

A Public Interest Internet Agenda



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This paper is endorsed by the following organizations:

Access Humboldt (CA)
African American Business and Residents Association (PA)
Alliance for Community Media (DC)
Appalshop (KY)
Benton Foundation (IL)
CCTV Center for Media & Democracy
Center for Digital Democracy (DC)
Center for Media Justice (CA)
Center for Rural Strategies (KY)
Consumers Union (DC)
Esperanza Peace and Justice Center (TX)
Future of Music Coalition (DC)
Harlem Consumer Education Council (NY)
Main Street Project (MN)
Media Alliance (CA)
Media Action Grassroots Network
Media Access Project (DC)
Media Mobilizing Project (PA)
Mountain Area Information Network (NC)
National Alliance for Media, Arts and Culture (CA)
National Economic and Social Rights Initiative (NY)
National Federation of Community Broadcasters
Native Public Media (CA)
New America Foundation (DC)
New Mexico Media Literacy Project (NM)
Non-Profit Technology Resources (PA)
Open Borders Project (PA)
Oregon Alliance to Reform Media (OR)
People's Production House (NYC)
Philadelphia Fight (PA)
Philadelphia Public School Notebook (PA)
Philadelphia Student Union (PA)
Poverty Initiative at Union Theological Seminary (NY)
Prometheus Radio Project (PA)
Public Knowledge (DC)
Reclaim the Media (WA)
SEIU Healthcare Pennsylvania (PA)
Texas Media Empowerment Project (TX)
Twin Cities Community Voice Mail (MN)
Unified Taxi Workers Alliance (PA)
United Workers Association (MD)
Federation of State PIRGs (DC)
Whatcom Community Television and Communications (WA)

http:// Introduction

Connecting our entire nation via high-speed broadband will bring remarkable economic, social, cultural, personal, and other benefits. Robust economic development, job creation, improved health care at lower costs, enhanced educational opportunities, increased homeland security and public safety, reduced energy consumption and pollution, a reinvigorated democracy and more open government – these are just a few of the benefits that will flow from our nation linking its entire population to the Internet at broadband speed. Recognizing these benefits, many of America’s global competitors have already embarked on aggressive national broadband strategies to deploy fast, high-quality broadband. But the quality of U.S. broadband access is lagging. According to the most recent statistics (December 2008) available from the Organisation for Economic Co-operation and Development (OECD), the United States ranks just 15th among developed nations in broadband penetration.

To provide our nation with the tremendous opportunities that broadband access to the Internet can deliver, and to catch up to our global competitors on broadband deployment, policymakers must launch a well-planned, concerted national effort – such as that which deployed telephone service, electricity, and interstate highways across the nation – to deploy robust and affordable broadband to every corner of our nation. Equally important, policymak-



Just as U.S. policy promoted the deployment of telephone service and electricity, a national plan is needed to deploy robust and affordable Internet to every corner of our nation.

ers must at the same time promote “digital inclusion” initiatives to ensure that all Americans have access to the digital skills and tools necessary to take advantage of the Internet’s enormous potential benefits.

By adopting a bold and imaginative strategy to network our nation, policymakers will deliver to all Americans the opportunity they seek for their children and themselves: to reach for the American Dream in the Digital Age.

To reap the benefits of broadband and meet the challenge of global competition, our nation’s policymakers have made increased deployment of broadband a bigger national priority. The American Recovery and Reinvestment Act of 2009 (ARRA), the “stimulus package,” allocates \$7.2 billion

to build out broadband in un- and under-served areas, as well as for public computing center capacity and other purposes. While a significant and welcome step forward, this initiative is not sufficient to provide universal access to high-quality Internet access. ARRA also directs the Federal Communications Commission (FCC) to formulate and deliver to Congress a National Broadband Plan for Our Future (NBP) by February 17, 2010. The Commission began the process of devising this Plan by publishing a Notice of Inquiry on April 8, 2009.

In early 2009, a broad cross-section of local, grassroots, and national public interest organizations joined together to articulate a shared vision of the elements that must be included in a successful National Broadband Plan. Beginning with community forums and outreach in Denver; San Antonio; Philadelphia; Oakland; New York City; Seattle; Burlington, Vermont; and Fort Mitchell, Kentucky, local grassroots constituents and advocates for broadband access put forth their ideas for Internet policies that would best serve their diverse communities. The groups then convened to distill the information and ideas gathered at these events into several key policy prescriptions that all groups supported. During this process, broadband policy experts at the nation's leading public interest media advocacy groups provided valuable guidance and advice. However, the resulting paper remains an accurate reflection of the legitimate voices of grassroots advocates from outside the Beltway, and thus makes a unique and valuable contribution to the inside-the-Beltway policy debate.

While not a comprehensive recommendation on all of the broadband and Inter-

net policies required, this paper does articulate the key policies and principles that unite a large and diverse coalition of public interest groups. We are united in recommending that the National Broadband Plan incorporate these core principles, each of which is discussed in detail in individual sections of this report:

- 1. Broadband communications is a fundamental right.** To ensure this fundamental right, there must be universal and open, non-discriminatory access to high-speed and high-quality broadband. Mobility, abundance, and privacy of broadband should be top priorities.
- 2. Good policy must be well informed.** Federal policymakers must have access to reliable data on where broadband presently exists, at what speeds, of what quality, by what provider, how it is used by consumers, why certain consumers do not use it, and how other consumers integrate it into their lives. These data must be as granular as possible, and should be made available in raw form on the Internet for analysis by the public.
- 3. Policy should promote competition, innovation, localism, and opportunity.** Locally-owned and -operated networks support these core goals of Federal broadband policy, and therefore should receive priority in terms of Federal support. Structural separation of ownership of broadband infrastructure from the delivery of service over that infrastructure will further promote these goals.

4. Government should use public resources and assets wisely. Policymakers should seek to leverage to the maximum extent possible the use of resources and assets such as publicly-owned spectrum, fiber and rights-of-way to achieve the goal of universal broadband access to the Internet.

5. Federal policy must stress digital inclusion and the service of historically disenfranchised communities. Stimulating broadband supply is necessary but not sufficient to achieve the goal of universal broadband. Policymakers must also promote digital inclusion initiatives to stimulate broadband demand and ensure that all U.S. residents have access to the digital skills and tools necessary to take advantage of the Internet's enormous potential benefits in creativity, economic development and civic engagement. This benefits not just those who would otherwise be left behind on the wrong side of the Digital Divide; it benefits all broadband users.

Specific policy recommendations are contained in the individual sections of this report dedicated to each of the above principles.

While dozens of grassroots groups participated in this process through local convenings and outreach, and dozens more have signed on to support the principles in this paper, the core local groups involved in this process include:

People's Production House (NY)
Media Alliance (CA)
Media Mobilizing Project (PA)
Texas Media Empowerment Project
Mountain Area Information
Network (NC)
Center for Rural Strategies (KY)
Native Public Media (AZ)
CCTV Center for Media and
Democracy (VT)
Reclaim the Media (WA)
Access Humboldt (CA)
Main Street Project (MN)

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http:// Section 1:

Broadband Communications Is A Fundamental Right

In 1948, the United States joined 47 other nations to adopt the Universal Declaration of Human Rights, which includes in Article 19: “Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.” With the Internet quickly becoming the most powerful and pervasive information medium in human history, the overriding goal of America’s National Broadband Plan must be to implement policies that protect and foster these fundamental human rights and freedoms. These policies, as outlined below, include universal access for all consumers to an open, non-discriminatory network that is of high quality, abundant, and allows for mobility, while protecting an individual’s right to privacy.

Universal Access

In the Digital Age, the right “to seek, receive and impart information and ideas” requires that our National Broadband Plan be founded upon the fundamental principle that all Americans, wherever situated and whatever their means, must have the opportunity to access to the Internet via high-quality broadband. This means deploying broadband everywhere it is not available and providing an opportunity for all Americans to access it.

For those unable to afford broadband service where it is available, programs modeled on the Universal Service Fund’s Lifeline and Link Up programs for telephone service should be expanded to cover broadband so that low-income consumers can receive low-cost or free Internet access, as well as free, low-cost or refurbished computers, from local providers.

The Universal Service Fund (USF), which has been used to guarantee every consumer has access to a telephone line, should be used to expand wireline and wireless broadband infrastructure, so that advanced services that deliver multiple communications options such as telephony, data, and video over the same wires will become universally available. This does not mean we should eliminate Lifeline and Link Up for Plain Old Telephone Service (POTS) in the near term, or that funding for POTS should be eliminated where no entity can or will deploy high-speed



The Universal Service Fund must be modernized so that low-income consumers can receive Internet access and hardware.”

broadband, with or without federal subsidies. For example, In Indian Country where telephone penetration remains at sixty-eight percent, communities will continue to need USF support until the last Tribal community is connected to all necessary communications services. In those areas where a broadband provider – commercial or not – is unwilling to enter the market, such as in many rural areas and on Native lands, POTS services should be maintained.

To further promote universal access to broadband, libraries, schools, and other institutions that are beneficiaries of the E Rate program in USF should be permitted and encouraged to share their federally-supported broadband service with their local communities for non-commercial purposes via non-commercial providers. Rules currently in place that prevent these networks from being leveraged to provide benefit to the surrounding community should be eliminated.

But “universal access” means more than simply making broadband available to everyone. All Americans must also have the digital skills and tools necessary to use broadband to access the information and ideas on the Internet, as well as impart their own information and ideas to others on the network, as detailed in Section 5 on digital inclusion.

A Non-Discriminatory Internet

In addition to universal access, the National Broadband Plan must also ensure that content is not discriminated against by the network owners. All U.S. consumers must have the right and opportunity to access, download, and upload all legal

Internet Service Providers must ... provide their customers with access to the Internet – all of the Internet, not just a smaller, proprietary version...that discriminates among websites based on exclusionary commercial arrangements...

Internet content. Internet Service Providers must do what that title implies: provide their customers with access to the Internet – all of the Internet, not just a smaller, proprietary version of the Internet that discriminates among websites based on exclusionary commercial arrangements with the ISP. “Pay-To-Play” schemes, in which content providers charge customers for high-quality performance and /or control what people access online, are examples of such commercial arrangements that lead to a small, closed, and proprietary “faux-Internet” rather than the complete, all-encompassing Internet. The principle is simple: all ISPs must guarantee nondiscriminatory, “network neutral” consumer access to all of the Internet’s legal content.

In 2005, the FCC adopted four principles to encourage broadband deployment and to preserve and promote the open and interconnected nature of the public Internet. According to these principles, consumers are entitled to: access the lawful Internet content of their choice; run applications and use services of their choice (subject to the needs of law enforcement); connect their choice of legal devices that do not harm the network; and, competition

Government policy should promote symmetrical upload speeds. It should be as easy to produce and deliver content over the network as it is to consume, thus fostering interactive participation.

among network providers, application and service providers, and content providers.

These principles, while a good first start, must be strengthened. A fifth Network Neutrality principle suggested by FCC Acting Chairman Michael J. Copps should also be implemented: ISPs should not block, hobble, molest, unfairly prioritize, too deeply packet inspect, or otherwise selectively interfere with protocols or devices on the Internet. These principles must also be codified into federal law.

Speed

To protect the communications rights of all people, the National Broadband Plan should adopt as a goal the deployment of a truly high-speed, high-quality network to every U.S. home, business and institution. In nations with which we compete economically, and which have already adopted their own national broadband strategies, high-speed networks that deliver a minimum speed of 100 Mbps or more are increasingly being deployed. Networks at this or a higher capacity are particularly important for health IT, educational institutions, public access centers, and entities that create content rather than just consume.

But policymakers should be cautious about setting an absolute minimum standard, rather than a flexible goal, for broadband speeds. A single “one-size-fits-all” minimum speed for our nation’s broadband may cause the build-out of broadband that is not adequate in speed or capacity for all users today or in the future. At the same time, others may need less capacity and more affordable rates.

Rather than focus on any one particular speed, policy makers should be more concerned with the quality of the network and whether it appropriately satisfies the right of all people to seek, receive, and impart information and ideas over the Internet. One way that government policy can satisfy this test is to promote symmetrical upload and download rates. It should be as easy to produce and deliver content over the network as it is to consume content from the network, thus fostering interactive participation. Latency in the network, which determines whether and how long web traffic is delayed, must be also minimized. Recognizing that broadband is not itself the goal but the means to the end of people’s ability to access and share information, the focus of policy should be to ensure that broadband networks are sufficiently fast, robust, open and ubiquitous in order to satisfy that goal. Moreover, since the standard of broadband speed is constantly changing, we should not set an absolute speed minimum that locks our broadband policy into a regulatory framework that limits us to one single technology that may one day become obsolete.

Rather, the goal of broadband policy should be to flexibly evolve minimum standards to meet everyone’s requirements for functionality and participation now and

in the future. For example, in addition to deploying high-speed fiber, the National Broadband Plan should also foster the deployment of affordable, community-owned or nonprofit networks, and free Wi-Fi community networks, that enable people to connect to the global network at low- or no cost, but potentially with less bandwidth capacity than a commercial network.

Mobility

For many in the U.S., a mobile device may be the primary—or only—connection to the Internet. In some cases, those who do not have and cannot afford a computer with Internet access can afford and do use mobile devices to reach the Internet. For example, according to a study by the Pew Hispanic Center, some Latinos who do not use the Internet are connecting via cell phone. Fully 59% of Latino adults have a cell phone and 49% of Latino cell phone users send and receive text messages on their phone, yet only 29% have broadband connections at home.

The National Broadband Plan should recognize the importance of mobile devices as public access points to the Internet. A well-considered NBP should foster everyone's access to Internet service using mobile devices, and not simply attempt to implement a "one-size-fits-all" model of connectivity that focuses exclusively on computers and fixed wires. All methods of connection to the network should be encouraged by our NBP, and the terms of access to the network should not vary based on the kind of device or connection used. All the principles articulated here for broadband connectivity, including non-discrimination of content, should be appli-



For many in the U.S., a mobile device may be the primary – on only – connection to the Internet. Stronger consumer protections should be extended to mobile broadband users.

cable to all means of Internet access. Similar to consumer telephone access at home, principles that allow a consumer to use any device on the network should be extended to include wireless networks, which would give consumers the freedom to use any mobile device on any network. Without this principle, which was put in place for traditional telephone networks in the 1960s, innovations such as the development of the Internet may never have occurred.

Abundance

Consumers should not be restrained in their right to access the vast quantities of information on the Internet by metering schemes that arbitrarily limit the amount of Internet content they can download. In early 2009, several ISPs began experimenting with metering broadband service, to the ire of consumers. Such schemes, generally imposed on consumers by ISPs that also market television and video services that compete with the video content available on the Net, will deter Internet

adoption, throttle the growing market for Internet delivery of video services and other innovative applications, and chill economic growth. Popular high-bandwidth services such as YouTube, Flickr and on-line gaming might never have flourished if each use resulted in an additional charge. In addition to ISPs engaging in anti-competitive conduct to protect their video business from Internet competition, vertically-integrated media conglomerates may seek to exempt their own content offerings from metering, employing Deep Packet Inspection technology to identify affiliated and non-affiliated content, invading Internet users' privacy and creating additional anti-competitive effects.

Privacy

Today, a small number of companies and large advertising networks are obtaining an extraordinarily detailed profile of the interests, activities, and personal characteristics of Internet users. A lack of adequate privacy protection deters many from making full use of the Internet, placing effective constraints on their communication rights. Users have little idea how much information is gathered, who has access to it, or how it is used. This last point is critical because in the absence of legal rules, companies that are gathering this data will be free to use it for whatever purpose they wish – the data for a targeted ad today could become a detailed personal profile sold to a prospective employer or a government agency tomorrow. All members of the Internet community must be protected from government and corporate surveillance.

The right to privacy on the Internet has two equally important aspects:

1. Information privacy or data protection, which requires the establishment of rules governing the collection and handling of personal data such as credit information, and medical and government records.
2. Privacy of communications, which covers the security and privacy of mail, telephones, e-mail and other forms of communication.

The National Broadband Plan must contain policies to protect both aspects of Internet privacy. The absence of such protection deters people from using the Internet and thus undermines the government's rationale for extending broadband to all. Fair information practices that establish transparent rules regarding the collection, retention, use, and sharing of personal information must be established.

Recommendations

1. National broadband policy must expand the concept of Universal Service to encompass the goal of Universal Access to the Internet, and use the Universal Service Fund to achieve that goal.
 - a. For those unable to afford broadband service where it is available, Lifeline and Link Up programs should be expanded to cover broadband so that low-income consumers can receive low-cost or free Internet access, as well as free, low-cost or refurbished computers, from local providers.
 - b. The Universal Service Fund should be used to expand wireline

- and wireless broadband infrastructure and transitioned away from funding wireline or wireless telephone infrastructure in most places, so that advanced services that deliver multiple communications options such as telephony, data, and video over the same wires will become universally available.
- c. Any reform to the USF must take into consideration the continued use of wired telephone services where broadband deployment is either nonexistent or slow, and where emergency protocols may need the redundancy of traditional telephone systems.
 - d. The Universal Service Fund should also award, through a competitive process, grants for training, equipment, and digital inclusion programs.
 - e. Libraries, schools, and other institutions that are E Rate beneficiaries should be permitted and encouraged to share their federally-supported broadband service with their local communities for non-commercial purposes via non-commercial providers.
2. All four of the FCC's network neutrality principles should be codified into law. A fifth "nondiscrimination" principle should also be adopted.
 3. All ISPs must guarantee consumers non-discriminatory open access to the entire Internet.
 4. Broadband policy should ensure adequate symmetrical broadband speeds with minimum standards that are flexible enough to encourage the deployment of community-based or nonprofit low cost or free networks.
 5. Congress and the FCC should apply similar regulatory protections that apply to broadband to mobile devices, including universal and open access, network neutrality, competition, fair pricing, etc. It should not matter if a consumer connects to broadband on a laptop, desktop, or mobile device.
 6. The FCC should rule favorably on a petition filed by Skype in 2007 and commence a rulemaking procedure to extend the "Carterphone" principles to wireless mobile devices, allowing consumers their choice of any device, application or web service on wireless networks.
 7. Metered broadband Internet pricing schemes should be studied to determine whether they anti-competitively throttle users' broadband usage to favor an ISP's affiliated video programming or delivery. Congress, FCC and/or the FTC should also require that, before any metered pricing scheme is implemented, the ISP must prove that it is fair and justified, as determined by the appropriate federal agency. This may require supplying the FCC or other regulatory or legislative body with information on the cost to the provider of providing service, and a justification of whether the tiered pricing scheme fairly covers the provider's costs without being excessive.

8. Users must be allowed to choose whether to opt-in and opt-out of all data sharing arrangements. All such arrangements must be transparent to consumers, informing them what information is being requested or collected; when it is collected; why it is collected; how the collected information will be used; who has access to the information; and, how incorrect data records may be corrected.
9. Strict rules must be implemented to hold data collectors responsible for the security of all consumer information in their possession.
10. To protect personal communication privacy, laws and regulations must be implemented that place strict limits on companies' and government agencies' access and use of information gleaned from Internet or telecommunications usage. The models established for telecommunication privacy by the Telecommunications Act of 1934 as amended should be reflected in the digital communication environment of today.

Good Policy Must Be Well Informed

To advance sound public policy on broadband, Federal policymakers must have access to reliable data on where broadband presently exists, at what speeds, of what quality, by what provider, how it is used by consumers, why certain consumers do not use it, and how other consumers integrate it into their lives. These data must be as granular as possible, and should be made available in raw form on the Internet for analysis by the public.

Currently, policymakers and the public lack such high-quality data. Instead, the data that does exist is incomplete, not transparent, and often not verifiable. While the FCC has made some improvements to its data collection and funding is now available to implement the Broadband Data Improvement Act (BDIA), these steps are not sufficient to give policymakers the quality of information they need to enact wise policies that will achieve the nation's broadband goals. More needs to be done.

Recommendations

1. The BDIA instructs the Secretary of Commerce, in consultation with FCC, to elicit in the upcoming 2010 U.S. census residential information on broadband use and subscription. The scope of these questions should be expanded to include the cost, speed and quality of broadband service, or ask why the consumer does not subscribe.
2. Contracts or grants to map data made available through ARRA funding of the BDIA, whether distributed through states or directly from the FCC or NTIA, must include requirements that the mapping entity disclose any financial or other relationships to broadband providers. If data are self-reported by a broadband provider and not independently verified, that should be disclosed and the data should not be considered accurate until independently verified.
3. The FCC's data collection should be conducted quarterly, not semiannually.
4. Raw broadband data collected by government entities, including data from the 2010 census, should be made avail-



The federal government needs better data about broadband, such as the availability and use of publicly owned spectrum, and should make that information available to the public.

able to the public on the Internet in a standardized, open format that is easy-to-use and analyze.

5. The FCC should not consider data as “proprietary” if it is already publicly available, even if not aggregated. For example, any consumer can now find out what providers serve their home, at what cost and advertised speeds. There is no reason to treat that data, even when collected over a broader geographic region such as a county or state, as “proprietary” in its aggregated form.
6. The federal government should inventory and map spectrum, including spectrum allocated to federal agencies. These data should include how and when the spectrum is used, not just to whom it is allocated. Other than data that must remain classified, such as regarding spectrum used by the military, the raw data should be publicly available on the Internet in a standardized open format that permits analysis by the public.
7. Federal entities should collect qualitative as well as quantitative data. That should include data and research on why consumers are not adopting broadband. Because it is critical to good data collection that researchers and data collectors are trusted by the community they seek to research, cultural competency and training is required. Community groups are valuable resources in this data collection effort and can facilitate data collection from certain disenfranchised communities.

Policy Should Promote Competition, Innovation, Localism, And Opportunity

Localism and Opportunity Generate Competition and Innovation

For decades, American communities—both rural and urban—have been neglected and underserved by absentee-owned networks, whose business models clearly do not work in smaller or economically-challenged communities. By contrast, in the communities in which they are based, locally-owned networks are more likely than absentee-owned networks to provide rapid response to emergencies, enhanced services, and value-added, social capital benefits such as job-training, youth-mentoring, and small business incubation. In addition, local networks are less likely to outsource jobs, thereby strengthening local and regional economies, while creating more opportunities for community-based innovation and problem-solving. Federal broadband policy that prioritizes support for local networks will produce more competitive markets, consumer choice, and opportunities for innovation.

Consider the restoration of telecommunications to the Gulf Coast after it was ravaged by Hurricane Katrina in 2005. While the landline telephone and cell phone networks operated by non-local corporations were out for days, locally-owned and operated wireless networks were restored to service just hours after the storm, linking emergency workers with the outside world

via the Internet. Similarly, in some parts of Louisiana, local amateur radio operators were the only communications link for American Red Cross offices until absentee-owned and -operated landline communications were restored.

Consider the rapid response of a locally-owned and -operated network when the local Amateur Radio Emergency Service (ARES) in rural Mitchell County, N.C. recently needed an Internet link on a mountaintop tower to test and operate its emergency service. Utilizing the local Mountain Area Information Network (MAIN), the ARES volunteers had a secure network connection the same day of their request. “We would still be waiting for an answer” from the non-local phone company, said ARES volunteer Bob Rodgers.



In many rural areas, locally owned communications networks have been vital for rapid-response needs, such as during natural disasters.

Federal policy should place a priority on funding community-based networks that ensure that the ownership of network assets will remain local.

With federal broadband policy focused on extending broadband to un- and underserved areas, and locally-owned and -operated networks superior in providing service in those areas, it is clear that federal policy should favor development and funding of community-based and locally-owned networks. In underserved areas where a local network exists or is being planned, absentee-owned networks should not be eligible for federal broadband subsidies. Federal policy should place a priority on funding community-based networks that ensure that the ownership of network assets will remain local. Such networks include those owned by local governments, nonprofits, cooperatives, and public-private partnerships. Local, for-profit networks receiving federal broadband subsidies should certify that any network sale will not ultimately result in absentee ownership.

Federal support for locally-owned networks will help to reverse the devastating impact on smaller communities of a massive wave of mergers and consolidation in the telecom industry. Telecom deregulation has hit rural and low-income urban communities especially hard, causing a “brain drain” of information technology jobs and expertise as network operations have been increasingly concentrated in

hub cities like Denver and Dallas, or outsourced abroad. Local ownership of rural networks opens the door for job training, youth mentoring, and small business incubation not possible with absentee-owned telecom networks.

In addition, many of the large, absentee telecom conglomerates have deployed advanced services in affluent urban markets while ignoring or under-serving rural and economically-challenged markets in their service areas, causing the latter to become the very un- and underserved areas that federal policy now seeks to serve. Federal policy should not now reward these absentee owners for causing the very problems that policy is now trying to remedy. Instead, federal policy should focus on locally-owned operators to deploy the advanced networks that will elevate their communities out of the un- and underserved category that the absentee telecoms’ neglect caused them to be placed in.

Federal policy should encourage both local development of middle-mile and last-mile networks in un- and underserved areas wherever possible. Federal subsidies for middle-mile networks which do not have a companion last-mile solution should be contingent on commitments to implement last-mile service in a reasonable timeframe.

Structural Separation

The current U.S. broadband market is dominated by cable and phone companies that own the infrastructure, and sell services such as Internet access, subscription video, and telephone services over those same lines. This model creates an inherent

conflict between the interest of the consumer and the network owner.

To further promote competition, innovation, localism, and opportunity, federal policy should require separation of the ownership of broadband infrastructure from the delivery of service over that infrastructure. To describe it another way, the owner of the broadband infrastructure would be the “landlord,” and the ISPs would be the “tenants.” Such structural separation would allow multiple ISP tenants to compete over one broadband “pipe,” thereby promoting competition and demand where it does not now exist. Locally-owned ISPs could then offer services tailored to – and demanded by -- particular communities, including noncommercial governmental, educational, informational, cultural, civic, and charitable public services.

Right now, cable companies have an incentive to limit consumers’ access to on-line video services in order to continue to charge monthly cable television subscription fees. Structural separation would remove the anti-consumer incentive for the owner of the infrastructure to throttle bandwidth or offer a proprietary Internet that discriminates in favor of its own content, rather than offer its customers the entire, open Internet where the choice of websites and services is freely made by the consumer. In fact, structural separation would encourage the network owner to seek as many “tenants” and as much traffic as possible on its network to increase its profitability, thus increasing competition and lowering prices.

Some form of separation of ownership or management of network infrastructure

from the delivery of service to consumers is the model being pursued in an increasing number of other countries, including Japan, Singapore, New Zealand, the UK, the EU and Australia.

Recommendations

1. To fulfill the goal of extending broadband service to un- and underserved areas, federal broadband policy should prioritize support for locally-owned and -operated networks, including those owned by local governments, nonprofits and cooperatives, and public-private partnerships. Local, for-profit networks receiving federal broadband subsidies should certify that any network sale will not ultimately result in absentee ownership.
2. In underserved areas where a local network exists or is being planned, absentee-owned networks should not be eligible for federal broadband subsidies.
3. Federal policy should encourage both local development of middle-mile and last-mile networks in un- and underserved areas wherever possible. Federal subsidies for middle-mile networks which do not have a companion last-mile solution should be contingent on commitments to implement last-mile service in a reasonable timeframe.
4. Federal policy should require separation of ownership of broadband infrastructure from the delivery of service over that infrastructure, also known as “structural separation.”

Government Should Use Public Resources And Assets Wisely

Federal, state, and local governments have significant public resources and assets which can be wisely deployed to advance our nation's broadband policy goals. For example, fiber is often laid under city streets or in publicly-owned rights-of-way. Wi-Fi antennae are often mounted on light poles or other government property. Publicly-owned spectrum is required for the delivery of many telecommunications services, including wireless broadband.

These assets should be managed in a way that efficiently and effectively serves the public interest first and foremost. In terms of the ability of telecommunications providers to offer highly profitable services, the value of these assets is large, and it is not unreasonable to require that the

public receive a return on that value. Policymakers at all levels should include reduced or no-cost connection of community libraries, schools, nonprofits, technology centers, or other community-based organizations as a condition of all such uses by private telecommunications providers of public assets.

But much more can be accomplished. For example, there is considerable dark (unused) fiber lying beneath publicly-owned rights-of-way. In some cases, cities laid miles of fiber infrastructure which is simply sitting unused after they ran out of money to complete the networks or turn on ("light") the networks for use. Federal funds should be made available to local governments to complete, light, and/or interconnect these networks on the condition that they are opened to nonprofit or public interest use.

Another example: Many states have spent hundreds of millions of dollars on massive fiber optic loops or networks, such as the Iowa Communications Network and the Illinois Century Network, but restrict their use to government and educational institutions. Therefore, the public in surrounding communities is not receiving the maximum benefit possible from its investment in these loops and networks. These networks should also be opened to interconnection for the benefit of nonprofits and public interest community-based organizations.



Many states and local governments have laid fiber optic broadband cables on public property, and these resources can be used better to benefit the public.

More than 15 states have adopted legislation that preempts their own local governments from establishing or managing communication networks, restricting municipalities from using their own resources to meet the communications needs of their residents. Preemption of publicly-owned networks should be eliminated, clearing the way for more networks that can be owned and operated as a public resource.

In terms of wise spectrum policy, the federal government should be aggressive in promoting the use of “white spaces” and other unlicensed spectrum for broadband use. It should also inventory all spectrum currently controlled by the government which is un- or under-utilized and open it to public use. If used efficiently and effectively, this spectrum could create new opportunities in the delivery of high-speed broadband. While the FCC took an important step in 2008 when it permitted the use of unlicensed wireless devices in the 700 Mhz band, the agency and Obama Administration must go further. Importantly, policymakers should not rely on auctioning unused spectrum, as this puts more public airwaves in the hands of large corporations that have access to large amounts of capital, shutting out potential competitors. Unlicensed use, whereby multiple “smart” devices could operate in the same spectrum without interference, would allow for more competition and a more open wireless marketplace.

In rural areas, there are federal mounting assets, such as telecom and fire towers that could speed the deployment of rural broadband using wireless technologies. Currently, mounting wireless antennas and transmitters on these assets is a long and



Deploying fiber optic cables as part of road or bridge construction would greatly expand middle mile broadband capacity.

difficult process involving multiple agencies and excessive red tape. As the FCC begins to permit unlicensed transmissions in the television white spaces in rural areas, this cumbersome process will increasingly thwart the use of those white spaces for rural broadband access. The new office of the federal Chief Technology Officer should inventory such federal mounting assets across all agencies and establish a “one-stop shop” for granting access to them, especially for community based public interest service providers.

In addition, the new office of the CTO is an excellent opportunity to take stock not just of technology spending across agencies, but infrastructure spending as well. For instance, as researchers at the New America Foundation have noted, allotting a miniscule percentage of the omnibus transportation bill to require the installation of fiber optic cables or conduit as part of any road or bridge construction would greatly expand middle-mile capacity. (see <http://www.newamerica.net/files/>)



Public Access centers such as Manhattan Neighborhood Network have long served as resources for technology training, and can play a vital role in bridging the digital divide.

21stCenturyBroadbandSuperhighway.pdf). Building the information superhighway alongside the automobile highway would be an extremely wise use of public assets to further federal broadband policy.

Another instance where federal policymakers can wisely use public assets to promote broadband build-out is in the area of local franchising. Federal law requires that video service providers (who, in practice, are broadband service providers) allow local governments to require franchise agreements with the provider, in exchange for allowing the providers to use public rights-of-way. These franchise agreements have led to the creation and funding of Public, Educational and Government (PEG) television, have required strong build-out of communications networks to make sure all consumers can be served, and have strengthened customer service rules. Yet under pressure from telephone companies entering the video service market, many states stripped local governments of their role in franchising.

Similarly, FCC rulings placed limits on what local governments could seek in franchise agreements. Despite the growth of services such as Internet and Voice over Internet Protocol (VoIP) that run over the same wires as video services in the public right of way, federal policy has prevented local authorities from considering revenue from those services when negotiating franchise fees with the providers.

Consumers have yet to see significant demonstrated benefit from these actions, and there is little evidence to suggest consumers in areas with lax franchising rules receive any better service, lower prices, or more competition. In contrast, there is evidence that local authorities have successfully worked with franchisees to push broadband out to more customers than might otherwise receive it and to limit the practice of “red-lining.” Public access centers also have a long history of technology training easily translatable to broadband adoption programs. Federal broadband policy should restore to local authorities the powers they lost in regulating their communities’ franchisees. It is also clear that current caps on franchise agreements should be a floor, not a ceiling for future negotiations with telecommunications companies, and revenue earned by the franchisee from non-video services should be factored into negotiations between the provider and local authority when determining franchise fees.

Recommendations

1. Policymakers at all levels should include reduced or no-cost connection of community libraries, schools, nonprofits, technology centers, or other

- community-based organizations as a condition of the use of public assets and rights-of-way by private telecommunications providers.
2. Federal funds should be made available to local governments to complete, light, and/or interconnect dark fiber in public rights-of-way on the condition that they be opened to nonprofit or public interest use.
 3. Fiber optic loops or networks paid for with public funds that are presently restricted to use to government and educational institutions should be opened to interconnection for the benefit of nonprofits and public interest community-based organizations.
 4. The federal government should be aggressive in promoting the use of “white spaces” and other unlicensed spectrum for broadband use and should also inventory all spectrum currently controlled by the government which is un- or under-utilized and open it to public use (as also called for in Section 2). Policymakers should not rely on auctioning unused or unneeded spectrum; unlicensed use would allow for more competition and a more open wireless marketplace.
 5. Policymakers should cut red tape to facilitate mounting of antennae on federal assets in rural areas for wireless broadband transmissions. The new office of the federal Chief Technology Officer should inventory such federal mounting assets across all agencies and establish a “one-stop shop” for granting access to them, especially for local and public interest service providers.
 6. The CTO should take stock not just of technology spending across agencies, but infrastructure spending as well. Allotting a miniscule percentage of the omnibus transportation bill to require the installation of fiber optic cables or conduit as part of any road or bridge construction would greatly expand middle-mile broadband capacity.
 7. Local authorities should regain the powers they lost in regulating their communities’ franchisees. Current levels of public, educational and governmental (“PEG”) support in franchise agreements should be a floor, not a ceiling, for future negotiations with telecommunications companies.
 8. Franchise fees are a form of rent paid in return for the right to use public property, and it is appropriate to require all communications companies that use rights of way to pay a franchise fee. The obligation to pay fees should not depend on what services are provided over a facility, or how the services are categorized for regulatory purposes. All revenues derived from the use of the rights of way to provide services, including revenues from non-video services should be includable in franchise fees. Restrictions on types of expenditures that franchise revenue can be used for by municipalities as well as PEG stations should be removed.
 9. State-level preemption of publicly-owned or operated communications networks should be eliminated. Local governments should be permitted to build or manage communications systems in the interest of their residents.

Federal Policy Must Stress Digital Inclusion And The Service Of Historically Disenfranchised Communities

We now have the opportunity to realize the promise of the Internet: to allow and encourage all people to connect and collaborate in new and unprecedented ways. The impact of access to affordable and fast broadband cannot be understated. Comprehensive and thoughtful digital inclusion can help create more egalitarian societies, strengthen educational and health services, local business, public participation, access to information, good governance and poverty eradication.

We should, however be aware of the Internet's potential to reinforce existing inequality present in the off-line world.

For example, a recent study by the Arketi Group found that a significant majority of reporters find news sources (93%) and story ideas (89%) on the Internet, and from reading blogs (72%). According to a December 2007 report by the Opportunity Agenda, Facebook, MySpace, YouTube and A-list blogs were dominated by anti-immigration messages for a period it studied. This further marginalizes those who are not on-line – more likely to be people who are low-income, non-English speaking, or immigrants – making it harder for their voices to be heard as part of the public discourse. That's one reason why it is not enough for federal broadband policy to invest only in programs that increase the deployment of broadband in un- and underserved areas. The federal government must also invest in programs designed to stimulate the adoption and use of broadband by all U.S residents. These digital inclusion initiatives should provide all people with the skills and tools they need to successfully navigate and mitigate the Digital Divide and realize, in meaningful ways, the opportunities broadband Internet can provide them.

Given the Internet's increasingly central position in our culture, economy and democracy, policymakers must respond to a history of inequality in communications network deployment, economic opportu-



Programs that give new broadband users access to the tools, skills and technology will lead to the creation of online content that will make the Internet even more vibrant.

nity, and education. We must make certain that historically disenfranchised communities are not marginalized once again by new broadband policies and initiatives. Native American and rural communities, low-income urban communities, communities of color and immigrants, and people with disabilities demand and deserve special attention in the deployment of resources for broadband access, technology adoption, and full digital inclusion.

A strategy to ensure that all U.S. residents have the opportunity and skills to access the Internet will benefit not just those who would otherwise be excluded; it benefits all users. The creativity, civic participation, social networking, and other contributions of those who will benefit from digital inclusion initiatives will increase the value of the network and enrich the experience of all who use it. Digital inclusion will ensure that the Internet remains a secure and democratic space for civic engagement, social advancement, cultural expression, and economic opportunity for all users.

Digital inclusion has three aspects: **digital literacy, universal access, and a participatory Internet.**

Digital literacy encompasses the skills that everyone needs to use computers and other digital communications tools effectively for accessing essential services, education, news and resources for civic engagement, health, employment and cultural participation, as well as for creating one's own content. Digital skills and knowledge enable people to use and shape the Internet to meet their needs. In order to close the digital divide we need to de-

velop and deploy free or low-cost training opportunities, methodologies and materials related to using Internet for social development.

Universal access requires that all homes, public institutions, organizations and businesses have affordable access to broadband services, and to affordable hardware and software, including tools for people with disabilities. Internet serves as a global public infrastructure. This infrastructure must be widely distributed and support sufficient bandwidth, to all US residents to utilize its potential for raising their voice, improving their lives and expressing their creativity.

A participatory Internet requires that all people, including members of traditionally disadvantaged communities, have access to content that is relevant to them. This recognizes the fact that many people may not be accessing the Internet, if it is available to them, because it lacks content that is relevant or compelling to them. The solution is to provide communities with the tools and training, as well as equipment and bandwidth necessary to create and distribute their own Internet content. As groups and individuals create compelling content, others in the same communities and networks will increase their own use of digital technology, in an expansive cascade of participatory engagement. Content and applications must be designed to ensure accessibility for all, including people with physical, sensory or cognitive disabilities, differing literacy levels and in languages other than English.

It is clear enough that broadband Internet and communication tools will con-

tinue to play an increasingly central role in connecting us to one another, ore than any other single technology or social institution. Digital inclusion will enrich our society, our economy and our democracy by bringing all people into creative, critical engagement with one another. Policymakers must ensure that our national broadband strategy begins and ends with the principles of digital inclusion.

Recommendations

1. The federal government should adopt a three-part definition of digital inclusion, including digital literacy, universal access, and the participatory Internet.
2. Federal and state governments should establish Digital Inclusion Councils to integrate digital inclusion principles and initiatives throughout federal agencies and programs. Councils should ensure that existing agencies and programs such as energy assistance, medical benefits, housing assistance, etc., adhere to and promote digital inclusion principles in the fulfillment of their missions.
3. Councils should work with libraries, community media centers, educational institutions, community foundations and municipalities to plan and implement digital inclusion programs targeted to the communities most in need. Federal funds should be made available for technology training, production, and adoption in communities historically at the margins of technological advancement, including rural and low-income communities, and communities of color.
4. Federal and state policymakers should work with educators and the community sector to establish media literacy curriculum requirements for secondary schools, including technology literacy and digital media production.

http:// Conclusion

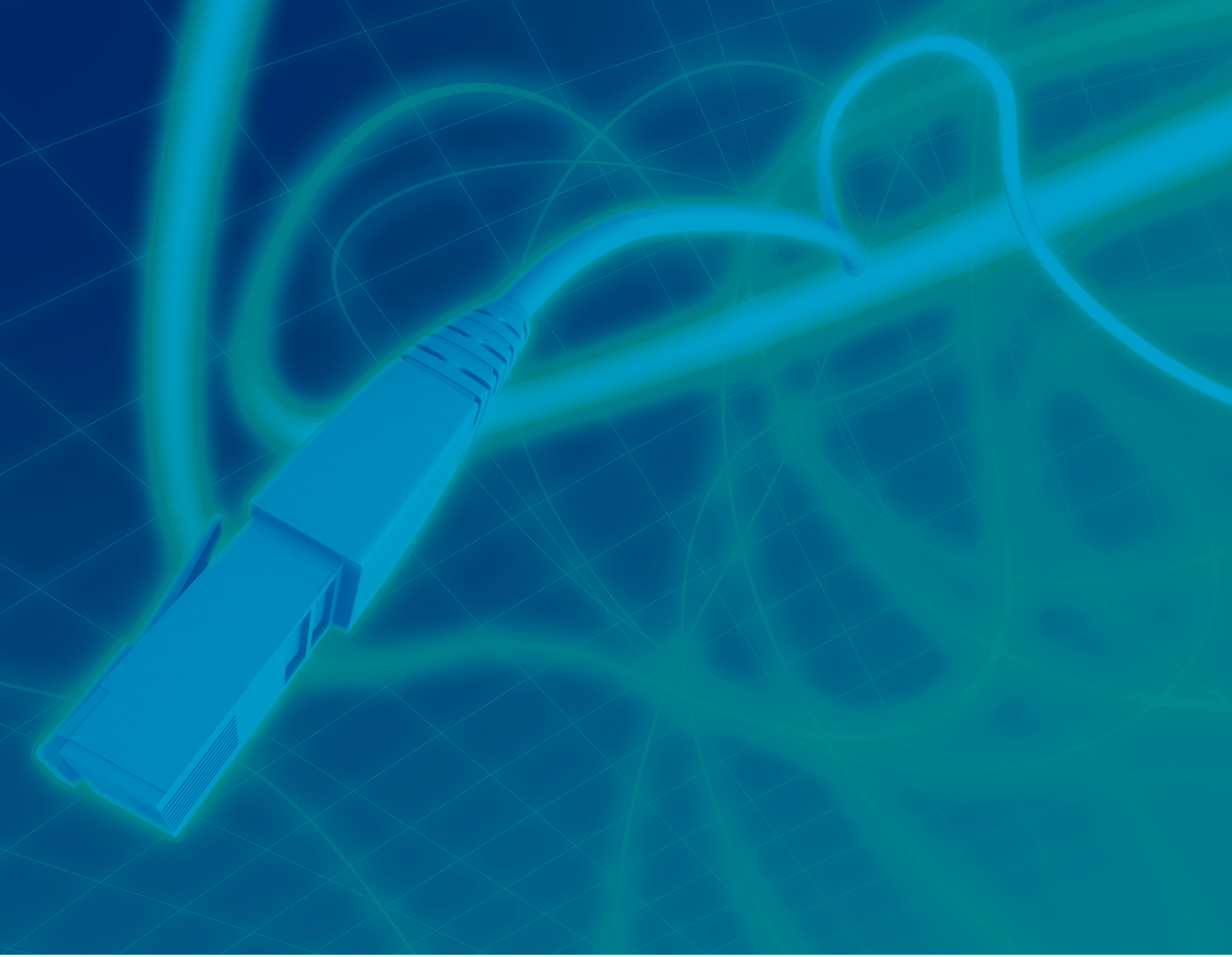
To reap the benefits of broadband and meet the challenge of global competition, our nation's policymakers have made increased deployment of broadband access to the Internet a national priority. The touchstone of this effort will be the National Broadband Plan to be released by the FCC in February 2010. To successfully achieve these national goals, the Plan should adopt the principles highlighted in this report:

- 1. Broadband Communications is a Fundamental Right:** All consumers deserve access to high quality broadband and a safe, non-discriminatory Internet.
- 2. Good Policy Must Be Well Informed:** Policymakers must collect and analyze accurate data on broadband use and access.
- 3. Policy Should Promote Competition, Innovation, Localism, and Opportunity:** Policies must be implemented that favor ownership by community-based providers, and that clears the way for new entrants in the broadband market.
- 4. Government Should Use Public Resources and Assets Wisely:** Public property and rights of way can be used to effectively and efficiently deliver broadband access.
- 5. Federal Policy Must Stress Digital Inclusion and the Service of Traditionally Disenfranchised Communities:** Giving consumers access to the tools, training, software and hardware to get on-line is equally as important as connection to the Internet.

By adopting these principles, embodied in the detailed policy recommendations in this report, the National Broadband Plan will achieve these national goals and deliver to all Americans the opportunity they seek for their children and themselves: to reach for the American Dream in the Digital Age.



All U.S. consumers must have access to high quality, affordable broadband in order to fully participate in today's economy, civic and cultural society.



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