**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
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| Report on | ) | GN Docket No. 09-29 |
| | ) | |
| Rural Broadband Strategy | ) | |

# COMMENTS OF THE BENTON FOUNDATION

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**Executive Summary**

Pursuant to the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill), the Chairman of the Federal Communications Commission is developing, in consultation with the Secretary of the Department of Agriculture, a comprehensive rural broadband strategy. It is of utmost importance that the Commission stresses the wealth of tangible economic and quality of life benefits that people in rural areas are being denied through the lack of access to affordable broadband.

The comprehensive rural broadband strategy should address the rural aspects of the comprehensive national broadband plan required of the Commission in the American Recovery and Reinvestment Act. Furthermore, the plan should not depart from the over arching purposes of U.S. Telecommunication Law. Finally, the plan must increase broadband demand to rural areas through Federal regulations that spur economic development, provide better health care at a lower cost, enhance education opportunities, reduce energy consumption, and promote public safety.

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## I. Introduction

Pursuant to the Public Notice released by the Federal Communications Commission ("Commission") on March 10, 2009 seeking comment on Congress's directive in the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill), that the Chairman of the Commission develop in consultation with the Secretary of the Department of Agriculture, a comprehensive rural broadband plan, the Benton Foundation[1] hereby submits these comments.

On May 22, 2008, Congress adopted Section 6112 of the Farm Bill which required the Chairman of the Federal Communications Commission in coordination with the Secretary of Agriculture, to submit a report to Congress describing a comprehensive rural broadband strategy[2] that shall include:

(1) Recommendations –

A. to promote interagency coordination of Federal agencies in regards to policies, procedures, and targeted resources, and to streamline or otherwise improve and streamline the policies, programs and service;

B. to coordinate Federal Rural Broadband or rural initiatives;

C. to coordinate both short-and long-term needs assessment and solutions for a rapid build-out of rural broadband solutions and application of the

[1] The mission of the Benton Foundation is to articulate a public interest vision for the digital age and to demonstrate the value of communications for solving social problems. Benton is a longtime supporter of research on universal service and the potential of high-speed Internet connections for improving Americans' lives.

[2] Food, Conservation, and Energy Act of 2008, Pub. L. 110-234, 122 Stat. 1651 (2008), (Farm Bill)

recommendations for Federal, State, regional and local government policy makers; and

D. to identify how specific Federal Agency programs and resources can best respond to rural broadband requirements

(2) a description of goals and timeframes to achieve the purposes of the report[3]

In the American Recovery and Reinvestment Act of 2009, Congress also charged the Commission with creation of a national broadband plan.[4] That plan is to seek to ensure that all people of the United States have access to broadband capability and shall establish benchmarks for meeting that goal. The plan shall also include—

(A) an analysis of the most effective and efficient mechanisms for ensuring broadband access by all people of the United States;

(B) a detailed strategy for achieving affordability of such service and maximum utilization of broadband infrastructure and service by the public;

(C) an evaluation of the status of deployment of broadband service, including progress of projects supported by the grants made pursuant to this section; and

(D) a plan for use of broadband infrastructure and services in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.

[3] Farm Bill, Section 6112

[4] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (Recovery Act), Section 6001(k)

The comprehensive rural broadband strategy the Commission writes now should address, to the extent possible, the rural aspects of the comprehensive national plan.

President Obama put it best, "Every American should have the highest speed broadband access – no matter where you live, or how much money you have."[5] It is of utmost importance that the Commission stresses the wealth of tangible economic and quality of life benefits that people in rural areas are being denied through the lack of a rural broadband strategy.

The rural broadband strategy should 1) adhere to the overarching purposes of U.S. telecommunications law and 2) encourage policies and initiatives designed to increase rural broadband availability and demand.

## II. The Commission Must Adhere to the Overarching Purposes of U.S. Telecommunications Law

The Commission's comprehensive rural strategy should not depart from the historic, overarching purpose of U.S. telecommunications law. The main purpose is at the forefront of the Communications Act of 1934: "to make available to all people of the United States a rapid, efficient, nation-wide and world-wide, wire and radio communications service with adequate facilities at reasonable charges."[6] Parsing this out, the Communications Act of 1934 is calling for broadband deployment to ALL

[5] Senator Barack Obama (D-IL), speech in Flint, Michigan, June 16, 2008, www.barackobama.com/2008/06/16/remarks_of_senator_barack_obam_79.php
[6] 47 U.S.C § 151

people in ALL areas of the U.S.; broadband that is fast and efficient, connected to the entire world, wire and wireless, and affordable.

The principle of universal, affordable service, including advanced services, was reaffirmed in Sec 254(b)(2) of the Communications Act[7] and Sec 706 of the Telecommunications Act of 1996.[8] Sec 254(b)(2) calls for advanced services to be provided in all regions of the nation. In section 706(a) of the Telecommunications Act of 1996, Congress charged the Commission with "encourage[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability" – broadband – "to all Americans."[9] The Commission is also required to assess the level at which advanced telecommunications are available, and then take steps, if necessary, to accelerate deployment of such services by removing barriers to infrastructure investment.[10]

The Commission should also adhere to Sec. 257 Communications Act which instructed the Commission to promote policy to favor "diversity of media voices, vigorous economic competition, technological advancement, and promotion of the public interest, convenience, and necessity."[11]

[7] 47 U.S.C. 254
[8] 47. U.S.C. 157. Telecommunications Act of 1996. Sec 706 explicitly defines advanced telecommunications capability as broadband.
[9] 47 U.S.C. § 157 nt. (incorporating section 706 of the Telecommunications Act of 1996, Pub. Law No. 104-104, 110 Stat. 56 (1996)).
[10] Id.
[11] 47 U.S.C. 257.

## III. The Rural Broadband Strategy Must Aim to Increase Rural Broadband Availability and Demand

In its rural broadband strategy, the Commission should recommend policies and initiatives that promote both the supply and demand for broadband. This will establish a "virtuous circle" in which an increased supply of robust and affordable broadband stimulates the creation of applications that produce wide ranging, valuable social benefits that then causes citizens to demand even more robust and affordable broadband; which in turn creates investment in more broadband; which then stimulates the creation of even more robust and affordable broadband. [12]

### A. To Address Rural Broadband Availability, the Commission should Modernize the Universal Service Fund

#### 1.) The Commission Must Adopt Broadband as a Supported Service under the USF

The Federal-State Joint Board on Universal Service found that support for ubiquitous affordable broadband is 1) essential to education, public health, and public safety, 2) consistent with the public interest, convenience and necessity and 3) required by the Telecommunications Act of 1996. Likewise, Section 254 of the Act, upon which the Universal Service program is rooted, compels the Commission to ensure that the Universal Service program represents an evolving level of service.[13] For these and other reasons, Benton believes the Commission must immediately take steps to transition our

[12] Rintels, Jonathan, *An Action Plan for America: Using Technology and Innovation to Address our Nation's Critical Challenges*, Benton Foundation, 2008. ("Action Plan") p. 7. (see Attachment A)
[13] 47 U.S.C. § 254 (a)(2)

Universal Service support system from narrowband to broadband based on a fair and reasonable balance of Universal Service principles adopted by Congress and the Commission. It is not only achievable and worthwhile; it is required by statute. The Lifeline and LinkUp programs must be part of this transition or the USF will actually fund a digital divide between broadband users and those who rely on analog telephone service.

**2. The Commission Must Improve and Expand the Rural Healthcare Pilot Program**

The rural broadband strategy should include a plan to increase supply of broadband and demand for telehealth and health information technologies. In order to achieve this plan, the Commission should improve and expand the Rural Healthcare Pilot Program which has allocated more than $417 Million to the construction of 69 statewide or regional broadband telehealth networks in 42 states and three territories.[14]

**3. The Commission Must Strengthen the E-rate Program**

The Commission should modernize the E-Rate program. E-Rate has been very effective in bringing internet to schools and libraries. Too often access is slow and obsolete and may be available on only a few computers in the schools. Intermediate steps include lifting the E-Rate funding cap while simplifying its paperwork burden and complexity. The program should support internet broadband speeds of at least 10Mbs per 1000 students as recommended by the State Educational Technology Directors Program.[15]

[14] *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order, FCC 07-198 (rel. Nov. 19, 2007)
[15] "High-Speed Broadband Access for All Kids: Breaking Through the Barriers," State Educational Technology Directors Association, June 2008, www.setda.org/web/guest/class2020actionplan.

**B. The Rural Broadband Strategy should Include a Number of Recommendations on How to Improve Rural Broadband Demand**

In order to increase broadband demand to rural areas in particular, Federal regulations and policies must spur economic development and job creation, better health care at a lower cost, enhance education opportunities, reduce energy consumption, and promote public safety.

**1. The Rural Broadband Strategy Must Address Economic Development and Job Creation**

The qualitative and quantitative evidence is clear and consistent: at the individual, local, and national levels, the deployment of fast, reliable, and affordable broadband will stimulate tremendous economic development and create hundreds of thousands - if not millions - of good-paying jobs that might otherwise be lost or go offshore. It is a matter of economic necessity and survival in the globally-connected and competitive marketplace.

Numerous community case studies also provide persuasive evidence of the economic benefits of robust broadband deployment. One particularly striking illustration of the power of broadband to generate economic development is from Cedar Falls and Waterloo, two communities located side by side in the Cedar Valley region of Iowa. Unhappy with the pace of private broadband deployment in their community, local leaders in Cedar Falls chose to deploy a citywide municipal high-speed fiber network around that town. In nearby Waterloo, local leaders chose to rely only on broadband

provided by the private local phone and cable companies, which was slower and not as universally available as the fiber deployed in Cedar Falls.[16] The result was that numerous companies and businesses relocated from Waterloo to Cedar Falls, creating new jobs, raising property values, and providing other economic benefits that were not enjoyed by Waterloo. Observing the competitive advantages of Cedar Fall's high speed network, Waterloo Mayor John Rooff remarked: "Fiber optics is the key to Waterloo's future growth. In order for Waterloo with its businesses to move into the 21st century, we need fiber optic capability. . . . I believe it has hurt us economically to not be able to provide fiber optics to businesses locating in our city."[17] Concluded the case study:

> Although the implementation of Cedar Falls' Communications Network is relatively young, Cedar Falls is already reaping economic and community benefits.... There may be no single thing more important in a community's efforts to achieve economic well-being than to grasp the role that telecommunications plays in creating meaningful jobs, enhanced education and world class healthcare. Now, more than ever, the direct link is evident between advanced communications and productivity and economic development.[18]

Studies of robust broadband deployment in Lake County, Florida,[19] Lafayette, Louisiana, Fort Wayne, Indiana, and other U.S. communities[20] all demonstrate similar economic and competitive benefits resulting from these investments.

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[16] Doris J. Kelley, A Study of the Economic and Community Benefits of Cedar Falls, Iowa's Municipal Telecommunications Network, October 2, 2003, www.iprovo.net/projectInfoDocs/economicAndCommunityBenefitsStudy.pdf.
[17] Id., 11.
[18] Id., 12-13.
[19] George S. Ford and Thomas M. Koutsky, "Broadband and Economic Development: A Case Study from Florida," *Applied Economic Studies,* April 2005, 15,www.aestudies.com/library/econdev.pdf.
[20] Jim Baller and Casey Lide, *Bigger Vision, Bolder Action, Brighter Future: Capturing the Promise of Broadband for North Carolina and America*, June 2008, 15-16, www.e-nc.org/Baller-Herbst_Report.asp.

Rural communities around the country that have access to robust, affordable broadband services are competing successfully for high-paying "knowledge work" jobs that might otherwise be exported abroad. This "farmshoring" of knowledge work to lower wage and lower cost-of-living areas of the United States, in contrast to "offshoring" that same work to foreign lands, is well illustrated by the experience of Watford City, North Dakota, a town where the nearest traffic light is 50 miles away. In Watford, life is slow, but the broadband is fast. A programming and call center operates out of an old John Deere tractor showroom there and programmers make $40,000 a year, far above the prevailing wage rate in that remote western North Dakota town.[21]

In rural southwest Virginia, an area economically depressed by the loss of tobacco, coal mining, and furniture manufacturing jobs, local and regional officials joined forces to fund and deploy a state-of-the-art regional telecommunications infrastructure, giving current and new industries in the area a competitive advantage in a connected, global economy. Two IT giants, CGI and Northrop Grumman, soon thereafter announced that they would locate major telecommunications operations in the area, creating 733 high-skills, high-wage IT jobs and investing $30 million in private funds. CGI reported that the average annual salary for its 300 employees would be about $50,000, while Northrop Grumman estimated an average annual salary of $40,000 for its 433 workers. Both figures are well above Russell County's current average annual salary of $27,111. In addition to the direct economic benefits, significant secondary and indirect benefits to the region have been observed. Large new, unsubsidized housing developments have been

[21] Adam Geller, "Companies Seek Low-Cost Foothold in the Heartland," *Bismarck Tribune*, June 20, 2005, www.bismarcktribune.com/articles/2005/06/21/news/state/sta03.txt.

built. A gourmet coffee shop opened, a new hotel was constructed, and plans were announced for the first 18-hole golf course between Abingdon and Tazewell.[22]

Indeed, Virginia's efforts to develop high-tech, high-wage jobs in the southwestern parts of the state have been so successful that some fear there will be a shortage of qualified IT workers to staff the newly created positions. To address this problem, and to reunite families torn apart by the economic malaise of the region, a "Return to Roots Project" was created to bring home young Virginians who left the region in search of economic opportunity.[23]

**2. The Rural Broadband Strategy Must Address Improving Health Care**

The rural broadband strategy must promote the two most valuable health telecommunications applications “telehealth” and digital health information technology.[24] Traditional medicine still relies in large part on in-person visits to health care providers. But such in-person visits can be inconvenient, painful, costly, or impossible for sick elderly or disabled citizens in rural and low income areas where doctors and clinics are scarce.[25] Rural areas can especially benefit from telehealth and improvements in health information technology. More broadband access will stimulate telehealth initiatives that can aid in remotely monitoring patients, improve access to medical specialists in under-served and remote areas, provide widespread low-cost dissemination of health information to patients, provide easier access to medical second opinions, and create

[22] *Russell County Information Technology Project*,goveda.org/About/ceda/CEDA-RussellCounty-Narrative.pdf.
[23] *Return to Roots*, www.returntoroots.org/News_and_Press.php.
[24] Action Plan at p. 15.
[25] Id.

substantial travel savings and a better quality of life for senior citizens and persons with disabilities.[26]

In terms of health information technologies, the health care system is widely fragmented and inefficient. Patients may be treated in multiple locations by multiple doctors with different forms and insurance carriers. A widespread adoption of digital health information technology (HIT) will create uniform interoperable technology standards that will effectively connect the health care system. [27] Full implementation of HIT will empower patients to better monitor their own care; allow for early and consistent treatment as well as improved management of chronic illness; allow those in unserved areas to gain access to previously inaccessible treatment; and introduce privacy protocols, not possible under the current paper based system.[28]

**3. The Rural Broadband Strategy Must Address Improving Education**

The rural broadband strategy should include initiatives to promote the adoption of technology and broadband throughout classrooms and initiatives to advance online learning and "digital excellence" training. Broadband in classrooms and schools will improve access to information, advance learning skills, and will create the opportunities for students in remote areas to keep up with current information and compete on an international level. Access to broadband at school and at home will help ameliorate the unequal distribution of educational resources and opportunities available to different school districts, socioeconomic levels and regions. Broadband access will allow high

[26] Id. at 16.
[27] Id. at 17.
[28] Id. at 18.

school students in remote rural areas to take AP and other advanced courses that they might otherwise not have had access too.[29]

**4. The Rural Broadband Strategy Must Address Energy Efficiency**

The rural broadband strategy should include initiatives to help rural Americans utilize broadband to reduce energy consumption and carbon dioxide gas emissions. Proposals to deploy universal, affordable, and robust broadband; promote telework; and modernize our existing nationwide electricity system with innovative "Smart Grid" technology could help meaningfully address the threats that energy insecurity and environmental degradation pose to our nation.

Increasing the amount of telework performed throughout the public and private sectors could rapidly achieve significant reductions in energy consumption and carbon dioxide emissions. In addition, telework generates numerous other valuable personal and social benefits. Rush hour congestion is reduced. Fewer roads and offices are required. Workers enjoy more leisure time, boosting morale and productivity. Those who are elderly, disabled, and or have children in the home, can participate more effectively in the workforce.[30]

Using Internet-based "Smart Grid" technology to efficiently manage energy production, distribution, and consumption is becoming one of the fastest-growing segments of IT. In

[29] Action Plan at p.20.

[30] Joseph P. Fuhr Jr. and Stephen B. Pociask, "Broadband Services: Public and Environmental Benefits," American Consumer Institute, October 31, 2007, 2-3, 17-22, www.acicitizenresearch.org/Final%20Green%20Benefits.pdf.

addition to providing utilities and consumers with savings of up to $70 billion over the next two decades, a Smart Grid will reduce our energy dependence and benefit our environment.[31] "Energy companies have been doing things in a very similar fashion for their first 100 years," says Silver Spring Networks CEO Scott Lang. "But now there's this convergence of devices that can talk and radio frequency technologies and processing power. It's going to revolutionize the system. . . . To link them up we identified one standard: IP. The same kind of approach that makes the Internet work is going to make this work."[32]

In a Smart Grid, information flows "from a customer's meter in two directions: both inside the house to thermostats, appliances, and other devices, and from the house back to the utility. Smart Grid is defined to include a variety of operational and energy measures – including smart meters, smart appliances, renewable energy resources, and energy efficiency resources."[33]

**5. The Rural Broadband Strategy Must Address Public Safety and Homeland Security**

The goal of the federal government's broadband policy "should be first and foremost to ensure our ability to respond to threats to our homeland security and to natural disasters.

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[31] Brian E. Clark, "Expert Touts Savings in 'Smart Grid,'" *WisBusiness.com,* April 30, 2008, www.wisbusiness.com/index.iml?Article=124812.

[32] Richard Martin, "Can the Internet Save the Planet?" *Information Week,* January 12, 2008, 4, www.informationweek.com/news/internet/showArticle.jhtml?articleID=205601559&pgno=1&queryText=&isPrev=.

[33] "Energy Independence and Security Act of 2007: A Summary of Major Provisions," Congressional Research Service, December 21, 2007, CRS-20, energy.senate.gov/public/_files/RL342941.pdf.

… Without ubiquitous broadband our first responders could be crippled by the lack of effective communications in the event of a terrorist attack or natural disaster."[34]

In Hermiston, Oregon, a 700-square-mile wireless broadband cloud around the Umatilla Chemical Depot, a highly dangerous site that is a tempting target for terrorists, allows public safety officials equipped with Wi-Fi–enabled laptop computers to monitor potential chemical leaks and allow first responders to direct evacuees safely from the field during emergencies.[35]

Another benefit of the Hermiston wireless broadband cloud is if nerve gas does escape, officers in police cars equipped with laptops and the appropriate software can download data and receive images that display the gas cloud's direction and speed. First responders are able to communicate via Wi-Fi – there's no problem with incompatible radios and frequencies, as happened to the New York City first responders on 9/11. If there's a report of a burglary or a fire, first responders rushing to the scene can download floor plans of the building, live images from video monitors, and information about the alarm system.[36]

Broadband in rural communities is crucial because it can tie together firefighters, police, ambulance, and emergency workers into a single community wireless network. Rural

[34] Mark Lloyd, "Ubiquity Requires Redundancy - TheCase for Federal Investment in Broadband," *Science Progress*, January 18, 2008, www.scienceprogress.org/2008/01/ubiquity-requires-redundancy/.
[35] Eric Griffith, "Wireless Watches the Gas," *Wi-Fi Planet*, February 3, 2005, www.wifiplanet.com/columns/article.php/3468121.
[36] Nicholas Kristof, "Give Oregon Town High-Five on Wi-Fi," *New York Times*, August 9, 2005, www.cwwg.org/nytno08.09.05.html.

broadband is also vital in times of emergency so that the federal agencies can better communicate and access the shared information of the Rural Public Safety Bureaus.[37]

The problems facing rural law enforcement and public safety organizations include network fields that do not connect; insufficient interoperability and open access between networks and applications; and current broadband that is too expensive and not dependable.[38] No agency has taken the lead in fixing this mangled public safety web, too often agencies charged with different aspects of the response focus too much on building the networks, not the needed standardization of data and applications that must run over them.[39]

The rural broadband strategy should recommend the creation of a national 21st century telecommunications system for public safety and homeland security, where first responders would have a single nationwide, robust broadband communications system with technologies based on open standards and resilient connections. The system must ensure that, all citizens have access to emergency services and agencies using any device or mode commonly used in public communications, and that all local, state, federal, and tribal statutes, regulations, and policies promote rather than delay the creation of this system.[40] Furthermore, the system should require the Director of the Department of

[37] Action Plan, at 29.
[38] Woodhall, Judith and David Aylward. Leading the Path Towards Interoperability. COMCARE Emergency Response Alliance. 2006, www.comcare.org/uploads/Interoperability_Editorial-Disaster_Resource.pdf)
[39] Action Plan at p.30.
[40] Id,

Homeland Security to mandate interoperable, broadband based systems in all communications related grants.[41]

The rural broadband strategy should also recommend evaluating and continuing the Public Safety Interoperable Communications Grant Program at the NTIA and restoring the Tribal Rural Law Enforcement Internet Project through the Department of Justice (DOJ). Additionally, the Commission should support more public-private build out of Public Safety Spectrum and adopt the recommendations of the Joint Advisory Committee on Communications Capabilities of Emergency Medical and Public Health Care Facilities to overhaul and update the communications systems of EMS, 9-1-1 and public health facilities.[42] Although obviously required by the 2008 Farm Bill, it is crucial that the Commission include timeframes on this as public safety and homeland security communications have too long been delayed. (Kevin took out this section in each of the paragraphs above, not sure if he meant to keep this one in or not)

**6. The Rural Broadband strategy Must Address Broadband Potential to Efficiently and Transparently Connect Government to Its Citizens**

By deploying universal, robust broadband and broadband applications, we have a tremendous opportunity to reenergize government at all levels, making it more efficient, transparent, accountable, and open to the active participation of the citizens it serves, while generating cost savings in the billions of dollars.

[41] See Department of Homeland Security Grant Program Overview FY 2008, www.dhs.gov/xnews/releases/pr_1216997045027.shtm.
[42] Action Plan, at 31.

Governments at all levels are using broadband and information technology to deliver better "e-government" services to citizens at lower cost. Such cost savings and benefits are "enormous," say Baller and Lide, although they concede that "given the many ways that e-government can be defined and implemented, it is difficult to make accurate estimates of its financial benefits."[43]

In addition to more efficient e-government, infusing Web 2.0 technologies throughout government will enable citizens to monitor inefficiency, waste, fraud, and abuse in government spending and practices. It will also empower the public to more actively participate in governmental processes and decision making. The bipartisan Federal Funding Accountability and Transparency Act of 2006, sponsored by Senator Barack Obama and co-sponsored by Senator John McCain, was an excellent first step in this effort, creating USASpending.gov (aka "Google for Government"), which launched in December 2007. On USASpending.gov, the public can access information about most federal grants, contracts, loans, and other financial information in a user-friendly format.

However, broadband applications enable so much more to be done. Much of the federal government's data is buried in user-unfriendly and out-of-date websites and databases. For example, the Federal Communications Commission - ironically, the federal agency tasked to promote advanced telecommunications technologies - uses a website to communicate with the public that has remained nearly unchanged in design and structure

[43] Data taken from Jim Baller and Casey Lide, "Bigger Vision, Bolder Action, Brighter Future: Capturing the Promise of Broadband for North Carolina and America," e-NC Authority and The Baller Herbst Law Group, June 2008, 25

since 2001. Searches for filings and materials are handicapped by an FCC-proprietary search engine that requires users to know specifics of a particular proceeding beforehand, such as its docket number or the source of the document. The content of the documents themselves is not searchable, even though those documents are generally part of the public record. Although Google, the private sector's leading search engine, does not have access to the internal databases of the Commission, its ability to search the FCC's website for relevant material does a "significantly better job of identifying relevant information" than the Commission's own search function while also being more user-friendly.[44]

By "*creating a simple, reliable and publicly accessible infrastructure that 'exposes' the underlying data*," the government will empower the private sector, whether commercial or nonprofit, to present, organize, and manipulate that government data for citizens in a multitude of ways. While wikis, blogs, forums, comment pages, mashups, and other Web 2.0 innovations are difficult or impossible for the government to create or moderate on its own websites due to the plethora of laws and regulations agencies operate under, private websites and services that use government data are not so encumbered. Not-for-profit and commercial websites featuring easily accessible databases of federal contracts, audit disputes, competitive bidding, criminal or civil violations, earmarks, lobbyist meetings, and other heretofore difficult-to-access or "inside" government data can shine an important light on decision making and help level the playing field for ordinary citizens. Opening up access to the government's data so that citizens empowered by Web 2.0 tools

[44] David Robinson, et. al., "Government Data and the Invisible Hand," Yale Journal of Law & Technology, Fall 2008, 11, papers.ssrn.com/abstract=1138083, 2.

(including those not yet developed) can analyze, scrutinize, and use it will make government more transparent, accountable, and responsive.[45]

The Commission could also promote more direct citizen participation in government decision making through the use of broadband applications. Public agency meetings should be streamed online, provide an opportunity for direct citizen input, and then be archived for future public access. "Town-hall" meetings with public officials should be held frequently, since they will no longer need to take place in a physical town hall, but can be held virtually online where citizens utilizing broadband can easily participate. Pending legislation and regulations should be easily searchable and accessible online with the public empowered to comment.

**7. Additional Recommendations to be Included in the Rural Broadband Strategy**

- Open underused spectrum currently used for public and private use for a new generation of wireless devices that will provide robust broadband services over great distances and rough terrain without interferences.

- Implement the White Space Order which authorizes the production and use of unlicensed applications that can transmit broadband over unused television bands.[46] Using these new devices and applications in rural settings will me much easier and effective due to the lack of increased interference.

[45] Id. (emphasis in original).
[46] FCC Adopted Rules for Unlicensed Use of Television White Spaces, 23 FCC Rcd 16807, (rel Nov. 14, 2008)

- Stipulate that receipts of federal funding for public housing or other public buildings have robust broadband access to available to all residents and tenants.

- Initiate and expand programs and policies that extend broadband to persons with disabilities, seniors, minorities and populations that are generally on the wrong side of the digital divide

- Support Open Access to the internet for all users, service providers, content providers, and application providers, while recognizing that network operators must have the right to manage their networks responsibly pursuant to clear and workable guidelines.

## IV. Conclusion

For the above stated reasons, the FCC should adhere to the historical principles of the Communications Act when it drafts its proposed rural broadband strategy. The FCC also should to the extent possible keep in mind the goals and purposes of the National Broadband Strategy and how they will tie in to rural. The key element of this strategy will be its ability to stimulate broadband demand. The Strategy will succeed if programs are designed to ensure that all Americans have access to the digital skills and tools necessary to realize broadband's enormous potential benefits. By connecting all our nations to robust and affordable broadband, the new administration will extend to our rural citizens the opportunity to reach for the American Dream in the Digital Age.

Respectfully submitted,

By: /s/ Charles Benton, Chair

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