessible services. We have opportunities for distance learning applications, both real time videoconference courses and on-demand Internet programs in which local teachers do not have to teach everything, but can serve more as mentors, guides and coordinators of a rich base of instructional materials available electronically.

Current public sector funding problems, tax revolts and health care cost escalations have reached such crisis proportions that perhaps the time is ripe for restructuring how we provide these three traditional services. Part of the problem is that, in order to achieve lower on-going operating costs, front-end development expenditures and capital equipment budgets are needed. The public sector does not have either the capital budgets or the development budgets needed to make the transition to more economically productive delivery of public services. Perhaps the private sector, which has led the way in using information technology and telecommunications to achieve simultaneously lower costs and higher quality services, can help bring the same benefits to the public sector. Perhaps private sector partners can be found who would front the development and capital costs in exchange for longer-term service contracts that provide on-going public sector savings and private sector profits. At the very least, public sector officials should learn from the private sector how to use information technology to improve service and lower costs.

Expand infrastructure partnerships to ensure redundancy and diverse routing

Not all communities in Oregon have reliable broadband infrastructure with diverse routing to prevent outages. We could work together to improve services to those communities. We can cite at least two solid reasons why this is critical:

- Public safety reasons
- Business purposes

One example of infrastructure partnerships would be to get a partnership going between private sector telecommunications providers and the public safety sector of state and local government. We don't have diverse routing in all areas of Oregon because the expected return on investment for private sector providers is unlikely to be sufficient to justify private sector investment. Nevertheless, we need redundancy and diverse routing for public safety reasons as well as for business purposes. Any disaster, whether caused by nature or by humans, creates a great need for public safety communications. When a fiber cut or other disaster cuts the single thread of telephone and data services out of an area, the need for public safety communications increases as the availability fails. To cite just one example, a fiber-optic line break cut off the southern Oregon coast from the rest of the world for much of January 3, 2003. After a state cleanup crew accidentally tore a CenturyTel fiber-optic cable at 9:30 a.m., residents and businesses from Reedsport to Brookings couldn't make or receive phone calls outside of the area or connect to the Internet.¹¹

This scenario is unacceptable in any area of our state today. We cannot afford interruptions of communications for public safety purposes as well as acting as a disincentive for locating or increasing business activity dependent on high availability of telecommunications infrastructure. Together we can look

for a ways to get Federal government funding, from the Department of Homeland Security or elsewhere, to meet this challenge. The result would be an improved economy in many areas as well as improved public safety. Neither the private sector nor the public sector can solve this problem alone—let's work together to create a reliable telecommunications infrastructure in the parts of the state that still lack redundancy and diverse routing.

Broadband data services, either through Digital Subscriber Line (DSL), cable modem services or broadband wireless access, are available in much of Oregon. For the rural communities that still lack broadband access, local partnerships could be explored to bring broadband services to those still unserved communities.

CONCLUSION

There are ample opportunities to stimulate economic development and growth through telecommunications using public-private partnerships in Oregon. Traded-sector businesses have a lot to be gained and may find themselves further disadvantaged if they fail to utilize the power of telecommunications technologies. Telecommunications will broaden the market reach of the traded sectors and has the promise of ensuring inclusion of rural communities in Oregon's economic future. What is needed is communication, collaboration and cooperation as well as an expeditious start on specific projects that can begin building the mutual trust that is essential for long-term cooperation and partnership success. Especially in rural Oregon, where markets for telecommunications services are too small to support many competitors, we should be working together to achieve jointly what neither sector can accomplish alone.

APPENDIX 1 – OREGON SUCCESS STORIES

The following are a few examples of how e-commerce can impact businesses of all sizes. Note especially those businesses that fall into the “traded sector” definition.

e-Commerce Zones Impact

The following is a recap of the Electronic Commerce impact within the Medford Urban Enterprise Zone from February 2002 through February 2003. (Contact: Gordon Safley, SOREDI, www.soredi.org)

Number of companies applying:	13
Existing jobs saved:	1,242
New jobs created:	447
Average wage for new jobs created:	\$14.63/hour (does not include benefits)
Total New Annual Salary:	\$13.6 million
Total New Investment:	\$110,115,778

Future Impact from Investment and New Job Creation:

New Annual Property Tax Revenue:	\$ 1.54 million (Exempt for 3 years)
New Annual Income Tax Revenue:	\$ 1.2 million
Estimated Indirect Jobs Supported:	625

Outsidepride.com, Inc. in Salem

Combining e-commerce, product quality, and product knowledge, Outsidepride.com, Inc. provides something for every person who enjoys taking care of the outdoors. From serious do-it-yourself landscapers to the novice homeowner, you will find what you are looking for at Outsidepride.com, located in the beautiful Willamette Valley just outside the state capitol of Salem, Oregon.

www.outsidepride.com

Valley Bronze in Joseph

The Internet and e-commerce enables companies like Valley Bronze to compete in and serve national and international markets from Joseph. Valley Bronze formed a joint venture with Stewart Springs Ltd., a design and computer-drafting firm. Together the team won a contract worth \$1.7 million for work on the new World War II memorial in Washington, DC (see the full Oregon Business story posted on their website).

www.valleybronze.com

Winners Choice Bow Strings in John Day

Headquartered in John Day, Winner's Choice Custom Bowstrings, Inc. is an industry-leading manufacturer of superior-quality custom bowstrings and buss cables. Founded in 2000, the company has grown in leaps and bounds, with customers worldwide continuously seeking the products, quality, innovation and customer service offered only by Winner's Choice.

www.winnerschoicestrings.com

Jokers' Wild Barbecue Sauces in Burns

E-commerce enables small businesses to access national and international markets from rural Oregon. Joker's Wild Sauces, a small start-up business, markets BBQ Sauces from Burns.

www.jokerssauce.com

Carriage Works, Inc. in Klamath Falls

As their website indicates, from its facility in Klamath Falls, the Carriage Works serves a global market with customers in Japan, Indonesia, Russia, Germany and around the world and have their products in all the Walt Disney theme parks.

www.carriageworks.com

Firemountain Gems, Inc. in Grants Pass

Receiving a significant percentage of their orders through their website and operating out of Grants Pass, Firemountain Gems serves customers across the country and internationally.

www.firemountaingems.com

M&N Sportswear in Astoria

A third generation family owned retail business in Astoria and probably a record holder for most expanded trading area. M&N shipped an order to Antarctica.

www.mnworkwear.com

Lighthouse Deli in Newport

Lighthouse Deli enjoys remarkable success selling Oregon seafood over the Internet. They are now breaking ground on a new building with cold storage and room for handling all the packaging needed to support the exploding e-commerce business, which has really taken off in the last few months. While always a busy retail counter and fish and chips type operation at the store in South Beach, these days, each morning they check emails and see about 180 emails with orders. Lighthouse Deli is selling Oregon seafood products all over the United States. These products yield premium prices - canned product with UPS, and even overnight or second day air fresh fish. UPS trucks are arriving and going all the time. They specialize in Dungeness Crab (at \$7.99 a pound in the round!). A fee is paid to have the Website come up among the first listed searches. People just have to type the word "crab" in a Google search and up pops the site. The Website talks about Oregon seafood product, Oregon fishing families and vessels and the community of Newport and the Oregon coast. The Lighthouse Deli also uses E-Bay very successfully.

www.lighousedeli.com.

The Pacific Northwest is the most wired region in the country...

"The Pacific Northwest is the most wired region in the country: In 2002, the Pacific Northwest was the most wired region in America; fully 68% of adults in Washington and Oregon use the Internet. This is substantially higher than the national average of 59%. The Pacific Northwest has long been the country's most wired region - in 2001, 66% of its adults online, as opposed to 56% of adults nationwide. As far back as 2000, 57% of adults in the Northwest were online, seven percentage points higher than the then national average of 50%."

"Internet Use by Region in the United States", <http://www.pewinternet.org/reports/toc.asp?Report=98>, Pew Research Center, August 27, 2003

SunWest Builders

"Next week SunWest Builders will break ground on a 10,000-square-foot professional building adjacent to St. Charles Medical Center in Bend that will house pathology services businesses...Medico's Palanuk said locating the call center in Bend was the perfect fit for the company. 'With the dedicated labor pool we have found in Central Oregon, it was only a matter of waiting until the Central Oregon fiber-optic loop was completed. Once this barrier to redundant connectivity to our Seattle, Tacoma, Portland, and Salem offices was overcome, we were ready to implement our expansion in Bend.'"

<http://portland.bizjournals.com/portland/stories/2003/08/04/daily51.html>, The Business Journal - Portland, August 8, 2003

Jackson County

“Jackson County www.jacksoncounty.org has been ranked eighth nationally in the 2003 Digital Counties Survey in utilizing information technology (IT) to deliver high quality service via its website to its customers and citizens...The survey was conducted jointly by the Center for Digital Government, National Association of Counties, and Government Technology magazine.”

“Jackson County - National award winning website”, <http://www.projecta.com/News.asp?NewsID=89>, Medford Oregon, July 17, 2003

APPENDIX 2 – EXAMPLES OF TELECOMMUNICATIONS PUBLIC-PRIVATE PARTNERSHIPS

Public-private partnerships can take a variety of forms as illustrated by these few following examples.

Example 1 – Minnesota Department of Transportation and a private developer

For many parts of rural Minnesota, having the kind of fiber-optic communication capabilities that would deliver state-of-the-art service to businesses, schools and public agencies would be nothing more than a dream under most circumstances, because most entities would not invest the resources to build a communications infrastructure to serve so few homes and facilities.

A public-private partnership, however, made Minnesota a full participating partner in 21st century telecommunications. In a landmark agreement between the state's Department of Transportation and a private developer, the developer was given one-time access to Minnesota's interstate highway system in order to build and maintain a \$125 million fiber-optic backbone along 2,000 miles of Minnesota roadway. In exchange, state agencies are given free use of the network.

In this way the state was able to leverage its highly desirable transportation routes in exchange for the development of fiber optic networks on less desirable, rural routes. As a result of this partnership, 80 percent of Minnesota citizens have better telecommunications services at lower costs.

<http://ncppp.org/presskit/ncpppwhitepaper.pdf>
<http://www.mainserver.state.mn.us/connectingmn/>
<http://www.dot.state.mn.us/connect/>

Example 2 - Colorado and Qwest

The Multiuse Network (MNT) is a network built by a public-private partnership between the State of Colorado and Qwest Communications. In this partnership, the State plays the role of anchor tenant for the network and Qwest has the role of building and operating a new, statewide, fiber optic network.

The MNT is really a network inside a network. Qwest calls the overall new network it has built throughout the state the Colorado High Speed Digital Network (CHSDN). A subset of the network is dedicated for use by the State. That portion is called the Multi-Use Network (MNT).

<http://www.state.co.us/mnt/>

Example 3 - New Mexico and Qwest

Connect New Mexico (CNM) is an association of representatives from the telecommunications, broadcast, computer and Internet industries working together with a shared goal of leveraging New Mexico resources for information and network technology development.

<http://www.connectnm.org/>

Under the contract, Qwest will deliver a centralized state-of-the-art backbone infrastructure allowing the transfer of voice, video and data services to MAGnet, which will reach state-government agencies and the citizens they serve in 24 rural and urban communities throughout New Mexico. MAGnet was designed to allow the State of New Mexico to consolidate all public-sector communications requirements from multiple networks into a single network. MAGnet will provide broadband capacity to the state, and will enable applications such as distance-learning and telemedicine applications, while reducing administrative and maintenance costs to taxpayers.

“This far-reaching network, while initially designed to benefit the public sector, will ultimately open the doors for economic development throughout the state,” said Bob Stafford, chief information officer for the State of New Mexico. “MAGnet initially will enable state agencies, K-12, higher education institutions, judicial branches of government, and local and county government agencies to offer their services and applications to the general public in a more cost-effective and expedient manner. Because the State of New Mexico and its agencies have established the ‘anchor tenant’ that provides the business case for the deployment of this high-speed infrastructure, new businesses thinking about moving to New Mexico in the future, will be assured of getting the leading-edge, high-speed network connections required in today’s business environment – not only in metro areas but in communities across the state.”

“Qwest’s partnership with the State of New Mexico is an example of how the public and private sectors can work together to establish a unique platform to benefit state and local agencies while also stimulating economic growth throughout New Mexico,” said Cliff Holtz, executive vice president for Qwest’s business markets group. “Public sector entities across New Mexico will begin seeing wider availability of services not traditionally available – or at least very expensive – to acquire in the past.”

http://www.qwest.com/about/media/pressroom/1,1720,1066_archive,00.html

Example 4 – Oregon and Qwest

Most urban areas have more than one fiber line connecting local phone systems to long-distance networks, but less-populated regions typically depend on one fiber route.

Laying fiber costs money, and many telecom carriers are reeling from fiber-overbuilding in urban areas. The largest investments in redundant loops came from the state's largest local phone company, Qwest Communications International. It spent \$70 million on network upgrades, including five redundant fiber-optic loops throughout the state. In exchange for that improvement and investments in school technology, the state deregulated Qwest's profits. The backup networks have averted outages in rural areas.

“Our investment is a result of the strong partnership that exists between Qwest and these local communities,” said Judy Pepler, vice president of policy and law for Qwest in Oregon.¹²

Per Senator David Nelson, “...SB 622 and Qwest’s significant investment are evidence that the unique business/government partnerships can work to the significant advantage of Oregonians.”¹²

"Absent that kind of win-win situation for the company and the state, it makes it very difficult to have a business case (that will) pencil out that says, 'This is a good use of capital dollars,'" said Judy Pepler, Qwest's president for Oregon.¹²

Example 5 – Oregon – Medford City Schools and a private developer

By placing fiber to schools in the Medford area, Hunter now has created a 'self-healing' ring that we will use to deliver services to enterprise customers throughout the Medford area. Hunter plans on replicating this model throughout the region.

Working with the Medford School Districts desire to reduce costs and stabilize the cost for connectivity of their school facilities, Hunter Communications evaluated the annual budget for the District's existing T-1 lines. "We discovered that cost would continue to increase at an annual rate of 7 to 14 % and the available bandwidth would not meet the future requirements for on-line testing," stated Hunter Communications owner Richard Ryan (541.734-2800, rryan@coreds.net).

After engineering a connectivity solution between all sites, Hunter determined that an opportunity to work with the District within its current budget was not only possible, but also that reducing these costs was realistic. Hunter offered to lease two pair of 'dark' fiber in a continuous ring to all but three school in the District and an additional 'dark' pair to the regional ESD (educational service district) for the same price of the current connectivity costs, replacing all T-1's. The project qualified for eRate funding and will further reduce the districts expenses by 52 % this year. The contract runs for 87 months and District has the option to extend the contract out to a total of 20 years. Hunter actually reduced the annual cost to the contact fee's that will reduce the cost to about 50 % of it current connectivity budget. Hunter has just completed similar service contracts with two adjacent School Districts bringing the total school sites served by the network to 31.

<http://www.mailtribune.com/archive/2003/0217/local/stories/06local.htm>

Example 6 – Oregon – CoastNet

Fiber optic networks are becoming a critical part of the necessary infrastructure of economically healthy communities. A key element in Lincoln County's long-range economic plan is the development of such a network in Lincoln County. However, the big telephone companies are not yet ready to invest the resources and finances necessary to install fiber optic networks in rural areas such as Lincoln County.

The Central Lincoln People's Utility District (the PUD) provides electric power to the central Oregon coast, including most of Lincoln County and portions of a number of other counties. To facilitate their own internal communications and to enhance the reliability of the PUD's electric power switching network, the PUD installed a fiber optic network along the Central Oregon Coast from Lincoln Beach to Reedsport, and from Newport to Toledo. Due to economies of scale, the PUD's fiber network has significant amounts of excess capacity.

The Economic Development Alliance of Lincoln County (the Alliance) is a non-profit corporation existing for the purpose of promoting economic development and employment opportunities in Lincoln County. The Alliance became aware of the PUD's excess fiber capacity, and realized the PUD's network could provide significant opportunity for economic development and employment in Lincoln County.

For that reason, the Alliance and 38 other public and non-profit entities began a project known as CoastNet. After much discussion and analysis, the CoastNet group created a three-step plan: (1) Arrange to lease the PUD's excess fiber capacity through an intergovernmental agreement with Lincoln County; (2) Purchase necessary equipment to enable the excess capacity to operate as a functioning network; and (3) Make that network available to attract new business for the purpose of facilitating growth in economic development and employment opportunities.

As for the first step, the PUD and Lincoln County entered into an intergovernmental agreement for lease of the PUD's excess fiber capacity.

As for the second step, after considerable effort, the Alliance was able to obtain \$305,000 in economic development grants for the CoastNet project (utilizing the Lincoln County School District as the fiscal agent for receipt of funds).

The Alliance, the County, and the PUD have also been working with other entities to expand the reach of CoastNet through the use of other fiber networks and excess capacity. Most notable is the excess dark fiber capacity controlled by the Fiber South Consortium (a group of governmental entities in Coos, Lane, and Douglas Counties), which has acquired that capacity from Williams Communications, whose fiber lines carry traffic between the Willamette Valley and the AT&T trans-Pacific fiber line at Bandon. The Bonneville

Power Administration (BPA) also has excess dark fiber capacity, some of which is now controlled by the Fiber South Consortium, and some of which is controlled by the Northwest Open Access Network (NoaNet), a nonprofit corporation formed to help provide high-speed telecommunications to the rural Northwest. Lincoln County joined the Fiber South Consortium, and in May of 2001, the Consortium selected PCINW (Preferred Connections, Inc, NW) of Lakeside, Oregon, as the vendor for its dark fiber capacity. PCINW is the private sector partner. CoastNet wholesales network capacity to PCINW and PCINW sells services to retail customers. In order to facilitate the interconnection and development of CoastNet with the rest of the telecommunications world, in January of 2002, the Alliance entered into a contract for the transfer of the marketing and distribution of CoastNet from Casco to PCINW. Since PCINW is also the private sector contractor for the FiberSouth Consortium, CoastNet plans to interconnect CoastNet and FiberSouth in Florence as soon as the FiberSouth fiber between Florence and Eugene is lit. That is scheduled to happen before the end of this year (2003).

<http://www.co.lincoln.or.us/counsel/COASTNET.html>

APPENDIX 3 – BIBLIOGRAPHY/FOOTNOTES AND CONTRIBUTORS

Bibliography and Footnotes

Note: Items marked with a * are quoted from numerous times in the paper. We highly recommend you invest the time and read these resources in full.

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⁵ “TechNet Releases State-by-State Ranking of Broadband Deployment Policies”, www.technet.org/press/Press_Releases/?newsReleaseId=2527, “The State Broadband Index”, http://www.technet.org/resources/State_Broadband_Index.pdf, Jim Hock, July 17, 2003

⁶ “The Best States for E-Commerce”, www.ppionline.org, March 13, 2002

⁷ “Understanding Broadband Demand – A Review of Critical Issues”, http://www.technology.gov/reports/TechPolicy/Broadband_020921.pdf, Office of Technology Policy, U.S. Department of Commerce, September 23, 2002

⁸ “Public-Private Partnerships for Telecommunications in Oregon”, <http://www.ortcc.org/PDF/PPPPartnerships.pdf>, includes comments from the January 2003 Public-private Partnership Roundtable, John Irwin, January, 2003 *

⁹ “What is Economic Development -Economic Development?”, <http://www.cotel.org/Conference%20Docs/whatis~1.pdf>, 2003 Oregon Connections Rural Telecommunications Conference, Lee Curtis, October 9, 2003

¹⁰ “The public sector generally seeks to increase incomes, the number of jobs, and the productivity of resources in regions, states, counties, cities, towns, and neighborhoods. Its tools and strategies have often been effective in enhancing a community's:

- labor force (workforce preparation, accessibility, cost);

- infrastructure (accessibility, capacity, and service of basic utilities, as well as transportation and telecommunications);
- business and community facilities (access, capacity, and service to business incubators, industrial/technology/science parks, schools/community colleges/universities, sports/tourist facilities);
- environment (physical, psychological, cultural, and entrepreneurial);
- economic structure (composition); and
- institutional capacity (leadership, knowledge, skills) to support economic development and growth. “

“Defining Economic Development”, <http://12.39.209.165/xp/EDAPublic/Research/EcoDev.xml>, Economic Development Administration

¹¹ “Coastal area silenced by cable break”, Bryan Denson and Jeffrey Kosseff, Oregonian, January 4, 2003

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