

## **Real People, Real Technology: Bridging the Divide**

*Comments to Washington State Public Utility Commission*

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### ***Our Vision of the End Goal for Telecommunications Policy—Access to Opportunity***

I am appreciative for this privilege to provide comments to the Washington State Commission as you consider the changing policy context of telecommunications regulation for the state and nation.

When I explain to people that I am Director of the WSU Center to Bridge the Digital Divide, they often assume my primary mission is expanding broadband telecommunications to rural and other underserved populations. Sometimes they are disappointed to find out that is not our primary interest or goal. Our passion and reason for what we do is a desire to bridge the economic, educational, social and cultural barriers that unnecessarily divide us as people within the state, nation and globe. Our vision is a world where people can live, work and play where they want. A person's zip code, ethnic background, disability status or income should not limit their ability to pursue use of Information Communications Technologies (ICT) to better their lives in ways they desire.

Broadband communications—or more generally Information Communication Technologies—provide infrastructure to bridge the divide; but only that. To actually bridge economic, educational, social and cultural divides, digital infrastructure must be accessible and be utilized by persons of all social-demographic backgrounds in all geographic regions.

To achieve our vision we need to go well beyond a discussion of infrastructure and technology to think about barriers to using digital technologies by people on the other side of the divide and how those barriers might be mitigated. Consequently, I ask your tolerance in thinking about a broader scope of issues than are typically considered as we go forward with defining effective policies to guide in telecommunications regulation in the fast paced digital age.

### ***Real people, real barriers to using digital technologies***

#### **Access to Essential Telecommunications Infrastructure**

Overall, the Washington State Commission has reason to be proud of our state's record in extending access to essential telecommunications infrastructure to the state's population. The FCC's most recent (March 2005) statistics show that no other state in the country has

a higher penetration rate than Washington's 96.9 percent with respect to the proportion of households with a telephone. That in part is the result of the Commission's historical commitment to rural universal service through decisions on line extension, Extended Area Service, low-income support, intrastate access charge allocation and other policies that provided telecommunication service providers with the incentive to invest in very isolated regions of the state that have been without phone service.

While hard data is not publicly available, it is my anecdotal impression that Washington has made great progress in extending at least one broadband option to most incorporated communities within the state. The FCC does tell us that only two percent of Washington's zip codes have no reported high-speed access lines, one of the leading records in the country; unfortunately, this statistic sheds no light on who within the other 98 percent does have access. There of course still remain significant gaps in mobile communications reception and broadband options, especially in isolated regions of the state. However, progress in filling those gaps over the last few years has been impressive. While the role of public entities in providing telecommunications services in Washington State remains a matter of controversy, these entities have most certainly raised the bar making clear that rural regions should not be left behind in access to modern telecommunications infrastructure.

These successes should not be taken as a reason to declare victory and move on. First there remain people in our state that do not have access to any telephone service and a larger number that do not have access to a broadband communication option. Infrastructure and service access limitations are most severe within our Indian territories and more isolated rural locations. While broadband service is becoming commonplace even in our smaller towns, that access often ends a short distance outside the boundaries of incorporated communities.

The fact that the number of people who do not have an option of obtaining telephone service or broadband connection is declining, is not a reason to declare victory. If anything, it is a reason to intensify efforts because the inequity for those left behind is now even greater.

### **Affordability of Service**

The availability of service is only one aspect of access. If a service is not affordable to an individual, the service is of no value. It is in this arena that the dockets to be brought before you over the next couple of years will likely have the most significance for the general public and arguably will play a role in setting the tone for the kind of a state we want to be. Your interpretation of the Commission's authority under the law in the oversight of public service companies will have major implications especially for those with limited incomes and persons living in our rural communities. If you should conclude that your authority does not permit you to explicitly include affordability of telecommunications for "high cost" and lower income residents of the state, it bodes a very different future than if you take this goal on as a priority of your mission.

I predict you will face the decision of how much authority and responsibility you have as a state Commission more frequently than you may desire over the next few years, with respect to maintaining “affordable telecommunications service.” First are the market pressures sufficient to selectively allow traditionally regulated services to have greater pricing flexibility as competitive options expand. Markets will most likely perform as they have always performed as price regulation is removed, higher volume customers and those in more geographically populated areas will generally reap the benefits of lower prices while services may be cut and the gap in relative prices will likely increase for low volume and geographically isolated customers. As dockets come before you requesting competitive classification of traditionally regulated services you in part must decide if the level and geographic presence of competition is sufficient to preserve affordable rates in all related markets.

The issue of consumer affordability will likely come before you even more frequently as a result of federal decisions (or lack of decisions) that may largely be beyond your direct control. Examples include a federal universal service mechanism rooted in a past technological paradigm tied to a declining interstate access base. The current contribution factor underlining federal universal service charges appearing on customers’ bills is now over 10 percent and it is very unclear what would prevent that rate from going even higher unless there is a major shift in federal universal service policy. The historical rationale of using interstate access as the basis for assessing universal service contributions is being made obsolete by the growth of wireless and IP based communications. Federal decisions bounding state authority to set interconnection rates, inter-carrier compensation policies, network open access requirements, parameters impacting ETC designation, and federal spectrum policies each affect opportunities to develop competitive options helping to keep pressure on service prices at the state level. With respect to issues of affordability you as state regulators are unfortunately being asked to play a hand of poker with the federal jurisdiction holding three of the aces.

### **Barriers Beyond Those Traditionally Considered Within Telecommunications Regulation and Policy**

Telecommunications infrastructure/service availability and affordability are traditional components of telecommunications regulatory discussions. In an era where telecommunications was largely defined by a relatively uniform system of wireline connections and simple telephone devices, the availability of sufficient and affordable connectivity were indeed the primary barriers to universal access. However, in today’s significantly more complicated digital technology environment, where communication is accomplished through multiple digital devices and multiple means of accessing voice and data content, the barriers facing individual usage are also more complicated.

For example, a combination of the federal e-rate program and the Washington State k-20 network has resulted in virtually every school building in the state of Washington having access to a high speed connection. However, not every school has the resources to acquire an adequate number of computers or has made the commitment to adequately train teachers to effectively utilize digital technologies as a component of teaching and

learning. Digital infrastructure without supporting information communication technologies and skills to utilize those technologies is of minimal value.

National household surveys such as those conducted by NTIA consistently document improvements in digital access for US families including access to broadband, but a remaining dramatic gap in digital technology usage among households with limited income and lower education. Factors such as limited digital literacy; low basic literacy and education levels; and cultural inclusion increasingly are found to be barriers to the ability to access and effectively utilize modern digital communications. Consequently a traditional telecommunications policy and regulatory framework centered on addressing barriers to infrastructure access and affordable services will likely fall short in improving digital access, particularly among those outside the social and economic mainstream.

As the industry continues to move down the path of lighter regulation, a pessimistic scenario is easily constructed where low income, isolated rural, and minority communities will be largely ignored by competitive providers of telecommunications service because a lack of digital literacy, educational attainment and cultural isolation prevent development of the demand side of the market, even with optimistic assumptions of declining service prices.

### *New technologies expanding options for those on the other side of the divide*

New technologies are clearly a wild card with important implications for those presently on the wrong side of the “divide”. In the state of Washington, we have already seen the benefits of emerging broadband wireless alternatives expanding options in Tier 2 and many Tier 3 rural communities, for example. Satellite, Broadband over Power Lines and other emerging technologies also have potential to provide more affordable broadband connection options for areas presently not served. In some rural areas, PUDs are extending additional fiber to fill the “broadband gap”. In more urbanized areas, multiple broadband options appear to be emerging to provide much needed price competition for customers within their targeted market segments.

For those with adequate bandwidth and computational capacity, Voice over the Internet is increasingly a realistic alternative to traditional voice telephone service. National communications sector market analyst Ben Gorton projects cable telephony / stand alone voice-over Internet protocol (VoIP) services, including “peer-to-peer”, to command over 20% market share of residential households in the U.S. by 2010. At the same time an increasing number of families are finding national wireless plans provide service with quality and pricing that makes it unnecessary to subscribe to basic wireline phone service at all. Gordon projects wireless substitution to have around a 25% market share of households by 2010. For consumers with multiple options, technological competition is likely to translate into lower price offerings and expanded services choices.

Computers are becoming increasingly affordable. A basic computer loaded with standard software can now be obtained out of the box for under \$500. A variety of handheld wireless devices including combined personal organization and web features are

accessible and can be used most anywhere cell service is available. Those with wireless modems within their laptops are finding it easier to find places to connect to the Internet. Increasingly hotels advertise high speed wireless connections in a way they once advertised color TV and heated swimming pools on site. The I-Pod and related digital storage devices have taken off like a rocket in consumer sales.

In short, as a result of technological advancement, the options for digital connection and usage are expanding at a rapid pace. Many of these devices are relatively affordable and can be utilized in a growing number of geographic locations. However, it still remains to be determined if the wider array of digital connectivity options will result in greater adoption and beneficial application by those presently on the other side of the divide. As already noted, the availability of technological options does not necessarily translate into people having the ability to take advantage of those options. As several panel members at today's forum have noted, these emerging new technological options carry with them a variety of new consumer challenges and a need for creativity to ensure public interest benefits such as E-911, service quality and so forth are not lost.

***Will telecommunications policy serve as a bridge or will it broaden the divide?***

Advances and innovations in information communication technology enable expanded possibilities to bridge the economic, educational, cultural, social and cultural divides within our own state and more broadly. I am attending today in part to share some thoughts on how can telecommunications regulation and policy contribute to that desirable goal? I offer here several thoughts for your consideration.

**New Technologies, Competition and High Cost Universal Service**

The emerging and diverse new technologies are likely a double-edge sword for "high cost" regions. On one hand, emerging commercial technologies such as Wi-Fi, targeted satellite services and Broadband over Power Lines create new competitive broadband access options for rural areas. These are in addition to municipal and other governmental entity fiber investments within some rural regions. On the other hand, technologically driven competitive options are a further source of destabilization for the regulatory mechanisms traditionally utilized to support universal service within high cost regions. As competitive options in selected rural regions continue to increase, there is a justified expectation that market based price regulation should replace adjudicative regulatory price oversight. To do otherwise puts the historically regulated incumbent providers at a disadvantage to new competitors.

Unfortunately, the history of price deregulation of network revenue has not been a positive one for low-volume customer regions. For example, a seven day advance round trip ticket on Alaska Airlines from Spokane to Seattle is \$140 compared to \$350 for a flight from Pullman to Seattle on the same day. A flight from Seattle to Washington DC is about \$390 -- just slightly more than the flight from Pullman to Seattle. Markets price discriminate depending on demand and cost structure...otherwise they are not a market. In a truly competitive market all providers are free to come and go as they please and are

not required to serve any particular customer base. This is not a value judgment as to whether this is good or bad, just a statement of economics.

Perhaps of greatest concern is the potential impact of technologically driven competition on the market feasibility and incentive to invest in infrastructure needed to serve the more isolated high cost areas. A likely scenario is one in which private service providers respond to competition by reducing prices and directing investment to the most profitable market segments. To slow access line losses, Rural ILECs can be expected to reduce xDSL prices and enhance the capability of their networks to raise revenues per line in their more densely populated markets. While in the aggregate this may be good news for telecommunications consumers, it is not necessarily good news for those in the highest cost exchanges. Many factors will determine the extent this negative scenario for the higher cost customers plays out, but it remains a very realistic possibility that a significant number of rural customers will be made worse off as a result off by technological competition unless there is compensation through explicit universal service.

The reality is that both Federal and State law clearly prescribe the principle of universal service as a policy goal to be met. Section 254 of the Federal Telecommunications Act of 1996 for example eloquently states “all regions of the nation shall have access to reasonably comparable services at reasonably comparable prices”. This section clearly states that universal service is to be considered a dynamic and not a static concept Further we are instructed by this Federal Act that we are to not only “preserve” but also “ADVANCE” universal service. This would appear to leave open a real possibility that universal service should be correctly interpreted to also include support needed to extend broadband to those that do not have such access today as it is becoming increasingly difficult to meet a standard of reasonably comparable services without decent bandwidth options being available.

As noted, I believe the record supports that Washington State has been diligent in its commitment to the principle of high cost universal service. At the federal level I unfortunately can not be as complementary. Through a series of federal actions generally supported by the federal courts, the FCC’s universal service mechanism has been allowed to reach a level of impotence that it fails to encourage investment by either competitive or incumbent service providers in high cost areas (especially in areas traditionally served by non-rural carriers). At the same time, the direction of federal broadband policy is strongly listing towards a commitment to encouraging facilities based broadband competition rather than service competition over a common network. Yet another reality that may have negative implications for network investment incentives in isolated rural regions that are potentially less able to support the economics of multiple backbone networks.

There is of course talk at the federal level of addressing deficiencies in the current high cost universal service mechanism, but no guarantees. As you of course recognize, Washington state stands relatively naked in our ability to react and preserve gains we have made in universal service should the federal jurisdiction fail to reform the federal mechanism. The Washington State Commission is asserted to have no authority to

establish an explicit state high cost universal service mechanism should the federal mechanism totally fail to meet state needs. The current “jury rig” universal service structure that relies on explicit support that must be delivered through regulatory cost allocation of intrastate access revenues is entirely inadequate to address needs for portable targeted support to providers who meet universal service obligations as may be defined for the state of Washington.

I know the topic of state universal service authority is an old one and comes with a baggage of frustrating history. I was there. But if nothing else I would want to communicate to you this afternoon this point....leave the past where it belongs and move forward with a fresh start and commitment to obtain legislative authority for universal service. We need to at least have the option to protect high cost investment incentives without having to trade off incentives to encourage new competitive options in rural Washington. At the moment, I believe that option is highly problematic if the federal government fails to act, or worse acts in a way that is contrary to the state’s needs.

A couple of fine points I wish to add to this recommendation before moving on to the next topic. First, in my view, a key to a successful state-level high cost universal service mechanism that is not a barrier to the encouragement of competitive options in rural areas must also deal effectively with the “carrier of last resort obligations” expected of those who win state ETC designation. (Again an ugly sticky issue, but one I do not see you have an option to avoid). It is my personal hope that your decisions in this regard will expect no less than an affordable option for broadband connection to be available to every home in Washington. Further, I suggest in thinking about how to allocate available state universal service resources, that you return to discussions of competitive bidding for exchanges or groups of exchanges as a means to make sure the lowest cost technology is deployed and a periodic dynamic is in place to accommodate a rapidly changing technological environment.

### **Consumer Confusion, Misleading Business Practices, Scams and Other Practices to be Avoided**

In my view, regulatory consumer functions have too long been labeled as primarily “consumer protection”. The term implies that a strong regulatory function in ensuring consumer information is clearly stated and accurate as well as a no tolerance policy for “bad actors” in the market place is only for the “protection” of consumers. An industry environment filled with confusing, misleading and illegal practices ultimately discourages rather than encourages consumers to try new products and services. Markets, especially those that are newly emerging, are enhanced when information put forward by service providers is transparent, understandable and trusted. Consequently, those industry members who want to expand services into a new competitive place stand to benefit as much as consumers from public sector oversight of information and business practices that build trust and confidence among consumers.

As technology will continue to generate more consumer options, it may be very appropriate for regulatory institutions to beef up consumer information and enforcement

functions to the greatest extent possible within their statutory jurisdiction. However, that by itself is not likely to address the full extent of the challenge and what is needed. Even well intentioned regulatory actions can quickly get bogged down in jurisdictional concerns. For example, competitive wireless providers may resist State Public Service Commission oversight of bad business practices within their industry, not because they necessarily think such oversight is not needed, but because it could be viewed as the “camels nose under the tent” by state regulatory jurisdiction.

Because of the jurisdictional complexity within the modern telecommunications sector, one of the most effective strategies for state regulators to deal with what is likely to be an increasing number of confused consumers and bad business practice issues may be that of leadership and diplomacy to harmonize policies and actions across multiple jurisdictions. As chair of the NARUC Committee on Consumer Affairs in the late 1990s, our greatest successes were when we joined together NASUCA, NARUC, the FCC and the FTC to create to the extent possible shared polices and enforcement approaches around slamming and “truth-in-billing” concerns. This multi-jurisdictional approach including systematic consultation with industry and consumer representatives in my view is the appropriate way forward not only for the benefit of consumers but for the successful nurturing of new competitive markets.

### **“Alliance-Based” Regulation as a Tool to Harmonize Policies Among Multiple Jurisdictions**

My final and closing suggestion in many ways may be the most outside the box, but it is one that I hope will give some fodder to further thinking with respect to the appropriate role of state regulation on a going forward basis. As I noted in my introductory remarks to this presentation, a fundamental paradigm shift in the ability of telecommunications to be of benefit to ordinary consumers has occurred when we moved from a world of simple dial tone telephone to a complex array of information communication technologies. In my view, regulation and telecommunication policy have not made the necessary adjustment needed to be effective in extending benefits to consumers or even laying groundwork for development of the nation’s ICT sector.

Specifically, telecommunications regulation and public policy is still done within the historical silos of focusing on supply side deployment of appropriate affordable telecommunications infrastructure. Unfortunately, this is no longer enough. Even IF sufficient bandwidth is delivered and at a rate that is generally affordable to all, there will STILL likely be major gaps in digital access for those that lack basic literacy, have limited digital usage skills, lack access to a computer, are culturally isolated and or the array of options may be just too confusing and overwhelming to some consumers.

As regulators you may ask why should these “barriers” be a part of your responsibility? Or perhaps you may appropriately point out these issues are not within your statutory duties, even if you wanted to consider these issues.

Taking the why question first...I ask that you focus on the principle that even in its modern form, telecommunications is still an industry that is “vested in the public interest”. It is very difficult to see how an industry can fulfill the public interest when a significant share of the public is not well prepared to participate in its use. A further reason to take a broader perspective of your role as regulators is that the more people who utilize available information communication technologies, the greater the demand for those services and the market incentive to deploy modern technologies. By helping to remove barriers to utilizing modern information communication technologies, you will also be helping to create sustainable new markets....which may be particularly important in efforts to extend services to low volume markets where every consumer’s participation becomes important to the economics of deployment.

So what about the statutory limitation on your authority? It is what it is. But a pragmatic approach and one that I recommend to you is to adopt “alliance-base” regulation. In other words, as public sector leaders and perhaps among the most knowledgeable in the details of modern ICT, you have the opportunity to proactively form alliances with other entities of state government to achieve the broad goals of not only ensuring our citizens have access to the best available information technology, but also are able to effectively use that technology. Your allies at the state level may for example include the Washington Workforce Training and Education Board, the OSPI, CTED, Public Health, the State Military Department, the Attorney Generals Office and others depending on the topic at hand. I recognize it is the tradition of this Commission to consult broadly and to consider views of multiple constituents including agencies such as these in making decisions. My suggestion, however, is to take this one step further, beyond consultation to proactive leadership forming allies within the government sector for the explicit purpose of advancing an industry that is “vested in the public interest”.

I appreciate the opportunity to make these brief comments today and the latitude you have given me to explore beyond what might be traditionally considered in a forum such as this. You have my gratitude as a citizen of this state for the important work that you do on all of our behalf. If there are ways I can be helpful to you, you have my support.