

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
High Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link Up	)	WC Docket No. 03-109
	)	
Universal Service Contribution Methodology	)	WC Docket No. 06-122
	)	
Numbering Resource Optimization	)	CC Docket No. 99-200
	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Intercarrier Compensation	)	CC Docket No. 99-68
	)	
IP-Enabled Services	)	WC Docket No. 04-36

**REPLY COMMENTS OF THE CITY OF NEW YORK**

The City of New York (“City”) hereby submits the following reply comments in response to the Further Notice of Proposed Rulemaking (“FNPRM”) released by the Federal Communications Commission (“Commission”) in the above-captioned proceeding. While the Commission’s FNPRM and the Appendices attached thereto address a number of issues concerning universal service and intercarrier compensation, the City’s comments will focus on those sections concerning broadband deployment and accessibility. Specifically, the City urges the Commission to implement a broadband adoption scheme that ensures affordable access for low-income households.

Leading communications policymakers agree that widespread availability of broadband Internet access confers enormous benefits on individuals and society at large. Chairman Martin has stated that “broadband has the potential to affect almost every aspect of our lives – from where we work, to how we educate our children and increasingly to the way healthcare is delivered.”<sup>1</sup> Commissioner Copps has also highlighted the key role broadband plays in individuals’ lives, noting that “[h]igh capacity networks are to the Twenty-first century what roads, canals and railroads were to the Nineteenth and highways and basic telecommunications were to the Twentieth.”<sup>2</sup> Commissioners Adelstein, Tate, and McDowell have all expressed similar views.<sup>3</sup>

Effective participation in the contemporary global economy and society requires internet access. Today’s employers, government agencies, and hosts of other entities (*e.g.*, banks, insurance companies, medical offices, and retailers) assume that people have ready access to the internet. For those who do not have such access, obtaining the necessary information and response opportunities, or engaging in the requisite transactions involves extended time and energy (*e.g.*, going in person to various offices or

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<sup>1</sup> See *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to all Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Development Pursuant to Section 706 of the Telecommunications Act of 1996*, 23 FCC Rcd 9615, 9683 (rel. June 12, 2008) (“*Fifth Section 706 Report*”) (Statement of Chairman Kevin J. Martin).

<sup>2</sup> *Fifth Section 706 Report*, 23 FCC Rcd 9615, 9685 (Dissenting Statement of Commissioner Michael J. Copps).

<sup>3</sup> See *id.*, at 23 FCC Rcd 9615, 9687 (Dissenting Statement of Commissioner Jonathan S. Adelstein) (“We stand at the forefront of a revolution in the applications that will ride over [broadband] infrastructure. They are reshaping the way we work, educate our children, provide health care to our citizens, govern, practice democracy, and interact with one another. These are tools that can play a crucial role in driving our economic growth, enhancing public safety, and revitalizing our communities.”); *id.*, at 23 FCC Rcd 9615, 9689 (Concurring Statement of Commissioner Deborah Taylor Tate) (“Broadband is revolutionizing how we communicate, how, where and when we work, how we educate our children, the delivery of healthcare and public safety as well as how we entertain ourselves.”); and Commissioner Robert M. McDowell, Luncheon Address, Broadband Policy Summit III, Crystal City, VA (June 7, 2007) (calling broadband “the most dynamic, positive, constructive and disruptive force to rock the world economy since electricity”).

spending extensive time “lost” in the proverbial “phone tree”). This problem is further exacerbated for those living in low-income neighborhoods because often the offices, services, and retailers are not located in their immediate vicinity. From an educational perspective, the internet has the potential to greatly assist children in overcoming economic disparities – granting children from low-income households access to the same information easily available to those growing up in more affluent homes.<sup>4</sup> The basic level of accessibility that citizens need to be effective employees, students, caregivers, and participants in democratic government is increasingly premised on internet access. And, at a local level, Web 2.0-type applications are improving the way municipalities deliver services to our citizens.<sup>5</sup>

Unfortunately, low-income Americans are far less likely than other Americans to subscribe to broadband services. As noted by others in this proceeding,<sup>6</sup> the Phoenix Center for Advanced Legal and Economic Public Policy Studies recently conducted an analysis of adoption among the fifty states and determined that “income inequality is a significant driver in suppressing broadband penetration in the United States.”<sup>7</sup> Similarly, the recent study of the Pew Internet & American Life Project has found that only twenty-five percent of households with annual income below \$20,000 subscribe to broadband

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<sup>4</sup> See Robert Atkinson, *Timely, Targeted, Temporary and Transformative: Crafting an Innovation-Based Economic Stimulus Package*, The Information Technology and Innovation Foundation, October 2008, at 3, available at <http://www.itif.org/files/TimelyTargetedTemporaryTransformative.pdf> (accessed Dec. 22, 2008) (stating that “[t]here is increasing evidence that having an Internet-connected computer at home increases education performance.”).

<sup>5</sup> See Remarks of Paul J. Cosgrave, Commissioner of the New York City Department of Information Technology and Telecommunications and New York City Chief Information Officer to the National Press Club’s National Broadband Strategy Symposium, at 1 (Nov. 19, 2008) (Attached as Appendix A).

<sup>6</sup> See, e.g., Petition for Rulemaking of Computer and Communications Industry Association (CCIA), WC Docket No. 03-109, CC Docket No. 96-45, at 6 (filed Oct. 7, 2008).

<sup>7</sup> See George S. Ford, Thomas M. Koutsky, Lawrence J. Spiwak, *The Demographic and Economic Drivers of Broadband Adoption in the United States*, at 20 (Phoenix Center Nov. 2007), available at <http://www.phoenix-center.org/pcpp/PCPP31Final.pdf>

services, while eighty-five percent of households with income above \$100,000 subscribe to broadband.<sup>8</sup>

New York City commissioned its own study to help determine how well existing broadband capabilities serve its residents.<sup>9</sup> The findings indicate that City residents have ubiquitous *access* to broadband service, with virtually every household currently being “passed” by one or more broadband provider. The Study further found that Citywide broadband *adoption* stands at approximately 52 percent – a rate comparable to that of other major domestic cities.

At the same time, it was found that broadband adoption among low-income residents is low. Specifically, in New York City, the broadband penetration gap between low-income and moderate- to high-income households was found to be approximately 28 percent in 2006; and this disparity was not projected to narrow significantly through at least 2012 in the absence of programs targeted towards increasing broadband adoption rates among low-income households. The major reasons found for the low-level of adoption include not only the cost of broadband service, but also lack of computer ownership and computer literacy skills. Going forward, the challenge facing us as a country will primarily be one of adoption rather than availability. Accordingly, New York City will be implementing a number of digital inclusion initiatives imminently, focused on expanding access to, and adoption of, broadband in low-income communities.

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<sup>8</sup> See Pew Internet & American Life Project, Home Broadband Adoption 2008, at 3 (July 2008), *available at* [http://www.pewinternet.org/pdfs/PIP\\_Broadband\\_2008.pdf](http://www.pewinternet.org/pdfs/PIP_Broadband_2008.pdf).

<sup>9</sup> See New York City Broadband Landscape and Recommendations, July 2008, *available at* [http://www.nyc.gov/html/doitt/downloads/pdf/bac\\_presentation\\_7\\_30\\_2008.pdf](http://www.nyc.gov/html/doitt/downloads/pdf/bac_presentation_7_30_2008.pdf) (accessed Dec. 22, 2008).

The Commission's proposal for expanding broadband adoption has two parts.<sup>10</sup> The first part, which would link support for broadband deployment to the existing high cost support mechanism, is problematic in two ways. First, it would focus broadband support only on those areas that already receive high cost support, but exclude those parts of the country that are not high cost areas and yet lack broadband access. Second, this proposal would do nothing to make broadband more affordable for the large sectors of the population who, though they may have theoretical access to broadband service, currently find such access to be prohibitively expensive.

On the other hand, the second part of the Commission's proposal - the Pilot Program, which would subsidize broadband adoption through the Lifeline and Link Up programs - is a step in the right direction. More analysis is needed, however, to determine the appropriate scope and funding levels of such a program. For instance, perhaps some variant of the Pilot Program should be implemented in conjunction with something similar to the "e-rate@home Program" recently proposed by the freepress Action Fund.<sup>11</sup> The City is eager, going forward, to assist in further developing the proposed Pilot Program and similar initiatives.

As of December 31, 2007, there were 266,136 Lifeline and 1,218 Link Up subscribers in New York State. While separate figures for participation in these programs in New York City do not appear to be available, a substantial portion of these

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<sup>10</sup> See *In the Matter of High-Cost Universal Service Support, et. al.*, Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, FCC 08-262 (rel. Nov. 5, 2008) (in Appendices A and C the Commission laid out virtually identical proposals with regard to increasing broadband adoption).

<sup>11</sup> See S. Derek Turner, *Down Payment on Our Digital Future, Stimulus Policies for the 21<sup>st</sup> Century Economy*, freepress Action Fund, December 2008 at 5 and 25-26, available at [http://www.freepress.net/files/DownPayment\\_DigitalFuture.pdf](http://www.freepress.net/files/DownPayment_DigitalFuture.pdf) (accessed Dec. 22, 2008) (proposing to target funds for the purchase of laptop computers at e-Rate schools for children to take home and support the construction of Wi-Fi networks that extend library and school broadband connections for free to surrounding neighborhoods).

customers are likely to be New York City residents. Thus, a properly structured program based on the Commission's Pilot could greatly enhance internet accessibility for tens of thousands of New Yorkers and countless others nationwide.

In short, the City commends the Commission's efforts to implement a program that specifically seeks to expand access to, and use of, broadband service by low-income households. Particularly in light of the current economic downturn when many households will confront severe budget constraints, it is imperative that broadband adoption programs place a high emphasis on affordability. The City is eager to participate in the on-going development of such programs.

Respectfully submitted,

/s/

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## **Appendix A**

**Remarks of Commissioner/CIO Paul J. Cosgrave  
IIA National Broadband Strategy Symposium  
Wednesday, November 19, 2008**

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Thank you and good morning. It's an honor to be here at the National Press Club on behalf of Mayor Michael Bloomberg. As New York City's Chief Information Officer, my role in the Bloomberg Administration is to leverage technology to make government more accessible, transparent and accountable to the people it serves, and in the 21<sup>st</sup> century I believe that must include access to an affordable, comprehensive broadband infrastructure.

Earlier this week, Mayor Bloomberg met with Building America's Future Co-Chair, Pennsylvania Governor Ed Rendell, Senate Majority Leader Harry Reid and members of the Presidential Transition Policy Team to discuss our nation's infrastructure needs over the next decade. The Mayor has taken the lead on a similar push in New York City through the *PlaNYC* initiative, a comprehensive strategy to meeting the City's infrastructural and environmental imperatives for the year 2030, by which time the City will house an additional one million residents (in addition to the eight million today) and host untold millions of tourists, visitors and businesses.

One of the great things about working for a Mayor who understands the transformative role of technology in government – and I'm not just saying this because I'm here on his behalf – is he knows that infrastructure isn't limited to buildings, roads and bridges. There is a technological infrastructure required in today's world every bit as important as the trees producing the air we breathe and the pipes carrying the water we drink.

Those who ignore the need for a national broadband policy, I believe, do so to their detriment. Though today it's hard to believe there were once those claiming the Internet was "just a fad," I would imagine there were those claiming the same about the telephone, and electricity, and the wheel, and fire, down through the ages.

The pace, of course, only continues to pick up. For example, during the 2008 election cycle two Web 2.0 technology trends – Facebook and YouTube – transformed the way in which campaigns raised money and organized volunteers. And on the Saturday after the election, President-elect Obama also released, via Youtube, the Democratic response to President Bush's weekly radio address. Considering Facebook had been invented only a few months prior to the 2004 election and YouTube didn't yet exist four years ago, it is amazing how quickly, and the importance these applications have attained, in becoming ubiquitous.

At a municipal level, similar Web 2.0-type applications are improving the way we deliver service to our customers. During the difficult financial times in which we are now immersed, it's especially important to continue the proliferation of such applications as a means of more efficiently – and cost effectively doing business.

For example, as demand continues to grow<sup>12</sup> for New York City's popular 311 non-emergency call center, which I administer for the Mayor, we are challenged to do more with less. The best way to do this, we think, is no different than what has been going on in private industry – and that's to lead people to the Internet.

Accordingly, content on the City's award-winning Internet portal, *NYC.gov*, is being restructured from the customer's perspective by realigning around major citywide themes (public safety, human services, education, etc.), instead of by traditional agency alignments. This is making it much easier for an Internet user to find the service they need, just as 311 has aided callers.

Recent other initiatives, such as the ability of customers to check the status of previously-filed requests online (instead of having to call 311 back to do so), and enabling customers ability to send pictures and videos from cell phones or PDAs to *NYC.gov* to accompany their complaints, also speak to these efforts.

As regards human services, broadband access is making government increasingly more accessible to its customers. ACCESS NYC, an web-based application on *NYC.gov*, promotes self-sufficiency among New York City's residents by providing a single point of entry to City, State, and Federal human service benefit programs. It allows residents to pre-screen, anonymously, for 35 programs in seven different languages, including Spanish, Chinese, Korean, Russian, Arabic, Haitian-Creole, and English. By entering household information, residents can receive a list of the programs for which they are potentially eligible, print partially-complete application forms, search for office locations, and create an account to access their information at a time most convenient to them.

So while the need clearly exists, the challenge before is ensuring affordable access to broadband throughout the country. The good news here is that in terms of capacity, major cities in the United States are doing quite well.

One study ranks New York City third behind only London and Paris in Internet bandwidth; the same study lists six other American cities – San Francisco, Washington, D.C., Los Angeles, Miami, Seattle and Chicago – among the top 25 worldwide.

The challenge facing us as a country, then, is not one of availability, but of adoption. On average, adoption rates in New York City are on par with those of other major U.S. cities – usually ranging from the mid-40<sup>th</sup> to mid 50<sup>th</sup> percentile – but the United States overall is well behind other nations in terms of adoption. And the rapid adoption of mobile, third- and fourth generation technologies means we're behind not only the developed world, but a number of developing nations as well.

According to Ambassador David Gross, U.S. Coordinator for International Communications and Information Policy, Africa and India are the two fastest-growing markets for wireless/Internet service. Also this year, China overtook the United States as the country with the largest number of internet users, currently over 250 million; it also has some 600 million mobile-phone subscribers, more than any other country.<sup>13</sup>

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<sup>12</sup> From 2006 to 2007 the volume of 311 calls grew by 14% – to an annual total of 15.3 million calls; 311 has received an additional 13.8 million calls in 2008 to date.

<sup>13</sup> *The Economist*, "The meek shall inherit the web," September 4, 2008)

What we have also found in New York City is that broadband adoption among low-income residents is quite low. Accordingly, we are now exploring the implementation of measures aimed at addressing this issue.

The major reasons we've found for the low level of adoption among low-income residents are: lack of computer ownership, the cost of broadband service, the lack of computer literacy skills, and a general failure to appreciate the value of broadband technology.

Accordingly, New York City will be unveiling a number of digital inclusion initiatives in the coming weeks focused on expanding access to, and adoption of, broadband service in traditionally underserved, low-income communities, to holistically address these barriers to adoption and narrow the digital divide.

To fund these initiatives New York City will be partnering with the private sector, using funding as part of the cable television franchise the City granted to Verizon this summer. The "Technology Education and Municipal Facilities Grant" will consist of private sector dollars with a matching investment program for non-governmental entities to expand public access to technology and address issues of digital inclusion citywide.

While New York City is unique in many ways – its size, diversity, and scope of services provided at both the county and municipal level – I think the lessons we've learned as the nation's largest city, and the plan we're now implementing to address some of those challenges, are applicable to cities around the country.

While recent studies show that most states across the country have embarked on broadband initiatives, there is neither a single national model nor a consensus on best practices.<sup>14</sup> So simply put, what we need to do to remain competitive as the pre-eminent marketplace in the world is to develop a comprehensive, national broadband policy.

As the following panel will exhibit for you, without a national broadband policy we will not succeed in our goals for:

- **Poverty reduction**
- **Education**
- **Environmental control**
- **Health improvement**

Without stealing their thunder, let me give you a few examples. I've already spoken about the importance of closing the digital divide in reducing poverty and some of the initiatives we're pursuing in New York City to that end. But the plain truth here is that the even medium for pulling yourself up by your bootstraps has changed. Indeed, job listings, employment applications, benefit programs, eligibility screenings – these things are increasingly being accessed via high-speed Internet connections, so it's no longer enough to simply buy a newspaper and scan the want ads for our working poor. They need the access, affordability and training today to instead "pull themselves up by their mouse cord," as it were.

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<sup>14</sup> CostQuest Associates, 50 State Survey, July 21, 2008.

Of course, one of the surest ways to escape poverty is through education. So it is important for municipalities nationwide, during the new Federal administration, to continue to identify opportunities for regulatory and legislative change that will promote broadband deployment in urban underserved areas, and to develop and support programs to expand broadband access in public access centers and libraries. This legislation should aim to directly allocate funds to municipalities through, for example, revitalization of the Department of Commerce's National Telecommunications and Information Administration grants and through the easing of restrictions on permissible uses of the e-rate program.

The new Federal administration promises a strong environmental platform, and there are many environmental measures that can be achieved using broadband technologies – congestion reduction, traffic control, air pollution sensors, to name just a few. These systems require the bandwidth, backhaul and flexibility offered by high-speed broadband networks, and can significantly improve the quality-of-life of local residents.

As regards health and human services, telemedicine is changing the application of clinical medicine by providing for the transfer of with medical information over the telephone, Internet or other networks for the purpose of consulting; it may at times even be used for remote medical procedures or examinations. Physicians may monitor their patients at home by using familiar devices such as blood pressure monitors and transmitting the information to a caregiver. And the promise of a nationwide, electronic medical records database could mean that doctors treating patients anywhere could have their patients' complete medical histories at their fingertips.

Beyond these goals, a national broadband policy will enable municipalities to leverage technologies to meet additional critical objectives for effective governance.

In New York City, for example broadband technology continues to be successfully implemented to improve public safety outcomes. The New York City Housing Authority, the largest public housing authority in North America has used Broadband over Power Line (BPL) technology to develop a low-cost alternative to upgrading its outdated building door control and intercom systems and to implement new security cameras in its more than 300 housing developments.

Elsewhere in the realm of public safety, due the unsurpassed work of our Police Department New York City remains the safest large city in America, with crime rates remaining the lowest on record. In 2007 there were fewer than 500 murders, the first time that figure has ever fallen below 500 for a year. To keep the focus on improving public safety, and to meet a critical city need to for a high-speed network to provide advanced, interoperable data communications among and across key agencies, in September, 2006 we selected the Northrop Grumman Corporation to build the New York City Wireless Network, or NYCWiN.

The most aggressive commitment by any municipality in the country to provide a next-generation public safety network, NYCWiN gives first responders high-speed data access to support large file transfers, including federal and state anti-crime and anti-terrorism databases, fingerprints, mug shots, city maps, automatic vehicle location, and full-motion streaming video. A fully-interoperable, IP-based network, NYCWiN, which will be complete by early 2009, enhances coordination by linking first responder personnel, on-scene, with incident managers at remote sites through real-time data and video feeds.

Another type of application supported by NYCWiN is Automatic Vehicle Location, or AVL technology. This technology has already been installed in nearly 1,100 fire trucks and ambulances citywide – contributing to a substantial decrease ambulance response times – and the network will further enhance these systems by providing real-time map and database updates. By also allowing for the expansion of AVL technology to the vehicles of other City agencies, NYCWiN can help attain more efficient fleet management and increased safety for field workers.

As significant as this network will be in enhancing public safety, its role in improving the daily delivery of non-emergency City services is also transformative. NYCWiN supports a range of additional public service applications, providing substantial improvements over existing technologies for the City's mobile workforce by automating and streamlining time-consuming transactions and processes. Through NYCWiN, the City's mobile workforce will have the ability to work from anywhere, at any time, accessing a wealth of data such as agency files, databases, high-resolution photos – or any application otherwise accessible from the worker's office-bound, desktop PC.

In addition, a number of public service agencies will be utilizing NYCWiN to more efficiently conduct inspections and various maintenance activities in the field. In the first citywide rollout of a NYCWiN-supported application, this summer the New York City Department of Environmental Protection recently announced the award of a contract to acquire advanced Automatic Meter Reading (AMR) technology to improve its water metering system. The contract will allow DEP to automate its meter reading capabilities, and eliminate the need for a meter reader to visit customer properties.

While we have been fortunate in New York City to have the resources, expertise, and executive leadership of Mayor Bloomberg to make such an investment in this wireless infrastructure, without a national broadband policy I fear many other cities cannot even begin to address these needs.

At the end of the day, the key to remaining among the top players in the global marketplace will be to continue to innovate, to adapt; to successfully reinvent ourselves, our strengths, and our specializations as a country.

As my friend John Sexton, President of New York University is fond of explaining, this idea of re-invention can be seen in microcosm with New York City. From its beginnings as a Dutch harbor specializing in the importation and manufacturing of goods, when surpassed by other port cities New York moved to more modern forms of commerce – finance, insurance, real estate, known as the “FIRE” sector. While these industries fed the development of each other, more than anything they blossomed in the shadow of Wall Street and the benefits its close proximity provided.

Once again, however, that dynamic has shifted, as the Internet – and the broadband technology that enhances it every day – has made the world a smaller place. Many can, and do, make trades in real time on any stock exchange in the world, ushering the age of the location-agnostic market player. So as New York City loses its undisputed dominance in the FIRE sector, we again find the need to innovate in areas that will sustain us well into the future. This is not to say we're giving up on the FIRE sector, not at all, but we're diversifying our strengths now to reinvent our identity.

Our intellectual, cultural and educational (or “ICE”) assets, already among the best, are rapidly becoming the primary draw for many of the country’s – and world’s best minds. And there is no better path to innovation than have the free exchange of information and ideas across a diverse city of more than eight million people.

To wit, New York State has become the leading destination for freshmen leaving their home state for college, offering more of the top 100 universities and liberal-arts colleges than any other state, and six of our universities (again, more than any other state) house research medical schools that rank among the nation’s top 50. New York City’s universities drive much of this, as there are more college students in New York than in any other city. The concentration of intellectual activity is especially evident in science: over 100 Nobel laureates in science; 45 active members of the National Academy of Sciences in bioscience alone; the highest concentration of science students and postdocs; and more Ph.D.’s granted in life science than in 48 other states.<sup>15</sup>

Couple this with the City’s plethora of museums, libraries, theaters, studios, iconic landmarks and cultural institutions, and it’s clear that by leveraging its ICE assets New York City remains at the forefront by attracting the best and the brightest, appealing to their desire to live and do business there – even though they no longer have to. Our FIRE sector need not be threatened by ICE assets; rather it should be stoked by their successful cultivation.

So, too, this is on a national level. As broadband technology changes the way we live, work and recreate, we need to embrace and leverage it to help strengthen many of our greatest assets, and improve the way Americans access services to improve their lives.

The technology may be new, but the fundamental need to innovate is not. President Jefferson and his successors opened the Midwest to frontier settlers and industry by building canals; President Lincoln and his heirs did the same with railroads. Franklin Roosevelt signed the Rural Electrification Act to bring power to farms, ranches and other rural areas across the country, and built airports to open the United States to the world. President Eisenhower in turn invested in the Interstate Highway System to meet the increased use of the automobile by the public at large.

Indeed, the practice of good government lies with prudent investment in projects offering long-term, broad-based benefit to the public. So it is now our time, and our challenge, to develop those policies that will result in a national broadband infrastructure. The untapped potential of million of Americans relies on us to blaze the new trail ahead.

Thank you.

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<sup>15</sup> “[Fire and Ice: The Knowledge Century and the Urban University](#),” selected Writings and Television Appearances of John Sexton, President of New York University.