



**Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program**

Submitted Date: 3/26/2010 9:21:30 PM	Easygrants ID: 6519
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: BLUEBIRD MEDIA, L.L.C.
Task: Submit Application - BTOP	Applicant Name: Mr. Tatum M Martin

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A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	832385988
CCR # (CAGE)	5RXE4
Legal Business Name	BLUEBIRD MEDIA, L.L.C.
Point of Contact (POC)	OTTO MALY 5734433200 Ext. hwatson@malyrealty.com
Alternate POC	CHRIS BACH 5734433200 Ext. cbach@malyrealty.com
Electronic Business POC	OTTO MALY 5734433200 Ext. hwatson@malyrealty.com
Alternate Electronic Business POC	CHRIS BACH 5734433200 Ext. cbach@malyrealty.com

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Mr.
First Name	Tatum
Middle Name	M
Last Name	Martin
Suffix	
Telephone Number	573-443-3200



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Fax Number	
Email	tmartin@bluebirdmedia.com
Title	Operations Director

Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. Otto , Maly	5734433200	rotto@bluebirdmedia.com
Secondary Point of Contact	Mr. Christopher , Martin	5733566910	cmartin@bluebirdmedia.com

Environmental Point of Contact

Prefix: Mr. Name: Martin, Chris Suffix: Telephone Number: 5733566910 Title: Director Engineering
--

Organization Classification

Type of Organization	For-profit Entity
Is the organization a small business?	Yes
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No



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Authorized Organizational Representative	
AOR Name	MALY, OTTO
Result	Applicant Authorized

Project Title and Project Description

Project Title: Northern Missouri Ultra-High Capacity Middle Mile

Project Description: BlueBird Media is applying for federal funding, with support from the State and MoBroadbandNow, to construct an ultra-high capacity middle mile network throughout underserved and disadvantaged areas in the State of Missouri. BlueBird will provide next generation bandwidth at economically competitive prices, and offer service to community anchor institutions, promoting public-private partnerships.

CCI Priority Checklist

The following items were selected from the CCI Priority Checklist:

1. This project will deploy Middle Mile broadband infrastructure to community anchor institutions.
2. The project will deploy Middle Mile broadband infrastructure and has incorporated a public-private partnership among government, non-profit and for-profits entities, and other key community stakeholders.
3. This project will deploy Middle Mile broadband infrastructure in economically distressed areas.
4. This project will deploy Middle Mile broadband infrastructure to community colleges.
5. This project will deploy Middle Mile broadband infrastructure to public safety entities.
6. This project will deploy Middle Mile broadband infrastructure and either includes a Last Mile infrastructure component in unserved or underserved areas or has received commitments from one or more Last Mile broadband service providers to utilize the Middle Mile components. Any Last Mile components in rural areas do not exceed 20% of the total eligible costs of the project.
7. This project will deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match.

Comprehensive Community Infrastructure Components



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The following items were selected from the Comprehensive Community Infrastructure Components:

Middle Mile

BIP Applicants

Have you also applied to BIP for funding in the sample proposed funded service area?

- No

If Yes, please provide the project title and Easygrants ID number:

Title of Joint BIP Application:

Easygrants ID:

Other Applications

Is this application being submitted in coordination with any other application being submitted during this round of funding?

- Yes

Easygrants ID	Project Title
5443	Co-Mo Electric Cooperative Fiber-to-the-Home Project
4521	MoBroadbandNow “Sho-Me MO” Middle Mile Project
5662	Southeast Missouri Comprehensive Communities Project
7373	Northern Missouri Last Mile
6310	United Electric Fiber Initiative
4918	Central Missouri FTTH

If YES, please explain any synergies and/or dependencies between this project and any other applications.

Partners will be as follows:



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- 1) Ralls County Electric Coop: Contact Lynn Hodges lhodges@rallstech.com Phone: 573-985-8711, Description: BlueBird Media will provide middle mile delivery to last mile GPON network provider
- 2) Co-Mo Electric Coop, Inc: Contact Randy Klindt rklindt@co-mo.coop Phone: 660-433-6154, Description: BlueBird Media will provide middle mile delivery to last mile GPON network provider
- 3) United Electric Coop, Inc: Contact Darren Farnan dfarnan@ueci.coop Phone: 660-582-2837 Description: BlueBird Media will provide middle mile delivery to last mile GPON network provider
- 4) Socket: Contact: George Pfenenger gpfenenger@socket.net Phone: 800-762-5383, Description: BlueBird Media will provide middle mile delivery to last mile network provider
- 5) Sho-Me Technologies: Contact: Jerry Hartman jhartman@shomepower.com (417) 859-2615 Description: Interconnect Agreement with middle mile partner
- 6) BoyComm: Contact Steve Boyer sboyers@boycomonline.com Description: Interconnect Agreement with middle mile partner

Individual Background Screening

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

- No, Applicant is subject to these requirements

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

Name	Title	Employer
Tatum Martin	CEO	BlueBird Media
Chris Martin	CTO	BlueBird Media
Richard Otto Maly	Owner	BlueBird Media



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B. Executive Summary, Project Purpose and Benefits

Essay Question

Executive Summary of the proposed project:

BlueBird Media is applying for federal funding, with collaborative input and support from the State and MoBroadbandNow, to construct an ultra-high capacity middle mile network throughout underserved and disadvantaged areas in the State of Missouri. BlueBird will provide next generation bandwidth at economically competitive prices, and offer service to community anchor institutions, promoting public-private partnerships.

BlueBird Media will develop a middle mile broadband network to service underserved areas of Northern Missouri. 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 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. This proposal is one of many multiple BTOP submittals, which connected together produces a statewide area network. The Missouri Statewide area network (MoBroadbandNow) has multiple advantageous in cost, access, expandability, stability, uniformity, and sustainability to serve the citizens of rural Missouri for the 21st century.

Coverage: The geographical area that will be affected is Northern Missouri with over 46 Counties with over 6,250 total square miles covered. Total population for the proposed areas is 2.3 million residents equating to approximately 840,000 households with additional 57,000 businesses.

Community Anchor Institutions: The collective geographical area represented in this proposal has well over 576 critical community institutions ranging from fire, police, libraries, schools, courthouses, water utilities and waste water treatment faculties. BlueBird Media plans to offer at least 25% lower than advertised rate packages to all critical community facilities within the proposed funded service area.



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Proposed Services: BlueBird plans on developing a compressive network that is comprised mainly of Ethernet Broadband Technology. At first, the service will provide bandwidth at a low cost to last mile providers and institutions. Later, after the network build-out, 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.

Interconnect Obligations: BlueBird will be building a robust infrastructure network that will be able to service multiple providers. Presently, BlueBird has interconnect agreements with Sho-Me, BoyCom, UECI, Co-MO, Socket Telecom, and Ralls County Cooperative. This additional capacity will allow easy expansion for any new entrant in the service area. Also, BlueBird Media will proudly display the network's nondiscrimination and interconnection policies in a prominent location.

Broadband System: 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.

Qualification Experience: 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.

Cost: Overall infrastructure cost for this project will be approximately \$65,527,000



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Number of Expected Subscribers: Within the first 12 months of installation BlueBird Media plans to get at least 40% of the network operational. During this time period, we hope to get 5% of market penetration which is equivalent to about 500 to 800 subscribers. After the promotion of BlueBird Media, LLC, an extensive marketing campaign will promote middle mile access in order to substantially increase subscribers within the market at very affordable prices.

Jobs: 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 job. After implementation of this network, there will be approximately 40 sustainable jobs for the lifetime of this network.

Project purpose:

BlueBird Media is proud to play an active role in the American Recovery Act, to help provide a direct fiscal boost, and lift our Nation from the greatest economic crisis in our lifetime. Investing in this technology will lay a foundation for rural Missouri's future growth. Our primary purpose is to provide high speed broadband to underserved Missouri. Without government assistance, this service area would virtually never have the possibility of getting such technology because of the cost of investment and potential returns. Our program will create an estimated 750 jobs, if combined and implemented in the fields of manufacturing, construction, project management and engineering. These core jobs will add to the creation of hundreds of additional jobs that will service these principal jobs. Additionally, making available and lowering the cost of broadband internet will stabilize the expenses of households and many governmental and core agencies because of the lower cost of access to high speed broadband. Many household are spending 100's of dollars in media content, while our cost would be a fraction of the cost. BlueBird Media's plan is shovel ready, and could be implemented as early as a month after finalization of the grant request. The vision of BlueBird Media, along with its partner, MoBroadband Now, is to give all rural residents of Missouri a systematic and uniform communication system that will help Missouri go beyond the 21 century and catapult the rural America and the US as a leading nation in the forefront of technology.

Recovery Act and Other Governmental Collaboration:

Partners with the State of Missouri

Other ARRA funding leveraged by this application include:

1. Public Computing Centers - The Missouri Department of Higher Education has applied for \$5 million Round 2 funding (Easygrants ID 6274) to create 23 centers with 736 workstations at 7



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community colleges. This includes Metropolitan Community College (6 PCCs/142 workstations), Moberly Area Community College (6 PCCs/163 workstations), and St. Louis Community College (2 PCCs/53 workstations) in the BlueBird service area. These facilities will provide public access with knowledgeable staff and courses in basic digital literacy and technology careers. The centers will function as one-stop technology centers for launching new careers, with a specific focus on unemployed and underemployed citizens. The computing 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.

2. Health Information Technology (HIT) – 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 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 the HIT 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.

Fit with BTOP CCI Priorities:

BlueBird Media meets all seven criteria for BTOP priorities.



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1. BlueBird will offer new or substantially upgraded services through an Ultra High Capacity Network built off of IT Ethernet technology
2. BlueBird has incorporated public-private partnerships with the State of Missouri Governor's office through MODOT, MODOD, MODOC, DPS
3. BlueBird will bolster growth in economically distressed areas through creation of 706 jobs offering network services to ED areas and using local work forces where available
4. BlueBird commits to serve community colleges through the help of Department of Education and Coops to offer GPON solution to end users
5. BlueBird commits to serve public safety agencies through Department of Public Safety
6. BlueBird commits to work with last mile operators, including already completed commitments from at least 5 last mile operators in un-served and underserved areas
7. BlueBird meets the 30% matching of non-federal funding set forth in the NOFA.

Is the applicant seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

- No

Is the applicant delinquent on any federal debt?

- No

If Yes, justification for delinquency:

Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

- No

Is the applicant a current recipient of a grant or loan from RUS?

- No

C. Partners

Are you partnering with any other key institutions, organizations, or other entities for this project?

- Yes

If YES, key partners are listed below:

Project Role: Contractor



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Name: Martin, Beau
 Phone: 6608822734
 Email: beau.aero@glenmartin.com
 Address 1: 13620 Old Hwy 40
 Address 2:
 Address 3:
 City: Boonville
 State: Missouri
 Zip Code: 65233
 Organization: GlenMartin, Inc
 Organization Type: For-profit Entity
 Small business: Yes
 Socially and economically disadvantaged small business concern: Yes

Project Role: Contractor
 Name: Bach, Chris
 Phone: 5734453200
 Email: cbach@malyrealty.com
 Address 1: 213 N Stadium Blvd Suite 203
 Address 2:
 Address 3:
 City: Columbia
 State: Missouri
 Zip Code: 65203
 Organization: Cygnus Towers
 Organization Type: For-profit Entity
 Small business: Yes
 Socially and economically disadvantaged small business concern: No

Project Role: Contractor
 Name: Halford, Todd
 Phone: 6309796363
 Email: thalford@alcatel-lucent.com
 Address 1: 1960 Lucent Lane
 Address 2: Suite: 9H-521
 Address 3:
 City: Naperville
 State: Illinois
 Zip Code: 60566
 Organization: Alcatel Lucent
 Organization Type: For-profit Entity
 Small business: No



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<p>Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: Olson, Dave Phone: 5738847200 Email: dolson@more.net Address 1: 3212A LeMone Industrial Blvd. Address 2: Address 3: City: Columbia State: Missouri Zip Code: 65201 Organization: Morenet Organization Type: Non-profit Corporation Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: Simmons, Kelvin Phone: 5737511851 Email: kelvin.simmons@oa.mo.gov Address 1: State Capitol Building, Room 125 Address 2: PO Box 809 Address 3: City: Jefferson City State: Missouri Zip Code: 65102 Organization: State of Missouri Office of Administration Organization Type: State or State Agency Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Contractor Name: Hess, Mark Phone: 6088866677 Email: mark.hess@corning.com Address 1: PO Box 489 Address 2: Address 3: City: Hickery State: North Carolina Zip Code: 28603</p>



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<p>Organization: Corning Cable Systems Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Contractor Name: Hoagland, Harold Phone: 9136633939 Email: harold.hoagland@adtran.com Address 1: 901 Explorer Blvd Address 2: Address 3: City: Huntsville State: Alabama Zip Code: 35806 Organization: Adtran Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Contractor Name: Bresemann, Kari Phone: 7735015111 Email: kbresemenn@motorola.com Address 1: 1303 E Algonquin Dr Address 2: Address 3: City: Schaumburg State: Illinois Zip Code: 60196 Organization: Motorola Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Sub-recipient Name: Boyers, Steve Phone: 5736869101 Email: sboyers@boycomonline.com Address 1: 3467 Township Line Rd Address 2: Address 3:</p>



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<p>City: Popular Bluff State: Missouri Zip Code: 63901-1519 Organization: BoyCom Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Strode, Daniel Phone: 5739858711 Email: dstrode@rallstech.org Address 1: 17594 Highway 19 Address 2: Address 3: City: New London State: Missouri Zip Code: 63459 Organization: Ralls County Electric Cooperative Organization Type: Cooperative or Mutual Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Klindt, Randy Phone: 6604336154 Email: rklindt@co-mo.coop Address 1: PO Box 220 Address 2: Address 3: City: Tipton State: Missouri Zip Code: 65081 Organization: Co-Mo Electric Cooperative Organization Type: Cooperative or Mutual Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Dorrel, Gene Phone: 8007481488 Email: dfarnan@ueci.coop</p>



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<p>Address 1: 30208 US Hwy 136 Address 2: Address 3: City: Maryville State: Missouri Zip Code: 64468 Organization: United Electric Cooperative Organization Type: Cooperative or Mutual Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Kohly, Matt Phone: 5734474301 Email: rmkohly@sockettelecom.com Address 1: 1515 Chapel Hill Road Address 2: Address 3: City: Columbia State: Missouri Zip Code: 65203 Organization: Socket Telecom Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Navarro, Oscar Phone: 7034567675 Email: onavarro@cogentco.com Address 1: 1015 31st Street, NW Address 2: Address 3: City: Washington State: District of Columbia Zip Code: 20007 Organization: Cogent Communications Organization Type: For-profit Entity Small business: No Socially and economically disadvantaged small business concern: No</p>



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Description of the involvement of the partners listed above in the project.

BlueBird Media's main partners will be Alcatel-Lucent, Motorola, Corning and GlenMartin. This group will be the key integrators of the network.

The Governor of Missouri has appointed the Office of Administration to oversee the development of a private/public partnership, <http://transform.mo.gov/broadband/>. BlueBird and the State will be working to develop low cost/high speed infrastructure to all end users of the State. BlueBird has been recommended by the State to build this network north of interstate 70 through a challenging due diligence process provided by the State. The key responsibility of this group is to bring all anchor institutions such as schools, universities, health care centers and public safety organizations.

BlueBird has also formed many alliances with all the Northern Coops, such as Ralls County, Co-Mo Electric and United Electric Coop. All three of these organizations are either building or planning a GPON network. Our agreement is to help them interconnect with the Internet Hotels out of St Louis and Kansas City.

Also, BlueBird Media is working with BoyCom to provide access out of St Louis to Union MO in order to serve a Middle Mile project in a distressed part of Southeast Missouri. Secondly, BlueBird has formed a peering agreement with Sho-Me Technologies in Sedalia and Washington, Missouri.

D. Congressional Districts

Applicant Headquarters

- Missouri

Project Service States

Missouri

Project Service Areas



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Missouri - 6

Missouri - 4

Missouri - 9

Missouri - 2

Missouri - 5

Missouri - 1

Missouri - 3

Will any portion of your proposed project serve federally recognized tribal entities?

➤ No

Indicate each federally recognized tribal entity your proposed project will serve.

Have you consulted with each of the federally recognized tribal entities identified above?

➤ No

E. Service Area Details

Is the applicant seeking a waiver for providing less than 100% coverage of a service area?

➤ No

Project Details

Service Area Type:

Middle Mile



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Service Area Name: Northern Missouri
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Underserved

If Service Status is "Underserved" please select at least one applicable option from this list.
No more than 50% of the households in the proposed funded service area have access to facilities-based, terrestrial broadband service at greater than the minimum broadband transmission speed;
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 29,900
Total Population in Proposed Service Area: 2,304,395
Total Number of Households in Service Area: 835,617
Total Number of Businesses in Service Area: 57,569
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 576
Unemployment Rate in the Service Area: 228,135
Median Income in the Service Area: 43,422
Estimated Percentage of Households with Access to Broadband: 415,000
Estimated Percentage of Households Subscribing to Broadband: 320,000

F. Community Anchor Summary

Community Anchor Summary	
Schools (k-12)	60
Libraries	24
Medical and Healthcare Providers	45
Public Safety Entities	60
Community Colleges	21
Public Housing	0
Other Institutions of	10



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Higher Education	
Other Community Support Organization	15
Other Government Facilities	75
TOTAL COMMUNITY ANCHOR INSTITUTIONS	310
Historically Black colleges and Universities	1
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	1

G. Project Benefits

Demographics	
Jobs	
How many direct jobs-years will be created from this project?	706
How many indirect jobs will be created from this project?	328
How many jobs will be induced from this project?	397

Methodology used to estimate jobs:



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From looking at the website, <http://www.whitehouse.gov/administration/eop/cea/Estimate-of-job-creation>, we used the guidance set forth to Agencies on Estimating Job-Years from Government Spending. The project value is a little over \$65 million dollars divided by \$92,000 per job year creating 706 jobs years.

Project Impact:

BlueBird Media's proposed middle mile network will change the face of everyday life of businesses and families. Our primary goal is to develop a 21st century broadband internet backbone, which will provide service to rural and underserved Missourians. The network is a private/public partnership between the State of Missouri and BlueBird Media. The project has received the support of the State, and Governor of Missouri, Jay Nixon. Once funded, the project will substantially reduce bandwidth prices, making the expansion of last mile broadband internet economically viable.

BlueBird's middle mile network will allocate a percentage of fiber to the State for its communication and public safety system. Additionally, BlueBird is working closely with Rural Cooperatives to support the development of FTTH to each household and business within the boundaries of this proposal. With the assistance and vision of the State, BlueBird will help be a force to provide 95 percent of the State with Broadband Internet access.

Supporting community anchor institutions with a direct connection is a primary mission for BlueBird Media, and our partner, MoBroadbandNow. BlueBird Media will directly connect approximately 32 secondary higher education facilities, 20 Department of Transportation facilities, 20 medical centers, and K-12 schools throughout our service area. Additionally, our network will be available to approximately 476 other key institutions.

BlueBird Media will provide a variety of service connections to last mile providers and businesses. Our plan will provide 30 megabyte, 100 megabyte, 500 megabyte, and 1 gigabyte access points. Already, BlueBird Media has obtained commitments from a variety of last mile providers, including Socket Internet, UECI, Co-Mo Electric, and Ralls County Electric Cooperative.

BlueBird Media hopes to service 60 percent of approximately 800,000 households, through a collaboration of cooperative utilities and the State of Missouri. Without the development of this project, it may be many years before rural and underserved Missourians have access to the broadband access required to participate in the 21st century economy.



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Vulnerable Populations:

BlueBird Media would note that all rural areas are vulnerable in the Midwest. Many of the rural communities that dot the countryside of Northern Missouri have been left behind because of a lack of infrastructure investment. Industries such as mills, manufacturing and railroads once provided jobs and relative prosperity. These towns thrived as county seats, and large service centers, offering better employment opportunities, along with a higher quality of life.

Small-town, rural Missouri, still exists, of course, but it is far different at the turn of the twenty-first century than at the dawn of the twentieth century. Many youth have been forced to leave these areas, to look for employment in other areas. Communities have been left behind, because of a lack of development and investment.

High speed Internet will provide a quality of life that will help to sustain and grow rural communities once again.

Level of Need:

Northern Missouri is desperate for a middle mile broadband provider that can lengthen the pipe for an Ultra High speed network. Within the service area there is fiber, but in most cases you will find many obstacles in using this existing fiber. The first obstacle is that the incumbent providers have a relatively small count of fiber with very few POP and off ramps. These providers have no reason to upgrade routes because their main interest is in transiting information between higher population bases such as Kansas City and St Louis. If they build on these routes they will be cannibalizing their through put to these major cities in which they collect a bulk of their revenue. Secondly, most of these systems are built on legacy equipment which didn't consider rural Missouri as a major bandwidth user. This legacy equipment isn't built on a true Ethernet based solution, which means upgrading existing fiber routes would cost almost as much as a new project. The reconstruction cost can not be funded by capital markets because of the very slow rate of return and the actual risk involved in actually having someone build the last mile with true fiber routes.

With the evolution of communication in the Nation, BlueBird Media has been working very closely with key institutions within the State and Federal Government. These organizations span health care, public safety and the educational System (please see support letters that show collaboration). BlueBird is working very closely to give these groups highly secure ultra high speed capacity for the evolution of communication in a state-wide area network.



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BlueBird Media has partnered with several last mile providers, and has agreed to provide bandwidth rates to these groups at rates over 50 percent lower than existing incumbent providers. The decrease in cost will make it feasible for these groups to lay fiber to the house in GPON solutions. Ralls County Electric stated to BlueBird, "It's nice now that AT&T won't be holding us hostage." This comment expresses the desperation many local providers of internet solutions are experiencing.

H. Technology

Technology Type

Indicate the technology that will be used to deliver last mile services. The following items were selected:

Wireline - Hybrid System

Other: Wireline-Fiber-Optic with Multiple Fixed Microwave Systems for Redundancy

Technology Questions

Methodology for Area Status:

A thorough review of BlueBird's proposed service area has determined that the area is considered underserved by broadband internet service. The rate of terrestrial broadband subscribers is well below 40 percent of households in the primary areas of coverage that BlueBird Media wishes to cover. BlueBird Media along with the State of Missouri Office of Administration has come up with this designation by using present mapping of existing fiber routes, working with electric coops, wireless coverage maps, outreach to Morenet and other health institutions, broadband petition forms, <http://www.petitiononline.com/mobroad/petition.html>, <http://www.onelasvegas.com/wireless/MO.html>, and by understanding present broadband availability and subscription data.

A sampling of the responses we have received are below.

“Rural Missouri has been severely disenfranchised in being able to attract high tech software and engineering companies because of the physical broadband limitations. This would open up significantly greater opportunities for the State's rural economy.” – Art Schneider, Zip 65233



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“I am a medical transcriptionist who lives in a rural area. Over the years, I have tried dial-up, satellite, and fixed wireless, all of which are substandard and has cost me incalculable amounts of pay for substandard internet connections. I am currently facing what may be a job loss in this economy because my internet connection cannot adequately support my company's software data transfer.” –Gail Choate, Zip 65725

“It's extremely limiting to not have high speed internet access. Living less than 1/2 a mile from an area that has high speed internet access is frustrating and somewhat discriminatory. It seems unreasonable for us to have to pay \$70 a month for the same access that nearby neighbors are paying less than half for. Technology is such a vital part of our lives and I feel like we're being left behind.” – Kim Happy, Zip 65101

A telephone survey was conducted to gather information on the current internet access speed of users randomly throughout the service area. The average we found out of 100 surveys conducted was downstream of 26 kbps, and 8 kbps upstream. When asked if they had tried a wireless ISP, 55% polled stated that they were unwilling to pay the extra amount of money for broadband because of increased cost and the unreliability of the systems available.

An analysis of the service area shows that 33 of the 44 counties represented in this plan are below 30,000 in population. Of these counties, the average population base is only 12,075. Most areas have internet coverage only within the small towns. A speed test of the “broadband” internet provided shows that the service they are actually receiving is not a true high speed broadband connection. Where there is coverage, the subscription rates are too expensive for a normal household because of their average household income of \$39,314.00.

Description of Network Openness:

Interconnection Policy

Pursuant to the Notice of Funds Available (NOFA), BlueBird Media will implement the following interconnection policy for its Northern Missouri Middle Mile-funded network:

- BTOP/BIP-funded portions of the BlueBird Media network will interconnect directly/indirectly to the public Internet; and



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- BlueBird Media will offer interconnection, where technically feasible without exceeding current or reasonably anticipated capacity limitations, on reasonable rates and terms to be negotiated with requesting parties; and
- BlueBird Media will make available access to BTOP/BIP-funded network components and services on a wholesale basis, on reasonable rates and terms to be negotiated with requesting parties; and
- BlueBird Media will participate in binding private arbitration of disputes concerning its interconnection obligations as outlined in this policy.

Nondiscrimination Policy

Pursuant to the NOFA, BlueBird Media will implement the following nondiscrimination policy for its Northern Missouri Middle Mile-funded network:

- BlueBird Media will adhere to the principles contained in the FCC’s Internet Policy Statement (FCC 05-151, adopted August 5, 2005); and
- BlueBird Media will not favor any lawful Internet applications or content over others.

Network Management Policy

Pursuant to the NOFA, BlueBird Media will implement the following network management policy for its Northern Missouri Middle Mile-funded network:

- BlueBird Media will display its network management policies in a prominent location on its service provider website and provide notice to customers of changes to these policies; and
- BlueBird Media will describe any business practices or technical mechanisms it employs, other than standard best efforts Internet delivery, to allocate capacity; differentiate among applications, providers, or sources; limit usage; and manage illegal or harmful content; and
- BlueBird Media reserves the right to reserve network capacity for the offering of managed services, as provided for in the NOFA, such as those provided to telemedicine, distance learning, and public safety providers, which may include specific quality of service (QoS) and security requirements that differ from those attributable to best efforts Internet traffic.

System Design:



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A northern Missouri Ultra-High capacity network does not currently exist today. BlueBird Media proposes a greenfield deployment utilizing rural routes through the interior portions of central and northern Missouri. BlueBird will be accessing its internet bandwidth from Tier 1 providers including Cogent, QWEST and LEVEL3. Existing contracts are in place for 10 GigE of service to be aggregated through this plan and existing partners in the St. Louis downtown metropolitan markets. Our primary internet aggregation POPS in Kansas City and St. Louis will be served by Alcatel Lucent 7750 SR-12 routers. Alcatel Lucent 7450 SR-7 will service institutions and rural communities as detailed in our Network Diagram 1: Overview of Elements and Capacity. Our primary backplane of our IPD switch fabric will enable us to manage up to 500 Gig duplex of services.

Our strategy is to extend 21st century high capacity bandwidth services to rural portions of the State. These services will enable us to offer affordable last mile delivery to existing last mile operators. BlueBird Media will become a tier 1 provider for North Missouri. Our efforts will extend well beyond delivery to include a variety of hosting content services including digital media, video, voice, music and gaming. These efforts will mostly be deployed through content delivery nodes strategically located throughout our shelter facilities. Content nodes will minimize and localize traffic thus minimizing delivery cost over our partner Tier 1 provider networks.

Route paths utilized within this plan predominantly parallel state highway right ways. These routes are not utilized by existing tier 1 providers. Thus we fill a definite delivery need within the state. Routes are subject to further modification. We believe they closely match the actual construction path we seek to fill. Notice the number of cities this plan reaches with populations well below 20,000. All 7450 ESS switches serviced in the coverage area will port a minimum 10 1 GigE per drop. This will enable enormous opportunities in local access and obviously improve interstate communication over a all ethernet solution.

BlueBird Media will establish their network operations center (NOC) within the city of Columbia, Missouri. It is our belief this location will attract commercial opportunities for the city and drive interest to collocate large data centers from third party providers. Rural communities will be able to benefit from localized economic development, enabling them to access facility resources. Interconnections within the State will also benefit as they aggregate to their existing client base. Please review Network Map 3 for points of interconnection within the State of Missouri.



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Our plan includes microwave point to point solutions supplied by a variety of suppliers including Motorola and Alcatel Lucent. Our primary reason for including microwave within our backbone was to minimize fiber route and deployment cost. Microwave offers quick deployment and affordable capex cost. Our routes will include 6, 11, 18 Ghz licensed routes for our primary backbone. Local institutional backhaul will be delivered to the primary institution and locally handed off at the last mile by local metrofiber rings and/or wireless Gigabit bridges. Layer 1 wireless bridging at the 70-80 Ghz licensed frequency range will enable us to minimize local last mile deliver cost will empowering the local community. GigaBeam Gi-Core product testimonials within health, education and government arenas clearly indicate the power of short haul transport in the 70-80 Ghz range.

The proposed network will include a 144 count within rural areas of Missouri and 288 count within the metropolitan areas of St. Louis and Kansas City. Our primary areas of expansion will include additional port cards and transport equipment hosted within our proposed original backplane. Our 7750 will aggregate up to 40 GigE of traffic on either side of the state. This means a total of 80 GigE of traffic will be aggregated. The network will progressively expand with additional switching and routing capacity as the demand grows. Expansion will simply require expansion of Alcatel Media Dependant Adapters, ports, and appropriate transceivers depending on route distance. Typical transceivers enable us to transport around 10 km but we have options up to 120 km without the need for regeneration.

The proposed plan offers enormous opportunities for the State of Missouri as we expand to GigE delivery and beyond. Our proposed infrastructure is a critical delivery requirement necessary throughout the entire US. Current US carriers are struggling with the imminent bandwidth shortage generated by devices like Apple's I-pod and upcoming tablet devices. It is our strong belief our project will stimulate additional venture capital opportunities throughout the US and abroad enabling rapid deployment of similar technology nationwide. The rural areas of Missouri will benefit as existing wireless cellular sites are upgraded and fed with full GigE services. Anchor institutions will benefit immediately with direct GigE services. Local electrical cooperatives will extend services in regions not currently serviced. Their access to high capacity low cost bandwidth will create a true business case for rural delivery nationwide.

Is the applicant seeking a waiver pursuant to section IX.C of the NOFA so as to sell or lease portions of the award-funded broadband facilities during their life?



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Yes

I. Project Budget

Project Budget		
	Federal Grant Request	Match
Last Mile	0	0
Middle Mile	45,868,900	19,658,100
Total	45,868,900	19,658,100

Project Budget Total: \$65,527,000

Match Percent: 30.0%

Projects Outside Recommended Funding Range:



Outside Leverage	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Matching cost detail	<p>Advantage Capital: In Due Diligence Phase for Additional Cashflow for Second Phase Operations Funding Amount: \$10,000,000 approximately 4.5% Type of Fund: Debt Use of Capital: Infrastructure Financing Terms: 10 year fixed interest rate</p> <p>Boone County: Cash Funding Amount: \$9,158,000 approximately 12.2% Type of Fund: Debt/Working Capital Use of Capital: Infrastructure Financing Terms: 15 year fixed interest rate</p>



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	<p>State of Missouri: InKind Match Value: \$10,500,000 approximately 14.5% Nature of InKind: Discounted ROW along any State Properties to Lay Fiber and Operate Facilities Qualifications: Government Benefits: State of Missouri will get heavily discounted Bandwidth rates and have the ability to fulfill the vision of covering 95 percent of Missouri with broadband Internet access</p>
Unjust enrichment	No federal support for non recurring cost has been applied for in this application or area.
Disclosure of federal and/or state funding sources	No federal or state funding will be given on this project. Only discounted inkind Right of Way will be provided by State of Missouri.
Budget reasonableness	<p>BlueBird Media has presented a plan installing over 981 Miles of Fiber and 250 Miles of 1GigE Microwave Backhaul. BlueBird decided to invest in a complete new greenfield because a thorough investigation of fiber counts throughout the service area varied greatly, and would not be consistent with the needs of a state-wide network. With help from the State, it was concluded to build a brand new 144 count fiber route to serve rural Missouri; an investment for now, and generations to come. \$65,627,000 represents a fraction of the cost of what most integrators would charge for a network of this magnitude. Bidding from other large integrators have showed ranges from 85 million to 105 million to implement this project. The reason for the large reduction in cost is the alliance that BlueBird Media has with its core vendors. BlueBird Media has received core discounts of 40 to 45% off list price in reference to hardware from Corning, Alcatel-Lucent and Motorola. Also, rather than commit to a large prime contractor such as GD, Black&Veatch or Bechtel, BlueBird Media has picked a contractor, GlenMartin which has experience in these type of builds as a subcontractor for multiple large builds. Their experience and pricing results in a reduction of project management overhead of nearly 8 percent on the project. BlueBird Media has developed an Ultra High Capacity Network at a discount of normal prices, while still creating a huge economic impact on the communities that it represents.</p>



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Demonstration of need	Please see attachments in the Pro Forma Financial Projections. Two graphs represent project funding with and without grant funding. If no funding would be provided on this project, the execution and completion of this network would not be possible because of the huge margin between revenue and operating Cost. Even with 70 percent matching funds, the first few years will be in the red. It will be after year two that the organization will start to become profitable. When calculating the generation of capital, it was calculated at a discount rate comparable to others in the area. However, it was very closely tied with connection rates near large bandwidth providers typical of which are located near Internet Hotels such as in downtown St Louis and Kansas City.
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Funds to States/Territories

States	Amount of Federal Grant Request
Missouri	45,868,900

Funds to States/Territories Total: \$45,868,900

J. Historical Financials

Matching Funds			
	2007	2008	2009
Revenue	0	0	0
Expenditures	0	0	0
Net Assets	0	0	0
Change in Net Assets from Prior Year	0	0	0
Bond Rating (if applicable)			



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K. Project Readiness

BTOP Organizational Readiness

BlueBird Media breaks up organizational readiness in four distinct areas: Design, Construct, Operate and Sustain. Design of the proposed network was provided by members of Marcel Services, P.C. and GlenMartin. GlenMartin is a certified Motorola VAR with a MWFE/MWSE certification. Members of their team are also certified with Alcatel Lucent products. In cooperation with Alcatel Lucent, they have designed a very robust network. GlenMartin RF/Fiber Engineers reviewed thoroughly all factors associated with the proposed coverage region. 90 percent of our routes are within areas not served by advanced services described within this proposal.

BlueBird Media is posed to accept the construction of this project. We will work closely with our engineering, construction management and construction partners to install this network rapidly. It is our opinion the proposed budgetary figures reflect highly competitive installation costs and are not inflated. BlueBird Media will utilize the support of GlenMartin which has over eight construction project managers, 30 construction crews, four IT managers, and necessary supporting staff to accomplish all construction related to this project. GlenMartin construction personal hold OSHA 10, CPR, and ComTrain tower safety certifications. Not only are GlenMartin personnel qualified to do the job, but they are committed to working in a safe manner. GlenMartin has developed networks 10 times larger than this project. GlenMartin contracts for prestigious companies such as T-Mobile, Verizon, and AT&T. GlenMartin has well over 20 years of construction experience related to the telecom field.

Operate and Sustainable Readiness: BlueBird has knowledgeable members with core attributes of Marketing, Sales, Operations and Technical Management. Marketing BlueBird Media will be taken care of by Beau Aero, a graduate of the University of Missouri. Mr. Aero has extensive experience in marketing internet applications, with a focus on sustained adoption. He has worked with multiple marketing plans ranging from \$1 to \$5 million dollars in scope. BlueBird will focus its marketing message to help draw core customers to this network. Operations will be supplemented with the support of Alcatel-Lucent personnel. An integrated service contract will enable us to manage the network efficiently. An integrated service platform will enable maximum functionality and flexibility of advanced billing, order/account management, provisioning and marketing systems. In addition to supporting the service offerings of today, the flexible "plug-and-play" architecture of ALU enables rapid support for the unknown value-added services of tomorrow. ALU Software addin enables IP-centric companies to rapidly build their



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business without worrying about the scalability, extensibility and functionality of their underlying systems. Sustainability: Core relationships with Electrical Cooperatives and key institutions will drive the long term success of this network.

Construction and Vendor Contracts

AlcatelLucent: Microwave and Radios for Network; Signed Agreement
GlenMartin: Construction Project Management; Signed Agreement
Marcel Services: Engineering Services; Signed Agreement
Motorola: PMP Radios and Canopy Solution; Signed Agreement
Corning: Fiber Supplier; Signed Agreement
Maly Realty: Site Acquisition and Zoning; Signed Agreement
Cygnus Towers: Tower Developer; Signed Agreement
Adtran: Routers and switches; Signed Agreement
GME Supply: Concrete Shelters; Signed Agreement
Tessco: Misc Routing Equipment
James Fencing: Fencing for Compounds
Gerstner Electric Company: Fiber installer
VComm Engineering: Engineering Services
Access Fiber Group: Fiber installer
Midwest Underground: Fiber installer

Customer Base

The proposed plan extends 1 GigE and services non-serviced areas in Central and Northern Missouri. Currently, the highest level of service available is a OC3 and typically is well below this level of service capacity. The greenfield deployment extends capacity to a typically non-serviced region of the country. Our Tier 1 services extend delivery beyond the traditional NFL city service regions. We will support local carriers and internet service providers with affordable wholesale bandwidth. Further, our network will enable us to extend media services beyond the metropolitan markets of Kansas City and St. Louis.

The North Missouri Ultra High Capacity Middle mile backbone network has formed partnership agreements with the following groups for delivery of affordable bandwidth:

-State of Missouri and its associated departments



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- North Missouri Electrical Coops
 - Ralls County Electric Cooperative
 - Sho-Me Power Electric Cooperative
 - United Electric Cooperative
 - COMO Electric Cooperative
- Missouri Hospital Association
- Missouri Primary Care Association
- Boycom Cable Vision
- Socket Internet

Additionally, BlueBird has the commitment from several small ISP's and local last mile providers to provide wholesale bandwidth. The commitment from these organizations will ensure sustainability to the new network.

Licenses, Regulatory Approvals and Agreements

Video Franchise Agreement: KA-2010-0043 with the PSC of State of Missouri
FCC: Microwave paths will be licensed upon final RF Analysis
FCC: Wimax Frequency 3.65 Callsign WQKV704 File # 0003941931
FAA Authorizations: Will apply once height for tower is determined based on RF Analysis
Cygnus Towers: Master Lease Agreement for Towers
ESPIN: Form 498 has been filled out and sent in for authorization
CLEC: Applying for right now via our attorney, expected in about 8 weeks

SPIN Number

BlueBird Media has registered for an ESPIN number. We estimate it should take about three weeks to process the paperwork, and receive the number.

L. Environmental Questionnaire

Project Description



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The primary scope of this project involves the construction of a 288/144 count fiber through rural areas of Missouri. Fiber will be laid down primary through state right of ways donated in-kind for this project within areas north of Interstate 70 from St. Louis to Kansas City Missouri. Fiber will be hung when possible and buried when necessary with the goal of minimizing construction cost.

The build will involve fiber switches/huts distributed within this region approximately 70 km apart. These huts will generally involve a compound approximately 100'x100' with direct access to state highways.

Approximately 50 sites will include cellular towers necessary for microwave transport of our network. These structures will generally be located within the fiber switch/hut compounds. Towers will only be added due to the significantly lower cost involved in transport in comparison to fiber construction.

Property Changes

Typical compounds will be a 100'x 100' area with geo fabric graveled facility with a 6' commercial grade fence. Our goal is to have minimal environmental impact to surrounding areas near the compound, and neighboring facilities.

Buildings

Typical buildings on premises will be a 10'x 20' Concrete Shelter. At this time fiber routes will be located on Rural Utility and MODot corridors.

Wetlands

BlueBird Media will not build on or within 500 feet of wetland.

Critical Habitats

No critical habitat will be effected by the this project.

Floodplain



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From review of National Flood Insurance Maps, no facilities or sites will be located within a 100 or 500 year flood plain.

Protected Land

No cultural resources or historic properties have been located within this project area at this time. NEPA and SHPO investigations have been started and reports will be filed on all construction sites before build.

Coastal Area

No coastal areas are within this project area.

Brownfield

BlueBird Media has identified no brownfield locations within our project area using the service map provided at <http://iaspub.epa.gov/Cleanups/MapItServlet>. Before site permits are obtained, contractors will be required to do due diligence to verify no area is classified as brownfield.



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Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Service Offerings and Competitor Data	CCI Service Offerings and Competitor Data Attachment.xls	Martin, Tatum	03/26/2010
Network Diagram	Network Map_Diagram V3.pdf	Martin, Tatum	03/24/2010
Build Out Timeline	CCI Build-Out Timeline Attachment.pdf	Martin, Tatum	03/24/2010
List of Community Anchors and Points of Interest	CCI Anchor Detail and POI Attachment.xls	Martin, Tatum	03/26/2010
Management Team Resumes and Organization Chart	Organization Chart BlueBirdMedia.pdf	Martin, Tatum	03/26/2010
Government and Key Partnerships	GovernmentKeyPartners.pdf	Martin, Tatum	03/26/2010
Historical Financial Statements	CCI Historical Financial Statements Attachment.pdf	Martin, Tatum	03/26/2010
Budget Narrative	CCIBudgetNarrativeAttachment.pdf	Martin, Tatum	03/23/2010



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Detailed Budget	CCI Detailed Budget 031910.xls	Martin, Tatum	03/26/2010
Pro-forma Forecast	CCI Pro Forma Financial Projections Attachment-Final.xls	Martin, Tatum	03/26/2010
Subscriber Estimates	CCI Subscriber Estimates Attachment.xls	Martin, Tatum	03/26/2010
Dashboard Metrics	CCI Key Metrics Dashboard Attachment.pdf	Martin, Tatum	03/26/2010
Service Area Data	CCI Service Areas Attachment.xls	Martin, Tatum	03/18/2010
Waivers	CCI Waiver AttachmentBlueBirdMedia.pdf	Martin, Tatum	03/18/2010
Network Maps	Network Map_Diagram V3.pdf	Martin, Tatum	03/24/2010
BTOP Certifications	AuthenticationCertificate.pdf	Martin, Tatum	03/18/2010
SF-424 C and D	SF424C.pdf	Martin, Tatum	03/23/2010
Supplemental Information	Info.pdf	Martin, Tatum	03/26/2010