Oregon Conference Highlights FTTP Interest

Almost 150 public officials crowd Broadband Properties Portland Workshop

A BBP Staff Report

A standing-room-only crowd got hard-headed advice late last October at a daylong conference and workshop arranged by *Broadband Properties* in cooperation with the League of Oregon Cities, Institute of Portland Metropolitan Studies at Portland State University, the Portland Development Commission, Portland Office of Cable Communications and Franchise Management, and Oregon Association of Telecommunications Officers and Advisors.

Officials and private operators and developers, mainly from Oregon and Washington State, did not have to be convinced of the need, and the opportunity.

Seattle Task Force

In June 2004 Seattle's city council set up a 12-person task force (aided by city staff and an outside consultant) to examine options for the municipality to provide broadband services to the public. After twice-monthly meetings for six months, the task issued a report (at www.seattle.gov/btt). Task force member Bill Baron said Seattle residents already make heavy use of broadband connections, and that their use can only increase. "Seattle's success over the next 50 years will depend in part on its broadband infrastructure," he said.

Seattle's city council and local media have embraced the report, Baron said. He noted that the task force realized "FTTP is the only technology available today with the capacity to meet all of Seattle's long-term needs," and that "Wi-Fi is not a long-term solution."

Baron said Seattle has set an "interim mid-term goal" to make sure Seattle

Broadband Households by Nominal Data Rate
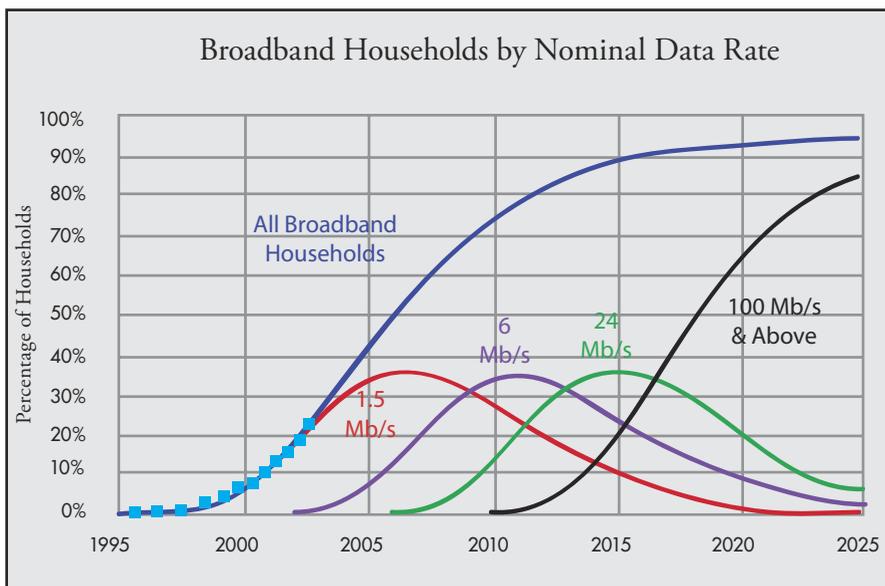
Seattle's Bill Baron cited Technology Futures data suggesting that 25 Mbps would be the household norm in less than 10 years.

residents have "affordable access" to at least 25 Mbps connections by 2015. That, he said, would allow for simultaneous HDTV video, Internet access and voice services. It requires fiber. In contrast, Philadelphia's Wi-Fi plan, he noted, calls for just 1 Mbps – adequate for data and voice (if there is enough backhaul capacity), but not video. The task force, he said, considers Wi-Fi and copper lines (even in short loops for higher bandwidth) as interim solutions.

He also noted that "incumbent providers do not provide, and have not presented, plans to develop, the high-speed network that Seattle will need in the future," but that the Seattle task force recommends "work to encourage private companies to deploy high-speed broadband." Another task force recommenda-

tion is that the city should be "proactive" and "offer wholesale data transport services to private companies."

Baron said the city has proposed spending $200,000 to explore public/private partnerships to provide high-speed broadband.

More Bandwidth, Please

John Griffin of Optical Solutions said, even that bandwidth budget is conservative. The table shows his budget for a home with three TVs and 3 set-top boxes (one with 2-stream personal video recording or PVR).

Ben Gould, vice president and chief marketing officer of Dynamic City, extolled the virtues of the open service provider network model. Dynamic City manages the 14-community open ac-

A more realistic bandwidth budget, by John Griffin		
	MPEG2	**MPEG4**
1 HDTV TV	19.3 Mbps	10.0 Mbps
2 SDTV TV	7.0 Mbps	4.0 Mbps
1 HDTV PVR	19.3 Mbps	10.0 Mbps
1 SDTV PVR	3.5 Mbps	2.0 Mbps
IPTV Total	**49.1 Mbps**	**26.0 Mbps**
Data	**5-10 mbps**	**5-10 mbps**
Total Payload	**54-59 mbps**	**31-36 mbps**
*Voice is not considered significant for bandwidth calculations.		

Sheila Martin, director of the Institute of Portland Metropolitan studies at Portland State University – a co-host of the workshop.

cess UTOPIA system in Utah, where anyone can lease bandwidth and offer services to end-user customers. Gould noted that a shared infrastructure lowers the cost to all users.

But perhaps more importantly in his view, such networks offer providers "a critical mass of subscribers" that makes offering a service attractive. Ubiquitous near-universal access to broadband also benefits society by building an infrastructure for community services such as security, e-government and telemedicine.

Gould noted that MSTAR is using the UTOPIA network to offer a residential triple play of 15 Mbps Internet access for $34.95 a month, unlimited VoIP for $29.95, and digital cable for $40 – a total of $104.85 a month.

Robert Whitman, market development manager for global broadband at Corning, said that of the 289 municipalities in Sweden, over 200 have their own network. The Swedish Urban Network Association (www.ssnf.org; the acronym is SSNf in Swedish) is a nonprofit group of municipalities, telecom operators, energy companies and others whose mission is to give cities "an open infrastructure for everyone," stimulate the market by allowing providers to lease capacity at less than the cost to build networks individually, and reduce

digging in city streets. The group has about 300 members.

The first Swedish open-access network, Stokab (Stockholm) has been profitable since 1996, he says. Fifteen municipalities in rural north Sweden are working to bring broadband to 260,000 people scattered across an area twice the size of the Netherlands.

David Shaw, UTOPIA's general counsel, notes that municipalities that want to go the UTOPIA route must take some risk, and that bond underwriters who loan the money are careful. UTOPIA expects to pay off its debt for building the network with revenue from pro-

viders leasing bandwidth, for example. But underwriters also wanted a limited guarantee of some sales tax revenues as well, in case the network could not pay its own way.

Shaw likened that to your "rich uncle" cosigning your bank mortgage to obtain the lowest possible interest rate, even if the new home itself is a big enough asset to pay for a default.

At UTOPIA, he notes, the 14 participating communities are being reimbursed their up-front costs, tax revenue backs only part of the overall network costs, and excess revenue earned by the network must be turned back to the communities. He also pointed out that the "feasibility study for the network had to be independently reviewed and verified."

UTOPIA is actually being built in

Packed house, as workshop gets under way.

UTOPIA Counsel David Shaw, ComSpan CEO John Stadter , and FTTH Council executive director Joe Savage listen to Wes Lannen explain Rural Utilities Service funding.

three phases. In Phase 1, UTOPIA issued $85 million in Revenue Bonds on July 22, 2004. Bank of America provided a letter of credit. Eleven of the cities agreed to pledge sales taxes for 17 of the 20-year bonds issued by UTOPIA (pledges don't begin until July 1, 2007). "It is not a debt of the cities," Shaw said. "The maximum risk to the cities is the sales tax pledge, which in a worse-case situation equals, on average, about $6.50/month per household and business."

UTOPIA's return on investment, he said, "is having a state-of-the-art carrier-class network that facilitates economic development."

Griffin of Optical Solutions says municipalities should start with a business plan for the deployment, and that the most successful municipalities are those with deployments "led by existing municipal owned utilities."

Other advice:

• Start with a well-developed marketing plan for more rapid service uptake.

• Develop a differentiated channel package offering

• Don't underestimate the CATV and satellite TV competition and consumer acceptance.

• Require field-proven, tested and deployed solutions – time to market and learning curve.

• Make sure you understand all vendors' lead times. (He called it the "weakest link" that delays rollout.)

• Invest in more data networking and IP skills up front.

• Have a tested solution for the inside wiring solution before the deployment stage to avoid delayed installs and higher deployment costs.

Private Options

Phillip Clark, president of Paxio (www.paxio.com), admitted that "price points are always a factor" in consumer choices about broadband, but that his company aims to "deliver fiber capacity that exceeds current needs," and that "product choices available to consumers should exceed the market." Paxio builds private sector FTTH in greenfield and urban redevelopment areas, and fiber to businesses in other urban settings. He said Paxio's business model includes "builder/developer and provider partnerships" as well as open-access "municipal and provider partnerships."

He said that mass-market choices and competition create new consumer expectations, so Paxio always plans for "future layering of services" over the infrastructure being installed. Even now, he says, the marketplace demands multiple bandwidth offerings with extra-high bandwidth for "elite users," unlimited voice, HDTV and video on demand, on top of a good basic and premium channel lineup.

To be successful, he adds, consumers

Nancy Jesuale, president of NetCity Engineering, Robert Whitman of Corning, Nancy Connery of Renaissance Integrated Solutions, John Griffin of Optical Solutions, and Steve Jergentz, general Manager, Ditch Witch.

Tony Perez, director of the Seattle Office of Cable Communications, moderated a panel that included (left to right) James Hettrick, director of information systems for Loma Linda (and host of our next regional meeting, in Loma Linda April 6 and 7), Phillip Clark, President of Paxio, Bill Baron of the Seattle Broadband Task Force, and Ben Gould of Dynamic City.

must be able to access the services "plug and play," or at least more simply than the competition offers.

John Stadter, president and CEO of ComSpan USA in Roseburg, Oregon, described a public-private partnership that started with a private company's idea. ComSpan (www.comspanusa.net) is a Roseburg-based Competitive Local Exchange Carrier (CLEC) with 5,000 customers. It offers FTTP triple play but still has some copper in its network.

ComSpan partnered with a nearby community, Bandon, for an FTTP build. Bandon's city manager and mayor offered strong support, and the demographics made sense. But, said Stadter, "no bank would touch it," and neither would private investors he tried. Although funding through the Rural Utilities Service at USDA was a possibility, Bandon decided to apply to the Oregon Economic and Community Development Department (OECDD, www.oregon.gov/ECDD/index.shtml) for a $5.2 million loan to build the system.

Key to the project, Stadter says, was that his company would design, build and operate the network, giving an "iron tight guarantee" to the city that city tax funds would not be at risk. This will be an open-access network, Stadter says, adding that the investor community still has to buy in, although risk is obviously lower with the state guarantee. **BBP**

David Olson, director of Portland's Office of Cable Communications and Franchise Management, speaks. Others on the panel are (left to right) John Hoffman, General Manager of Gervais Telephone Company, David Valdez, VP for Public Affairs and Policy, Verizon Northwest, and Matthew Lampe, chief technology officer at Portland's Bureau of Technology services.