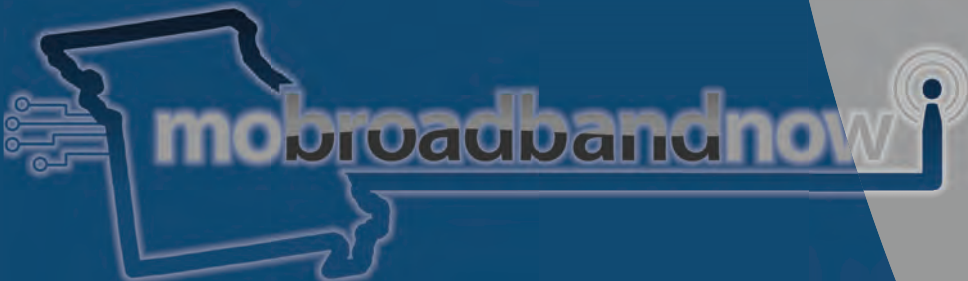
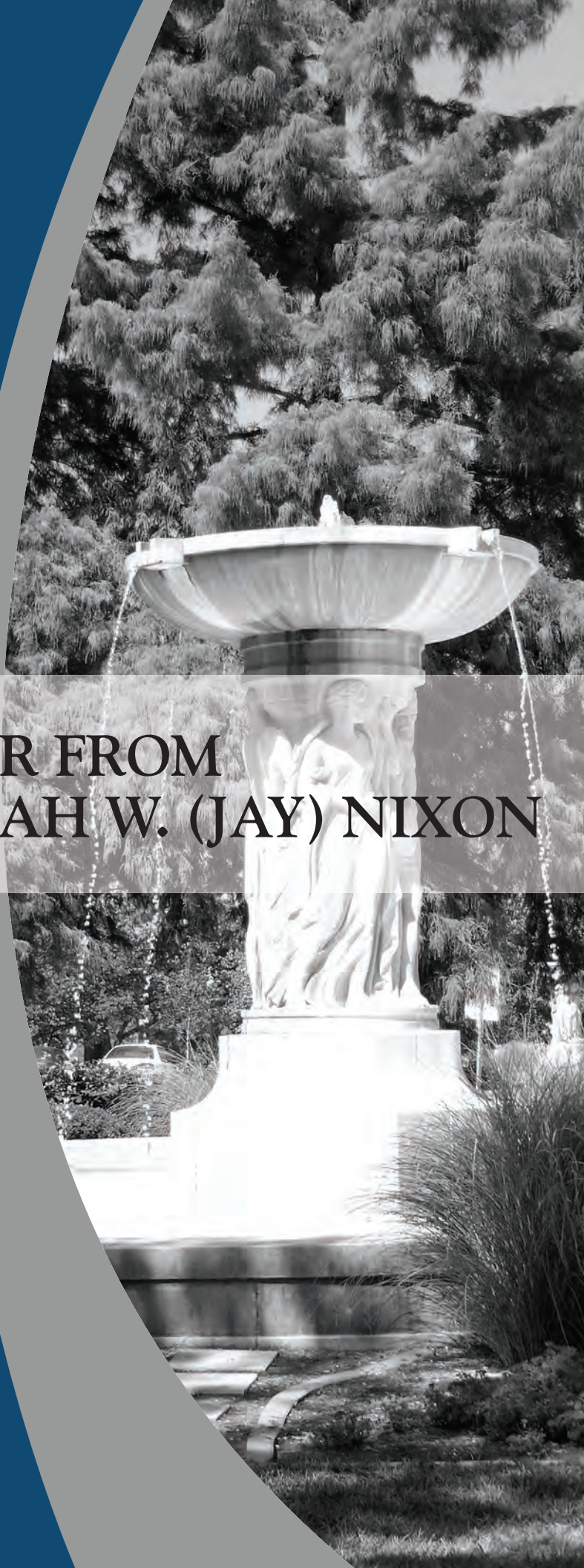




# State of Missouri Recommendations on Round 2 NTIA Grants





**I. LETTER FROM  
GOVERNOR JEREMIAH W. (JAY) NIXON**



GOVERNOR OF MISSOURI

JEFFERSON CITY

65102

JEREMIAH W. (JAY) NIXON  
GOVERNOR

P.O. Box 720  
(573) 751-3222

May 2, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications  
and Information, and Administrator,  
National Telecommunications and  
Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington, DC 20230

RE: *MOBroadbandNow*: Round 2 Applications

Dear Asst. Secretary Strickling:

As Governor of the State of Missouri, I offer my strongest endorsement for the award of federal funding in support of the *MOBroadbandNow* statewide proposal, which promises to bring widespread fiber optic and wireless broadband access throughout the State of Missouri. I believe the State of Missouri and its partners have worked diligently to prepare a comprehensive multi-partner proposal for both the middle- and last-mile that maximizes coverage and minimizes duplication and cost. Our partnerships will give the citizens and businesses of this state a real opportunity to be at the forefront of the nation's broadband future, and prove the viability of an innovative model that can be adopted elsewhere.

Overall, the *MOBroadbandNow* proposal creates a public-private partnership of multiple cooperative partners to build a statewide middle-mile network. My goal is to increase broadband accessibility from its current level of 79.7 percent to 95 percent within five years. Our *MOBroadbandNow* proposal will give us a large leap forward. In addition, our last-mile supported private partners are nested within the middle-mile network to facilitate the build out of access to high-speed internet and related services for Missouri citizens and businesses. It is essential for Missourians, especially those in rural and economically distressed areas, to have access to competitively-priced broadband to ensure economic competitiveness in the 21<sup>st</sup> century.

Foremost, our middle-mile applications address the priorities of the Comprehensive Community Infrastructure program's checklist. The *MOBroadbandNow* proposal will bring direct high capacity connections to 2,357 anchor institutions throughout the state, including 555 K-12 schools, 444 medical and health providers, more than 400 public safety entities, and 754 other community support organizations and government facilities. The *MOBroadbandNow*

proposal will build more than 2,400 miles of middle-mile fiber and an additional 315 miles of last-mile fiber all across our state. In these economically distressed times, the *MOBroadbandNow* proposal will provide almost 1,800 direct jobs. Many Missouri residents and businesses have little hope of realizing the benefits of competitive high-speed broadband in the near future without approval of grants from your agencies

Likewise, high speed broadband will be brought to community colleges throughout the state. Missouri does not have a statewide system of community colleges. However, access to broadband at the community college campuses will begin to give us an opportunity to deliver classes anywhere in the state. In addition, the Missouri Department of Higher Education has submitted a Public Computing Center grant application (#6274) to create 23 public computing centers with 736 workstations at seven community colleges. The facilities will provide public access with knowledgeable staff and courses in basic digital literacy and technology careers. The centers will function as one-stop point of contact for launching new careers with a specific focus on serving unemployed and underemployed citizens. The computer centers will be located on college campuses and will also provide mobile computer technology to bring broadband access to vulnerable populations in Missouri communities.

Moreover, our state agencies and other anchor institutions are ready to participate. For example, our Department of Corrections could significantly reduce costs and eliminate security risks with broadband access through access to tele-health and court appearances for the incarcerated. The *MOBroadbandNow* proposal provides availability to broadband which is critical to the testing and evaluation systems being designed under the U.S. Department of Education’s “Race to the Top” proposal. We expect that the bandwidth required will dramatically increase over the next 10 years as these reforms are implemented.

To summarize, the projects supported by the *MOBroadbandNow* initiative of the State of Missouri include:

<u>Name</u>	<u>Grant ID #</u>
<u>Highly Recommended</u>	
<u>Comprehensive Communities Infrastructure program</u>	
BoyCom Cablevision Inc	5662
BlueBird Media, LLC	6519
Sho-Me Technologies	4521
 <u>Public Computing Centers</u>	
Missouri Department of Higher Education	6274
 <u>Sustainable Broadband Adoption</u>	
Association of Public and Land-Grant Universities	7037

### Recommended

#### Comprehensive Communities Infrastructure program

American Fiber Systems	7425
Springnet	4774

#### Public Computing Centers/Sustainable Broadband Adoption

YourTel America, Inc.	4207
YourTel America, Inc.	4285

The *MOBroadbandNow* projects listed above exemplify the beneficial objective of the broadband stimulus programs operated by the NTIA. The *MOBroadbandNow* middle-mile proposal links multiple private providers into a cooperative statewide network leveraging their experience and capabilities in their areas of the state. Although, we applaud the efforts of other companies that have shown interest in providing broadband coverage throughout the state of Missouri, we feel we have done our due diligence in recommending proposals that achieve the goals outlined in the *MoBroadbandNow* Initiative. Section three of this document will highlight our recommendations, but overall the following components were identified as key to our support.

1. Project Purpose – As fully described in the project applications, the middle-mile network addresses the compelling problems which the ARRA was intended to resolve.
  - The network will enable improved broadband access in unserved and underserved areas; will provide access and support to community anchor institutions and organizations serving vulnerable populations; will improve access to and use of broadband service by public safety agencies; and will stimulate broadband demand and associated economic growth.
  - Through their partnership with the state, the network will leverage other state investments, including ARRA projects.
  - The network will support the development of smart grid throughout the state.
  - The network will enhance broadband service for health care delivery, by leveraging the existing Rural Telemedicine Pilot Project within the state. It will enhance education and benefit children, in part by providing additional connectivity options for K-12 institutions and enabling much more widespread access at the homes of students.
2. Project Benefits – The network will directly and tangibly benefit local communities in which it connects anchor institutions and last-mile networks.
  - As the applications make clear, wide swaths of the state have little or no broadband availability. Last-mile broadband is not reasonably possible without the middle-mile connectivity.
  - The proposed network capacity will be sufficient to meet current and near term needs. The network will position the state well for the future, but is not the largest or fastest network money can buy.

3. Project Viability –

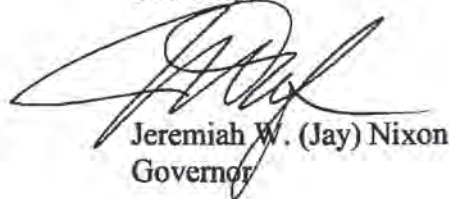
- The projects are viable from a technological and organizational standpoint. The projects have the full support of the state and we expect each of the communities served.
- Network construction will commence promptly, and will be completed in an aggressive, but appropriate, timeframe for the size and scale of the projects.

4. Project Budget and Sustainability – The State and its partners have crafted a relationship which we believe presents a high probability of success.

I have enclosed additional materials that highlight our priority partners and briefly explain their proposals (see section VI). I am confident that the maps in section two best show the interconnection and cooperative relationships between our partners. Our partners and State of Missouri staff are ready to answer any questions, supply information and do whatever it takes to assist your agency with its review of our projects. We have also provided letters of support from our Congressional delegation, state government departments and commissions, and community organizations (See sections IV & V). In addition, this document will highlight minority participation and inclusion in the *MOBroadbandNow* initiative (see section VII).

Lastly, we look forward to constructing and delivering our network as quickly as possible to bring affordable high-speed broadband to Missouri. On behalf of the citizens and businesses of the State of Missouri, I urge you to fund the *MOBroadbandNow* proposals. My office will do all within its power to ensure the success of these projects.

Sincerely,



Jeremiah W. (Jay) Nixon  
Governor

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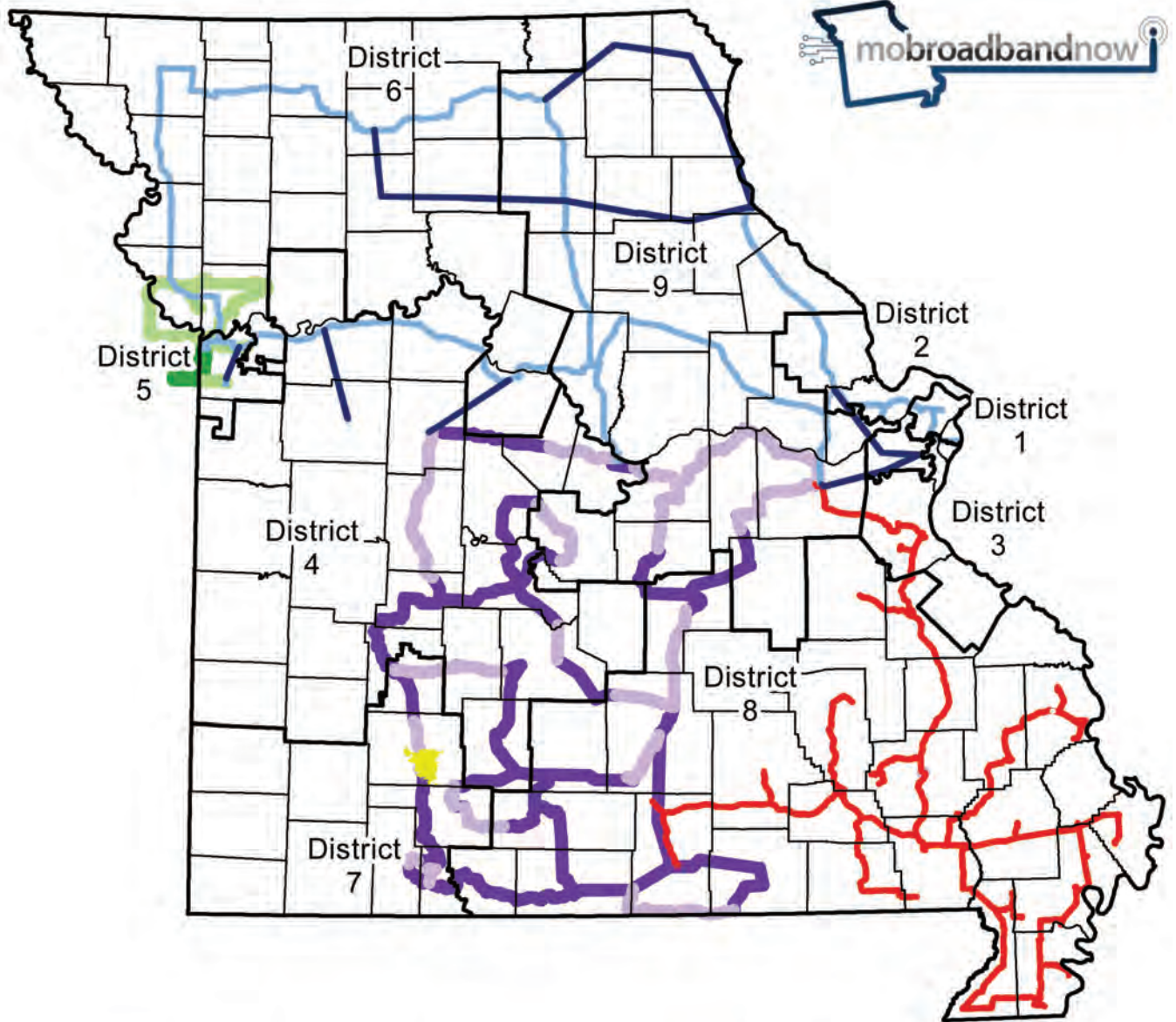
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The image features a map of Missouri as the background. A white pushpin is pinned to the map, specifically over the area of Sedalia. The map shows various cities and towns, including Lawrence, Kansas City, Sedalia, and Pittsburg. The text 'Missouri' is partially visible in large letters. The map is overlaid on a dark blue background that has a white curved shape on the right side. The text 'II. MOBROADBANDNOW MAPS' is centered on a light blue horizontal band across the middle of the image.

## II. MOBROADBANDNOW MAPS

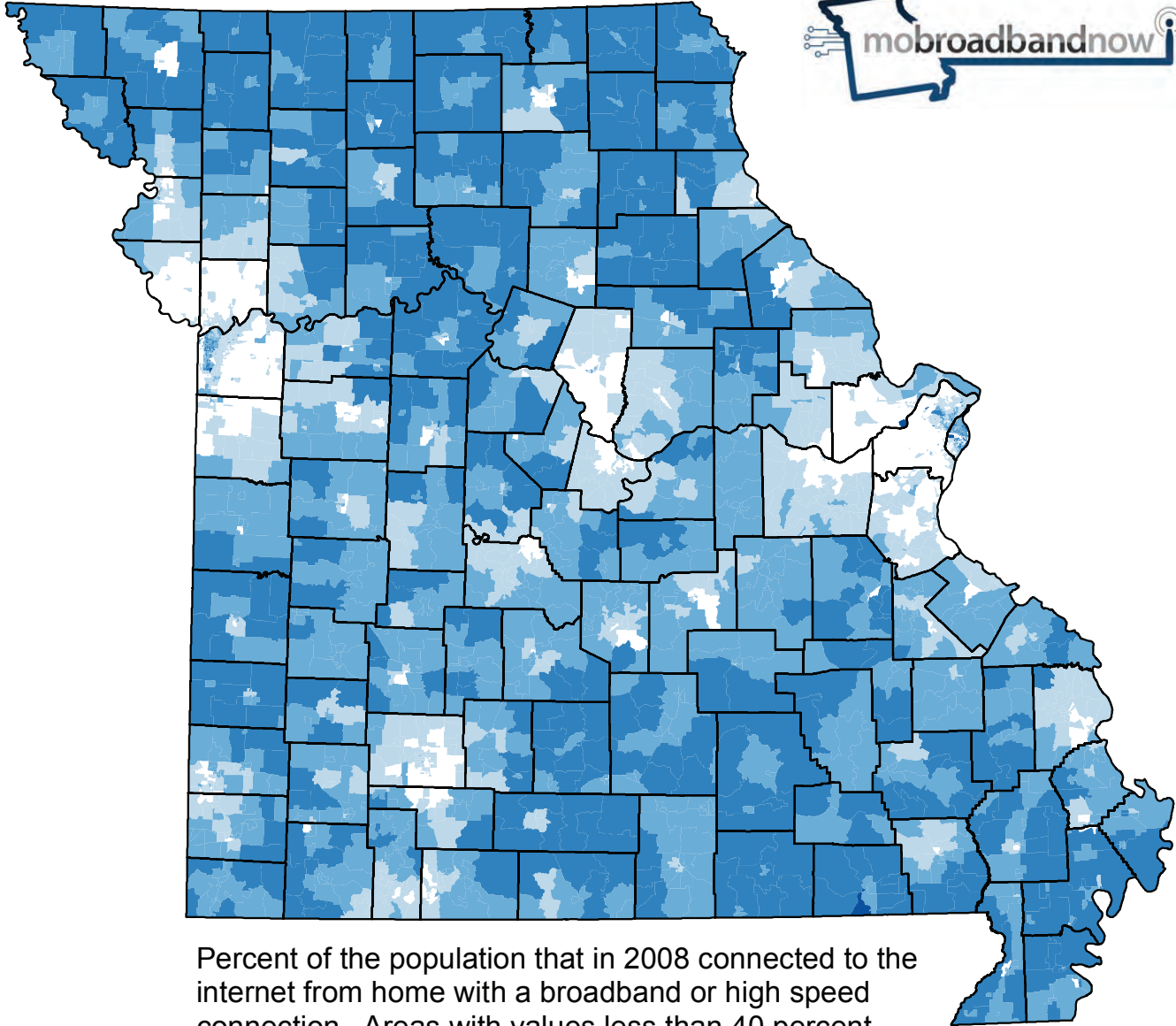


# Middle Mile Broadband Proposals by Congressional District

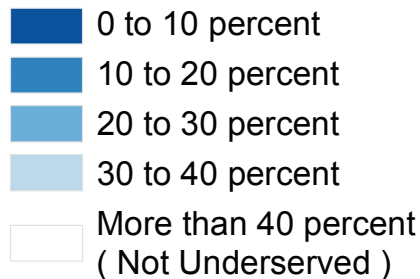


- |  |  |
|--|--|
|  ShoMe - Existing               |  AFS - Existing    |
|  ShoMe - Proposed               |  AFS - Proposed    |
|  Blue Bird Fiber - Proposed     |  SpringNet         |
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# Block Groups Underserved by Broadband Service



Percent of the population that in 2008 connected to the internet from home with a broadband or high speed connection. Areas with values less than 40 percent are "underserved areas."



The image features a black and white photograph of a stone archway. The archway is constructed from large, textured stone blocks and leads to a bright, sunlit outdoor area with trees and a paved path. The photograph is partially obscured by a large, curved graphic element on the left side, which is divided into blue and grey sections. The text 'III. RECOMMENDATIONS' is centered over the grey section of this graphic.

### III. RECOMMENDATIONS

# At-A-Glance

	HIGHLY RECOMMENDED APPLICANTS			RECOMMENDED APPLICANTS		Total
	BoyCom Cablevision, Inc.	BlueBird Media, LLC	Sho-Me Technologies	American Fiber Systems	Springnet	
<b>ANCHOR INSTITUTIONS</b>						
Schools (K-12)	393	60	31	3	68	<b>555</b>
Libraries	57	24	36	0	4	<b>121</b>
Medical & Healthcare Providers	328	45	5	7	59	<b>444</b>
Public Safety Entities	295	60	2	17	31	<b>405</b>
Community Colleges	7	21	3	5	3	<b>39</b>
Public Housing	7	0	0	0	0	<b>7</b>
Other Institutions of Higher Ed	3	10	5	0	14	<b>32</b>
Other Community Support Organizations	543	15	0	0	16	<b>574</b>
Other Government Facilities	50	75	18	12	25	<b>180</b>
Subtotal of Anchor Institutions	1,683	310	100	44	220	<b>2,357</b>
<b>JOBS CREATED</b>						
Direct Jobs-Years	930	706	66	46	46	<b>1,794</b>
Indirect Jobs-Years	835	328	118	46	46	<b>1,373</b>
Jobs Induced	229	397	104	52	51	<b>833</b>
<b>MILES NEW FIBER - MIDDLE MILE</b>						
	719	981	500	105	104	<b>2,409</b>
<b>MILES NEW FIBER - LAST MILE</b>						
	315	0	0	0	0	<b>315</b>
<b>MICROWAVE MILES</b>						
	0	250	0	0	0	<b>250</b>





### PROBLEM

- The rural southeastern region is the most economically distressed region of the State. According to the USDA, 11 of the state's 15 persistent poverty-designated counties are in the Proposed Funded Service Areas (PFSAs) of the project.
- The population density of the area's southern corridor is 34.2 persons per sq. mi. compared with 95.4 for the rest of Missouri.
- According to US Census statistics, compared to state and national averages, the region's population is older, less educated, and has a higher poverty rate.
- No continuous middle-mile full fiber infrastructure exists today within the 17 PFSAs, meaning that the area's residents and businesses have little hope of realizing the benefits of competitive last mile high-speed broadband.

### SOLUTION - Easygrants #5662 – Comprehensive Communities Infrastructure Program

- **The total eligible cost of the project will be \$58.5 million, which includes a last mile cost of \$8.87 million (15.6% of the total).**
- The Southeast Missouri Comprehensive Communities Project (the Project) will construct a 719 mile, 144-count fiber, carrier-grade Ethernet backbone, able to supply 100 Mbps Internet connections to households and 1 GigE connections to businesses and anchor institutions.
- The Project will also include a 315 Last Mile FTTH component.
- The Project will bring secure, redundant and affordably priced Internet access, data transport and point-to-point network service to 21 counties with a combined area of almost 14,000 square miles.
- The 17 proposed funded service areas (PFSAs) include 75 communities, comprised of 261,495 households and 23,282 businesses, and will pass or connect 1,683 community anchor institutions.
- Additionally, Boycom has arranged to provide fiber connectivity for the Roberts Companies Tower Division for wireless opportunities.
- For anchor institutions and businesses, the plan is to offer a 20 Mbps, 50 Mbps or 100 Mbps standard package, scaling up to 1GigE, as well as a point-to-point solution. Last mile service providers will be offered a 50 Mbps, 100 Mbps, 500 Mbps or 1 GigE standard package scaling up to 10 GigE, and two standard point-to-point solutions: 100 Mbps and 1 GigE.
- The Project will direct 5% of free cashflow for its first ten years into a fund encouraging business development and entrepreneurship. The fund will be directed and administered by the Ozark Foothills Regional Planning Commission (OFRPC), which will select participants placing particular emphasis on Small Disadvantaged Businesses.
- The project will create approximately 181 jobs: 147 construction jobs during the 2.5 year build, and 34 new ongoing jobs for line techs, NOC engineers, sales and G&A positions. It is estimated that the project will generate 930 direct jobs and 835 indirect.
- The project is a private/public partnership led by Boycom Cablevision, one of the region's primary rural telecommunication service providers. Boycom Cablevision owns cable television systems, successfully providing video and high-speed data in 32 communities, covering 13 counties throughout the southern part of Missouri and in Arkansas since 1992, and has deep experience in both cable operations and telecommunications construction.
- Finally, all key construction, OSP, electronic equipment and NOC contractors are lined up to start the project. All have direct experience with government contracts, government compliance and Davis Bacon reporting.



### PROBLEM

- Northern Missouri is largely underserved, an area covering 46 counties and over 6,250 square miles.
- Northern Missouri is mostly rural and agricultural. Population density is low in the area but includes 2.3 million residents, about 57,000 businesses, and over 576 critical community institutions ranging from fire, police, libraries, schools, courthouses, water utilities, and wastewater treatment facilities.

### SOLUTION - Easygrants #6519 – Comprehensive Communities Infrastructure Program

- **The grant request is \$45,868,900 with a match of \$19.7 million (30% of the total), bringing the total cost to \$65.5 million.**
- BlueBird Media will construct an ultra-high capacity middle-mile network throughout the area economically competitive prices, and offer service to community anchor institutions, promoting public/private partnerships.
- BlueBird will use a reliable and cost effective hybrid IT Ethernet broadband solution together with a proven fiber/microwave network with a minimum of 1GigE access expandable to 1 Terabit level which will help develop all last mile networks to support data, voice, and video communication, enabling a broad range of fixed and mobile application for public and private systems.
- BlueBird Media plans to offer at least 25% lower than advertised rate packages to all critical community facilities within the proposed funded service area
- At first, the service will provide bandwidth at a low cost to last mile providers and institutions. Later, additional services including video and Voice Over IP will be added to the network.
- Typical key institutions will have a minimum service of at least 30 Meg, 100 Meg, 500 Meg and 1 Gig E access within the coverage area.
- BlueBird will be building a robust infrastructure network that will be able to service multiple providers. This additional capacity will allow easy expansion for any new entrant in the service area.
- BlueBird's innovative hybrid broadband access network solutions are the ideal technology for delivering high-demand technologies such as broadband Internet access, video services, security surveillance, VOIP and GPON.
- BlueBird's broadband technology combines field proven toughness with exceptional performance, security, ease-of-use and cost effectiveness. It significantly reduces the time to design and deploy new commercial and enterprise broadband networks.
- It also seamlessly integrates with existing network systems and management tools extending and augmenting existing service simpler and less cost-intensive.
- BlueBird's broadband access networks offer one of the lowest total costs of ownership in the industry and can deliver a proven business case.
- BlueBird Media looks to construct over 56 POPs in this area which will effectively create at least 24 months of work for over 746 jobs created from construction, manufacturing, and service jobs.
- After implementation of this network, there will be approximately 40 ongoing sustainable jobs.
- BlueBird has a collection of highly experienced personnel in networks infrastructure.
- Some of its core individuals have specialized in network development, both nationally and internationally, for such prestigious companies as Verizon, T-Mobile, Digicel, Claro, US Cellular, ClearWire, MediaFlo and thousands of governmental installations.
- Also, it has picked an integrator, GlenMartin, which incorporates everything under one roof, including project management, manufacturing, construction, and IT network administration.
- GlenMartin has also partnered with Motorola, ALU which has over 80 years of radio and fiber knowledge, experience and leadership and dedication to creating and maintaining robust networks
- Presently, BlueBird has interconnect agreements with Sho-Me, BoyCom, UECI, Co-MO, Socket Telecom, and Ralls County Electric Cooperative (funded in Round 1 by RUS).

# Highly Recommended Applicant

## Sho-Me Technologies



### PROBLEM

- Sho-Me's middle-mile project will dramatically increase the prospects for competitive last-mile broadband services throughout rural, underserved and unserved areas of the State where 93% of the proposed service territory is economically distressed.
- The vast majority of Missouri is rural, with numerous small, isolated, rural communities whose very existence is threatened by the lack of affordable broadband services. Many of these areas are in economic decline.

### SOLUTION - Easygrants #4521 – Comprehensive Communities Infrastructure Program

- **The grant request is \$29,200,000 with a match of \$11.4 million (30% of the total), bringing the total cost to \$38.4 million.**
- Using detailed demographic and other data, Sho-Me Technologies has identified a network footprint that promises to reach areas of Missouri most in need of connectivity and reliability.
- The initiative will expand broadband availability geographically to an additional 26% to 29% percent of the State of Missouri.
- The network encompasses the southern central part of the state covering 30 counties by way of 1,380 miles of fiber optic cable.
- The network, operated by Applicant will provide state-of-the-art data transmission services on an aggressively open-access basis, for all last-mile broadband providers.
- Of the 229 communities represented in the 30 counties, 136 communities fall within a half mile of the proposed network.
- There are over 6,000 health care and social assistance businesses in the service area, as well as, 140 school districts and 69 libraries.
- The network will conservatively connect 100 community facilities, public safety, and anchor institutions and many more via other last mile providers.
- The population of the proposed funded service area is over 1,000,000 people.
- It is estimated that approximately 288 job-years will be impacted by the project in the near term (e.g., fiber installation technicians, construction workers, etc.) and this project is expected to be complete in one year (12) calendar months.
- With the cooperation of a variety of public and private sector supporters, Sho-Me will create a broadband ecosystem in which competition can flourish, giving previously underserved communities, businesses, and residents the opportunity to acquire fiber-based service at affordable prices.
- The fiber will be lit with Dense Wave-Division Multiplexing (DWDM) and Ethernet technologies.
- The technical design of the network and the underlying business plan reflect the intended purpose of the network, which is not to limit its use to certain favored entities or applications, but instead to be a pure 'open access' network, with the facilities potentially shared among over 66,000 unrestricted business users and 260,000 households.
- The network will not favor any applications and/or content over others, nor will it define the kind of services that can be offered by other providers.
- The choices of services are determined between the end user and their service provider.
- Sho-Me Technologies is a subsidiary of Sho-Me Power Electric Cooperative, an electric power generation and transmission cooperative that has served rural Missouri for 62 years.
- Sho-Me Technologies is an interexchange carrier certified by the Missouri Public Service Commission and adheres to the principles contained in the FCC's Internet Policy Statement.
- For years, the network owned by Sho-Me Technologies has serviced the Education Network providing circuits to Missouri's K-12 schools, colleges, public libraries, health care, and affiliated organizations.
- Sho-Me Technologies has provided middle-mile communications services in Missouri since 1997, and has a proven track record of success.
- The project will support and complement several other Recovery Act projects, including the DoE Smart Grid initiatives, the Title XIII health information technology initiatives, and the Title VIII education programs, among others.

# Highly Recommended Applicant

## Association of Public and Land-Grant Universities (Lincoln University)



### PROBLEM

- Student demand for online college degrees is increasing among students of Historically Black Colleges and Universities (HBCUs). Yet, HBCUs, serving some of the most vulnerable student populations, have not always had the resources to keep up with student demand.
- Faculty and staff at HBCUs need additional assistance to develop online classes and programs for students, especially in the sciences.

### SOLUTION - Easygrants #7037 – Sustainable Broadband Adoption

- **The grant request is \$2,706,161 with a match of \$854,515 (24% of the total), bringing the total cost to \$3.6 million.**
- The project includes three HBCUs - Lincoln University (MO), Kentucky State University (KY), and University of Maryland Eastern Shore (MD) - and will be managed by the Association of Public and Land-Grant Universities.
- The project is designed to stimulate broadband adoption by students and faculty through delivery of new online degree programs; training and incentive supports for faculty; and a public awareness campaign promoting the availability and benefit of these degrees to current and potential students.
- The project will create an Extended Campus among the three universities to deliver relevant, interactive, online college courses to 8,000 students enrolled in these schools plus up to another thousand potential students in the community college and high school pipelines in the surrounding service areas.
- Additionally, it will promote and sustain broadband adoption by 150 part-time and full-time faculties at the three universities.
- The project assumes a 25% enrollment growth in online courses within a two year period and a 25% increase in faculty involved in online course development.
- The Extended Campus project includes faculty training and incentive supports, online tutorial supports for students, a virtual lab model, and centralized helpdesk operations.
- The new jobs include instructional designers, graduate students providing tutoring, students providing part-time support of technical help desks, and IT staff implementing equipment upgrades and supporting faculty training activities. The fees associated with these new online offerings will pay for the new activities and jobs created by this 2-year project.
- The first collaborative online graduate degree offering will be a graduate degree in Environmental Sciences in June 2011.
- The universities will explore web-based offerings for high-school seniors and entering freshman students.
- Virtual science lab experiments, podcasts, video and audio webstreams, tutorials, learning tools, and other supports will be developed for online students.
- In Missouri, Lincoln University (LU) is a partner in the application:
  - o \$50,000 cash and \$201,765 in-kind match is promised for the project.
  - o LU expects its online student enrollment to quadruple in five years and this program will assist, including an estimated 500 new subscribers during the two year grant period.
  - o LU currently offers 76 online courses and has an online BSN Nursing certification program and an undergraduate degree in Environmental Sciences. 75 faculty members are either teaching an online or hybrid course.
  - o LU has recently staffed an e-learning office providing a variety of supports for online faculty.
  - o LU will design three courses for the collaborative MS online degree in Environmental Sciences.
  - o LU is designing an online graduate degree in computer science with emphases in: computer forensics, ethical hacking, project management and health care management. Each of these degree programs has a strong appeal to the area workforce.
  - o LU has a goal of 40 additional online courses in the 2011/2012 school year.
  - o For this grant, LU will execute faculty professional development for the participating HBCUs and work closely with the project evaluator to monitor faculty adoption of broadband applications for teaching.
- The project will benefit all of the HBCUs because information about the program and its results will be shared with all HBCUs by the Association.





### PROBLEM

- For many of the Missouri's community colleges, the capacities of their broadband circuits are near their limits and are in need of replacement with higher capacity circuits.
- The proposed PCC sites in this grant application will be enhanced by the MOBroadbandNow CCI applications.
- The current economic recession has adversely affected most communities in America. In Missouri, the overall unemployment rate climbed from 7.1% in December 2008 to 9.5% in March 2010. In some parts of the state the unemployment rate exceeds 12%.
- Vulnerable populations—low-income persons, senior citizens, and those with low educational attainment—bear the brunt of the economic downturn. The current economic situation for these populations is exacerbated by their lack of access to resources that can improve their circumstances. They lack access to broadband services that can provide them with information, education, and new work-related skills.

### SOLUTION - Easygrants #6274 – Public Computing Center

- **The Missouri Department of Higher Education requests \$5 million in its Round 2 application to create 23 public computing centers (PCC) with 736 workstations at 7 community colleges.**
- These facilities will provide public access with knowledgeable staff and courses in basic digital literacy and technology careers.
- Moreover, the centers will function as one-stop technology centers for launching new careers, with a specific focus on unemployed and underemployed citizens.
- The computer centers will be located on the college campuses and will also provide mobile computer technology to bring broadband access to vulnerable populations in Missouri communities.
- The community colleges involved include:
  1. Jefferson College (eastern Missouri) will expand three existing computer centers with a total of 84 broadband stations.
  2. Metropolitan Community College (Kansas City area) will open five stationary PCCs and one mobile (vehicle-based) PCC with a total of 142 broadband stations.
  3. Mineral Area Community College (eastern Missouri) will open one PCC with a total of 60 broadband stations.
  4. Moberly Area Community College (north central Missouri) will open six PCCs at six locations with a total of 163 broadband stations.
  5. Ozarks Technical College (southwest Missouri) will open one public computer center with four computer labs with a total of 104 broadband stations.
  6. St. Louis Community College will open one public computer center and expand one public computer center with a total of 53 broadband stations.
  7. Three Rivers Community College (southeast Missouri) will open four PCCs with a total of 130 broadband stations.
- As the state's higher education agency, the MDHE is uniquely positioned to administer the funds needed to establish PCCs at community college across the state. The MDHE has responsibility for coordination and oversight of postsecondary education in the Missouri. The department is headed by the Coordinating Board for Higher Education, a bi-partisan citizen's board appointed by the governor and confirmed by the Senate.
- The department is also the administrative agency for the state's primary grant and scholarship programs. The MDHE administers the Access Missouri Student Assistance Program which is Missouri's primary need-based financial aid program. In fiscal year 2009, the department delivered more than \$92 million in financial assistance to nearly 43,280 Missouri residents.
- The MDHE receives and administers approximately \$1.2 million each year in federal funds for the professional development of K-12 teachers through the Improving Teacher Quality Grant. Staff at the department also administers the College Access Challenge Grant program (CACGP) - a two-year formula grant program that was created as part of the College Cost Reduction and Access Act (CCRA) of 2007.

# Recommended Applicant

## American Fiber Systems



### PROBLEM

- Kansas City and the surrounding communities have been hit hard by the deep recession. The five counties comprising the proposed service area have lost over 15,000 net jobs from December 2008 to January 2010. In fact, Jackson County, MO and Wyandotte County, KS were designated economically distressed areas based on high unemployment and low median income.
- The Kansas City metropolitan region needs to replace these lost jobs with higher paying jobs predicated on the information-based economy, which is underdeveloped relative to other areas.
- While other larger metropolitan areas throughout the US have extensive fiber networks forming the basis of a digital economy, Kansas City has fallen behind and is in need of a major upgrade to the ramps to the information superhighway. The Kansas City MSA ranks 68th among U.S. MSAs in terms of total middle-mile fiber mileage.
- Missouri and Kansas' government and public safety entities are exposed to potential connectivity failures given current limited points of access and bandwidth constraints on the existing network.
- These critical facilities need a high-speed communications network with route diversity available at a reasonable cost to communicate, coordinate, and respond more effectively.
- In fact, Missouri and Kansas' public safety agencies are facing the daunting challenge of adhering to regional interoperability mandates from the Federal government by 2012, while saddled with the handicap of having far less core fiber network than other parts of the USA.

### SOLUTION - Easygrants #7425 – Comprehensive Communities Infrastructure Program

- **American Fiber Systems, Inc. ('AFS') in partnership with the Missouri Research and Educational Network (MOREnet), Leavenworth County, Clay County, Platte County, and the Mid-America Regional Council seeks \$10,573,085 (56% of total project cost) in BTOP funding to complete a fiber-based network in the states of Kansas and Missouri.** The project contains one proposed funded service area consisting of 105 miles of new fiber build in Kansas City, Liberty, Excelsior Springs, Platte City, Leavenworth, and Lansing (8 communities within the service area are underserved).
- The new fiber build passes communities that include 316,439 households, 26,804 businesses, and 2,168 community anchor institutions ('CAIs'). It will initially connect the 44 CAIs in MO and KS with the highest priority from our partners, including 5 MOREnet community colleges, and 29 government facilities and public safety sites providing these institutions reliable and route diversified access to the critical data that they require. More CAIs will be connected after the funding period as needs arise. AFS will make the following transport services available to CAIs and businesses: Ethernet private line, virtual private line, virtual LAN, internet access; managed wavelength service; TDM / SONET transport; dark fiber. Bandwidth available ranges from 10Mb to 10Gb and soon 100Gb.
- In addition, MO/KS-Net will provide advanced fiber-based broadband services to the communities, CAIs, and businesses along and near the project route. It will make available 24 strands of dark fiber from its existing backbone along with 24 strands from this proposal to FTTH providers at a lease cost of \$1 for 40 years of use. This will make available, at virtually no cost, more than 125 route miles of backbone fiber to FTTH providers, thus eliminating millions of dollars of costs typically incurred in a network build. This proposal will enable and encourage competition to enter the market, resulting in lower prices, better choices, and increased service reliability.
- MO/KS-Net will connect with 5 interconnection points along the fiber route ensuring middle-mile fiber is available to other communities, CAIs, and businesses, thus enabling further competition and investment for Fiber-To-The-Home (FTTH) companies.
- It is expected that the project will be complete within 30 months and create 144 jobs. The bandwidth capacity will enable the creation high-paying 'knowledge jobs' in years to come.
- Since 2000 AFS has successfully designed and deployed middle-mile fiber-based networks in 9 metro markets across the USA, including over 1,110 route miles and 1,764 on-net locations including customer facilities, carrier hotels, central offices, data centers and cell towers. Over the last 5 years AFS has significantly and successfully expanded the networks in all of its markets and completed over 100 fiber projects of varying scale and complexity.



### PROBLEM

- Outstanding requests for service and network upgrade requirements are necessary to address a growing bandwidth appetite and evolutionary feature capabilities needed by existing and new users of the broadband network.
- The Internet backhaul requirements to support the local broadband network have grown significantly since its inception. Initially, 45 Mbps of backhaul was necessary however, today that backhaul requirement is 2.6 Gbps.
- Once the community and businesses began to fully adopt and implement these 'LAN extension cord' services, the demand has consistently challenged the business unit's capital budget authority.
- However, the economic condition of our nation has challenged the Utilities' financial picture over the last two years regarding the availability of capital funds.

### SOLUTION - Easygrants #4774 – Comprehensive Communities Infrastructure Program

- **The grant request seeks \$13.1 million in capital funding to expand the network with a match of \$6.1 million (32% of the total), bringing the total cost to \$19.2 million.** City Utilities has previously invested \$40+ million.
- The SpringNet service territory is reflective of the municipal corporate limits of Springfield, Missouri with 186 community anchor institution sites that are currently participating.
- The project represents several significant upgrades:
  - o increases the operating backbone to 10 Gbps, and increases the customer interface to 1 Gbps for symmetrical burstable Internet access and private networking needs.
  - o adds over 100 miles of fiber and connects 34 additional community anchor institution sites.
  - o upgrades the network hardware to support IPv6 address and class of service requirements for voice and video packets, and makes reliability improvements.
- Existing and new third party service providers, last mile service providers, and local businesses will also leverage these advancements within their business.
- SpringNet's broadband system is best described as an active Ethernet, partially meshed, local fiber network. It is a standard's based solution which is easily duplicated.
- The forecasted subscriber growth begins with an established based of community anchor institutions and businesses and grows between 2% and 5% annually after construction.
- The calculated estimated jobs are based on the methodology provided and indicated a total of 143 job years as a result of this project.
- An NTIA grant award to City Utilities is not just an investment; it's an investment in an established organization with broadband experience and a well documented history of operating knowledge and innovation.
- City Utilities' experiences involving fiber developed in the late 1980s and broadband services in the mid-2000s. However, the fiber-to-the-customer active Ethernet transport to the community began in 2000 under SpringNet business operations.
- City Utilities' has:
  - o 60+ years of experience being a provider of electric, natural gas and water services with a customer expectation of 'always on.'
  - o 23 years of fiber optic design, installation and plant operational experience.
  - o 13 years of successful business development and business operations experience.
  - o an existing customer base which is comprised of 29.5% community anchor institutions ' the highest evaluation priority for BTOP CCI applications.
- The continued interest shown for SpringNet services; NetLink, LANLink, and collocation, during a protracted recessionary period supports the belief that advanced broadband capabilities assist in supporting economic growth and job creation.

# Recommended Applicant

## YourTel America, Inc.



### PROBLEM

- Residents located in many of the most economically disadvantaged enterprise zones have been excluded from participating in the Information Age. They do not have the means to have broadband access at home or transportation to public computing centers.
- The homes are not wired to accept broadband service and large providers are not interested in building out to an economically challenged area if the adoption rate may be low.
- In addition, residents in these areas have less training and education on how to use broadband services to meet their needs.

### SOLUTION - Easygrants #4207 (Public Computing Centers) & #4285 (Sustainable Broadband Adoption)

- YourTel America, Inc. has submitted two grants for Round 2 including:
  - **\$2,988,450 for public computing centers, including \$689,239 for its Missouri project**
  - **\$7,154,452 for sustainable broadband adoption, including \$1,650,278 for its Missouri project**
- YourTel America, Inc. is creating eight public computing centers at retail centers in Missouri, including five in the Kansas City area, one in St. Joseph, and two in the St. Louis area.
- In addition, it is creating public computing centers at the following community anchor institutions in Kansas City: DeLaSalle Education Center, Samuel U. Rodgers Health Center, the Full Employment Council, the Prince of Peace Missionary Baptist Church of Jesus Christ, and the Hispanic Chamber of Commerce.
- Each of these anchor institutions will pursue their core missions ' education, healthcare, job training, and small business development – to meet the diverse critical needs of the urban populations they serve, and expand their missions to serve additional users.
- The retail and neighborhood centers will be available to residents who cannot afford or are not ready to adopt home broadband and provide access to the disabled.
- The public computing centers will have personal computers and video conferencing capability and also provide educational programs to teach people about the internet and other computer issues.
- The educational programs will be designed and delivered by their staff and also by local school and community college partners.
- Together, these initiatives will create a broadband ecosystem in the inner cities it already serves to offer affordable home broadband, public broadband access and educational and training programs.
- The project aims to create an environment where consumers can try out the internet before they buy it.
- The outreach strategy will entail a blend of traditional advertising such as outdoor media, transit media, direct mail, local community publications and pre-printed flyers, a public relations element focused on local news outlets, and a grassroots campaign among the current customer base.
- The outreach strategy will result in more than 40,000 non-unique users of introductory or instructor-led courses, as well as more than 700,000 user-hours spent at the PCCs during the three-year project period.
- The budget calls for a total of 250 new workstations, with each of the 25 Centers serving more than 100 people every week.
- The project will also overcome inside wiring issues, special issues for the handicapped, and the economic issues that exist in the inner cities.
- The Sustainable Broadband Adoption project will fund and install the necessary CPE and the technicians to install the inside wiring. YourTel technicians will rewire the jack, install the router and make it work. This is not merely the last mile; it is the last five feet. A customer who has no inside wiring will not have wired broadband, and nobody can guarantee wireless penetration, particularly in neighborhoods historically avoided by wireless carriers.
- Technicians will be trained to assist the consumers and those who are particularly vulnerable- e.g., the elderly and handicapped will get more time and equipment if needed with supplied free enabling technology.

A close-up photograph of a black fountain pen with silver-colored accents, resting on a document with cursive handwriting. The pen is positioned diagonally from the top right towards the bottom left. The background is a solid blue color on the left and a greyish-blue gradient on the right, with a white curved shape separating them. The text is centered in a white horizontal band.

## IV. CONGRESSIONAL SUPPORT LETTERS

CLAIRE McCASKILL  
MISSOURI

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WASHINGTON, DC 20510  
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United States Senate  
WASHINGTON, DC 20510

COMMITTEES:  
ARMED SERVICES  
COMMERCE, SCIENCE AND  
TRANSPORTATION  
HOMELAND SECURITY  
AND GOVERNMENTAL AFFAIRS  
SPECIAL COMMITTEE ON AGING  
AD HOC SUBCOMMITTEE ON  
CONTRACTING OVERSIGHT,  
CHAIRMAN

April 27, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Assistant Secretary Strickling:

I am writing in support of Missouri's coordinated plan for expanding rural broadband across Missouri and our efforts to secure broadband rural access grants. The state plan includes five applicants before the National Telecommunications and Information Administration (NTIA), which all represent the middle-mile backbone of the state's efforts to ensure broadband internet access to 95 percent of Missourians. The applicants include: Boycom Cablevision, Bluebird Media, Sho-Me Technologies, American Fiber Systems and Springnet.

Many of the areas these applicants serve do not currently have access to broadband technology and high speed internet. This technology can offer service to schools, libraries, hospitals, and other community institutions in the area, while spurring economic development.

I hope you will extend every consideration to this application. Please keep me informed on the progress of this request.

Sincerely,

Claire McCaskill  
United States Senate

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**Russ Carnahan**

3RD DISTRICT, MISSOURI

SENIOR MAJORITY WHIP

FOREIGN AFFAIRS COMMITTEE

VICE CHAIRMAN

INTERNATIONAL ORGANIZATIONS, HUMAN RIGHTS AND OVERSIGHT SUBCOMMITTEE

MIDDLE EAST & SOUTH ASIA SUBCOMMITTEE

TRANSPORTATION AND INFRASTRUCTURE COMMITTEE

AVIATION SUBCOMMITTEE

ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY MANAGEMENT SUBCOMMITTEE

WATER RESOURCES & ENVIRONMENT SUBCOMMITTEE

SCIENCE AND TECHNOLOGY COMMITTEE

RESEARCH AND SCIENCE EDUCATION SUBCOMMITTEE



**Congress of the United States**  
**House of Representatives**  
**Washington, DC**

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CRYSTAL CITY, MO 63019  
PHONE: (636) 937-8039  
FAX: (636) 937-7138

ONLINE OFFICE:  
carnahan.house.gov

April 27, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration  
Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Assistant Secretary Strickling:

I write in strong support of Missouri's application for Round Two funding to develop middle-mile broadband infrastructure.

Missouri has developed a comprehensive plan to deploy broadband in rural communities throughout the state that are currently either unserved or underserved. Missouri is working with five partners that have submitted applications for funding – Boycom Cablevision, Blue Bird Media, Sho-Me Technologies, American Fiber Systems and Springnet. Each would serve a broad and geographically diverse section of Missouri. These projects would connect community anchor institutions, enable expanded last mile connections to residents and businesses throughout the state and improve economic development opportunities statewide.

Of particular interest to me are Boycom Cablevision and Blue Bird Media that would serve my constituents in the Metropolitan St. Louis region as well as Jefferson and Ste. Genevieve Counties.

Southeast Missouri is not currently served by continuous, full-fiber infrastructure. Boycom's Southeast Missouri Comprehensive Communities Project will build a 719 mile, carrier-grade Ethernet backbone, capable of delivering 100 Mbps connections to homes and 1 GigE connections to businesses, colleges and anchor institutions. This network will service the rural, southeastern region of Missouri that is the poorest in the state. Perhaps most importantly, this shovel-ready project will create an estimated 930 direct and 835 indirect jobs that are critical to the region.

Additionally, Blue Bird Media will develop an ultra-high capacity middle-mile network covering over 6,250 square miles and reaching more than 800,000 households and nearly 57,000 businesses. BlueBird intends to offer reduced rates to critical community institutions within its service area and has already begun planning an outreach and marketing campaign to promote broadband adoption. This project will create over 800 direct jobs during and after the construction of the network.

If you have any questions or concerns, please do not hesitate to contact my office.

Sincerely,

A handwritten signature in black ink, appearing to read "Russ Carnahan". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Russ Carnahan  
Member of Congress



IKE SKELTON

4th District, Missouri

2255 Rayburn House Office Building  
Washington, DC 20515-2504  
Telephone: (202) 225-2870  
Website: www.house.gov/skelton

**Congress of the United States**  
**House of Representatives**

Washington, DC 20515-2504

April 27, 2010

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308 Thompson Blvd.  
Sedalia, MO 65301-4600  
(660) 828-2875

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Avenue, NW  
Washington, DC 20230

Dear Assistant Secretary Strickling:

As you may know, my home state of Missouri has a plan for rural broadband expansion. In order to move this plan forward, Missouri has submitted five applications to the National Telecommunications and Information Administration (NTIA). They are Boycom Cablevision, Bluebird Media, Sho-Me Technologies, American Fiber Systems and Springnet. These five applicants represent key partners in Missouri's efforts to ensure broadband Internet access to at least 95 percent of its citizens.

Missouri, like many other states, needs to deploy broadband resources to its unserved and underserved citizens. Doing so will boost the state's economic environment more generally and cultivate conditions for more widespread job growth across the state. The public and private partners moving aggressively toward this goal have my support. I am also pleased that two of the aforementioned applicants, Bluebird Media and Sho-Me Technologies, would serve Missouri's Fourth Congressional District.

I trust that these applications will receive every proper consideration. In the days ahead, I look forward to working with you and your office on this important initiative.

With kind regards, I remain

Very truly yours,



IKE SKELTON  
Member of Congress

IS: ek

5TH DISTRICT, MISSOURI  
FINANCIAL SERVICES COMMITTEE  
HOMELAND SECURITY COMMITTEE  
SELECT COMMITTEE ON  
ENERGY INDEPENDENCE AND  
GLOBAL WARMING  
1ST VICE CHAIR  
CONGRESSIONAL BLACK CAUCUS  
REGIONAL WHIP (Region 4)



Congress of the United States  
House of Representatives  
Emanuel Cleaver, II

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April 27, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Assistant Secretary Strickling:

As you are aware, Missouri's plan for rural broadband expansion includes five applications currently before the National Telecommunications and Information Administration (NTIA). They are Boycom Cablevision, Bluebird Media, Sho-Me Technologies, American Fiber Systems (AFS) and Springnet. These five applicants represent the middle-mile backbone of Missouri's efforts to ensure broadband internet access to 95% of all residents, particularly the unserved and underserved areas of the state.

I believe when each of these five applications is reviewed, their value in advancing the goals of the NTIA and Congress, will be evident. I fully support these Missouri applications and look forward to working with you and your office on this important initiative.

Warmest regards,

A handwritten signature in blue ink, appearing to read "Emanuel Cleaver, II".

Emanuel Cleaver, II  
Member of Congress

JO ANN EMERSON  
MEMBER OF CONGRESS  
8TH DISTRICT, MISSOURI

COMMITTEE  
APPROPRIATIONS

SUBCOMMITTEES:  
RANKING MEMBER, FINANCIAL  
SERVICES AND GENERAL GOVERNMENT  
AGRICULTURE, RURAL DEVELOPMENT,  
FOOD AND DRUG ADMINISTRATION,  
AND RELATED AGENCIES

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April 29, 2010

The Honorable Lawrence E. Strickling  
Administrator  
National Telecommunications and Information Administration  
U.S. Department of Commerce  
1401 Constitution Avenue, NW  
Washington, DC 20230

Dear Assistant Secretary Strickling:

I am writing in support of the State of Missouri's coordinated plan that would expand broadband Internet access in rural and underserved parts of the state. This effort of public and private parties is working to secure broadband grants through the NTIA's Broadband Technology Opportunities Program.

The plan includes five applicants that have submitted for second round funding under BTOP, and they represent the prerequisite middle mile infrastructure that is needed to expand broadband service to rural areas of Missouri. This crucial project would expand technology opportunities to schools, hospitals, small businesses and individuals, encouraging job creation and economic growth.

Again, I express my strong support for these applicants, and please keep me informed on the progress of this request.

Kind Regards,



JO ANN EMERSON  
Member of Congress



**V. STATE GOVERNMENT AND  
COMMUNITY ORGANIZATION  
SUPPORT LETTERS**



Jeremiah W. (Jay) Nixon  
Governor

State of Missouri  
**OFFICE OF ADMINISTRATION**  
Post Office Box 809  
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Phone: (573) 751-1851  
Fax: (573) 751-1212

Kelvin L. Simmons  
Commissioner

April 28, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and  
Information, and Administrator, National  
Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., N.W.  
Washington DC, 20230

Dear Asst. Secretary Strickling:

On behalf of the Office of Administration for the State of Missouri, I am writing in support of the middle-mile applications by partners of the State of Missouri's *MoBroadbandNow* initiative to deliver broadband internet access to unserved and underserved Missourians in every corner of the Show-Mo state. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy, and receive the benefits that will be available through broadband.

The Office of Administration is the centralized statewide management agency for financial management functions (i.e. budget, accounting, and procurement), administrative functions (i.e. human resources and general services) and physical facilities (i.e. leasing, design and construction). The Office of Administration's ambition is to be significantly impacted by broadband access, which will allow the department to dramatically improve state services and take full advantage of broadband's possibilities. Please allow me to briefly elaborate.

Foremost, in these difficult economic times, it is essential that state governments improve the efficiency of its services. Broadband access will allow the state to drive out duplicate costs in human resources, as e-services are made increasingly possible and systems can be consolidated. Missouri is rated as one of the most transparent sites for financial information. However, we intend to improve access to financial information, public hearings, and other activities through the use of broadband.

Similarly, Missouri began consolidation of statewide information technology services into the Office of Administration several years ago. However, the full benefits (both financial and technological) will not be possible until broadband access is brought to Missouri citizens and to the diverse set of state agencies and facilities located throughout the state. The state owns more than 3,500 different facilities through 14 individual departments and the numerous divisions that exist within those departments. The Office of Administration oversees numerous facilities in the state's 114 counties

and the City of St. Louis. These facilities need to be connected to the proposed middle-mile network directly or through last mile connections, thus improving communications for each department and the state. Many state facilities do not have high-speed broadband access, while a potpourri of providers and technologies has been cobbled together over the past 15 years to try to improve or provide access.

Moreover, state agencies are ready to jump at broadband opportunities. Below are some examples:

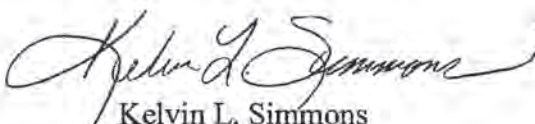
- **Department of Economic Development (DED)** - DED believes that broadband is the engine of job creation and economic growth for rural small and medium enterprises (SMEs) in Missouri. Broadband has evolved as an essential infrastructure for positive economic impacts on businesses, healthcare, education, and government. From rural farmers marketing their products nationwide to start-up companies, broadband-dependant applications will allow SMEs to increase efficiency, improve market access, reduce costs, and increase the speed of transactions between businesses, telecommunicating, online access to goods and services, boost the speed of access to knowledge, and e-commerce. Also, broadband access to the department's One-Stop Employment Centers will further assist the unemployed and those seeking better employment to identify contacts and resources. Rural consumers will benefit from online access to goods and services that are not readily available in their communities.
- **Departments of Elementary and Secondary Education (DESE) and Higher Education (DHE)** - DESE and DHE are anticipating that through the award of *MoBroadbandNow*'s partner applications, many facilities will be connected to reliable broadband access. This will improve the overall education system in the state. For DESE, broadband is critical to the education reforms it has planned which will require expansive testing via broadband. For DHE, broadband is critical for reducing back office costs, expanding internet-based courses, and providing researchers with the high-speed needed for their projects.
- **Department of Public Safety (DPS)** – DPS is charged with setting up an Interoperable Communications System for the state to ensure communication between first responders, law enforcement, fire departments, and others in an emergency. Broadband deployment is necessary to provide the significant infrastructure to carry these communications from one corner of the state to another.
- **Department of Mental Health (DMH)** - DMH has facilities located throughout the state, many of which are in rural areas where they were placed many decades ago. Broadband access is not available, expensive, or slow in these areas. Professional services, such as psychiatry, are increasingly difficult to provide at these rural facilities because providers are not willing to move to the area.
- **Department of Health and Senior Services (DHSS)** – DHSS must deal with 114 different public health agencies and ten area agencies related to aging across the state. On a daily basis DHSS must also deal with hospitals, long-term care facilities, child care facilities all across the state. DHSS operates a Center for Emergency Response and Terrorism situation room that can

go to full-crisis staffing at any time in response to events - from flu pandemics to terrorism. Its responsiveness and effectiveness will improve with broadband access to citizens and department facilities.

- **Department of Social Services (DSS)** - DSS operates a nationally recognized program for youth offenders in facilities across the state. Improved broadband access should enable the department to expand the educational programs delivered to these youth, thus providing the training and skills necessary to further reduce recidivism and improve their chances in life. In addition, DSS provides safety-net services in offices in every county of the state, which would not be necessary with improved broadband access. DSS will also benefit from broadband given their federally-assigned responsibility for driving the use of health-information technology to providers throughout the state to help reduce medical costs and improve accuracy of treatment.
- **Department of Corrections (DOC)** - DOC operates facilities throughout the state, including many in rural areas where broadband is not available. The Department and Office of State Courts Administrator will aggressively pursue court appearance via video projects because they will substantially decrease the costs of transporting prisoners, as well as eliminate the security risks associated with such transportation. Tele-health projects will be pursued for the same reasons.
- **Department of Revenue (DOR)** - DOR is working to deploy “green” initiatives to reduce energy, staff time and other print and mailing costs associated with their primary functions, including collecting taxes, titling and registering motor vehicles, and issuing driver licenses. Instituting electronic notifications to citizens (via email) will reduce current print and mail notices, as well as serve as an e-service that is more citizen centric. Mandated trips to the disbursed license offices throughout the state will be eliminated- as citizens who have reliable broadband may renew their licenses at their convenience, and in the luxury of their home or business.
- **Department of Transportation (MODOT)** - MODOT is at a very early stage of using broadband for highway and other transportation purposes. As broadband becomes available it will be possible to evaluate road conditions remotely, provide notification to emergency agencies, and information about conditions to the department and the public. Informational notices will also be possible regarding detours, drive time, alternate routes, and other items important to travelers.

These are just a few illustrations of how the *MoBroadbandNow* supported applications will bring state government and our citizen’s enhanced opportunities. Our state team and all of our partners are eager to respond to any questions or information requests during your review. Thank you for your consideration of these applications.

Sincerely,



Kelvin L. Simmons  
Commissioner

Chris L. Nicastro, Ph.D.  
Commissioner of Education



205 Jefferson Street  
P.O. Box 480  
Jefferson City, MO 65102-0480  
<http://dese.mo.gov>

## Missouri Department of Elementary and Secondary Education

— *Missouri public schools: the best choice. . .the best results!* —

April 19, 2010

Lawrence E. Strickling  
The Assistant Secretary for Communications and Information  
U.S. Department of Commerce  
National Telecommunications Information Administration  
1401 Constitution Ave., NW  
Washington D.C., 20230

Dear Mr. Strickling:

On behalf of K-12 education, I am writing in support of the middle mile applications submitted by partners of the State of Missouri's *MoBroadbandNow* initiative to deliver broadband Internet access to rural and unserved Missourians in every corner of the Show-Me State. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy and reach our children to improve their skills and economic competitiveness.

Missouri is working on an application for the second round of the U.S. Department of Education's "Race to the Top" initiative. We intend to push aggressively to submit a new application and move forward with educational reform efforts on several fronts: curriculum and testing; expanding the role of technology in schools; expanding educational services and options before kindergarten; improving the way teachers are evaluated, rewarded and supported; focusing resources on low-performing schools; and revamping the structure of the state education agency, among others. This is an ambitious agenda that will require collaboration and cooperation with all stakeholders. The availability of broadband to the school districts is critical to the testing and evaluation systems being designed under the proposal. We expect that the bandwidth required will dramatically increase over the next ten years as these reforms are implemented. Our plan is designed to propel Missouri's public education system into the Top 10, nationally and internationally; and broadband is a significant component of our ability to accomplish our goals.

Once the applications receive funding, the staff of the Missouri Department of Education is willing to work with *MoBroadbandNow* partners, the Missouri Research and Education Network (MOREnet), and the school districts in the service areas to take full advantage of the benefits of middle-mile high speed broadband. Thank you for your assistance in bringing the 21<sup>st</sup> Century Internet to Missouri to improve the education of our children.

Sincerely,

A handwritten signature in cursive script that reads "Chris L. Nicastro".

Chris L. Nicastro  
Commissioner of Education





Missouri Department of Higher Education

Building Missouri's future... by degrees

April 20, 2010

Lawrence E. Strickling  
The Assistant Secretary for Communications and Information  
U.S. Department of Commerce  
National Telecommunications Information Administration  
1401 Constitution Ave., NW  
Washington D.C., 20230

Dear Mr. Strickling:

On behalf of the Coordinating Board for Higher Education (CBHE) and the Missouri Department of Higher Education (MDHE), I am writing in support of the middle mile applications submitted by partners of the State of Missouri's *MoBroadbandNow* initiative to deliver broadband Internet access to rural and unserved Missourians in every corner of the Show-Me State. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy and receive the benefits that will be available through broadband. These projects will benefit higher education institutions, businesses, and individuals in the state.

Specifically, these applications will help leverage the Missouri Department of Higher Education's \$5 million Round 2 application to create 23 public computing centers with 736 workstations at seven community colleges. These facilities will provide public access with knowledgeable staff and courses in basic digital literacy and technology careers. Moreover, the centers will function as one-stop technology centers for launching new careers with a specific focus on unemployed and underemployed citizens. The computer centers will be located on college campuses and will also provide mobile computer technology to bring broadband access to vulnerable populations in Missouri communities.

Access to broadband is critical to the goals of Missouri's statewide plan for higher education adopted by the Coordinating Board (<http://dhe.mo.gov/files/CoordinatedPlan.pdf>). These goals are to increase educational attainment, to develop a 21<sup>st</sup> century workforce and competitive global economy, and to enhance resources through investment, good stewardship, and shared responsibility.

Participation in Missouri's *MoBroadbandNow* initiative will help Missouri to achieve those goals by:

- enabling higher education institutions to provide distance education and reach non-traditional learners through course redesign and alternative methods of program delivery;
- reducing costs by increasing the opportunities for high quality distance education;

[www.dhe.mo.gov](http://www.dhe.mo.gov) • [info@dhe.mo.gov](mailto:info@dhe.mo.gov)

3515 Amazonas Drive, Jefferson City, MO 65109 • (573) 751-2361 • (800) 473-6757 • Fax (573) 751-6635

Lawrence E. Strickling

April 20, 2010

Page 2

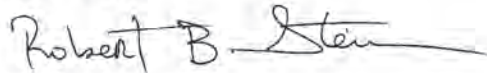
- providing opportunities for institutions to share resources and reduce the costs of back office operations, thus reducing pressure to raise tuition;
- assisting institutions to develop corporate links to access customized training and learning opportunities that have been unavailable in many corners of the state; and,
- increasing the number of new businesses linked to research or development incubators associated with higher education institutions.

The Missouri Research and Education Network (MOREnet) provides the foundation infrastructure for Missouri. MOREnet provides Internet connectivity, access to Internet2, technical support, videoconferencing services, and training to Missouri's colleges and universities, K-12 schools, public libraries, health care, state government, and other affiliated organizations. MOREnet will be a foundation for deployment and development of broadband resources.

Once the applications receive funding, the staff of the Missouri Department of Higher Education is committed to working with *MoBroadbandNow* partners, with MOREnet, and with the higher education institutions to take full advantage of the benefits of the middle mile high-speed broadband to improve efficiency and improve the educational opportunities of our children.

Thank you for helping bring the 21<sup>st</sup> century internet to all Missourians.

Sincerely,



Robert B. Stein, PhD  
Commissioner of Higher Education  
State of Missouri

April 21, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Assistant Secretary Strickling:

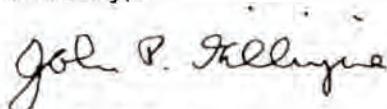
The Missouri Research and Education Network (MOREnet) supports all efforts to bring economical, high-speed connectivity to communities across Missouri. MOREnet regards broadband as an infrastructure as necessary as electricity and roads for educating 21<sup>st</sup> century learners and transforming the economy of Missouri. As such, we are supportive of MoBroadbandNow and the State of Missouri's efforts to ensure that broadband service is available to all Missourians.

MOREnet is a "sophisticated buyer" of broadband services with 20 years of designing, constructing, procuring and operating cutting edge networks – the first National Science Foundation network in Missouri, the very first "Internet" connection in the world and the first state-wide IP network for K-12, higher education and public libraries in Missouri. Students across the state need access to robust broadband for online resources, online classes and other interactive learning tools wherever they learn – at school, at home and in the public libraries.

In cooperation with the Office of Administration, MOREnet staff worked with several potential grant applicants to understand and strengthen their applications. On advice from legal counsel, MOREnet published a list of minimum criteria for endorsement and independently endorsed all proposals which met the minimum criteria.

MOREnet is confident that through public/private partnerships such as MoBroadbandNow, Governor Nixon's goal to reach 95% of Missourians with affordable broadband access can be realized. MOREnet continues to offer support to any project in the state that will bring affordable broadband services to more Missourians.

Sincerely,



John P. Gillispie  
Executive Director



**Missouri Department of Health and Senior Services**

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010  
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

**Margaret T. Donnelly**  
Director



**Jeremiah W. (Jay) Nixon**  
Governor

April 21, 2010

Lawrence E. Strickling  
Assistant Secretary for Communications and Information  
U.S. Department of Commerce  
National Telecommunications Information Administration  
1401 Constitution Ave., NW  
Washington D.C. 20230

Dear Mr. Strickling:

On behalf of the Missouri Department of Health and Senior Services, I am writing in support of the middle-mile applications submitted by partners of the State of Missouri's **MoBroadbandNow** initiative to deliver broadband Internet access to rural and underserved Missourians in every corner of the Show-Me State. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy and receive the benefits that will be available through broadband.

Missouri has 114 local public health agencies and ten area agencies on aging across the state. Broadband access will allow our department, the local public health agencies, and the area agencies on aging to increase e-government services to citizens throughout the state that have never had an opportunity to seriously use the capabilities available. Bringing Tele-health to the local public health clinics or the home will be a dramatic improvement and save countless hours and cost for all involved. Broadband will provide the opportunity to bring high level medical expertise to all areas of the State to address the disparity of medical care. Broadband opens the possibility of enabling specialists to reside in Missouri and yet practice anywhere. Missouri's lower cost of living and scenic beauty will be a major selling point for bringing such jobs to the state.

The 2009 American Recovery and Reinvestment Act (ARRA) provides a unique opportunity to leverage funding to make major improvements. Our department has worked with the Missouri Department of Social Services to access federal funds to plan, design and implement a health information exchange that will encourage the adoption and use of electronic health records and allow for the exchange of health information across institutions and providers. Four areas of collaboration are greatly assisted by providing broadband to higher education and healthcare anchor sites, including:

- a. Missouri received \$13.5 million in ARRA funds for health information exchange. Broadband deployment to hospitals, FQHCs, and other health sites and access for

[www.dhss.mo.gov](http://www.dhss.mo.gov)

**Healthy Missourians for life.**

The Missouri Department of Health and Senior Services will be the leader in promoting, protecting and partnering for health.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER: Services provided on a nondiscriminatory basis.

providers is necessary to ensure meaningful use of health information throughout the state.

- b. The University of Missouri proposes to implement a Curriculum Development Center to develop and disseminate curriculum components easily replicated by community colleges throughout the region to meet the predicted workforce deficiencies in health information technology. The curriculum components will be accessed electronically, vastly broadening the potential uses and the potential users. The other partners include St. Louis Community College, Metropolitan Community College, State Fair Community College, and Crowder Community College – and corporate collaborators – Cerner, the Tiger Institute, and Physicians HER.
- c. Stephens College, St. Louis University, and the University of Missouri propose to form the Midwest Consortia on University-Based Training, combining premier health informatics and information management programs to leverage the collective current resources and expertise across the institutions. The consortium would provide training to rapidly increase the availability of health information technology professionals and improve health care by making it more cost effective and patient-focused.
- d. In collaboration with the ARRA mapping and planning funding received from NTIA (award # 29-50-M09022), the project intends to catalogue and track the adoption and availability of broadband services to health care providers, create regional technology planning teams and host an Information Technology Summit for academia, business, industry, legislature, government, and local citizens about the applications for information technology.
- e. Missouri received \$6.8 million in ARRA funds to establish a Health Information Technology Regional Extension Center (REC) at the University of Missouri. This investment will help grow the emerging health information technology (health IT) industry which is expected to support tens of thousands of jobs nationwide ranging from nurses and pharmacy techs to IT technicians and trainers. RECs enable health care practitioners to reach out to a local resource for technical assistance, guidance, and information on best practices. RECs are designed to address unique community requirements and to support and accelerate provider efforts to become meaningful users of electronic health records. Missouri's REC will provide outreach and technical support services to primary care providers and hospitals within the next two years.

Once the applications receive funding, the staff of the Missouri Department of Health and Senior Services is committed to working with *MoBroadbandNow* partners, the judicial system, and others in their service areas to take full advantage of the benefits of the middle mile high speed broadband. Thank you for helping bring the 21<sup>st</sup> Century Internet to Missourians.

Sincerely,



Margaret T. Donnelly  
Director



## Missouri Primary Care Association

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3325 Emerald Lane ♦ Jefferson City, MO 65109-6879  
(573) 636-4222 ♦ Fax (573) 636-4585

April 26, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave. NW  
Washington, DC 20230

Dear Mr. Strickling:

The Missouri Primary Care Association (MPCA), a membership organization of Community Health Centers, is pleased to submit this letter of support for the application(s) to the Broadband Technology Opportunities Program through the American Recovery and Reinvestment Act as part of the *MoBroadbandNow* public-private partnership to expand broadband access to unserved and underserved communities in Missouri.

Missouri's Community Health Centers are located in and serve the populations of the geographic areas targeted by the *MoBroadbandNow* initiative. Access to highspeed broadband internet connectivity is essential to support the adoption and meaningful use of electronic medical records and the ability to initiate Regional Health Information Exchanges. This connectivity also supports the Patient-Centered Medical Home model by enabling clinical information exchange and coordination of care with specialists and hospitals that result in better health outcomes and medical cost savings.

The MPCA looks forward to assisting our membership of health care providers and Community Health Centers as *MoBroadbandNow* is funded and implemented through the Broadband Technology Opportunities Program. Thank you in advance for your consideration of this grant request and letter of support.

Sincerely,

Joseph Pierle, Chief Executive Officer  
Missouri Primary Care Association

**JEREMIAH W. (JAY) NIXON**  
Governor

**JOHN M. BRITT**  
Director



Truman Building, Room 870  
Mailing Address: P.O. Box 749  
Jefferson City, MO 65102-0749  
Telephone: 573-751-4905  
FAX: 573-751-5399  
Internet Address:  
<http://www.dps.mo.gov>

STATE OF MISSOURI  
**DEPARTMENT OF PUBLIC SAFETY**  
**OFFICE OF THE DIRECTOR**

April 22, 2010

Lawrence E. Strickling  
The Assistant Secretary for Communications and Information  
U.S. Department of Commerce  
National Telecommunications Information Administration  
1401 Constitution Ave., NW  
Washington D.C., 20230

Dear Mr. Strickling:

On behalf of the Missouri Department of Public Safety, I am writing in support of the middle mile applications submitted by partners of the State of Missouri's *MoBroadbandNow* initiative to deliver broadband Internet access to rural and unserved Missourians in every corner of the Show-Me State. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy and receive the benefits that will be available through broadband.

We believe for example, the safety and security of Missouri citizens will directly benefit from a robust broadband infrastructure. The Department of Corrections will be able to dramatically reduce the transportation of prisoners through the use of broadband for tele-health and court appearances, thus eliminating a major security risk inherent in such transportation.

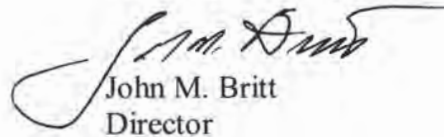
In addition, the state has been working to develop a resilient interoperable communications infrastructure to support our public safety community. The 9-1-1 Centers/public safety answering points (PSAPs) are critical to connecting our citizens to emergency services. The department is working with PSAPs all over the state to enable our law enforcement officers and other first responders to receive digital data in their vehicles. Such robust communications are critical to the health and safety of citizens and those working in public safety occupations.

In my department, the Office of Homeland Security intends to work to integrate broadband with improvements and upgrades being made to existing interoperable communications initiatives such as the proposed web enabled Missouri Uniform Law Enforcement System upgrade, Missouri Data Exchange (MoDEX) for law enforcement, and the Mobile Data Terminal initiative for local law enforcement agencies. A statewide data network could add resiliency and positively impact future interoperable communications initiatives in our PSAPs, emergency management operations centers, and other public safety areas. Connectivity will play an

increasingly important role in disaster response as it will further enable the increasing use of GIS data for emergencies and ongoing public safety operations.

Once the applications receive funding, the staff of the Missouri Department of Public Safety is committed to working with **MoBroadbandNow** partners, the PSAPs, the Missouri State Highway Patrol, and other public safety and first responder entities to take full advantage of the benefits of middle mile high speed broadband. Thank you for helping bring the 21<sup>st</sup> Century Internet to Missourians.

Sincerely,



John M. Britt  
Director



**Jeremiah W. (Jay) Nixon**  
Governor

**George A. Lombardi**  
Director



2729 Plaza Drive  
P.O. Box 236  
Jefferson City, Missouri 65102  
Telephone: 573-751-2389  
Fax: 573-751-4099  
TDD Available

**State of Missouri**  
**DEPARTMENT OF CORRECTIONS**

*Ad Excelleum Conamur - "We Strive Towards Excellence"*

April 19, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information  
U.S. Department of Commerce  
National Telecommunications Information Administration  
1401 Constitution Ave., NW  
Washington D.C., 20230

Dear Mr. Strickling:

On behalf of the Missouri Department of Corrections, I am writing in support of the middle mile applications submitted by partners of the State of Missouri's **MoBroadbandNow** initiative to deliver broadband Internet access to rural and unserved Missourians in every corner of the Show-Me State. Without these projects, it would be many years before many areas of Missouri would have the broadband access necessary to participate in the 21<sup>st</sup> century economy and receive the benefits that will be available through broadband.

The Department of Corrections expects to be significantly impacted by broadband access. Providing inmates with medical care is difficult and costly. Basic care is provided in the institutions but millions of dollars of staff time is spent each year transporting inmates to hospitals or specialty care. In addition to being costly, a security risk arises each time an inmate is transported outside the institution. The department has anticipated the future availability of broadband and has been working to upgrade the internal infrastructure necessary to utilize tele-health in correctional facilities. In addition, the department had the foresight in its current medical contract to require the medical vendor to provide tele-health equipment, i.e. videoconferencing equipment and medical peripherals at their cost should broadband become available. High quality broadband will provide the visual quality needed for medical diagnoses. The department intends to utilize tele-health for some medical services, such as cardiology, dermatology, orthopedics, ophthalmology, general surgery, gastroenterology, urology vascular surgery, neurology, oncology, and ear, nose and throat (ENT). This will reduce the transportation costs the department incurs related to medical out-counts, or escorting offenders out of secure facilities and transporting them to medical providers who are sometimes hours away, and improve public safety by keeping offenders secure in the facilities.

With a tele-health program, the Department is no longer limited to locally available medical care, but may be able to provide greater access to the specialists and sub-specialty areas while improving initial appointments, treatments, and follow-ups. With accessibility being of special significance to corrections, and Federal courts ruling that offenders have a constitutionally protected right to community standard healthcare, tele-health provides a very real augmentation to the overall healthcare program.

In addition, the department has been working with the Office of State Courts Administrator and other local jurisdictions to allow for inmate court appearances to be handled over broadband. The courts and the department will aggressively pursue such projects because they will substantially decrease the costs of transporting prisoners and also eliminate the security risks associated with such transportation.

The department is spread across the state and has more than 11,000 employees. Training is difficult at best and turnover is high at some institutions and job classes. Broadband would allow the department to significantly improve its ability to provide training and outreach to its institutions and employees. This includes the staff of the probation and parole offices as well. The department will also be able to increase e-government services to its clients and also citizens throughout the state that have never had an opportunity to seriously use the capabilities available.

*An Equal Opportunity Employer*

Once the applications receive funding, the staff of the Missouri Department of Corrections is committed to working with *MoBroadbandNow* partners, the judicial system, and others in their service areas to take full advantage of the benefits of the middle mile high speed broadband. Thank you for helping bring the 21<sup>st</sup> Century Internet to Missourians.

Sincerely

A handwritten signature in black ink, appearing to read "G. Lombardi". The signature is stylized and cursive.

George A. Lombardi, Director

Missouri  
Department  
of Transportation



105 West Capitol Avenue  
P.O. Box 270  
Jefferson City, MO 65102  
(573) 751-2551  
Fax (573) 751-6555  
[www.modot.org](http://www.modot.org)

Pete K. Rahn, Director

---

April 21, 2010

Mr. Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Mr. Strickling:

The Missouri Department of Transportation (MoDOT) supports MO Broadband Now, Governor Jay Nixon's initiative to extend broadband to 95 percent of Missourians in five years.

Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri. Fulfilling this mission increasingly depends on the delivery of information in multiple forms, such as text, voice and video. This information must be delivered to both the employees and customers of MoDOT. Frankly, that delivery hits a brick wall where broadband ends.

While MoDOT manages over 32,000 miles of right-of-way along our roads, we need more of our facilities (over 300 in all areas of the State) connected with higher capacity and we need our customers to be connected to allow them to receive information about construction work zones, road conditions, road planning decisions, and other information they can use on a daily basis.

We have met with other State leaders from the day the President signed the American Recovery and Reinvestment Act to partner with them and entities that would desire to submit applications for this effort. We've committed, within the provisions of existing law and contracts, to allow these entities access to that right-of-way and other property for location of their fiber and other infrastructure.

Therefore, we support the applications of Boycom Cablevision, Bluebird Media, Sho-Me Technologies, American Fiber Systems and Springnet to extend broadband to Missourians.

If you have questions or need additional information, please don't hesitate to contact our Information Systems Director Mike Miller at 573-526-5586 or [Michael.Miller@modot.mo.gov](mailto:Michael.Miller@modot.mo.gov).

Sincerely,

Roberta Broeker, CPA  
Chief Operating Officer

c: Zach Pollock, Governor's Office  
Mike Miller-is  
Jay Wunderlich-gr

*Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.*



April 23, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Ave., NW  
Washington DC, 20230

Dear Mr. Strickling,

On behalf of the Missouri Department of Economic Development, I would like to lend my support to the applications for funding under the American Recovery and Reinvestment Act and Governor Nixon's MO Broadband Now initiative. Without these projects, it could be many years before some of these historically economically deprived areas of Missouri would have the broadband access necessary to improve the skills and economic competitiveness of the region.

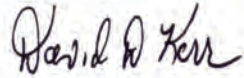
Broadband access is becoming increasingly essential to economic competitiveness in the global economy of the 21<sup>st</sup> century. Broadband is the engine of job creation and economic growth for rural small and medium enterprises (SMEs) in Missouri and has evolved as an essential infrastructure for positive economic impacts on businesses, healthcare, education, and government. From rural farmers marketing their products nationwide to start-up companies, broadband-dependent applications will allow SMEs to increase efficiency, improve market access, reduce costs and increase the speed of transactions. Benefits include innovations in transactions between businesses, telecommuting, online access to goods and services, boost speed of access to knowledge, on-line conferencing, social networking, cloud-based business software and e-commerce. Rural consumers will benefit from on-line access to goods and services that are not readily available in their communities.

Issues of topography, distance, and other considerations have made it difficult to improve the business outlook and provide the training and jobs needed to enhance the quality of Missouri's workforce and the quality of life of its residents. Broadband-enabled job training and search platforms can scale training to reach the greatest number of people at a low cost and more flexible manner.

Broadband access to the department's One Stop Employment Centers will further assist the unemployed and those seeking better employment to identify appropriate contacts and resources. The department will be able to work toward developing job opportunities that are not place bound but that can be filled by people working on broadband from a distance. Broadband access will also allow the department to increase its e-government services to employers throughout the state that have never had an opportunity to seriously use the capabilities of our department and staff.

The staff of the Missouri Department of Economic Development is willing to work with our economic development partners to take full advantage of the benefits of high speed broadband to improve the skills and economic competitiveness of our state. Thank you for helping bring the 21<sup>st</sup> Century Internet to Missourians.

Sincerely,

A handwritten signature in black ink that reads "David D. Kerr". The signature is written in a cursive style with a large initial 'D'.

David D. Kerr  
Director



**Commissioners**

**ROBERT M. CLAYTON III**  
Chairman

**JEFF DAVIS**

**TERRY M. JARRETT**

**KEVIN GUNN**

**ROBERT S. KENNEY**

***Missouri Public Service Commission***

POST OFFICE BOX 360  
JEFFERSON CITY MISSOURI 65102  
573-751-3234  
573-751-1847 (Fax Number)  
<http://www.psc.mo.gov>

**WESS A. HENDERSON**  
Executive Director

**DANA K. JOYCE**  
Director, Administration and  
Regulatory Policy

**ROBERT SCHALLENBERG**  
Director, Utility Services

**NATELLE DIETRICH**  
Director, Utility Operations

**STEVEN C. REED**  
Secretary/General Counsel

**KEVIN A. THOMPSON**  
Chief Staff Counsel

April 19, 2010

The Honorable Lawrence E. Strickling  
Assistant Secretary for Communications and Information, and  
Administrator, National Telecommunications and Information Administration (NTIA)  
United States Department of Commerce  
1401 Constitution Avenue NW  
Washington DC 20230

RE: Missouri MoBroadbandNow Proposal

Dear Mr. Strickling:

On behalf of the Missouri Public Service Commission, I would like to add my support to the MoBroadbandNow initiative and the Governor's vision that 95 percent of Missouri citizens have access to broadband within five years.

In 2007, I completed a broadband study that suggested over one in five Missouri households lacked equitable access to wireline broadband deployment, which was estimated at 78 percent accessibility. In telephone exchanges with less than 25,000 households, the wireline broadband deployment fell to 62 percent and in exchange areas or communities with less than 15,000 households, wireline broadband deployment dropped to 61 percent. The study highlighted the fact that urban areas and large cities outpaced rural areas in terms of wireline broadband availability.

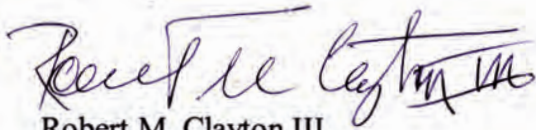
The middle mile and last mile projects included in the MoBroadbandNow initiative provide the first comprehensive step in bridging the gap between rural and urban areas of Missouri. Specifically, the middle mile proposals of Boycom Cablevision (which reaches the southeast portion of the state); Bluebird Media (which reaches the northern part of the state); Sho-Me Technologies (which provides a backbone in the south central part of the state); American Fiber System (which connects key anchor institutions in the Kansas City and St. Louis regions) and SpringNet (which will provide a backbone in the southwest part of the state) not only provide a strong backbone for last mile partners such as Big River Telephone, Socket, Cass County, CoMo Electric Co-op, United Electric Co-op, Rural Missouri Broadband and Finally

Broadband, but will also provide the framework to reach other Missouri households within the Governor's timeframe of five years.

Add to those projects, the public computing center and sustainable broadband adoption proposals of YourTel America, Inc., and the Department of Higher Education, and Missouri will be positioned to not only expand broadband accessibility to the unserved and underserved areas of the state, but will also have made great strides in providing the means for all Missourians to have broadband conveniently available.

The MoBroadbandNow initiative is a laudable goal and the applicants cited above have come together with proposals that form a comprehensive plan for bringing reliable, affordable broadband service to all corners of the state.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert M. Clayton III". The signature is fluid and cursive, with a prominent horizontal line across the top.

Robert M. Clayton III  
Chairman

cc: Commissioner Kelvin Simmons, Office of Administration

## VI. SUMMARY OF APPLICATIONS



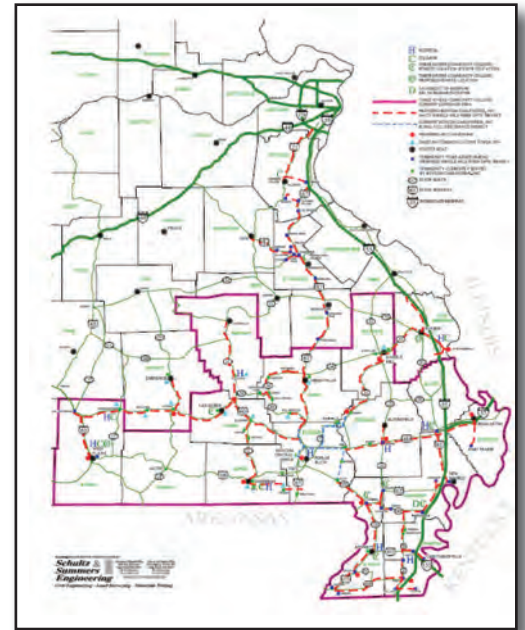


The Boycom BTOP CCI application is a coordinated private/public partnership that presents a comprehensive plan to build a continuous middle mile fiber infrastructure in economically distressed Southeastern Missouri where none exists today.

## FILLS A KEY GAP

Middle mile infrastructure is a prerequisite for competitive last-mile broadband services, connected key community anchors, job creation and economic development. In rural southeastern Missouri, the most economically distressed region of the state, continuous full-fiber middle mile infrastructure is nonexistent and alternative bandwidth sources are expensive to access and lack the capacity to keep up with future bandwidth needs. Area residents, businesses and anchors have few viable alternatives.

The Southeast Missouri Comprehensive Communities Project will directly address this problem by constructing a 719 mile, 144-count, carrier-grade Ethernet fiber backbone, able to supply 100 Mbps Internet connections to households and 1GigE connections to businesses and anchor institutions. The project includes its own 315 mile Last Mile component, but is firmly committed to open access and neutral interconnection by existing and new last mile broadband service providers including planned fiber connectivity for the Roberts Companies Tower Division for wireless opportunities.



## MEETS SERIOUS ECONOMIC/SOCIAL NEEDS

This region is severely economically distressed. Eleven of the state's fifteen persistent poverty-designated counties are in the PFSA's. The population density of the southern corridor is 34.2 persons per sq. mi. compared with 95.4 for the rest of Missouri. Compared to state and national averages, the region's population is older; less educated, and has a higher poverty rate. These facts present Southeast Missouri with serious broadband challenges, including the fact that the majority of the region has limited or no access to high-speed broadband.

## CONNECTS PRIORITIZED ANCHORS

The Project includes 1,683 anchor institutions. Working closely with the State and with MOREnet, the Missouri Research and Education Network, we have targeted a prioritized cross section of 474 key anchor institutions, with a special focus on connecting the region's community colleges and universities. In turn, our Community College Consortium will tailor curriculum to emphasize emerging broadband-enabled technologies in healthcare and clean energy/ SmartGrid and increase end-user broadband demand by offering computer classes for targeted older, unemployed and undereducated residents.

21  
Counties

14,000  
Square Miles

75  
Communities

1,683  
Anchors

261,495  
Households

23,282  
Businesses

\$58.5 million  
Total Cost

\$8.9 million  
Last mile portion

\$46.8 million  
Grant request

## OFFERS SCALABLE, COMPETITIVE PRODUCTS

Anchor institutions and businesses - Standard package: 20 Mbps, 50 Mbps or 100 Mbps, scaling to 1GigE, and a point-to-point solution. Last mile service providers – Standard package: 50 Mbps, 100 Mbps, 500 Mbps and 1 GigE, scaling to 10 GigE, and two point-to-point solutions. We expect to provide service to 423 customers by the end of quarter sixteen; 286 anchors, 130 businesses and five last mile providers.

## UNIQUE PRIVATE/PUBLIC PARTNERSHIPS WITH ALIGNED INTERESTS

The Project has been selected by the State of Missouri as a primary state partner, and will interconnect with the State's two other MoBroadbandNow Middle Mile applicants (Easygrants #6519 and 4521) to eliminate overlap, increase reliability, create redundant state-wide fiber rings, and potentially pool bandwidth costs. The Project will also maximize the impact of other federal and state dollars, including leveraging Missouri's first round BTOP Broadband Mapping Award, Federal Grant Award # 29-50-M09022.

The project is led by Boycom Cablevision, one of the region's primary rural telecommunication service providers. Boycom has engaged Missouri-based Pulse Broadband to design, engineer and oversee network construction. Pulse Broadband is the primary partner with MoBroadbandNow BIP Round One winner, Ralls County Electric, Easygrants #928, and is a partner with three other BIP Second Round MoBroadbandNow Last Mile applicants: CoMo Electric, #5443; United Electric, #6310; and Cass County, #6019.

State partners include MOREnet, which will connect community colleges and universities through a dedicated fiber network embedded in the backbone. In return, MOREnet will provide the connection equipment, and will pay to maintain the network. MoDOT, the Missouri Department of Transportation will connect state transportation and public safety agencies through a separate fiber network embedded in the backbone. In return, MoDOT will provide right-of-way access along state highway routes and hut location property at key points of presence sites. MoDOT will also pay for connection equipment installation and power and provide permitting assistance. The project's third state partner is the State Office of Administration Information Technology, which will provide project coordination with other state agency organizations such as Homeland Security, Conservation, etc.

Other partners include a consortium of the area's community colleges, Three Rivers Community College, Mineral Area College and Jefferson College, and Missouri State University-West Plains whose districts span the project area. The final partner is the Ozark Foothills Regional Planning Commission (OFRPC). The Project will direct 5% of free-cash-flow for its first ten years into a local economic development fund managed by the OFRPC through its existing business incubator with an emphasis on Small Disadvantaged Businesses.

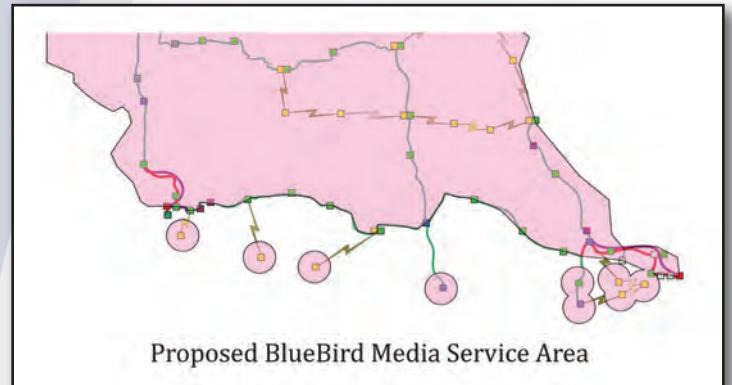
## PROVEN TEAM

The Project team is extraordinarily qualified. Boycom Cablevision owns cable television and broadband systems in 32 communities and 13 counties throughout southern Missouri and northern Arkansas since 1992, and has deep experience in telecommunications operations and construction. Pulse Broadband principals have managed the design and engineering for over 50,000 miles of plant and for networks serving 12 million customers. Its senior engineering team created the first deployment of fiber optic technology in the cable TV industry at Time Warner Cable. Finally, all key construction, OSP, electronic equipment and NOC contractors are lined up to start the project. All have direct experience with government contracts, compliance and Davis Bacon reporting. The OFRPC will provide grant administration, reporting and compliance oversight and will interface with state agencies during construction.

## CONCLUSION

Left solely to market forces, Southeast Missouri, and other rural areas like it, likely will have inferior technology, prohibitively expensive technology, or none at all. BTOP funding for the Southeast Missouri CCI Project presents the best and perhaps last opportunity to fill this gap.

BlueBird Media is a public-private partnership, dedicated to developing an ultra-high capacity GigE middle-mile-network throughout underserved and disadvantaged areas in Northern Missouri. Our broadband fiber network will over last-mile providers next generation band-width speeds at economically competitive prices. Additionally, our service will provide support to local community anchor institutions, including local governments, schools and hospitals, to promote the creation of jobs and a greater quality of life.



BlueBird Media is committed to expanding broadband infrastructure and high-speed internet access throughout rural and underserved areas. We believe that our plan to increase broadband Internet access will benefit the citizens, business and the State of Missouri.

- Service internet providers in rural and underserved communities
- Be carrier neutral, allowing access to ALL service providers
- Be the first truly statewide fiber GigE network in Northern Missouri

## PROPOSED SERVICES

BlueBird plans on developing a comprehensive network that is comprised mainly of Ethernet Broadband Technology. BlueBird will provide bandwidth at a low cost to last-mile providers and institutions. Additional services available will include video and Voice over IP. Service will be available at speeds of 30 Meg, 100 Meg, 500 Meg and 1 GigE throughout our coverage area.

BlueBird will use a reliable and cost effective hybrid IT Ethernet broadband solution together with a proven fiber/microwave network. The network will have a minimum of 1 GigE access expandable to 1 Terabit level which will help develop all last mile networks to support data, voice, and video communication, enabling a broad range of fixed and mobile application for public and private systems.

## COVERAGE

The geographical area that will be affected is Northern Missouri, covering 46 counties and over 6,250 total square miles. The total population affected is 2.3 million residents, and equates to approximately 840,000 households and 57,000 businesses.

## COMMUNITY ANCHOR INSTITUTIONS

The collective geographical area represented in this network has well over 576 critical community institutions ranging from fire, police, libraries, schools, courthouses, water utilities and waste water treatment facilities.

## INTERCONNECT OBLIGATIONS

BlueBird will be building a robust infrastructure network that will be able to service multiple providers. This additional capacity will allow easy expansion for any new entrant in the service area.

## BROADBAND SYSTEM

BlueBird's innovative broadband network solutions are the ideal technology for delivering high-demand applications such as broadband Internet access, video services, security surveillance, telemedicine, VIOP, GPON, and emerging technologies.

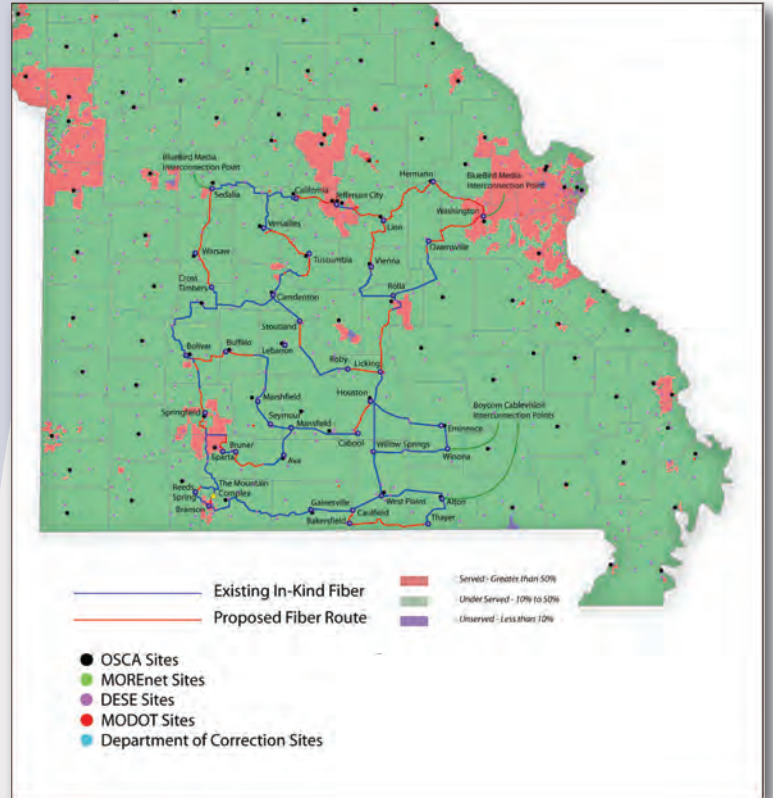
BlueBird's broadband technology combines field proven toughness with exceptional performance, security, ease-of-use and cost effectiveness. It significantly reduces the time to design and deploy new commercial and enterprise broadband networks. It also seamlessly integrates with existing network systems and management tools, extending and augmenting existing service with a simpler and less cost-intensive solution.



## ABOUT THE PROJECT

The MoBroadbandNow “Sho-Me MO” Middle Mile Project seeks to enhance and expand a regional fiber optic network to deliver reliable, affordable and abundant interconnection points for last mile service in south-central rural Missouri. The project intends to improve broadband service in under-served areas and stimulate economic growth and job creation in thirty counties in Missouri. This project will support and complement several other Recovery Act projects, including the DoE Smart Grid initiatives, the Title XIII health information technology initiatives and the Title VIII education programs.

- 288 job-years will be impacted in areas such as fiber installation technicians, construction workers, project managers and network operators.
- The population of the proposed service area is well over 1,000,000 citizens of Missouri.
- 100 community anchor institutions and critical community facilities will be connected directly to the proposed network.
- This project covers nearly 30% of the land base of Missouri which is composed of 30 counties, 229 communities, 66,000 businesses and over 260,000 households.
- Strategic interconnects with two partner projects with BlueBird Media (Northern Missouri Ultra-High Capacity Middle Mile) and Boycom Cablevision (The Southeast Missouri Comprehensive Communities Project).
- \$26.6 million in Federal Grant Request with \$11.4 million in kind matching for a total project cost of \$38 million dollars.
- The network is designed to not favor any specific applications and/or content over others. This specific network design is intended to be purely “open-access” with the potential for any last mile service provider to utilize its benefit
- Sho-Me Technologies is providing a 30% contributory match and is committed to a project completion of 12 months.



**100**  
Community Anchor  
Institutions

**288**  
Job-Years Impacted

**136**  
Directly Connected  
Communities

**93%**  
Of the Proposed Service  
Area is Economically  
Distressed

**1,380**  
Total Fiber Miles

**\$26.6 Million**  
Federal Grant Requested

## ABOUT SHO-ME TECHNOLOGIES

Sho-Me Technologies, LLC, (SMT) a telecommunications provider certified and regulated by the Missouri Public Service Commission since 1997, provides managed bandwidth and dark fiber services to schools, broadcast operators, health care providers, internet service providers, telephone companies, cellular service providers, manufacturing and financial institutions, government agencies and more. SMT has crossed both the Missouri and Mississippi Rivers, constructed fiber in some of the most difficult downtown urban areas of the largest cities, and extended through some of the most remote and harshest parts of rural Missouri. Valuable experience like this comes from a commitment to provide a reliable network capable of supporting carrier class services and smart grid technologies. After all, SMT was born out of a need in the rural electric cooperative industry to provide secured, robust telecommunications. Whether it is building fiber optics into the State Capitol Building in Jefferson City or to a residential home in Raymondville, SMT has a proven track record to ensure the success of the broadband ARRA efforts in Missouri.

- SMT and member cooperatives have already connected over 1/3 of the county courthouses with fiber optics. Fiber has also been installed to the Capitol with redundant routes connecting important facilities like the State Data Center. The groundwork is already in place to expand to other agencies and departments like Agriculture and Natural Resources.
- SMT is already equipped with quality tools and test equipment required to proactively monitor and maintain their existing fiber network as well as this proposed network expansion.
- SMT owns and operates a state-of-the-art 24 x 7 x 365 primary network operations center (NOC) as well as a backup NOC facility for redundancy.
- SMT currently serves 2,300 customer sites, 600 cellular towers, 250 schools, 300 banks, 150 government sites, 11,000 splices/access points and 25 interconnects with other carriers all through SMT's 2,000+ miles of owned and interconnected fiber.
- SMT operates with the mission of providing fiber optics to rural parts of Missouri. To monitor and maintain that network with the same consideration and dedication as the electric grid and to have in place the tools, talent and core infrastructure to provide quality broadband access to rural Missourians.

## SHO-ME PROJECT SUPPORTERS

Senator Claire McCaskill

Missouri Governor Jay Nixon

Missouri Department of Higher Education

State of Missouri Office of Homeland Security

Missouri Primary Care Association

State of Missouri Department of Corrections

Missouri Department of Elementary & Secondary Education

25th Judicial Circuit Court of Missouri

32nd Judicial Circuit Court of Missouri

35th Judicial Circuit Court of Missouri

37th Judicial Circuit Court of Missouri

42nd Judicial Circuit Court of Missouri

44th Judicial Circuit Court of Missouri

Crawford Electric Cooperative

Gascoage Electric Cooperative

Howell-Oregon Electric Cooperative

Intercounty Electric Cooperative

Laclede Electric Cooperative

Se-Ma-No Electric Cooperative

Southwest Electric Cooperative

Webster Electric Cooperative

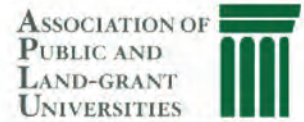
White River Valley Electric Cooperative

Sho-Me Power Electric Cooperative

BlueBird Media

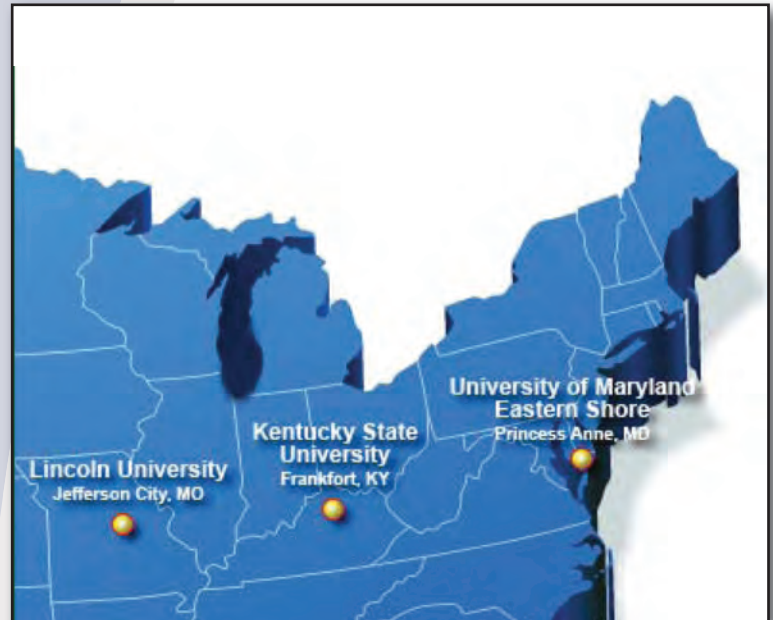
Boycorn Cablevision

# Association of Public and Land-Grant Universities (Lincoln University)



The Association of Public and Land-grant Universities (APLU) will manage the Extended Campus Initiative to stimulate broadband adoption by students and faculty at Lincoln University (MO), Kentucky State University, and the University of Maryland Eastern Shore through the design, delivery and promotion of new online degree programs to current and potential students at these historically black universities.

The Extended Campus Initiative includes faculty training and incentive supports, online tutorial support for students, a virtual lab model and centralized help desk operations. The availability and flexibility of these online courses will be promoted through grassroots awareness campaigns within the service areas of each Land Grant University (LGU).



## PROJECT ACTIVITIES

It is not always possible for a single university to offer all required and elective courses needed for a new degree program. The Extended Campus Initiative will use broadband as a platform for collaboration around innovative approaches to distance education focused on student access and achievement, institutional capacity building in the use of online learning tools, and outreach and connectivity to community partners. The Extended Campus Initiative will:

- Develop online degree programs by providing instructional design training and other incentives to LGU faculty;
- Upgrade Learning Management Systems to allow digital file sharing (including video/audio) among the institutions, as well as collaborative content development by faculty and students;
- Equip multimedia labs to produce, edit and package course lectures and other multi-platform learning resources;
- Purchase hardware and software to provide an online tutoring function and real-time, 24/7 technical help desk for e-learners;
- Train and equip faculty for real-time, online advising of students;
- Design and implement a multimedia and grassroots outreach and awareness campaign to promote the availability of new, online services.
- Deliver new online courses via existing broadband platforms in each service area.
- Evaluate the effectiveness of project elements, in particular student and faculty broadband adoption, faculty professional development and student satisfaction with online services.

The three LGUs have agreed to an aggressive design, training and outreach timeline with an online graduate degree in Environmental Sciences as the first collaborative offering to be available by June 2011.

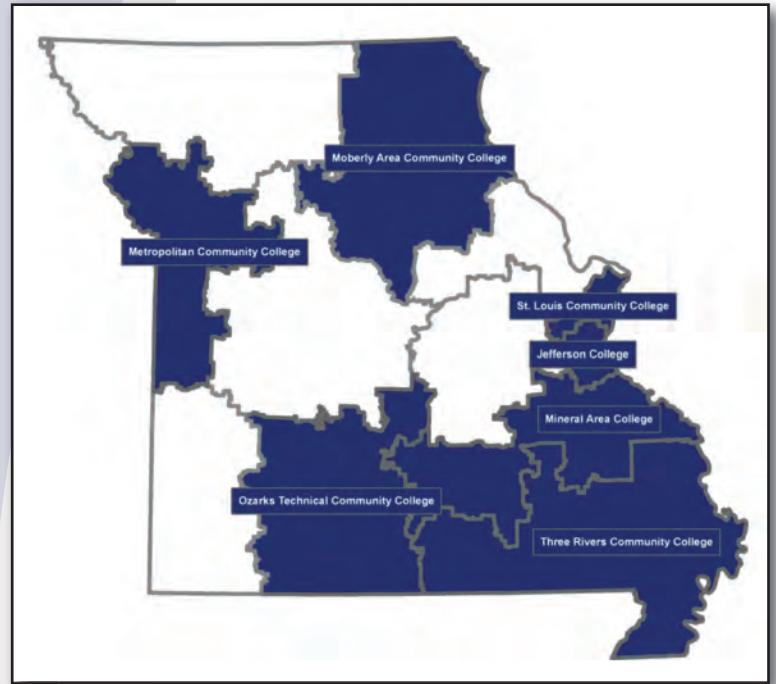
## COMMUNITY BENEFITS

Each LGU is a community-anchor institution involved in a variety of services and relationships in their service areas. The students enrolling in these universities are often the first in their families to attend college. The vast majority of these students receive financial aid to attend college, and many have family or work obligations that require additional student support. This project will extend the reach of these universities into the populations they serve; and help build a sustainable and scalable model of public benefit through broadband technology.





The Missouri Department of Higher Education (MDHE) is collaborating with seven community colleges across the state to establish or expand a total of 23 public computer centers in strategically-targeted areas. These facilities will function as one-stop technology centers for launching new opportunities and new careers, with a specific focus on the unemployed and underemployed citizens in the targeted regions. Public computer centers will be strategically located—on campus, in a college education center, at a community location within the college’s service area, or in a mobile public computer center—in order to provide an efficient means of bringing broadband access to the vulnerable populations in Missouri communities.



## Public computer centers at Missouri community colleges will provide:

- Public access to broadband technology at new or expanded computer centers staffed by knowledgeable education assistants who are sensitive to the needs of the vulnerable populations to be served
- Courses in Basic Digital Literacy, including an introduction to technology careers, free of charge to the public
- Outreach to the vulnerable populations in each college’s service area

These public computer centers will enable Missouri community colleges to prepare users to access broadband services for a variety of purposes including telemedicine (personal health records), small business development, education, social networking, job searches, research, and personal enrichment.

The MDHE is requesting \$5,080,913 in federal funds to develop or enhance 23 public computer centers. MDHE and its partner colleges will provide \$1,686,313 in matching funds of the total project cost of \$6,767,226.

## WHY BROADBAND?

The MDHE’s approach to addressing the state’s economic problems is to promote economic recovery by assisting those affected most by the current economic downturn. Access to broadband services will provide individuals with the opportunity to gain information, education, and new skills. The department will use funds provided by the Broadband Technology Opportunities Program grant to invest in technology infrastructure that will provide long-term economic benefits to the state and its citizens.

MDHE and **7**  
Partner Community Colleges

**23**  
Public Computer Centers  
Across the State

**828**  
Broadband Workstations

Over **15,000**  
New Users Each Month

**\$5.1 Million**  
Federal Fund Request

Nearly **25%**  
Matching Funds From Partners

## **ABOUT MDHE**

As the state's higher education agency, the MDHE is coordinating the effort to create public computer centers at community college locations across the state of Missouri. The MDHE has responsibility for coordination and oversight of all postsecondary education in the state. The agency is headed by the Coordinating Board for Higher Education, a bi-partisan lay board appointed by the governor and confirmed by the Senate. The department has a direct relationship with all postsecondary institutions in the state, functioning as a central point of contact across institutional sectors.

## **PROJECT PARTNERS**

Missouri Department of Higher Education

Jefferson College

Moberly Area Community College

Metropolitan Community College

Mineral Area College

Ozarks Technical Community College

St. Louis Community College

Three Rivers Community College



American Fiber Systems, Inc. ("AFS") in partnership with the Missouri Research and Educational Network (MOREnet), Clay County and Jackson County in Missouri, Leavenworth County, Platte County, Wyandotte County and Johnson County in Kansas and the Mid-America Regional Council seeks \$10,573,085 in BTOP Middle Mile Infrastructure funding from the ARRA to complete a fiber-based network in the states of Kansas and Missouri. AFS is providing a funding match of \$8,405,771 or 44% of the Total Project Cost. The "shovel ready" build out of the Missouri and Kansas Community Broadband Network ("MO/KS-Net") will connect 44 community anchor institutions ("CAIs") in MO and KS. In addition, MO/KS-Net will provide advanced fiber-based broadband services to the communities, CAIs, and businesses along and near the project route. The project is a collaborative public-private effort establishing partnerships between multiple municipal, community organizations, and AFS, an industry leading fiber service carrier, to provide reliable, scalable, and cost-effective high-speed middle mile broadband connectivity.

## PROBLEM STATEMENT

Kansas City and the surrounding communities have been hit hard by the deep recession. The five counties comprising the proposed service area have lost over 15,000 net jobs from December 2008 to January 2010. In fact, Jackson County, MO and Wyandotte County, KS were designated economically distressed areas based on high unemployment and low median income. While other larger metropolitan areas throughout the US have extensive fiber networks forming the basis of a digital economy, Kansas City has fallen behind. The Kansas City MSA ranks 68th among U.S. MSAs in terms of total middle mile fiber mileage. The Kansas City metropolitan region is in dire need of a major upgrade to the ramps to the information superhighway to foster rapid economic development. The Kansas City metropolitan region needs to replace these lost jobs with higher paying jobs predicated on the information-based economy, which has gone underdeveloped relative to other areas. Additionally, Missouri and Kansas' government facilities and public safety entities are exposed to potential connectivity failures given current limited points of access as well as bandwidth constraints on the existing network. These critical facilities need a high-speed communications network with route diversity available at a reasonable cost to communicate, coordinate, and respond more effectively. In fact, Missouri and Kansas' public safety agencies are facing the daunting challenge of adhering to regional interoperability mandates from the Federal government by 2012 while saddled with the handicap of having far less core fiber network than other parts of the USA.

## PROPOSED SOLUTION

MO/KS-Net will provide a fiber-optic platform that provides the proposed funded service area with a future-proofed, technology-agnostic platform with a lifespan of well over 40 years. It will build 105 miles of new fiber utilizing the local labor force connecting 44 CAIs. In addition, MO/KS-Net will connect with 5 interconnection points along the fiber route ensuring middle mile fiber is available to other communities, CAIs, and businesses. The CAIs connected initially are the highest bandwidth and greatest need facilities defined by project partners. More CAIs will be connected after the funding period as the needs arise. It is expected that that the project will be complete within 30 months and create 144 jobs.

## PROOF OF READINESS

Since its' inception in 2000 AFS is a financially successful and community supportive company. AFS's keys to success include highly competitive pricing to the customers, extremely high reliability, on time & on budget delivery, proactive customer support and the entire AFS team being customer focused. AFS has successfully designed, deployed middle mile fiber-based networks and delivered customer solutions in 9 metro markets across the USA, including over 1,110 route miles and 1,764 on-net locations including

customer facilities, carrier hotels, central offices, data centers and cell towers. AFS successfully operates metro fiber networks in Kansas City, Atlanta, Nashville, Cleveland, Minneapolis/St. Paul, Salt Lake City, Boise, Reno and Las Vegas and operates an intercity network connecting Las Vegas, Reno, Boise and Salt Lake City. Over the last 5 years AFS has significantly and successfully expanded the networks in all of its markets and completed over 100 fiber projects of varying scale and complexity.

## **PROJECT IMPACT**

The project will initially connect a total of 40 CAls including government facilities, public safety facilities, healthcare facilities and K-12 school sites in the proposed service area, providing these institutions reliable and route-diversified access to the critical data that they require. The fiber connectivity will enhance planning, coordination, and responsiveness of first responders across all communities and enable more coordinated and efficient law enforcement and emergency response. In addition, it will also connect 5 MOREnet community colleges providing these institutions access to broadband capacity needed to drive innovation and control costs. The project will create immediate jobs and the bandwidth capacity will enable the creation high-paying “knowledge jobs” in years to come. MO/KS-Net will dramatically improve last mile broadband access particularly for underserved communities along the fiber route (8 communities within the service area are underserved). To accomplish this, MO/KS-Net will enable further competition and investment for Fiber-To-The-Home (FTTH) companies. It will make available 24 strands of dark fiber from its existing backbone along with 24 strands from this proposal to FTTH providers at a lease cost of \$1 for 40 years of use. This will make available, at virtually no cost, more than 125 route miles of backbone fiber to FTTH providers, thus eliminating millions of dollars of costs typically incurred in a network build. This proposal will enable and encourage competition to enter the market, resulting in lower prices, better choices, and increased service reliability.

## **PROPOSED FUNDED SERVICE AREA AND PROJECT BUDGET**

The project application contains one proposed funded service area consisting of 105 route miles of new fiber build in Kansas City Metropolitan area including both Missouri and Kansas as well as the AFS existing network of 60 plus route miles. The new fiber build passes communities that include 316,439 households, 26,804 businesses, and 2,168 CAls. The project includes existing AFS fiber miles and equipment as in-kind contributions, but these figures are associated only with the new fiber build. The Total Project Cost of this build is \$18,980,856 of which AFS will be providing a cash match and an in-kind contribution for a total AFS match of \$8,405,771 or 44%. Therefore, the Federal BTOP grant request is for \$10,575,085 or 56% of the total project cost.

## **NETWORK COMPONENTS AND SERVICE AVAILABILITY**

The project will use fiber-optic network cables and equipment from manufactures including Nokia-Siemens and Ciena, which were selected based on quality and reliability. For CAls and businesses along the fiber, AFS will make the following transport services available: Ethernet private line, virtual private line, virtual LAN, internet access; managed wavelength service; TDM / SONET transport; dark fiber. Bandwidth available ranges from 10Mb to 10Gb and soon 100Gb.

AFS is a non-discriminatory open access provider of wholesale transport services to any party interested in purchasing capacity, including carriers, last mile providers, businesses, and institutions. AFS does not discriminate against potential customers and makes available dark fiber strand leases on a non-discriminatory basis to any party. AFS’ approach to selling bandwidth adheres to the non-discrimination and interconnection requirements of the BTOP NOFA.

## **PARTNERS AND COMMUNITY SUPPORT**

The project is a public-private partnership with MOREnet, Leavenworth County, Clay County, Platte County, the Mid-America Regional Council, and AFS. The project has received overwhelming support from state, county, and city agencies and community anchor institutions.

City Utilities of Springfield's Broadband Technology Opportunities Program (BTOP) project will result in a ten-fold increase in capacity for the fiber network currently serving 186 community anchor institution locations. This funding will also permit the establishment of fiber service to an additional 34 unserved anchor institution locations. Additionally, the SpringNet 10 Gig / 1 Gig Fiber Network Expansion project achieves several significant upgrades, including increasing the operating backbone to 10 Gig, providing 1 Gig access to all community anchor institutions and constructing over 100 additional miles of fiber.

**Listed below are some of the other significant benefits achieved by this project:**

- The network enhancements will provide opportunities for our community to foster its economic growth. Our community's labor rates are significantly below national and state averages.
- Ozarks Technical Community College, which currently serves over 12,000 students, will benefit from increased network speeds and expanded capabilities to provide improved online opportunities to better serve students in the fastest growing region in the State of Missouri.
- This upgrade benefits police, fire and other public safety organizations' critical communications (data and multimedia transmissions). In addition, this project will connect currently unserved public safety locations, such as the Greene County Office of Emergency Management and police department neighborhood substations.
- The expanded capabilities of the network will allow local health care providers to adopt advanced medical technologies that enhance patient care.
- The Honorable Governor Jeremiah Nixon of the State of Missouri supports this project.
- This project is estimated to add 143 job years to our economy. . Enclosed in our application were multiple letters of commitment from partner community anchor institutions.
- City Utilities will provide over 30 percent in matching funds for this project.
- While this project provides enormous benefits for our state and community, it is not economically viable without the BTOP grant.

The overall cost of this project is \$19.2 million of which City Utilities will commit \$6.1 million. While BTOP requires only 20 percent matching funds, City Utilities will provide over 30 percent in matching funds for this project.

City Utilities of Springfield is a multi-disciplined municipal utility that provides electric, natural gas, water, transit and broadband telecommunications services. The utility's willingness to invest \$6.1 million in this endeavor is indicative of its community commitment and operational sustainability.



## **PROJECT VISION - CREATING URBAN GATEWAYS TO OPPORTUNITY, EDUCATION AND ADVANCEMENT**

Our two projects will combine to exponentially increase and improve access to the Internet for unserved, vulnerable populations in inner city areas of Missouri. Together with federal funds provided under the BTOP program, YourTel America will invest millions of dollars of its own funds to build a next-gen broadband, educational, healthcare, emergency response and information network in cooperation with our Community Anchor Institution partners.

As part of a three-state initiative (Missouri, Kansas and Oklahoma), the MoBroadbandNow segment of our projects will be the largest. We will stimulate and expand Internet training and access in our urban-based Public Computer Centers and make available in-home, low-cost broadband service and the computers necessary to use it, to Missouri's vulnerable populations.

These projects will, introduce to these needy Missouri populations a new means of Internet education, create online communities and provide low-cost and sustainable broadband access. The total scope of these projects across all three states includes...

## **BUILDING BLOCKS OF VALUE**

### **25 Public Computer Centers (Missouri: 5 Community Anchor Institutions; 13 PCCs)**

...in 7 Community Anchor Institutions and 18 existing YourTel America retail locations in three states.

### **250 New, Publicly-accessible Workstations (Missouri: 130 Workstations)**

...with each of the 25 Centers serving more than 100 people every week. Providing those critical resources in the heart of the very communities comprising these vulnerable populations will result in measurable improvements in digital literacy, broadband adoption and sustainable economic improvement for these individuals.

### **390 Direct Job-years Created (Missouri: 203 Direct Job-years)**

...and we will create more indirect job opportunities by educating these consumers and preparing them for the jobs of the future. Some will begin by learning English, some by getting their GED and others by taking distance college courses made available by finally affordable home-based broadband with YourTel- provided free computers, modems, installation and access to expertise.

### **12,225 Computers, Modems, WiFi Routers for In-Home Service (Missouri: 6,357)**

...Once attendees have completed the required basic courses, they will be offered home broadband service at a 30% discounted rate (\$19.95/Month). They will receive broadband service at a combined upload/download advertised speed of up to 5 Mb/s. The service will include a complement of hardware and software to build a complete online/educational home environment.

### **700,000 PCC User Hours Available (Missouri: 364,000 PCC User Hours)**

...spent at the PCCs during the three-year project period. This outreach strategy will result in more than 40,000 non-unique users of introductory or instructor-led courses.

### **2,191,581 Targeted Population (Missouri: 1,021,504)**

...including 384,909 low income households, 514,339 African American, 230,573 Hispanic, and 406,029 disabled. The Missouri segment includes 182,994 low income households, 318,318 African American, 61,410 Hispanic, and 198,397 disabled.

## **YOURTEL AMERICA - SERVING VULNERABLE POPULATIONS FOR MORE THAN 15 YEARS**

Core business focus on unserved and vulnerable populations since 1995

- Minority owned small disadvantaged business (per BTOP guidelines)
- Certificated Competitive Telecommunication Carrier since April 1999
- Offering Lifeline and Link-up since November 2001
- Eligible Telecommunications Carrier under FCC and Missouri Public Service Commission rules

## **MISSOURI PROJECT PARTNERS AND SUPPORTERS**

- Senator Claire McCaskill
- Governor Jay Nixon (by letter dated March 12, 2010)
- Congressman Emanuel Cleaver, II
- DeLaSalle Education Center
- Samuel U Rodgers Health Center
- The Greater Kansas City Hispanic Chamber of Commerce
- The Full Employment Counsel
- The Prince of Peace Missionary Baptist Church of Jesus Christ



**VII. MINORITY  
PARTICIPATION/INCLUSION**





Roberts-Roberts & Associates [RRA], a Missouri certified minority-owned firm, was founded by Michael and Steven Roberts in 1974 and today serves as the overall managing entity for all other Roberts Companies. Those companies include Roberts Broadcasting; Roberts Hotels Group; Roberts Brothers Properties; **Roberts Tower Management and Roberts Tower Company which has built over two hundred communication towers in Missouri, Illinois, Kansas, Oklahoma, South Carolina, New Mexico, and Utah.** Roberts-Roberts & Associates were selected by the State of Missouri as a partner in Round 1 of the MOBROADBANDNOW initiative. In Round 2, they have a contractual relationship with both BlueBird and Boycom to provide towers for the broadband initiative.



In 1995-1996, RRA competed in the FCC Auctions for PCS Spectrum in the C Block "Entrepreneurs" Auction. RRA won six PCS licenses in Missouri – Cape Girardeau, Jefferson City, Quincy-Hannibal, Rolla, Sedalia and West Plains. In 1998, Roberts became one of the first Sprint PCS affiliates. This affiliation substantially increased the scope of Roberts' communication system build-out responsibilities and cost of same. Roberts doubled their footprint (from six to thirteen license areas known as BTAs) covering approximately 1.3 million people and requiring the construction of 178 cell sites/towers and engineering of the backhaul system.

After numerous meetings with a variety of banks and asset based lenders, Roberts negotiated a \$56 million loan from Lucent Technologies based on purchase of Lucent equipment. The loan amount and draws were negotiated by Michael Roberts and Kay Gabbert and structured to ensure funding of each phase of the build-out schedule. Loan repayment schedules were negotiated by Kay Gabbert based on the business plan projected cash flow. Roberts hired highly skilled and experienced RF and Environmental Engineers to design and manage construction of our main switch in Jefferson City. They were also responsible for oversight of subcontractors working in the field.

Steve Roberts was instrumental in securing cell sites, particularly in populated areas where community and elected official support was necessary. During his tenure as a member of the St. Louis Board of Aldermen (City Council), Steve was an active participant in the Missouri Municipal League. His relationships with elected officials in the small towns of rural Missouri were critical to Roberts's ability to secure and build cell sites on schedule which contributed substantially to budget compliance.

And, during this build-out, under the direction of Kay Gabbert, Roberts opened five Sprint PCS retail stores in Jefferson City, Columbia, Springfield, St. Joseph and Cape Girardeau for the purpose of meeting cash flow projections.

By late 2000, Roberts was meeting its business plan objectives and seized an opportunity to merge with Sprint PCS's largest affiliate, Alamosa PCS. The merger was completed in February, 2001.

The Association of Public and Land-grant Universities (APLU) will manage the Extended Campus Initiative to stimulate broadband adoption by students and faculty at Lincoln University (MO), Kentucky State University, and the University of Maryland Eastern Shore through the design, delivery and promotion of new online degree programs to current and potential students at these historically black universities.

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## PROJECT ACTIVITIES

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- Upgrade Learning Management Systems to allow digital file sharing (including video/audio) among the institutions, as well as collaborative content development by faculty and students;
- Equip multimedia labs to produce, edit and package course lectures and other multi-platform learning resources;
- Purchase hardware and software to provide an online tutoring function and real-time, 24/7 technical help desk for e-learners;
- Train and equip faculty for real-time, online advising of students;
- Design and implement a multimedia and grassroots outreach and awareness campaign to promote the availability of new, online services.
- Deliver new online courses via existing broadband platforms in each service area.
- Evaluate the effectiveness of project elements, in particular student and faculty broadband adoption, faculty professional development and student satisfaction with online services.

The three LGUs have agreed to an aggressive design, training and outreach timeline with an online graduate degree in Environmental Sciences as the first collaborative offering to be available by June 2011.

## COMMUNITY BENEFITS

Each LGU is a community-anchor institution involved in a variety of services and relationships in their service areas. The students enrolling in these universities are often the first in their families to attend college. The vast majority of these students receive financial aid to attend college, and many have family or work obligations that require additional student support. This project will extend the reach of these universities into the populations they serve; and help build a sustainable and scalable model of public benefit through broadband technology.



## **PROJECT VISION – *Creating Urban Gateways to Opportunity, Education & Advancement***

YourTel is a Hispanic owned company headquartered in Kansas City.

Our two projects will combine to exponentially increase and improve access to the Internet for unserved, vulnerable populations in inner city areas of Missouri. Together with federal funds provided under the BTOP program, YourTel America will invest millions of dollars of its own funds to build a next-gen broadband, educational, healthcare, emergency response and information network in cooperation with our Community Anchor Institution partners.

As part of a three-state initiative (Missouri, Kansas and Oklahoma), the MoBroadbandNow segment of our projects will be the largest. We will stimulate and expand Internet training and access in our urban-based Public Computer Centers and make available in-home, low-cost broadband service and the computers necessary to use it, to Missouri's vulnerable populations.

These projects will, introduce to these needy Missouri populations a new means of Internet education, create online communities and provide low-cost and sustainable broadband access. The total scope of these projects across all three states includes...

### **BUILDING BLOCKS OF VALUE**

#### **25 Public Computer Centers (Missouri: 5 Community Anchor Institutions; 13 PCCs)**

...in 7 Community Anchor Institutions and 18 existing YourTel America retail locations in three states.

#### **250 New, Publicly-accessible Workstations (Missouri: 130 Workstations)**

...with each of the 25 Centers serving more than 100 people every week. Providing those critical resources in the heart of the very communities comprising these vulnerable populations will result in measurable improvements in digital literacy, broadband adoption and sustainable economic improvement for these individuals.

#### **390 Direct Job-years Created (Missouri: 203 Direct Job-years)**

...and we will create more indirect job opportunities by educating these consumers and preparing them for the jobs of the future. Some will begin by learning English, some by getting their GED and others by taking distance college courses made available by finally affordable home-based broadband with YourTel- provided free computers, modems, installation and access to expertise.

#### **12,225 Computers, Modems, WiFi Routers for In-Home Service (Missouri: 6,357)**

...Once attendees have completed the required basic courses, they will be offered home broadband service at a 30% discounted rate (\$19.95/Month). They will receive broadband service at a combined upload/download advertised speed of up to 5 Mb/s. The service will include a complement of hardware and software to build a complete online/educational home environment.

#### **700,000 PCC User Hours Available (Missouri: 364,000 PCC User Hours)**

...spent at the PCCs during the three-year project period. This outreach strategy will result in more than 40,000 non-unique users of introductory or instructor-led courses.

#### **2,191,581 Targeted Population (Missouri: 1,021,504)**

...including 384,909 low income households, 514,339 African American, 230,573 Hispanic, and 406,029 disabled. The Missouri segment includes 182,994 low income households, 318,318 African American, 61,410 Hispanic, and 198,397 disabled.

## **YOURTEL AMERICA – Serving Vulnerable Populations For More Than 15 Years...**

Core business focus on unserved and vulnerable populations since 1995

- Minority owned small disadvantaged business (per BTOP guidelines)
- Certificated Competitive Telecommunication Carrier since April 1999
- Offering Lifeline and Link-up since November 2001
- Eligible Telecommunications Carrier under FCC and Missouri Public Service Commission rules

## **MISSOURI PROJECT PARTNERS AND SUPPORTERS**

- Senator Claire McCaskill
- Governor Jay Nixon (by letter dated March 12, 2010)
- Congressman Emanuel Cleaver, II
- DeLaSalle Education Center
- Samuel U Rodgers Health Center
- The Greater Kansas City Hispanic Chamber of Commerce
- The Full Employment Counsel
- The Prince of Peace Missionary Baptist Church of Jesus Christ

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