

PORTLAND BROADBAND PLAN STRATEGIC PLAN: Workshop #1 Summary Discussion Results – All 5 Groups Broadband: “What’s at Stake?” BROADBAND-RELATED NEEDS Key: <input type="checkbox"/> : Needs cited per group <i>Red italic:</i> City Vision/Goals-related		EconomicDevelopment	DigitalInclusion	Education &Health Care	Planning,Trans, Sustain.	Public Safety
a	Broadband is essential to Portland’s <i>Vision</i> and its Economic Development, Civic Participation, Public Safety. Education and Land Use <i>Goals</i>.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Broadband is an engine for <i>access and equity</i>. <input type="checkbox"/> “Inclusion maximizes externalities.” <input type="checkbox"/> Barriers to access and equity include affordability, lack of computers or broadband access in the home, lack of ability to use digital tools, lack of adoption by specific demographic groups, most notably the older generation. <input type="checkbox"/> “There is a digital divide in Portland. A significant percentage of Portland Public Schools students are without access.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Video -growing exponentially as the key means of communication for work, <i>civic participation</i>, and individual expression – requires abundant high capacity broadband. <input type="checkbox"/> “The trend is for all digital users – people and organizations – to be content producers as well as consumers.” <input type="checkbox"/> “Video is anticipated to put significant stress on education networks within 3 years.” <input type="checkbox"/> “Two-way video is of high value in Law Enforcement as a tool for improving response, service delivery and efficiency.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
d	“Everything is going mobile.” People want and need to access services on-line where and when they want them, e.g. city services, distance learning and remote health care. <input type="checkbox"/> Users are migrating to mobile and expect access to services and information via mobile devices, supported by the trend toward cloud computing and storage. <input type="checkbox"/> Essential services such as education and healthcare are improved via the use of broadband-dependent mobile digital tools. <input type="checkbox"/> Broadband must be ubiquitous regionally/seamlessly to meet needs and expectations. <input type="checkbox"/> “Broadband is a utility service” – a necessity. One characteristic of any utility is ubiquity – broadband is no different.”		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Broadband is an engine for <i>job creation</i> and job seeking. Broadband enhances Portland’s	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

<p>competiveness and attractiveness to industry. □ “Big broadband is critical to where people / business / jobs will locate. Fiber-based big bandwidth nodes are just like a freeway interchange in terms of spurring development.” □ Having “a particular competence in broadband” attracts industry. □ “Portland lags behind San Francisco and Seattle in broadband resources, decreasing competitiveness.”</p>					
<p>Broadband is an engine of <i>sustainability</i> and is critical if Portland is to maintain its worldwide leadership in sustainability. □ “The businesses we most want to attract have extraordinary broadband demand.” Examples include film, animation, design, health care industries. □ Use of energy conservation tools is broadband-dependent, including Smart Grid applications. □ “Extracting energy efficiencies requires monitoring tools for all homes. Energy efficiency planning is broadband-dependent. Other planning initiatives are broadband dependent as well.”</p>	□		□	□	
<p>Cost savings, efficiencies and <i>improved outcomes</i> are anticipated via migration of services to digital access and delivery methods. Examples include Education (e.g. distance learning), Healthcare (e.g. home health monitoring for aging in place), City functions (e.g. traffic signalization), Public Safety functions (e.g. elimination of duplicative/complex entry and transmission processes; reduction of response time and risk, ASAP life safety information to treatment facilities) and conduct of business (e.g. banking, shopping). □ “Planning and proceeding without adequate broadband will drive more cost.”</p>			□	□	□
<p>Telework and other workforce mobility options that <i>decrease dependence on vehicular travel</i> and provide options for workers and employers require high broadband capacity.</p>	□		□	□	
<p>Broadband is essential to Portland’s capacity for <i>innovation</i> and readiness for the future. □ “New innovation is in the works that can’t be foreseen and broadband allows readiness to adopt as innovations come on-line.” □ “Broadband is essential to our readiness for the unforeseeable “next big thing.” □ “The businesses of the future need broadband as lifeblood and we need broadband assets to draw</p>	□			□	□

	them.” <input type="checkbox"/> “Hardware available today to Law Enforcement and Public Safety is already much more capable than the 800 MHz radio system can support.”					
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j	Opportunities for civic engagement and public input into public policy are migrating to digital forums/formats. “The expectation is online participation – and not always in real time.” <input type="checkbox"/> “In-person means of civic engagement no longer secure sufficient participation to be considered relevant or representative. Digital participation is the new paradigm.” <input type="checkbox"/> “The City has got to use digital tools, or those who use and expect those tools will not participate.”		<input type="checkbox"/>			
k	Broadband is an engine for neighborhood revitalization by supporting small and home-based business needs and participation in civic life at neighborhood level. <input type="checkbox"/>	<input type="checkbox"/>				
l	People expect transparency in government and expect online access to documents.		<input type="checkbox"/>			
m	Broadband can facilitate partnerships among the City and the Health Care and Education sectors.			<input type="checkbox"/>		
n	Broadband is essential to management of Public Safety information. <input type="checkbox"/> “Public Safety and Law Enforcement are inundated with information that can only be managed if there is adequate bandwidth. Note that public safety is enhanced by information so “inundation” is desirable.”					<input type="checkbox"/>
o	Public Safety uses require extraordinary connectivity, reliability and redundancy.					<input type="checkbox"/>
PORTLAND BROADBAND PLAN STRATEGIC PLAN: Workshop #1 Summary Discussion Results – All 5 Groups Broadband: BARRIERS, ISSUES, CONSTRAINTS Key: <input type="checkbox"/> = Barriers, issues and constraints cited per group		EconomicDevelopment	DigitalInclusion	Education &Health Care	Planning,Trans, Sustain.	Public Safety
a	Cost of / lack of funding for build-out and maintenance of infrastructure.	<input type="checkbox"/>				

<p>Policies and regulation. Examples include: <input type="checkbox"/> City policies and the City web interface are not user-friendly / are barriers to transparency and access to public information. <input type="checkbox"/> Copyrighting policing requirements in Higher Education. <input type="checkbox"/> K-12 filtering requirements. <input type="checkbox"/> State of Oregon DAS constraints on Higher Education. <input type="checkbox"/> The role of local government (Build? Incentivize? Partner? Trust the market?) is not clear. <input type="checkbox"/> Inadequate policies for how to handle Law Enforcement's inundation with information. <input type="checkbox"/> Lack of standardized data sets. <input type="checkbox"/> Need for a philosophy on open source.</p>	<input type="checkbox"/>				
<p>Resistance to /slowness to transition to new paradigms. <input type="checkbox"/> Broadband policy framework has not kept with the new paradigm of broadband as an essential "utility-type" service. <input type="checkbox"/> Pole resistance in neighborhoods. <input type="checkbox"/> Physician resistance to new E-medicine paradigms. <input type="checkbox"/> Anachronistic City bureau's policies on mobility. <input type="checkbox"/> Management resistance to telework: "There is no barrier to telework except management culture." <input type="checkbox"/> "Broadband and IT are rapidly driving changes in land mobile radio systems" used by Public Safety.</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Perception that broadband provision is solely the purview of private companies and subject to market forces alone. <input type="checkbox"/> "Broadband is a utility-like commodity but is completely in the hands of the private sector." <input type="checkbox"/> Leased broadband cannot provide all Public Safety requirements such as reliability, interoperability. <input type="checkbox"/> "There is no utility-style rate-of-return framework for broadband. "</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Lack of access based on affordability of existing broadband service.</p>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
<p>Lack of access/availability/sufficient private or public/private infrastructure and affordability/high cost of entry in cases in which infrastructure is unavailable. Examples include: <input type="checkbox"/> Film industry. <input type="checkbox"/> Lack of end points from the downtown core -> out. <input type="checkbox"/> Industry is finding procurement of broadband "difficult, frustrating and expensive." <input type="checkbox"/> Lack of "an efficient way to relay in-home sensor data to first responders." <input type="checkbox"/> Failure to plan for broadband needs in Comprehensive and Land Use plans.</p>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>

g	Practices that contribute to higher cost. <input type="checkbox"/> Bundled service increases cost. <input type="checkbox"/> Lack of infrastructure standards contributes to high cost.	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
h	Lack of competition that would serve to keep costs and restrictive terms of service in check and drive innovation. Lack of competitive necessity / incentive / critical mass to upgrade private infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>			
i	Insufficient digital literacy. <input type="checkbox"/> Barriers due to age, language, skills, ADA, other demographic issues (other than affordability). <input type="checkbox"/> "Not just literacy, but "super-literacy is needed." <input type="checkbox"/> "The issue isn't solving itself generationally as predicted. Younger people use digital technology a lot but not well/ smart."		<input type="checkbox"/>	<input type="checkbox"/>		
j	Scarce staffing resources necessary to develop and maintain electronic systems, information and networks, due to cost and difficulty of finding the talent. <input type="checkbox"/> Expected to be significant during the transition to all digital.		<input type="checkbox"/>	<input type="checkbox"/>		
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k	Adoption is not ubiquitous in the population. There may be a variety of barriers, including individuals who don't perceive a need. <input type="checkbox"/> This requires parallel systems (digital and not) for public information and participation.		<input type="checkbox"/>		<input type="checkbox"/>	
l	High cost of video storage.		<input type="checkbox"/>			<input type="checkbox"/>
m	Lack of a vision that includes broadband. <input type="checkbox"/> "Portland's self concept is that of a 2 nd tier city with 2 nd tier investment. We need to see that our scale does enable a manageable level of investment." <input type="checkbox"/> "There is no Public Safety vision for broadband."				<input type="checkbox"/>	<input type="checkbox"/>
n	The "organizing principle" for data/content management has not emerged. It is currently unknown whether this will be a centralized or decentralized function.		<input type="checkbox"/>			
o	Lack of open data is a barrier to the development of applications. <input type="checkbox"/> "A policy shift to have transparency that goes beyond just FOIA standards is needed." <input type="checkbox"/> Examples include		<input type="checkbox"/>			

	lack of open data for applications such as energy conservation, government documents in unsearchable formats.					
p	Lack of predictable availability of hot spots / insufficient hot spots / lack of hot spot mapping.			<input type="checkbox"/>		
q	Public resistance to / lack of acceptance of the inundation of information to Law Enforcement -privacy concerns.					<input type="checkbox"/>
r	Data is not always available in real time.					<input type="checkbox"/>
s	Too little mobile data entry creates inefficiency, cost, and reduces accuracy.					<input type="checkbox"/>
t	Different layers for Law Enforcement and Fire creates a complicated entry and transmission process.					<input type="checkbox"/>
u	100% reliability standard for Law Enforcement and Public Safety networks.					<input type="checkbox"/>
v	Lack of a valid cost/benefit analysis, including lost opportunity costs, for broadband.					<input type="checkbox"/>
PORTLAND BROADBAND PLAN STRATEGIC PLAN: Workshop #1 Discussion Results – All 5 Groups Broadband: OPPORTUNITIES Key: <input type="checkbox"/> = Opportunities cited per group		EconomicDevelopment	DigitalInclusion	Education & Health Care	Planning, Trans, Sustain.	Public Safety
a	Plan for and support segments of users with varying needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a1	Establish a “Cluster Strategy” that clusters high use industry in specific geographic areas. Could be prioritized by type-of-industry cluster.	X			X	
a2	Establish a strategy for ubiquity that serves the residential and small business segments. <input type="checkbox"/> Could include partnering with providers as “good community citizens”. <input type="checkbox"/> Maximize programs like Comcast's \$9.95 for 3-yr for reduced lunch families. <input type="checkbox"/> Could start with small pilot projects.	X	X		X	
a3	Consider District Planning to capitalize on existing assets for small and micro businesses, i.e. Central Eastside., concentrating firms such as digital media that need Class B office space.	X				
a4	Seek Economic Development funding or the utility compensation model to support a cogent broadband strategy such as the Cluster Strategy. Consider incentivized private investment or public/private partnerships.	X			X	X

a5	Gather data to clearly understand the needs of small businesses. <input type="checkbox"/> The need may be more at utilization level, requiring information, training and assistance.	X				
a6	Create anchor tenancy / critical mass to the Cluster Strategy by bringing in large institutional users such as education and health care.	X				
a7	Focus engagement efforts on youth and underserved communities.		X			
a8	The Broadband Strategy needs to address the unique needs of Public Safety: <input type="checkbox"/> Reliability. <input type="checkbox"/> Regional interoperability. <input type="checkbox"/> Coverage. <input type="checkbox"/> Gating ability. <input type="checkbox"/> Constant availability. <input type="checkbox"/> Security.					X
b	Consider and seek funds (most likely federal funds) for pilot projects. <input type="checkbox"/> For high-use industry broadband service. <input type="checkbox"/> For residential broadband service. <input type="checkbox"/> For remote health care. <input type="checkbox"/> For public safety public/private partnerships.	<input type="checkbox"/>				
c	Leverage the city's existing authorities and publicly-owned resources for broadband infrastructure, access, for digital tools and training, for energy efficiency and for public safety. <input type="checkbox"/> Continue to assert the regulatory authority of the City. <input type="checkbox"/> "Push the envelope" to fully utilize IRNE and the I-Net. <input type="checkbox"/> Seek to enhance and make broader use of existing City grant programs. <input type="checkbox"/> Better market and leverage PCM and other public digital tools and training programs. <input type="checkbox"/> K-12 / Higher Ed / library partnerships for digital literacy and workforce development. <input type="checkbox"/> Link buildings to climate control for real-time weather data. <input type="checkbox"/> Find ways that City assets and policies might incentivize and enable commercial entities to serve Public Safety. <input type="checkbox"/> Be a leader on telework and off-peak travel.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Explore the potential for innovative partnerships. <input type="checkbox"/> Seek public/private partnerships, e.g. with Portland tech companies, as a means of establishing a degree of public ownership in infrastructure. <input type="checkbox"/> Create innovative local government partnerships, e.g. extending K-12 wireless service to Parks and Community Centers. <input type="checkbox"/> Seek to participate with existing partnerships and programs. Examples of such partnerships could include OHSU and Intel, the Oregon Health Network, and Continua Health Alliance.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p><input type="checkbox"/> Convene utilities to explore opportunities via Smart Grid. <input type="checkbox"/> Partner with public spaces to provide wifi tied to the broadband backbone that already exists. <input type="checkbox"/> Seek ways to partner with commercial entities for Public Safety uses. <input type="checkbox"/> Explore the potential to partner with LTE providers/Intel on a 2012 pilot with Public Safety.</p>					
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<p>Align policies in support of broadband goals. <input type="checkbox"/> Philosophy on open source, and resources for innovation. <input type="checkbox"/> Establish policies that support wifi availability, e.g. wifi access points and electrical outlets in all public buildings. <input type="checkbox"/> Require conduit in all trenches. <input type="checkbox"/> Reform City IT policies</p> <p>e <input type="checkbox"/> Deploy wifi in all City buildings. <input type="checkbox"/> “Computer-on” access requirement. <input type="checkbox"/> Cloud computing. <input type="checkbox"/> Monitoring to reduce energy consumption. <input type="checkbox"/> Overcome the City’s “lockdown mode” for IT. Adopt best practices already pioneered. <input type="checkbox"/> Reform city policies on telework and off-peak commuting in a way that will model the way for the private sector, e.g. a “Telework-One-Day-Per-Week program and design of the workday to encourage off-peak travel. <input type="checkbox"/> Identify limiting language that may inhibit public/private partnership, particularly around Public Safety uses. <input type="checkbox"/> Privacy. <input type="checkbox"/> Cyber-security. <input type="checkbox"/> Energy footprint.</p>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<p>Establish an “equity lens” on broadband issues at City government and in schools. <input type="checkbox"/> Adopt a “Right to Digital Access” as a City value/goal. <input type="checkbox"/> Consider access alternatives, including a % of franchise fees for community grants to address inequities. <input type="checkbox"/> “As a community, providing for those who can’t afford \$80 per month broadband.” <input type="checkbox"/> “Establish a digital corollary to Driver’s Ed” to insure that K-12 education includes digital competency.”</p> <p>f</p>		<input type="checkbox"/>	<input type="checkbox"/>		
<p>Seek ways to grow competition, including non-corporate alternatives like co-ops. The City should play a coordinating and facilitating role.</p> <p>g</p>		<input type="checkbox"/>			
<p>Seek grants that support innovation and improved outcomes. <input type="checkbox"/> Foster “Rx Broadband”</p> <p>h</p>			<input type="checkbox"/>		

	via a cost/benefit and improved outcomes-based approach that can qualify for federal incentives for reduced readmission rates. <input type="checkbox"/> E-rate funding for wireless-sharing e.g. shared infrastructure.					
i	Consider the potential to use next generation wireless infrastructure to provide city and schools services. <input type="checkbox"/> Could possibly leverage City-owned roof real estate.			<input type="checkbox"/>		
j	Have a broadband component to all planning efforts so that when communities are planned broadband is explicitly recognized. <input type="checkbox"/> Residential broadband to support energy efficiency becomes an expectation in new construction and as a home sales feature. <input type="checkbox"/> “Broadband can be expected to generate economic development and jobs. There is a nexus of economic development and planning to which broadband is essential and enables better planning about where to put people and jobs.”				<input type="checkbox"/>	
k	Illustrate how a competency in broadband can follow the “Initiation, Economies of Scale, Spin-off, Common Practice” trajectory achieved with Green Building policy. <input type="checkbox"/> Integrate broadband into the LEED process.				<input type="checkbox"/>	