Industry Roundtable on the City of Portland's
Draft Broadband Plan

On June 3, 2011, the City of Portland sponsored a telecommunications industry roundtable to discuss the City's draft Broadband Strategic Plan. Several of the City's telecommunications providers attended, including CenturyLink, Comcast, TW Telecom, LS Networks and Integra Telecom. They were joined by EasyStreet OnLine Services and the Northwest Internet Exchange (NWAX). The purpose of the roundtable was to update the City on Broadband Services offered by these carriers, as well as their future plans, and to discuss ways that Industry could participate in advancing the goals of the plan through implementation partnerships and strategies.

Presentation Highlights:

The roundtable event began with an opportunity for each industry participant to briefly outline their current services within the City and any future plans for services. Rich Bader of EasyStreet began by describing their migration from providing Internet access services to the development of their green data center, and a focus on server hosting and cloud computing for business customers.

Chris Denzin of CenturyLink discussed consumer space services currently available, which include DSL services from 1.5 Mbps to 40 Mbps downstream and 1.5 Mbps to 20 Mbps upstream. Denzin described the CenturyLink network in Portland as a fiber-to-the-node architecture, which the company plans to modernize with a minimum investment over the next five years of $40M statewide. Speeds are planned to increase to 100 Mbps (downstream) and 40 Mbps (upstream). They are planning to introduce an IPTV service called Prism in several cities in the US. If Portland is chosen, there will be additional infrastructure investment. CenturyLink has introduced a "lifeline" service of lower speed broadband for $9.95/mo. which includes the ability to purchase a discounted computer. Business services include 40/20 Mbps DSL, Ethernet up to 10 Mbps and Ethernet Private Line service up to 10 Gbps. They also offer their Q-Wave DWDM Sonet over Fiber service up to 40 Gbps.

Theresa Davis of Comcast described their high speed DOCSIS network which currently provides up to 100 Mbps business service and 105 Mbps downstream to residential users at its highest tier of service. Since 2007, Ms. Davis reports that Comcast has invested $449 M in the region, $60M of that in Portland. She reports that Comcast reaches 100% of residences with its fiber to the node network, and 90% of Portland Businesses. Comcast provides 2000 local jobs. She notes that there are 250 I-Net sites in Portland. Comcast considers Portland a "pioneer market" and good test market where the company launches new services, such as its recent launch of Infinity high speed broadband services. In Fall, 2011, Comcast will launch its "Internet Essentials" service offering students who qualify for free lunches a basic broadband package which will include a low cost computer, and some training.

Jon Nicholson of TW Telecom described TW's business services (it is not a residential provider). TW is the largest competitive access provider in the Country. They operate in 75 markets, serving 14,000 buildings with 27,000 miles of fiber plant. Nicholson notes that TW spends 25% of total revenue on capital investment. They provide wide area and metro Ethernet services, and are moving into voice over

IP service, and "up the stack" to managed services and managed applications. Customers have several options for business services, including Ethernet up to 10 Gbps, which is available in increments of 1 Gbps. Their network is engineered to expand infrastructure once it reaches 60% of capacity subscribed, so that the network avoids any congestion.

Integra Telecom, which began in Oregon invested $38M in network enhancements to its network in 2011. Steve Anderson reports that Integra is focused on small, medium and large business offerings, and does not provide residential service. Offerings include DSL up to 100 Mbps (soon) and Metro Ethernet up to 10 Gbps. They are considering moving into cloud services or cloud access services. They also provide wholesale services to other carriers.

Michael Weideman discussed LS Networks, which is a local company with a 600% increase in revenue of the last five years. LS Networks does not provide services within Portland because, Mr. Weideman stated, the fees and taxes in Portland are three times higher than in other areas of the State. Also, Mr. Weideman noted that unlike in Eugene, OR, the franchise fees in Portland do not get reinvested in telecommunications infrastructure, and gaining access to right-of-way (such as TriMet right-of-way) is difficult. LS is owned by rural electrical cooperatives. It provides services from 10 Mbps to "10's of Gigabits for network interconnection services to rural telecom's throughout the State.

Don Westlight, representing the Northwest Regional Internet Exchange (NWAX) which provides a peering point for telecoms and internet providers at the Pittock Internet Hotel in downtown Portland, said that the City's Broadband Plan is essential to promote economic development in the region. NWAX allows members to trade traffic within the State, without charge. There are 31 networks plugged in so far. The exchange allows local internet traffic to stay local, thereby increasing throughput and reducing transit cost for providers of internet services. To illuminate the value of the exchange, Don highlighted the Oregon Health Network (OHN), which has 200 clinics, hospitals and medical treatment sites connected through the exchange. The OHN provides secure high speed private internet services, using EasyStreet Online's network operations center, allowing data traffic to remain in-state.

Discussion Topics
Following the brief presentations by each company on their services and planned services, the group convened a moderated discussion of topics raised in the Portland Broadband Strategic Plan. Nancy Jesuale, of NetCity (consultant to the project) moderated this discussion.

Status of Competition in Portland
In light of the information presented in the presentations by each company, Ms. Jesuale asked participants whether they felt that Portland had sufficient broadband competition, and whether there were "holes" in broadband accessibility for Portlanders. Jon Nicholson responded that he feels that among cities of similar size, Portland is one of the "most wired" in the Country. Theresa Davis agreed, calling Portland "a highly competitive market." She mentioned the National Telecommunications and Information Agency (NTIA) broadband mapping project. In preparation for the roundtable, Theresa looked at NTIA's broadband mapping in the Portland area. She noted that the purple color on the map shows fiber infrastructure and that "there was a lot of purple in Portland." She agreed with Jon that the

Portland market does not "lack" in competition. Chris Denzin spoke about his belief that competitors rely on a strategy of "success-based investment" meaning that they invest where demand is evident to support a reasonable return on investment. He stated that "simply throwing money out there to build fiber and hope people show up is not a strategy. Adoption, utilization, attraction of new businesses and business districts are what we actually need". He noted that Mary Beth Henry had shown a slide earlier which stated that 20 percent of those living in Portland choose not to have broadband access, so to simply build fiber to every single home within Portland may not be a "best use of capital dollars for Century Link or any of us".   He feels that the Plan's goal to develop a cluster strategy in key areas for economic development is the right direction to developing tenants and attracting citizens to the areas to serve. He believes this goal will build demand for broadband services and "when that demand materializes we will build into that. But to build into a demand that is not currently present today doesn't make a lot of sense."

Wireless as a substitute for wireline Broadband

Ms. Jesuale asked industry participations to weigh in on whether they think that the next generation of wireless technology for mobile broadband (4G) is going to provide another consumer competitive option for broadband to DSL and cable. Participants agreed that the demand for mobile, wireless internet connectivity and high speed broadband over wireless in growing at a very fast rate. Ms. Jesuale asked whether wireless is a way to get accessibility and competition into areas where it hasn't been before. Participants noted that accessibility to mobile data is really going to be critical to market growth in both residential and business settings. They note," for people that are embedded at desk all day long-- they want their gigabit connection, but how much did you put up with on your cell phone for the fact that it was mobile?"

Beyond the consumer demand for mobility the deployment of a wireless technology was seen by some as a way to lower cost to reach consumers where accessibility is an issue.   "Feeding a number of cell sites rather than every premise that you pass is clearly more cost effective."

While clearly smart devices are proving to the market that consumers want to be "untethered", participants brought up the disadvantages of relying on wireless access for broadband. Specifically they noted the scarcity and cost of radio spectrum to support wireless services.

"If you fast forward 20 years to the projected growth of smart devices of every description there is no escaping the need for fiber." One participant felt "there is a place for public partnerships and things like that to do some base deployment in areas that wouldn't get a fiber backbone any other way and then turn the competition loose on riding on that platform to deliver services." Even though wireless is essential, participants felt that networks are going to need fiber to feed it. Fiber and wireless are complimentary, not competitive.

With respect to using a wireless delivery into areas that are difficult to justify fiber builds to households and businesses, participants mentioned the possibility of "some kind of public private partnerships either between the city and multiple companies or multiple public agencies and a company to forge a

strategy into those targeted areas" that isn't necessarily based on any particular technology, but the best technology for that situation.

Partnerships

Rich Bader framed the question in terms of finding a balance between competing goals; for the City the goal is affordable access to every citizen, but to the companies the goal is return on investment. He restated the question of public private partnerships this way; "Are there things that we can structurally do within a public private partnership that help move us faster towards the public goals without disrupting the financial metrics of the private sector?" Are there structural things that we can do that are basically win-wins for both sides? Ms. Jesuale then asked whether others would agree that they would like to come to the table and jointly figure out solutions with the city when we have, for instance identified an accessibility hole or an affordability hole or a business access hole in broadband service?

There was general consensus that the Industry would like to tackle problems of broadband availability and affordability in partnership with the City.

Chris Denzin of CenturyLink cited specifically the recommendation in the draft plan to identify and implement a dig once policy. He related an example where the company was required to relocate aerial plant to underground conduit. He noted that "cost is what drives us and if something costs more it means we get less for what we paid for it." He suggested that a notification process coordinated by the City to notify all franchise holders when a street was going to be opened so that they could coordinate a low cost installation of infrastructure for all interested parties. Theresa Davis of Comcast agreed, and took the concept further, suggesting that the City could help to coordinate a uniform notification procedure that could be implemented across the region, or even across the State. There was concern that such a policy be fair. For instance Chris worried that if his company was bearing the cost of opening the trench, "and my competitor regardless of who it is can come through and for a $1.50 a foot to throw in conduit behind me and I'm bearing the majority of that cost, then that is not equal treatment." Jon Nicholson suggested a revision to the City's per foot permitting costs which apply no matter how many feet of infrastructure are being permitted and vault permit fees which are the same no matter what size vault is installed.

Incentives

This brought the conversation to a discussion of incentives. The Broadband Plan suggests that the City find ways to incentivize companies to take actions that will result in more affordable and ubiquitous broadband services throughout the City. Participants suggested that the city consider changes to franchise fees, right-of-way fees, and permitting fees and practices "as a way to promote growth." There was a comment that the City's franchise fees are disparate and inequitable. Mary Beth Henry asked participants if they were saying that "you'd like us to work with you to review whether there are some different strategies we should employ in setting franchise fees?" Jon Nicolson responded, "We'd absolutely love that. The other thing that we'd love for the city to do is to help us work with the building community because we would really like to have fair and equitable access to buildings as well."

Building Entry Standards or Best Practices

Ms. Jesuale asked, "What do you think about a standards process for city buildings, at least new development?"

At least one participant did not like the idea of standards for building entrance access. **"**I've dealt with over 200 buildings in the last two years and I think there are best practices that you can help drive, good habits, awareness of routes; but none of us are architects by trade. Several architecture firms that build buildings do come to us and they work with us. We need to point out what is the easiest means of access from the street for us--that helps in the planning; but you can't force them to fit just one mold. So you have to enforce best practices within that group.   One practice wouldn't work because in truth four different providers – competitors--could be on four different sides of the street, so does that mean the architect has to build four different means of access so that each provider has equally fair entrance costs? What would be really nice – and what industry has asked for across the country for years is just equal treatment.   Equal access into the buildings -- that's really key."

The group discussed whether building owners deny access to some carriers. It was confirmed by several participants that these situations do happen. There was a suggestion that perhaps the City could assist. Mary Beth Henry suggested that perhaps "the city and some of our partners should approach the development community and the building owners in Portland and talk about this issue and raise awareness."

Participants agreed that there could be a working group including carriers and property owners to encourage better practices. There has been some collaboration with the Portland Development Commission (PDC) in the last year on property renovations in the area, and this was seen as a "good first step" to try and drive more broadband deployment, bring in new businesses, economic opportunities for the community and grow small-medium businesses as well."

Rich Bader summarized; "So if were to put a cap on this piece of the discussion, from my point of view, I think that the way to accelerate accessibility of fiber and broadband services is to lower the cost of deployment for those services. I think we all agree lowering costs is a good thing. And then we have identified a couple of different mechanisms for lowering those costs: One is a dig once or some type of shared conduit or infrastructure strategy so that the overall cost of deploying broadband goes down-- then there's the cost of getting in the building, whether it's standards, best practices, addressing the business relationships between the carriers and property owners all of that also provides barriers and then that last couple of feet of not only getting it in the building, but getting it to the tenant that they're looking for – addressing all of those costs will be should be a central part of the business aspect of delivering broadband in the Broadband Plan."

Ms Jesuale commented, "No matter whether it's for a business or a consumer the City has to have "some skin in the game" to help create incentives for broadband deployment. And things were brought up like permitting fees and franchise fees. Are there other incentives besides these?

Rich Bader remarked that "that's an interesting place where the financial dynamics that I described earlier about how the city wants deployment for free and the private sector is trying to make

money…those roles now become reversed because the city is now dependent upon the franchise fees that all of you guys pay. And one of the ways to lower the cost to the private sector would be to take the franchise fees to zero. Just as in the extreme our services could be available for zero… I'm just painting the extremes to show the tension, so…lowering franchise fees, making it easier, making that relationship more frictionless…" There's a revenue stream that the city has as a result of this activity that they will want to balance--how much should franchise fees be before they impede the deployment of broadband in the city?

Mary Beth Henry noted that "I have yet to meet a person who says please, please let me pay fees and taxes--but what I have heard over and over again is if you're going to have a system of fees, please treat each provider equitably. That we can get behind 100%. But we could not defund Police, Fire and Parks– sorry, but providers depend on those services as much as the rest of us and it's your franchise fees/taxes that pay for them. Yet, I think we can partner with you on leveling the playing field and we would be happy to do that."

Social Equity

Ms. Jesuale then asked participants to talk about whether there were partnering opportunities beyond the lifeline services introduced to consumers this year by Comcast and Century link to work with schools, the elderly and other populations to increase adoption of broadband services.

Chris Denzin remarked, "We've already established that every citizen of Portland can get high speed internet today, but do they want to use their resources personally, financially to go ahead and do so? And the answer has been proven with their wallets – the answer is no.   Education on why it's important to get established online and what benefits it brings to their lives is essential and it needs to begin in the school system. There is no direct public broadband adoption assistance program and maybe it's time to think about creating some programs. You can't just build it and hope they use it – you have to teach people how to use it and how it benefits them."

Ms. Davis added, "From a Comcast perspective, yes we have our $9.95   program, but we've spent a lot of time and a lot of our community investment dollars in bridging the digital divide. We are starting a program this year with One Economy called Digital Connectors and we're developing a relationship with a non-profit where we're going to have kids learn how to be "digital connectors" for their community. Low income kids volunteer service hours where they get a laptop and a flip cam and learn how to use it. At the end they get a certificate from Cisco and they're certified in IT.   It's a really great program where we're partnering to make sure that low income kids can get on the Internet and this way when they grow-up they will see a need for the Internet."

Ms. Jesuale then asked what things the City might do that would discourage the Industry from working with the City to accomplish the Plan goals?   One participant remarked "competition we all agree is good, but competition between public and private is not good."

Participants felt that the best way to move forward is a collaborative model; "to succeed in Portland so that we can go out and tell other cities that this is how you do broadband strategic planning -- set your

goals, work with industry, work with educators, work with public safety and get it done. But don't set up the dichotomy of "if I get what I want, you lose."

Steve Anderson summed up. "While we don't want a municipal competitor, we do want to work with the City to encourage investment from each one of us, who are all customers of each other."

Participants:

City of Portland

Brendan Finn, Chief of Staff to Councilmember Dan Saltzman
David Olson, Bureau Director, Office of Cable and Franchise Management
Mary Beth Henry, Deputy Director, Office of Cable and Franchise Management
Nancy Jesuale, NetCity Inc., project consultant

Industry

Steve Anderson, Integra Telecommunications
Stuart Taubman, Integra Telecommunications
Theresa Davis, Comcast
Chris Denzin, CenturyLink
Jon Nicholson, TW Telecom
Don Westlight, NWAX
Michael Weideman, LS Networks
Rich Bader, EasyStreet OnLine Services