



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Table of Contents

- A. General Application Information**
- B. Executive Summary, Project Purpose, and Benefits**
- C. Partners**
- D. Congressional Districts**
- E. Service Area Details**
- F. Community Anchor Summary**
- G. Project Benefits**
- H. Technology**
- I. Project Budget**
- J. Historical Financials**
- K. Project Readiness**
- L. Environmental Questionnaire**
- M. Uploads**



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	957995392
CCR # (CAGE)	1FGU6
Legal Business Name	CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Point of Contact (POC)	JEFF MOORE 2175582803 Ext. jeff.moore@illinois.gov
Alternate POC	TED HASARA 2175571966 Ext. ted.hasara@illinois.gov
Electronic Business POC	BRIAN CHUMLEY 2175247816 Ext. brian.chumley@illinois.gov
Alternate Electronic Business POC	JEFF MOORE 2175582803 Ext. jeff.moore@illinois.gov

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Ms.
First Name	Lori
Middle Name	C
Last Name	Sorenson
Suffix	



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Telephone Number	217-557-6565
Fax Number	217-785-6803
Email	lori.sorenson@illinois.gov
Title	Chief Operating Officer, BCCS

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

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. Kirk , Mulvany	2175576526	kirk.mulvany@il linois.gov

Environmental Point of Contact

Prefix: Mr. Name: Walters, Frank Suffix: Telephone Number: 2175576545 Title: Enterprise Architect

Organization Classification

Type of Organization	State or State Agency
Is the organization a small business?	No
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Authorized Organizational Representative	
AOR Name	MOORE, JEFF
Result	Applicant Authorized

Project Title and Project Description

Project Title: Illinois Broadband Opportunity Partnership East Central Region

Project Description: Illinois Broadband Opportunity Partnership East Central Region proposes to build a 2,248-mile fiber ring offering broadband speeds of 10 Mbps to 10 Gbps to 21 community colleges and 3,117 community anchors within 55 counties. Through collaborations with third-party service providers the network can serve an additional 5,861 community anchors, 3,931,975 households, and 285,410 businesses.

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.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Comprehensive Community Infrastructure Components

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
6681	Illinois Broadband Opportunity Partnership Northwest Region
4250	Illinois Broadband Opportunity Partnership Southern Region
4317	West Central Illinois Next Generation 911 & Community Anchor Middle Mile Network
2823	DeKalb Advancement of Technology Authority Broadband
1724	Urbana-Champaign Big Broadband - Below Ground (UC2B Middle Mile and Last Mile Infrastructure)
7314	SmartChicago Comprehensive Community Infrastructure
4513	Illinois: Cook County & South Suburban Mayors & Managers Association Regionally



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

	Connected Consortium
--	----------------------

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

Illinois Broadband Opportunity Partnership - East Central is part of a statewide coalition poised to bring sustainable and high-speed communication services to all communities across the State of Illinois. These higher-speed services are required to meet a wide range of critical needs, including needs pertaining to education, economic development, healthcare, and public safety. The IBOP partnerships are creating inter-organizational and community partnerships, providing broadband technology assessment and guidance, creating rigorous financial plans, and communicating with core constituencies. The IBOP partnerships will be a catalyst profoundly improving communications for underserved communities throughout Illinois.

One key objective of this initiative will be to implement a statewide core broadband infrastructure, based on optical fiber, that will connect multiple communities in the State in the near term. It will also serve as the foundation for additional development and expansion in the future.

Similarly, each of the regions participating in the IBOP partnerships will implement the same core broadband foundation of resources to meet near-term, intermediate-term and long-term needs. Two other IBOP proposals have been submitted by a separate lead entity: IBOP - Northwest, and IBOP - Southern. Additional regional collaborators include SmartChicago, West Central Illinois Next Generation 911 & Community Anchor Middle Mile Network, and Illinois: Cook County & South Suburban Mayors & Managers Association Regionally Connected Consortium.

While each project could operate individually, together they have a far greater impact interconnecting community anchor institutions from all areas of the state. This will have a significant impact upon online learning, health IT, enhanced 911, advanced research, and economic development, and Illinois' ability to implement that National Broadband Plan. These five regional projects will combine to provide fiber to the Illinois Century Network (ICN), the state's education network, and connect the community colleges and public universities to the ICN via fiber. The fiber network will significantly increase the ICN speeds by 16-fold, to 40 Gigabits per second (Gbps) with the capability to expand up to 640 times current capacity, or to 1.6 Terabytes per second (Tbps).



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

IBOP - East Central is also working with two successful infrastructure projects from Round One – DeKalb Advancement of Technology Authority (DATA) Broadband and Urbana-Champaign Big Broadband (UC2B). The proposed fiber network will interconnect with DATA and UC2B to enable schools, higher education and libraries in these two projects to connect to the Illinois Century Network.

Together, the six projects applying for Round Two funding and the two Round One awardees are expanding the impact of their single project to a statewide effort that will forever change Illinois' schools, colleges, universities, health centers, public safety, and economy.

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?

- Yes, Applicant is exempt because it is a unit of a state or local government

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

B. Executive Summary, Project Purpose and Benefits

Essay Question

Executive Summary of the proposed project:

Opportunity the proposed system seeks to address: Broadband service in many communities across the State of Illinois is often limited in coverage, bandwidth constrained, or priced beyond the means of many organizations. Broadband is frequently limited to 1-2 Megabits per second (Mbps) per facility in many rural communities. Yet our community anchor institutions need to



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

leverage broadband to enhance the delivery of their services, lower operational costs, and improve the quality of their offerings. They lack affordable access to high speed broadband services capable of supporting everyday 21st Century applications. More schools are moving to online learning. Healthcare increasingly needs to use sophisticated health IT records. Public safety requires enhanced 911. Rural communities need broadband connectivity to seek and retain businesses and people that drive economic growth. For all of these purposes, bandwidth-intensive applications require stable, synchronous connections with quality-of-service guarantees. Current broadband services are asynchronous, best-effort solutions. The fiber infrastructure will interconnect with the Illinois Century Network (ICN), the State's educational network. The ICN is an Internet2 Sponsored Educational Group Provider, which is the gateway for K-12 schools, libraries, and non-research higher education institutions to access Internet2.

The Illinois Broadband Opportunity Partnership - East Central Region (IBOP-EC) fiber-optic network will connect 3,138 anchor institutions, including 21 community colleges across 55 counties in the eastern, central and northern portions of Illinois. The network will support speeds ranging from 10 Mbps (about 2 to 3 times faster than the typical residential broadband offering) to 10 Gbps. Residential broadband service providers will be able to affordably extend their services into unserved or underserved communities with a potential to reach an additional 5,861 community anchors, 285,410 businesses and 3,931,975 households. Nine third-party service providers have provided letters of intent to use this project's middle-mile infrastructure and discussions continue with additional providers.

The project combines the strengths of five regional fiber-optic networks, and many community proposals, to provide a comprehensive statewide broadband infrastructure. Collectively, the projects will directly connect all 48 community colleges to the Illinois Century Network. The projects will interconnect networks and share fiber infrastructure, providing network redundancy, while also avoiding duplication. A key component of the proposal is a community-driven initiative to extend broadband connections to 241 anchor institutions in McLean, Woodford, Livingston, Logan, Piatt, and DeWitt counties. Led by Illinois State University, the Central Illinois Regional Broadband Network (CIRBN) project builds fiber in a number of communities and has developed a governance structure to ensure the long term viability and expansion of the network. The CIRBN model can easily be replicated in more communities in the future.

IBOP-EC will leverage existing state assets to maximize the reach and impact of the proposed network. The Illinois Department of Transportation and the Illinois State Toll Highway



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Authority are providing access to existing fiber. The Illinois Century Network has existing network facilities, many located on university campuses, throughout the state that can be used for the optical equipment and network access points. The Illinois Department of Transportation has pledged its assistance in expediting the permitting of rights-of-way to ensure the project is completed as quickly as possible – and providing community anchor institutions with timely access to broadband.

General description of the proposed funded service areas: Forty-seven of the 55 counties in the proposed service area are underserved with residential broadband subscriptions less than 40%. Thirteen counties are economically distressed with above average unemployment rates and low median incomes.

Number of households and businesses passed: The proposed funding service areas includes: 3,931,975 households and 285,410 businesses.

Number of community anchor institutions passed and/or involved with project: The proposed network will pass 8,999 community anchor institutions of which 3,138 will be directly connected including 1,143 K-12 schools, 21 community colleges, 189 higher education institutions, 58 healthcare facilities, 294 libraries, 106 public safety entities and 1,327 other sites This project includes the active participation of and matching funds from 41 partners, including 19 K-12 school districts, 1 community college, 2 higher education institutions, 10 municipal and public safety entities, 8 commercial organizations, 2 healthcare organizations, 1 non-profit organization, and the State of Illinois.

Proposed services and applications for the proposed funded service areas and users: The proposed network will provide broadband speeds ranging from 10 Mbps to 10 Gbps, as well as leasing dark fiber and wave services for businesses and third-party service providers. The network will provide access to the Internet, private peering points, Internet2 and the National Lambda Rail. Nine commercial service providers have already provided letters of intent to use the middle mile infrastructure to deliver broadband services to residents and businesses throughout the service area.

Approach to addressing the non-discrimination and interconnection obligations: The network includes 322 interconnection points ensuring easy access for third-party services providers. IBOP-EC fully embraces the non-discrimination and interconnection obligations and has



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

designed the network and service offerings accordingly. IBOP-EC will make all elements of the network available to other service providers including dark fiber, wave services, and point-to-point Ethernet services.

Type of broadband system that will be deployed: The backbone network is designed as a DWDM architecture operating over a combination of new, existing and leased fiber spanning 2,248 miles. New fiber construction consists of 144 strands of single mode fiber covering approximately 1,026 miles. Existing fiber covers 1,096 miles and includes 4 or more strands of single-mode fiber. Leased fiber covers 126 miles. Within the Central Illinois Regional Broadband Network (CIRBN) metropolitan area the network design includes 288 strands of single mode fiber due to the higher node density found in metro environments.

Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable system: Central Management Services (CMS) has been providing broadband services to more than 7,000 community anchor institutions for more than 10 years via the ICN. The ICN is an internet protocol network running multi-protocol label switching with 15 points-of-presence. Through the Illinois Broadband Opportunity Partnership, the State of Illinois has assembled a team of fiber and broadband resources to assist with the network design and implementation. Collectively, these resources have installed and operated more than 1,000 miles of fiber. These fiber experts include representatives from the Illinois State Toll Highway Authority, Northern Illinois University, University of Urbana-Champaign, Illinois State University, Metropolitan Research & Education Network, and I-WIRE. The CMS and ISU operations include a team of network engineers and a 24x7 network operations center to manage the project implementation and ongoing operations. CMS has established back office systems to support ordering, billing, inventory, and technical support operations. Once implemented, Illinois State University and the founding members of CIRBN plan to form a non-profit, Limited Liability Company to assume ongoing operations of the community fiber network.

Overall infrastructure costs of the broadband system: Total project cost is \$96,382,028. IBOP-EC is providing a cash match of \$30,538,950 or 31.69% and \$3,947,796, or 4.1%, as an in-kind contribution; for a total local match of \$34,486,746, or 35.79%. More than 40 partners have contributed to the local match.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Overall expected subscriber projections: The estimated number of direct subscribers by year eight is 3,377 community anchor institutions, 127 businesses, and 61 third-party service providers.

Number of jobs estimated to be created or saved: According to a report released by the Council of Economic Advisers, Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009, we estimate the proposed project will create 1,057 job years which can be further broken out into 676 direct and indirect jobs and 381 induced jobs.

Project purpose:

a. Project addresses compelling problem or presents an opportunity consistent with the BTOP statutory goals. Broadband service in many communities across the State of Illinois is often limited in coverage, bandwidth constrained, or priced beyond the means of many organizations. Broadband is frequently limited to 1-2 Mbps per facility in many rural communities. Yet our community anchor institutions need to leverage broadband to enhance the delivery of their services, lower operational costs, and improve the quality of their offerings. They lack affordable access to high speed broadband services capable of supporting everyday 21st Century applications. More schools are moving to online learning. Healthcare wants to use sophisticated health IT records. Public safety requires enhanced 911. Rural communities need broadband connectivity to seek and retain businesses and people that drive economic growth. For all of these purposes, bandwidth-intensive applications require stable, synchronous connections with quality-of-service guarantees. Current broadband services are asynchronous, best-effort solutions. For more than seven years, the Illinois Century Network Advanced Engineering Taskforce has been exploring the costs and benefits of a high-speed fiber network to connect education, healthcare, government and other anchor institutions. This fiber solution will provide significantly higher speeds at a low operating cost. Steep implementation costs have prevented our ability to act on these plans. And with the State of Illinois suffering from budget deficits, this project would not be possible without federal stimulus funding.

b. Project offers an effective solution to that problem or addresses the opportunity. The IBOP-EC fiber-optic network will connect 3,138 anchor institutions, including 21 community colleges across 55 counties in the eastern, central and northern portions of Illinois. An additional 5,861 anchors have the potential to access the network through third-party service providers, and through future network extensions. The network will support speeds ranging from 10 Mbps



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

(about 2 to 3 times faster than the typical residential broadband offering) to 10 Gbps. Residential broadband service providers will be able to affordably extend their services into unserved or underserved communities. Nine third party service providers have provided letters of intent to use this project’s middle-mile infrastructure to serve a possible 285,410 businesses and 3,931,975 households. The fiber infrastructure will interconnect with the Illinois Century Network (ICN), the State’s educational network. The ICN is an Internet2 Sponsored Educational Group Provider, which is the gateway for K12, libraries, and non-research higher education institutions to access Internet2. The three other IBOP projects will rely on IBOP-EC for connectivity to the ICN and Internet2. The fiber network is resilient, economically sustainable, and scalable to meet the long term needs of the East Central Region, and the other interconnecting IBOP projects.

c. Proposed solution demonstrates broad significance and includes developments that can be replicated to improve future projects. The project combines forces with regional proposals to provide a comprehensive statewide solution. Collectively, these regional projects will directly connect all 48 community colleges to the Illinois Century Network. The projects will interconnect networks and share fiber infrastructure, providing redundancy. A key component of the proposal is a community-driven initiative to extend broadband connections to 241 anchor institutions in McLean, Woodford, Livingston, Logan, Piatt, and DeWitt counties. Led by Illinois State University, the Central Illinois Regional Broadband Network (CIRBN) project builds fiber in a number of communities and has developed a governance structure to ensure the long term viability and expansion of the network. This model can easily be replicated in more communities in the future.

d. Whether the proposed funded serve area is in an unserved or underserved area. Forty-seven of the 55 counties in the proposed service area are underserved with residential broadband subscriptions less than 40%. Within the CIRBN service area, surveys conducted on ISP costs revealed that the average school district paid over \$1,100 per month for less than 10 Mbps of service. With CIRBN, the average school district would pay nearly \$650 per month for 1Gbps of service to each facility.

e. The extent to which the project addresses more than one statutory purpose.

IBOP – East Central Region meets four statutory purposes:



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

- b) Provide improved access to broadband service to consumers residing in underserved area by providing broadband services to 47 underserved counties. These areas include 2,948,422 households, 197,081 businesses, and 7,252 community anchor institutions. Thirteen of the underserved counties are also economically disadvantaged.
- c) Provide broadband education, awareness, training, access, equipment and support to community anchor institutions by providing significantly increased broadband speeds to 1,143 K-12 schools, 21 community colleges, 189 higher education institutions, 58 healthcare entities, 294 libraries, 106 public safety entities, and 1,327 other sites.
- d) Improve access to, and use of, broadband services by public safety agencies by directly connecting 106 public safety agencies including fire and police stations.
- e) Stimulate the demand for broadband, economic growth, and job creation by creating or retaining nearly 1,057 job years. Access to high-speed fiber will result in improved job-skills training, education, healthcare, and public safety in areas of high unemployment. These factors will combine to retain businesses, enable businesses to expand operations and entice new businesses and home-based workers to relocate to areas outside of the congested urban areas.

Recovery Act and Other Governmental Collaboration:

IBOP-EC is specifically designed to support the following initiatives:

Illinois Cloud – a K-12 grass-roots initiative to provide a hosted data center enabling the sharing of applications, data storage, and instructional technology resources at lower costs. Currently, most schools lack adequate broadband connections to utilize the Illinois Cloud services. The proposed fiber network will significantly increase school broadband and connectivity to the Illinois Cloud data centers through the Illinois Century Network.

Race to the Top – Illinois is one of 16 finalists for the U.S. Department of Education’s Race to the Top (RTTT) grant. Illinois’ application is focused on creating innovative reforms to improve student learning by implementing a hosted learning and performance management system and a cloud computing infrastructure. The proposed fiber network is needed to provide schools with significantly faster broadband connections, and connectivity to the RTTT proposed systems and applications.



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Illinois Rural HealthNet – IBOP-EC will provide fiber for portions of the Illinois Rural HealthNet backbone, and direct connections to health care providers in the proposed service area. The IRHN is a \$21 million FCC Rural Health Pilot Project.

Smart Grid Communications Network –The National Broadband Plan highlights the need for reliable and resilient broadband communications networks to support Smart Grid applications. The proposed infrastructure is designed to be highly reliable and redundant in order to meet mission-critical public safety and healthcare applications. IBOP-EC will work with the Governor and the State’s regulatory commission to leverage the fiber infrastructure for Smart Grid technologies throughout Illinois.

McLean County Business Incubator – This project is a collaborative effort between Illinois State University and the Economic Development Council for McLean County. It support business development by providing logistical and support services to local entrepreneurs and developing businesses. It facilitates business development, stimulates job creation and promotes business research, innovation and commercialization. The grants that support this project are in excess of \$850,000.

SMART IMPACT (Success in Mathematics, Arts and Reading Through Integrated Modeling to Prepare Arts Confident Teachers) – This project is a collaborative effort between Iroquois-Kankakee Regional Office of Education (I-KAN) and Illinois State University. It will allow educators to produce lesson plans for any teacher, at any grade level, in any environment in the disciplines of dance, drama, music and visual arts. This aligns with state and national standards for arts education. This project will produce a collection of case material, tool kits, strategies for employing them, and discussions of any problems and solutions.

Fit with BTOP CCI Priorities:

Due to the extensive planning efforts involving a number of organizations that have collaborated on this effort, IBOP-EC believes that this project meets or exceeds all seven CCI priorities.

1. Deploy Middle Mile broadband infrastructure with a commitment to offer new or substantially upgraded service to community anchor institutions. The proposed fiber network will directly connect 3,138 anchor institutions within 55 counties, an additional 5,861 anchor institutions through third-party service providers, and upgrade the core infrastructure for the



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

State’s educational network – Illinois Century Network. The network will offer speeds ranging from 10 Mbps to 10 Gbps with connections to the Illinois Century Network, Internet2, National Lambda Rail, Illinois Rural HealthNet and Central Illinois Regional Broadband Network (CIRBN). The directly connected anchor institutions include 1,143 K-12 schools, 21 community colleges, 189 higher education institutions, 58 healthcare entities, 294 libraries, 106 public safety entities, and 1,327 other sites.

2. Deploy Middle Mile broadband infrastructure and incorporate a public-private partnership among government, non-profit and for-profit entities, and other key community stakeholders. This project includes the active participation of and matching funds from 41 partners, including 19 school districts, 1 community college, 2 higher education institutions, 10 municipal and public safety entities, 8 commercial organizations, 2 healthcare organizations, 1 non-profit organization, and the State of Illinois. Further, this project is part of a statewide coalition of regional proposals to build a state fiber infrastructure. This coalition includes two private companies, which will build and operate fiber broadband networks in western and southern Illinois and one public entity that will build and operate fiber broadband networks in northwestern Illinois. In the northeastern region of the state, IBOP-EC is coordinating with SmartChicago and Cook County to reach community anchor institutions. The private companies, Geneseo Communications (western Illinois) and Clearwave (southern Illinois), have committed to interconnecting networks and providing dark fiber to connect community colleges and public universities to the Illinois Century Network. The public entities will rely on fiber from this proposal to connect education, healthcare, and public safety entities to the Illinois Century Network.

3. Deploy Middle Mile broadband infrastructure in economically distressed areas. IBOP-EC expands broadband service to 13 economically distressed counties. Four counties have unemployment rates that exceed 10%. Standing alone, broadband service will not improve a community’s economic status. What is needed is access to workforce training, adult education, and business incubators to help create jobs and to prepare unemployed adults for new careers. Our community colleges provide these critical education services. The proposed IBOP-EC network will connect all 21 community colleges located in the proposed service area increasing their ability to expand online learning and respond to record enrollment levels. Additionally, the network will provide broadband services to the McLean County Business Incubator through CIRBN.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

4. Deploy Middle Mile broadband infrastructure to community colleges. IBOP-EC extends fiber broadband services directly to 21 community colleges. Through the statewide coalition of regional proposals, all 48 community colleges will be connected to the Illinois Century Network. The fiber network will upgrade the Illinois Century Network from 2.5 Gbps to a minimum of 40 Gbps and interconnect all three IBOP regional projects thus creating a high-speed, low-cost, broadband network, connecting all Illinois community colleges and public universities for online learning and advanced research.

5. Deploy Middle Mile broadband infrastructure to public safety. The proposed network will directly connect 30 public safety entities – 20 of these entities reside in rural communities, 2 include 911 centers.

6. 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. IBOP-EC has letters of intent from nine Last Mile providers, who plan to use the Middle Mile infrastructure to extend broadband services to additional anchor institutions, businesses, and households in underserved areas of central and eastern Illinois. Three of the nine service providers have provided a cash match as a partner with CIRBN. They include ConnectivityU (a service provider for a number of apartment complexes in Bloomington-Normal), A5 Networks (a service provider for small to medium businesses in Bloomington-Normal), and Gridley Telephone Company (a wireline provider for Gridley and surrounding parcels). Negotiations are currently underway with HiBeam (a wireless service provider for western McLean County) and KeyOn (a wireless provider looking to market service in Central Illinois) to become a partner in CIRBN.

7. Deploy Middle Mile broadband infrastructure and the applicant has proposed to contribute 30 percent or more in non-federal cost match. IBOP-EC is committed to a non-federal match that exceeds 30 percent. This includes a 31% cash and 4% percent in-kind. The local match includes contributions from multiple sources including Illinois Century Network, Department of Transportation, and 41 community anchor institutions who have signed on as partners to the project.

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



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

➤ 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: Sub-recipient Name: Custer, Rodney Phone: 3094382528 Email: researchoffice@ilstu.edu Address 1: Campus Box 3040 Address 2: Address 3: City: Normal State: Illinois Zip Code: 61790-3040 Organization: Illinois State University Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No

Project Role: Other Name: Rubins, Scott Phone: 3099448000



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Email: telco@geneseo.net
Address 1: 111 East First St.
Address 2:
Address 3:
City: Geneseo
State: Illinois
Zip Code: 61254-2123
Organization: Geneseo Communications, Inc.
Organization Type: For-profit Entity
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Riggs, Scott
Phone: 6182948030
Email: sriggs@clearwave.com
Address 1: P.O. Box 808 2 North Vine Street Floor #3
Address 2:
Address 3:
City: Harrisburg
State: Illinois
Zip Code: 62946-0808
Organization: Delta Communications, LLC dba Clearwave Communications
Organization Type: For-profit Entity
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Hanson, Gary
Phone: 8158957125
Email: garyhanson@dekalbcounty.org
Address 1: 200 N Main Street
Address 2:
Address 3:
City: DeKalb
State: Illinois
Zip Code: 60178-1431
Organization: DeKalb Advancement of Technology Authority Broadband
Organization Type: County Government
Small business: No
Socially and economically disadvantaged small business concern: No



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Project Role: Third party in-kind contributor
Name: Fisher, Eric
Phone: 3098207498
Email: eric@a5.com
Address 1: 211 Prospect
Address 2: Suite 15
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61704
Organization: A5.Com
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Vitali, Vince
Phone: 3092682318
Email: vvitali@bromenn.org
Address 1: 1300 Franklin Avenue
Address 2:
Address 3:
City: Normal
State: Illinois
Zip Code: 61761
Organization: Advocate BroMenn Medical Center
Organization Type: Non-profit Corporation
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Schwermin, Mike
Phone: 3098285226
Email: mikeschwermin@afni.com
Address 1: 404 Brock Drive
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61701



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

<p>Organization: Afni Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Hoeflerle, Kurt Phone: 3098278576 Email: kurt@apartment-mart.com Address 1: 912 North Linden Street Address 2: P.O.B. 670 Address 3: City: Bloomington State: Illinois Zip Code: 61701 Organization: Apartment Mart Inc. Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Finchum, Fred Phone: 2176482351 Email: mayoratlantail@verizon.net Address 1: 107 North West First Street Address 2: P.O.B. 385 Address 3: City: Atlanta State: Illinois Zip Code: 61723 Organization: Atlanta, City of Organization Type: City or Township Government Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Cornejo, Louis Phone: 3094541770 Email: lcornejo@thebabyfold.org Address 1: 108 East Willow Address 2:</p>



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

<p>Address 3: City: Normal State: Illinois Zip Code: 61761 Organization: The Baby Fold Organization Type: Non-profit Corporation Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Peterson, Jim Phone: 3098287115 Email: petersonj@district87.org Address 1: 1202 East Locust Address 2: Address 3: City: Bloomington State: Illinois Zip Code: 61701 Organization: Bloomington District 87 Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Sprouls, Scott Phone: 3094342509 Email: ssprouls@cityblm.org Address 1: 109 East Olive Address 2: Address 3: City: Bloomington State: Illinois Zip Code: 61701 Organization: Bloomington, City of Organization Type: City or Township Government Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Barringer, Eric</p>



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Phone: 3099282622
Email: ebarringer@blueridge18.org
Address 1: 411 North John Street
Address 2:
Address 3:
City: Farmer City
State: Illinois
Zip Code: 61842
Organization: Blue Ridge District 18
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Henehan, Jim
Phone: 3096617000
Email: JHENEHAN@BLMCCHS.ORG
Address 1: 1201 Airport Road
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61704
Organization: Central Catholic High School
Organization Type: Non-profit Institution
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Koski, Jeff
Phone: 3098276026
Email: jkoski@chestnut.org
Address 1: 1003 Martin Luther King Drive
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61701
Organization: Chestnut Health Systems
Organization Type: Non-profit Corporation
Small business: No



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Onken, Ric
Phone: 3098888942
Email: ric.onken@mhma-bn.com
Address 1: 307 North Harrison
Address 2:
Address 3:
City: Colfax
State: Illinois
Zip Code: 61728
Organization: Colfax, Village of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Other
Name: Kessler, Mike
Phone: 3094514200
Email: mkessler@connectivityu.com
Address 1: 608 Kingsley Street
Address 2:
Address 3:
City: Normal
State: Illinois
Zip Code: 61761
Organization: Connectivity U
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Drilling, Barb
Phone: 3094527040
Email: barbdrilling@epiphanyschools.org
Address 1: 1002 East College Avenue
Address 2:
Address 3:
City: Normal
State: Illinois



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

<p>Zip Code: 61761 Organization: Epiphany Catholic School Organization Type: Non-profit Institution Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Crump, Randy Phone: 3094675734 Email: crumpr@district140.org Address 1: 109 West Cruger Avenue Address 2: Address 3: City: Eureka State: Illinois Zip Code: 61530 Organization: Eureka CUSD 140 Organization Type: Non-profit Institution Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Other Name: Flesher, Herb Phone: 3097472221 Email: hflesher@gridtel.com Address 1: 103 East Third Street Address 2: Address 3: City: Gridley State: Illinois Zip Code: 61744 Organization: Gridley Telephone Organization Type: For-profit Entity Small business: Yes Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Minter, Doug Phone: 3092688385 Email: doug.minter@heartland.edu Address 1: Information Technology</p>



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

Address 2: 1500 West Raab Road
Address 3:
City: Normal
State: Illinois
Zip Code: 61761
Organization: Heartland Community College
Organization Type: State or State Agency
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Zobel, Daniel
Phone: 3094733727
Email: zobeld@husd4.k12.il.us
Address 1: Unit Office
Address 2: 522 East Main Street
Address 3:
City: Heyworth
State: Illinois
Zip Code: 61745
Organization: Heyworth CUSD 4
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Mowery, Larry
Phone: 3094732811
Email: mayor@heyworth-il.gov
Address 1: 108 South Buchanan
Address 2:
Address 3:
City: Heyworth
State: Illinois
Zip Code: 61745
Organization: Heyworth, Village of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Name: Kwasny, Lance
Phone: 3098302213
Email: [REDACTED]
Address 1: 705 North Roosevelt Avenue
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61701
Organization: Holy Trinity Catholic School
Organization Type: Non-profit Institution
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Brutlag, Dave
Phone: 3097261070
Email: [REDACTED]
Address 1: Hudson Water House
Address 2: P.O.B. 221
Address 3: 109 Front Street
City: Hudson
State: Illinois
Zip Code: 61748
Organization: Hudson, Village of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Henderson, Heath
Phone: 3099629312
Email: heath.henderson@leroy.k12.il.us
Address 1: 600 East Pine Street
Address 2:
Address 3:
City: LeRoy
State: Illinois
Zip Code: 61752
Organization: LeRoy CUSD #2
Organization Type: Other



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Nettles, Curt
Phone: 3093654141
Email: cnettles@lexington.k12.il.us
Address 1: 100 East Wall Street
Address 2:
Address 3:
City: Lexington
State: Illinois
Zip Code: 61753
Organization: Lexington CUSD #7
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Mohr, John
Phone: 3093653331
Email: john.mohr@bayercropscience.com
Address 1: 329 West Main Street
Address 2:
Address 3:
City: Lexington
State: Illinois
Zip Code: 61753
Organization: Lexington, Village of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Groves, Kathy
Phone: 3092684357
Email: kgroves@lincolncollege.edu
Address 1: 715 West Raab Road
Address 2:
Address 3:
City: Normal



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

State: Illinois Zip Code: 61761 Organization: Lincoln College Organization Type: Non-profit Institution Small business: No Socially and economically disadvantaged small business concern: No
Project Role: Third party in-kind contributor Name: Cunningham, Nate Phone: 3094524476 Email: cunninghamn@unit5.org Address 1: 1809 West Hovey Avenue Address 2: Address 3: City: Normal State: Illinois Zip Code: 61761 Organization: McLean County Unit 5 School District Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No
Project Role: Third party in-kind contributor Name: Hite, Mindy Phone: 3094549625 Email: mhite@normal.org Address 1: Information Technology Department Address 2: 100 East Phoenix Address 3: P.O.B. 589 City: Normal State: Illinois Zip Code: 61761 Organization: Normal, Town of Organization Type: City or Township Government Small business: No Socially and economically disadvantaged small business concern: No
Project Role: Third party in-kind contributor Name: Powers, Scott Phone: 3093796011 Email: scott.powers@olympia.org



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Address 1: Olympia High School
Address 2: 903 East 800 North Road
Address 3:
City: Stanford
State: Illinois
Zip Code: 61774
Organization: Olympia Community Unit School District 16
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: McCabe, Michael
Phone: 8158421533
Email: mccabemic@p429.k12.il.us
Address 1: District Office
Address 2: 117 West Livingston
Address 3:
City: Pontiac
State: Illinois
Zip Code: 61764
Organization: Pontiac Community Consolidated School District 429
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Johnson, Leo
Phone: 8158446113
Email: leojohnson@pontiac.k12.il.us
Address 1: 1100 East Indiana Avenue
Address 2:
Address 3:
City: Pontiac
State: Illinois
Zip Code: 61764
Organization: Pontiac Township High School District 90
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Project Role: Third party in-kind contributor
Name: Karls, Robert
Phone: 8158443396
Email: bob.karls@pontiac.org
Address 1: Pontiac City Hall
Address 2: 115 West Howard Street
Address 3:
City: Pontiac
State: Illinois
Zip Code: 61764
Organization: Pontiac, City of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Tetley, Phil
Phone: 8156922245
Email: ptetley@prairiecentral.org
Address 1: 605 North Seventh Street
Address 2:
Address 3:
City: Fairbury
State: Illinois
Zip Code: 61739
Organization: Prairie Central CUSD #8
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Hoffman, Glen
Phone: 3098285807
Email: ghoffman@rasblm.org
Address 1: 408 West Washington
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61701
Organization: Regional Alternative School Dewitt Livingston McLean Counties



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

<p>Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Jontry, Mark Phone: 3098885120 Email: jontrym@roe17.org Address 1: 905 North Main Street Address 2: Suite 1 Address 3: City: Normal State: Illinois Zip Code: 61761 Organization: Regional Office of Education 17 Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Dodds, Larry Phone: 3097235111 Email: ldodds@ridgeview19.org Address 1: District Office Address 2: 309 Harrison Street Address 3: City: Colfax State: Illinois Zip Code: 61728 Organization: Ridgeview District 19 Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Elder, Marc Phone: 3098884600 Email: marc@sami.com Address 1: 608 Kingsley Street Address 2: Suite A Address 3:</p>



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

City: Normal
State: Illinois
Zip Code: 61761
Organization: SAMI
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Pfeiffer, Tim
Phone: 3096617851
Email: tpfeiffer@poweredbystl.com
Address 1: 501 Towanda Barnes Road
Address 2:
Address 3:
City: Bloomington
State: Illinois
Zip Code: 61704
Organization: STL Technology Partners
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Thomas, William
Phone: 2176482479
Email: wthomas@teleologic.net
Address 1: 114 SW Arch Street
Address 2:
Address 3:
City: Atlanta
State: Illinois
Zip Code: 61723
Organization: Teleologic Learning Company
Organization Type: For-profit Entity
Small business: Yes
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Simonson, Curt
Phone: 3093782351



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Email: csimonson@tri-valley.k12.il.us
Address 1: 410 East Washington
Address 2:
Address 3:
City: Downs
State: Illinois
Zip Code: 61736
Organization: Tri-Valley School District
Organization Type: Other
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Walden, Chad
Phone: 3097271150
Email: walden@mtco.com
Address 1: P.O.B. 44
Address 2:
Address 3:
City: Arrowsmith
State: Illinois
Zip Code: 61722
Organization: Arrowsmith, Village of
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Genung, Scott
Phone: 3094382528
Email: sabenung@ilstu.edu
Address 1: Campus Box 3040
Address 2:
Address 3:
City: Normal
State: Illinois
Zip Code: 61790
Organization: Illinois State University
Organization Type: State or State Agency
Small business: No
Socially and economically disadvantaged small business concern: No



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Project Role: Third party in-kind contributor
Name: Nelson, Craig
Phone: 3098885100
Email: craig.nelson@mcleancountyil.gov
Address 1: Government Center
Address 2: 115 East Washington
Address 3: Room 202
City: Bloomington
State: Illinois
Zip Code: 61701
Organization: McLean County Illinois Government
Organization Type: County Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Powell, Dennis
Phone: 3094733223
Email: rtfdfire@verizon.net
Address 1: 103 South Buchanon Street
Address 2:
Address 3:
City: Heyworth
State: Illinois
Zip Code: 61745
Organization: Randolph Township Fire Protection District
Organization Type: City or Township Government
Small business: No
Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor
Name: Hixson, Paul
Phone: 2172442834
Email: pch@illinois.edu
Address 1: College of Agricultural, Consumer, and Environmental Sciences University of Illinois
Address 2: 64 Mumford Drive
Address 3: 1301 Gregory Drive
City: Urbana
State: Illinois
Zip Code: 61801



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

<p>Organization: University of Illinois Extension Offices Organization Type: State or State Agency Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Kissinger, Justin Phone: 3095274410 Email: kissengerj@unit11.org Address 1: 97 West Fifth Street Address 2: Address 3: City: El Paso State: Illinois Zip Code: 61738 Organization: El Paso-Gridley CUSD #11 Organization Type: Other Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Kinkade, Mark Phone: 217 Email: mark.kinkade@illinois.gov Address 1: 2300 S Dirksen Parkway Address 2: Address 3: City: Springfield State: Illinois Zip Code: 62764 Organization: Illinois Department of Transportation Organization Type: State or State Agency Small business: No Socially and economically disadvantaged small business concern: No</p>
<p>Project Role: Third party in-kind contributor Name: Vargas, Ed Phone: 6302416800 Email: evargas@getipass.com Address 1: 2700 Ogden Avenue Address 2:</p>



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Address 3:
City: Downers Grove
State: Illinois
Zip Code: 60515
Organization: Illinois State Toll Highway Authority
Organization Type: State or State Agency
Small business: No
Socially and economically disadvantaged small business concern: No

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

The IBOP-EC proposed network has been developed in collaboration with multiple public, private and governmental entities at a statewide, regional and local level.

At a statewide level, the project includes a collaboration with the Illinois Century Network (ICN), the state's educational broadband network. In fact, the proposed network originates from recommendations from the ICN's Advanced Engineering Taskforce 2006 recommendations for a fiber-based network to meet the growing needs of Illinois' education, health care, public safety and state and local government. The ICN is governed by a statutorily created Policy Committee, which includes representatives from the Board of Higher Education, State Board of Education, Community College Board, State Library, State Museum, Central Management Services, and three members-at-large. Additionally, the Policy Committee appoints technical representatives from constituent institutions to an Advanced Engineering Taskforce, which provides direction in the technical planning and operations for the network. These two entities will continue to govern and provide direction for the proposed fiber infrastructure ensuring the needs of the anchor institutions are met. The Illinois Department of Transportation (IDOT) has also been involved in the network planning and is contributing fiber optic cabling in exchange for discounted broadband. This collaboration began more than a year ago with an effort to identify existing state-owned fiber resources and continues today for joint planning of fiber expansion in construction projects.

At the regional level, IBOP-EC is part of a statewide coalition of regional proposals to build a state fiber infrastructure – IBOP – Northwest, IBOP – Southern, City of Chicago, Cook County and Geneseo Communications. This coalition includes two private companies, which will build and operate fiber broadband networks in western and southern Illinois and one public entity, that



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

will build and operate fiber broadband networks in northwestern Illinois. In the northeastern region of the state, IBOP-EC is coordinating with SmartChicago and Cook County to reach community anchor institutions. The private companies, Geneseo Communications (western Illinois) and Clearwave (southern Illinois), have committed to interconnecting networks and providing dark fiber to connect community colleges and public universities to the Illinois Century Network. The public entities will rely on fiber from this proposal to connect education, healthcare, and public safety entities to the Illinois Century Network. The partners commit to include within their network, points of intersection that will allow for the integration of the fiber optic system with the larger Illinois broadband initiative.

At the local level, a number of communities and anchor institutions in McLean, Livingston, Woodford, Logan, DeWitt and Piatt counties have formed the Central Illinois Regional Broadband Network (CIRBN), a grass-roots coalition, to plan, build, and manage the extension of a high-speed regional network to 19 communities with a total of 241 anchor institutions.

Planning for CIRBN began in spring of 2009 with a working group tasked to develop a proposal to seek grant funds for building a high-speed network infrastructure within these communities, between them, and to the Internet. As the plans developed and community interest grew, support for the project increased resulting in a partnership of nearly 50 organizations including public schools, higher education, municipal entities, public safety, healthcare, not-for-profits, commercial, and service providers.

To develop this project, staff from Illinois State University (ISU), ICN, City of Bloomington, Chestnut Healthcare, and the Town of Normal worked for over 9 months to design this network. The local Chamber of Commerce (CDC) and the Economic Development Council (EDC) provided assistance in developing the financial plan. All of the partners excluding the CoC, EDC, and ICN are sharing the cash and in-kind matching for the grant and have provided a significant amount of guidance towards the development of this proposal. Each of the communities in scope along with ISU, Chestnut Healthcare, Heartland Community College, Gridley Telephone, Prairie Central, Heyworth Schools, Olympia Schools and Unit 5 Schools are all contributing in-kind through facilities, conduit, manholes, right-of-way, and tower space. The ICN, IDOT, ISTHA will all be contributing fiber between these communities.

ISU is a sub-recipient, and will be responsible for all reporting and auditing functions, construction management oversight, and the disbursement of funds for the CIRBN portion of the



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

proposed project. Upon completion, ISU will transfer ownership of CIRBN to a not-for-profit LLC consisting of members serviced by the network.

Following the grant period, organizations seeking service from CIRBN will become members and pay dues to help cover the collective operational costs of the network. ConnectivityU, A5 Network and Gridley Telephone Company are last-mile providers that have provided letters describing their commitment to use CIRBN to deliver Internet service to their subscribers.

D. Congressional Districts

Applicant Headquarters

- Illinois

Project Service States

Illinois

Project Service Areas

Illinois - 11

Illinois - 15

Illinois - 17

Illinois - 18

Illinois - 19

Illinois - 14

Illinois - 10

Illinois - 8



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Illinois - 16

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
Service Area Name: Service Area 1
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. The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles in Service Area: 30,588
Total Population in Proposed Service Area: 8,421,064
Total Number of Households in Service Area: 3,133,132
Total Number of Businesses in Service Area: 208,692



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 6,548
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 44,276
Estimated Percentage of Households with Access to Broadband: 60
Estimated Percentage of Households Subscribing to Broadband: 39

Service Area Type: Middle Mile
Service Area Name: Service Area 2
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 1,051
Total Population in Proposed Service Area: 904,433
Total Number of Households in Service Area: 305,700
Total Number of Businesses in Service Area: 28,356
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 614
Unemployment Rate in the Service Area: 8
Median Income in the Service Area: 65,745
Estimated Percentage of Households with Access to Broadband: 80
Estimated Percentage of Households Subscribing to Broadband: 60

Service Area Type: Middle Mile
Service Area Name: Service Area 3
Rural Classification of the Last Mile Service Area: Rural
Service Status of the Last Mile Service Area: Served

If Service Status is "Underserved" please select at least one applicable option from this list.

Total Square Miles in Service Area: 1,171
Total Population in Proposed Service Area: 1,406,427



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

Total Number of Households in Service Area: 493,143
Total Number of Businesses in Service Area: 48,362
Total Number of Community Anchor Institutions and Public Safety Entities in Proposed Funded Service Area: 878
Unemployment Rate in the Service Area: 7
Median Income in the Service Area: 65,479
Estimated Percentage of Households with Access to Broadband: 80
Estimated Percentage of Households Subscribing to Broadband: 60

F. Community Anchor Summary

Community Anchor Summary	
Schools (k-12)	1143
Libraries	294
Medical and Healthcare Providers	58
Public Safety Entities	106
Community Colleges	59
Public Housing	2
Other Institutions of Higher Education	151
Other Community Support Organization	109
Other Government Facilities	1216
TOTAL COMMUNITY ANCHOR INSTITUTIONS	3138
Historically Black colleges	0



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

and Universities	
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	0

G. Project Benefits

Demographics

Jobs	
How many direct jobs-years will be created from this project?	169
How many indirect jobs will be created from this project?	507
How many jobs will be induced from this project?	381

Methodology used to estimate jobs:

The proposed project will generate and estimated 1,057 job years according to the methodology outlined by the Council of Economic Advisors. According to the report issued in May 2009, one job year is created by every \$92,000 in government spending. The report estimates 64% of the spending will generate direct and indirect job years and 36% generates induced effects. The total project cost for IBOP-EC is \$97,198,000 thus the estimated number of job years created is 1,057. Direct and indirect job years can be estimated at 676 and induced jobs can be estimated at 381.

In order to break down the direct and indirect job year estimates we looked to a study performed by the Information & Innovation Technology Foundation (IITF) regarding the economic impact of broadband investments. The study provides a more optimistic projection than the methodology presented by the Council of Economic Advisors. We selected the more



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

conservative Council of Advisor’s approach; however, we looked to the IITF methodology to break down the number of direct and indirect jobs. Using the IITF formula, direct jobs represent 25% of the total estimated jobs created. Therefore, we estimate the number of direct job years to be 169 and the indirect job years to be 507.

Project Impact:

The proposed fiber network will directly connect 3,138 anchor institutions within 55 counties and upgrade the core infrastructure for the State’s educational network – Illinois Century Network. The network will offer speeds ranging from 10 Mbps to 10 Gbps with connections to the Illinois Century Network, Internet2, National Lambda Rail, Illinois Rural HealthNet and Central Illinois Regional Broadband Network (CIRBN). The directly connected anchor institutions include 1,143 K-12 schools, 21 community colleges, 189 higher education institutions, 58 healthcare entities, 294 libraries, 106 public safety entities, and 1,327 other sites.

Residential broadband service providers will be able to affordably extend their services into unserved or underserved communities. Nine third party service providers have provided letters of intent to use this project’s middle-mile infrastructure to serve a possible 285,410 businesses and 3,931,975 household. Discussions are ongoing with additional third-party service providers interested in using the middle mile infrastructure to deliver broadband through the region. The service area includes an addition 5,861 community anchor institutions to be connected in the future through network expansion or third-party service providers

Broadband service in the proposed service area is limited in coverage, bandwidth constrained, or priced beyond the means of many organizations. Broadband is frequently limited to 1-2 Mbps per facility in many rural communities. Yet our community anchor institutions need to leverage broadband to enhance the delivery of their services, lower operational costs, and improve the quality of their offerings. They lack affordable access to high speed broadband services capable of supporting everyday 21st Century applications. More schools are moving to online learning. Healthcare wants to use sophisticated health IT records. Public safety requires enhanced 911. Rural communities need broadband connectivity to seek and retain businesses and people that drive economic growth. For all of these purposes, bandwidth-intensive applications require stable, synchronous connections with quality-of-service guarantees. Current broadband services are asynchronous, best-effort solutions.



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

IBOP-EC connectivity will be critical to meet the demand for more bandwidth required to efficiently support the use of an increasing number of online applications and services. This includes uses such as:

- Education - Student records, progress tracking payroll, accounting, social networking tools, course offerings, HD video conferencing, cloud computing, and learning and performance management systems.
- Municipal functions - such as applications, paying fines, streaming board meetings, providing real time election results and participating in shared resources for Disaster Recovery (DR) and 911 services.
- Libraries - providing the public with access to broadband to support education, employment skills, and access to health information.
- Public Safety – upgrading 911 centers to support enhanced 911, online training, emergency notifications, video surveillance, and emergency response communications.
- University Research - use of grid computing and the development of advanced computer modeling, access to national and international research network such as Internet2 and the National Lambda Rail as well as access to the National Center for Supercomputing Applications super computer.
- Healthcare – electronic health records, remote diagnostics, consultation with remote specialists, home health monitoring, and off-site storage for large images.
- Economic Development – access to low cost, high speed broadband needed attract and retain businesses and online learning and workforce training for adults.

The network has been specifically designed to foster interconnections with commercial service providers and other broadband networks. Points of interconnection are located approximately every 5 to 7 miles. IBOP-EC service offerings include dark fiber, wave service and Ethernet services to provide service providers with multiple options on how best to use the middle mile infrastructure. Based on discussions with commercial service providers, we anticipate a lot of interest in using the network to access commercial Internet service providers in Chicago. This will allow commercial providers to expand service offerings in terms of bandwidth, voice and video services and multimedia applications. In addition to expanding service offerings, a last mile provider could use the network to expand their footprint into more unserved and underserved communities.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

We conservatory estimate that within the first three years, 3,138 community anchor institutions and 11 business will be directly served with an additional 4,129 anchors, 2,405 businesses and 33,028 households served through an estimated 23 third-party service providers. Throughout the first eight years we anticipate the connection speeds for community anchor institutions will continue to increase as fiber is expanded to more communities and the availability of low cost, high speed last mile connections become more prevalent. At the end of eight years we expect the number of community anchor institutions to increase to 3,377 direct connections and 2,596 indirect.

As another key component of the IBOP-EC application, is CIRBN (Central Illinois Regional Broadband Network). Attributes of the CIRBN infrastructure include:

- 1Gb/s (gigabit per second) of fiber-based Ethernet connectivity delivered to each facility
- 10Gb/s of fiber based Ethernet connectivity extended between each of the 11 rural communities and the network backbone in Bloomington-Normal
- Up to 300Mb/s of wireless connectivity between each of the 6 rural communities and the network backbone
- 10Gb/s of shared Internet access
- 1Gb/s of shared connectivity to various research networks

When created, this new network will greatly improve access in Central Illinois for public and private sector organizations and the citizenry alike creating economic opportunities and narrowing the digital divide. It will also allow service providers to deliver broadband service to rural, remote, unserved, and underserved residential populations that were previously unreachable due to high costs. This new environment would serve to attract and retain businesses, organizations and people to provide opportunities for partnerships and collaboration that were previously infeasible. And, this concept can be recreated in other communities across the State and in the nation.

CIRBN will:

- provide equipment and extend fiber into facilities to deliver high-speed connectivity to any organization that is seeking it.
- deliver high-speed connectivity between each community that is connected to CIRBN.



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

- partnering with last-mile providers by leasing fiber strands or connectivity below commercial costs so that new forms of broadband access can be cost-effectively delivered to consumers residing in underserved areas.
- enhance the level of access to and use of broadband service by public safety agencies.
- provide an infrastructure that stimulates the demand for broadband, economic growth, and job creation because it is highly scalable to support growth, upgradable and available to any organization that wants to seek it.

CIRBN is based upon an LLC using a not-for-profit business model. Because the vision of CIRBN is set by a governing board, it will be responsive to the communities that it serves with an emphasis on delivering high-speed connectivity with dues that reflect the costs of the organization. Since CIRBN will carry no debt at its outset and access to lower-cost Internet connectivity is readily available through partner networks such as the ICN and I-WIRE, connectivity costs for member organizations will be lower than what is commercially available. This will drive growth in membership that in turn will allow per-unit-costs to decline over time. This combined with revenue collected from third party service providers seeking fiber or connectivity to deliver their services, financial sustainability can be achieved. These revenues eventually become capital to support new initiatives and upgrades that continue to deliver enhanced services to these communities and others well into the future.

Vulnerable Populations:

The Illinois Broadband Opportunity Partnership – East Central Region (IBOP-EC) service area will allow many traditionally “vulnerable” population groups – children, low income, elderly for example – accessible and affordable broadband service. However, as a region that is predominantly made up of small rural communities the largest impact will be in providing access to health and emergency medical services, education services and opportunities to K-12 schools through higher education, and access to economic development opportunities and services in both the underserved and unserved rural areas of central Illinois. These small communities isolated in rural areas desperately need access to these services. IBOP-EC will address these issues and serve this sector in the following ways:

Healthcare: The IRHN is building a high-speed network to connect rural hospitals and health care clinics in Illinois. Over 80 rural health care entities will be linked to each other and to urban medical centers, allowing them to transmit electro-cardiograms, CT scanner files, digital mammography files, and other diagnostic information that will facilitate consultation with



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

specialists, faster medical treatment, and a reduced need to transport elderly citizens to distant hospitals.

Educational opportunities: The network will provide access to online resources for curriculum development for educators and greatly expanded opportunities for teacher professional development. It will provide global resources for student research, supplementing often limited library resources at rural K-12 schools as well as at the community colleges and four year institutions. Increased broadband provides academic networking opportunities and collaboration/team building and educational and cultural exchange experiences for students at all levels. The network will provide higher education distance learning opportunities for traditional and non-traditional students where travel time and cost make these opportunities unavailable, and allow access to more shared resources providing significant cost savings for schools.

Economic Development: Rural areas are in economic crisis and the IBOP-EC project will provide affordable and immediate access for existing businesses and entrepreneurs to services provided by local (McLean County Business Incubator, Economic Development Corporation, McLean County Chamber of Commerce), national and global organizations and agencies. This will allow businesses to remain, grow and thrive in rural communities where businesses are struggling to survive or failing because of their remote location, lack of local customer base and support. Affordable access to IBOP-EC will remove this barrier and provide a means to revitalize many rural communities by retaining existing businesses, providing access to a wider customer base and support service opportunities for new businesses and entrepreneurs.

Level of Need:

The Illinois Broadband Opportunity Partnership -EC proposed service area includes 55 counties extending from the northeastern part of Illinois through east and central portions of the state. This area includes 1,483 non-rural square miles, 31,326 rural square miles, and a population of 10,731,924 with 3,931,975 households. Thirteen counties are economically distressed, 16 counties have an unemployment rate 1 percentage point above the national average for the most recent 24 month period, and 32 counties have a per capita income less than 80% of the national average. Forty-seven of the 55 counties in the proposed service area are underserved with residential broadband subscriptions less than 40%. The service area includes more than 5,500 K-12 schools, 500 libraries, 21 community colleges, 350 institutions of higher education, 80 healthcare entities, 240 public safety entities, 1,200 other anchor entities.



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

There are locations within the service area that have some level of access to fiber based circuits leased from commercial providers. These service areas are primarily in the larger cities, or in areas with little price competition. Fiber-based broadband is for the most part unavailable throughout the service area. Even where available, the cost incurred to build fiber from a facility to a service provider network can be enormous. Typical build costs range from \$20,000 to \$70,000 for each facility and can be as high as \$100,000 or more. Monthly recurring costs for 10 Mbps of bandwidth can approach \$800 per month or higher and is usually contingent upon a 36-month contract. Verizon Communications, the second largest provider in Illinois does not offer a fiber-based Ethernet option within the proposed service area. With the exception of the Chicago metropolitan area, broadband adoption has been slow due to insufficient availability and high cost. Outside of Metropolitan Chicago, only about 80 community anchors within the proposed service area subscribe to fiber-based Ethernet circuits. T1 circuits offer 1.5 Mbps of connectivity and have been the standard method of connectivity for K-12 schools, healthcare, public safety, libraries, and other anchor institutions for the last 10 years. Sixty-eight percent of our currently connected anchor institutions have 1.5 Mbps of connectivity, 9% have 3 Mbps, and 1.4% has 4.5 Mbps. Although these circuits offer reliable connectivity, this level of service is inadequate. The average cost of four T1 lines is higher than the average cost of most 10 Mbps fiber-based Ethernet circuits where available and adding bandwidth requires adding additional T1 circuits and hardware. Costs increase significantly in areas where multiple providers are required to deliver T1 service as in Mason, Peoria, Tazewell and Fulton counties resulting in costs on average of \$500 per month and in some areas as high as \$1,500 per month. In areas where T1 circuits are the only option, for a site to get close to having the bandwidth available to a Metro Ethernet service it would cost more than \$6,500 per month.

Where adding additional T1 circuits is cost prohibitive, sites often must look to DSL or cable modem service. DSL and cable modem services do not provide the guaranteed speeds required for interactive and latency sensitive applications such as video streaming, video conferencing and thin client applications let alone next generation technology applications.

Schools are struggling to meet the bandwidth demand required for the rich media content and interactive programming used in the classroom. Video streaming of programming from resources like the Discovery Channel, Internet2, National Center for Supercomputing Applications, Illinois Cloud, and video conferencing are bandwidth intensive and require stable synchronous connections with the ability to control Quality of Service. Higher education is using these



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

technologies to provide instruction in the field, seek content experts around the world to support curriculum, or offer consultation to other organizations in specific areas of expertise.

The accompanying letters from community colleges report dramatic increases in enrollments, need to expand Internet-based programming, and of how they are utilizing all their existing bandwidth and need more. The Illinois Community College Board reports a Fall 2009 enrollment increase of 9.5% and a Spring 2010 enrollment increase as high as 10.5% - a 27 year high in enrollments. Further, the Board reports that enrollment in Internet courses increased 27%. Community colleges are already struggling to meet the bandwidth needs of their students and faculty. Our letters of support demonstrate the demand for additional online services, expansion of online classes, distance education, student services, video and web conferencing, and the use of new social networking sites including Facebook, YouTube, chat rooms and collaborative tools to deliver instruction to a technology-savvy student population. A five year study at Truman College documented that 88% percent of students reported increased motivation with the use of instructional technology, 84% received quicker feedback from instructors, and 90% reported course work was easier to follow. Colleges are unable to keep pace with demand. They are paying \$4,700 per month for 21 Mbps of bandwidth and no fiber options are available.

Illinois' world-class museums such as the Art Institute of Chicago, the Museum of Science and Industry, Museum of Contemporary Art, and Field Museum of Natural History continue to expand educational programming, and digitize their collections. They too lack the available bandwidth to take advantage of their own resources.

Libraries struggle to meet public access demand. High circuit costs have forced libraries to drop dedicated T1 service for a best-effort, low cost commodity service. This reduced service level option does not meet the demand for guaranteed bandwidth, video conferencing, and high data transfers. As the accompanying letters of support from the library community will show, the demand by their constituents for higher levels of bandwidth is exceeding their current broadband abilities. The recent economic climate has caused a 20% increase in public use as and public demand is causing circuits to be fully saturated during business hours. Library systems struggle to find broadband connectivity at affordable pricing for as many as 160 member libraries. Chicago Public Library (CPL) reports a 120% increase in network bandwidth demand driven by the increase in digital content including music, video, and newspapers, magazines and journals now part of extensive databases. CPL anticipates needing to double its bandwidth in one year and again in three years.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

The Illinois State Board of Education is Illinois is one of 16 finalists for the U.S. Department of Education’s Race to the Top (RTTT) grant. The State Board of Education is planning to implement a learning and performance management system following a shared-services model which will help Illinois K-12 schools reallocate resources away from IT systems, software, and hardware and towards classroom instruction. The project will use centrally located servers housing a host of applications designed to allow teachers and administrators to easily access critical data, and tools designed to improve instruction and student performance. The project will expand collaboration, information sharing, provide training and professional development, will involve parents, host student portfolios and support college and career planning. This project has huge potential for efficiencies, savings and improvements in student performance and has generated high interest within the K-12 community and commercial vendors anxious to participate. Further, it will allow small districts to participate at a similar level as larger districts. The Illinois Cloud project is a great example of a private cloud-based service designed to target K-12 subscribers. Reliable, high-speed connectivity is critical to the effective delivery and consumption of cloud computing applications. Cost savings to school districts is anticipated to be in the hundreds of thousands per district per year. This will address a huge need of K-12 schools that struggle with IT infrastructure and Internet access costs and will drive the need for higher dedicated and synchronous broadband around the state even higher at the last and middle mile tiers.

Within healthcare, there is a movement towards the digitization of records and the exchange of very large files to support telemedicine and other forms of eHealth. One medical school is planning to roll out a pharmacy course across the state and requires 20 Mbps to begin high definition interactive video conferencing and anticipates needing 100 Mbps within one year. Other hospitals need to digitally transfer CT, MRI and other imaging technology files over their Internet connections and to reach doctors in rural areas and partner with Critical Access Hospitals to participate in health information exchange for Illinois. As the imaging technology becomes more detailed, more bandwidth is required to move the data over the Internet. An even greater problem is finding adequate broadband options in rural areas serving doctors and patients located far from the hospital or clinic. Hospital outreach and wellness programs have Internet components, but often the clientele in most need do not have internet service at home.

Local government is moving more applications and services online and they and other community anchor institutions require disaster recovery and shared services options for



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

redundancy and cost savings. Shared 911 centers are proving to be extremely efficient and providing significant savings to local governments. The proposed network will be able to offer prioritization of traffic in support of public safety, homeland security and disaster response teams, and will be able to create private networks to secure governmental and healthcare records and deliver that data between any points in the State.

Commercial organizations continue to expand their use of e-commerce and the delivery of their services in online or digital formats. Projects such as the McLean County Business Incubator (MCBI) provide a nurturing environment to help entrepreneurs develop new businesses that can be transported to other communities.

Currently, expensive leased circuits are the only option for connection to the state’s educational network – Illinois Century Network (ICN). Today the backbone consists of leased OC12 and OC48 circuits each with a fixed bandwidth capacity. Expanding capacity to meet demand requires adding another fixed capacity circuit and doubling the cost. Installation can take 24 to 30 months. Currently the ICN pays \$655,000 each month in leased circuit fees, a model which is unsustainable. Competition is limited at the speeds needed for the network. Central Management Services recently issued a competitive procurement seeking bids for OC12 to OC192 point-to-point circuits and dark fiber. [REDACTED] vendors responded with bids for point-to-point circuits. While a few circuits received multiple bids, for most circuits there were only [REDACTED] or [REDACTED] vendors able to provide the needed services. [REDACTED] vendors responded to the request for dark fiber bids. [REDACTED] of the respondents was able to provide [REDACTED] number of routes and has been incorporated into our network design. The [REDACTED] provided pricing for [REDACTED] new construction at very high prices. The quoted cost for 4-6 fiber strands is about 66% of the estimated cost to build 144 strands of fiber as part of this project. This fiber solution is needed to provide significantly higher speeds at a low operating cost.

H. Technology

Technology Type

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

Wireline - Fiber-optic Cable

Wireless - Terrestrial Fixed



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Other:

Technology Questions

Methodology for Area Status:

The proposed fiber network will service three service areas covering 55 counties in central, eastern and portions of northern Illinois. The fiber paths are designed around extending fiber-based broadband services to 21 community colleges, 241 partners in the Central Illinois Regional Broadband Network (CIRBN) and 2,876 community anchor institutions. The service area includes every county that the fiber travels through or near as the network includes interconnection points at every community or highway intersection resulting in easier access for third party service providers and future network extensions. Discussions with last mile services providers confirmed that the defined service area is a conservative estimate on the potential reach and impact of the proposed fiber network.

We next reviewed county demographic data from the U.S. Census Bureau which led to arranging the counties into three service areas: Service Area One includes 51 counties, Service Area Two includes two counties and Service Area Three includes two counties.

In reviewing the FCC Form 477 data for the three service areas we found several anomalies in broadband adoption data reported for four counties – Coles, Effingham, Montgomery, Christian, and Shelby. The FCC data indicated that these counties had broadband adoption rates of either 60-80% or 80-100% while the surrounding counties had adoption rates of 20-40%. These four counties are in rural, southern Illinois in areas where schools and libraries are paying the highest costs for basic T1 point-to-point circuits for access to the Illinois Century Network. We compared demographic data of the four counties and found nothing to explain the discrepancy. We reviewed broadband connection data for schools and libraries in the four counties with those in the neighboring counties and again found no explanation. Next we reviewed the service providers in the four counties and determined that each of the four counties is primarily serviced by Consolidated Communications. While Consolidated Communications is a progressive independent telephone company the data from existing connections to the Illinois Century Network show that these counties are no better served than their neighbors. We also consulted



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

with the Montgomery County Economic Development Group. The county recently surveyed residents regarding broadband speeds. The survey results cited a lack of access to broadband and where available, its unreliability. Based on this analysis, we concluded that the four counties were no better served than their neighbors and adjusted the numbers accordingly.

Description of Network Openness:

IBOP – East Central fully embraces and will adhere to the NOFA’s non-discrimination and network interconnection obligations including the FCC’s Internet Policy Statement (FCC 05-151). A fundamental goal IBOP – East central is to create a significant fiber and broadband infrastructure that can be accessed by any and all service providers and private networks. IBOP – East Central will provide wholesale access to fiber, Lambdas, and Ethernet services. IBOP – East Central is about providing robust, reliable and affordable broadband to education, healthcare, public safety, and government and expanding affordable broadband to all residents and business throughout the state of Illinois.

IBOP – East Central offers service providers and private networks several options of connecting to the fiber network:

- 1) Interconnection Points along the fiber path: Last mile providers can connect to the network at any of these points. This provides last mile providers with an economical means to connect to Tier 1 Internet Service Providers and other content and/or peering providers in Chicago.
- 2) Public Internet: Connections are available where a provider may elect to connect to Starlight or another peering exchange near an ICN POP site in order to exchange Internet traffic.
- 3) Peering Cross Connects (physical interconnection for data exchange): Connections are also available for providers to interconnect with each other or to interconnect remote facilities that otherwise would not be able to exchange data. Equinix and Starlight Gigapop are examples of these kinds of interconnects.
- 4) Ad-Hoc Interconnects: There are many locations that providers can utilize for interconnection purposes. An example of this might be a provider that has two non-connected service areas. Connecting the service areas can result in more robust Internet access or improved network redundancy.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

As a current broadband service provider, Illinois Century Network (ICN), we have maintained acceptable use policies consistent with the nondiscrimination policies referenced in the NOFA. ICN constituents are required to sign a participation agreement, which is posted on the ICN website at <http://www.illinois.net/connect/default.htm>. The agreement outlines responsibilities of the ICN and the constituent and states ICN policies for acceptable use.

IBOP – East Central partners will not interfere with the transmission of constituent data or prioritize content. IBOP – East Central partners will not monitor at the data level any fibers or Lambdas offered to providers without their written request.

System Design:

The backbone network is designed with a combination of new, existing and leased fiber spanning 2,248 miles. New fiber construction consists of 144 strands of single mode fiber covering approximately 1,026 miles. Existing fiber covers 1,096 miles and includes 4 or more strands of single-mode fiber. Leased fiber covers 126 miles. Within the Central Illinois Regional Broadband Network (CIRBN) metropolitan area the network design includes 288 strands of single mode fiber due to the higher node density found in metro environments. Some of the 144 strands of fiber along the backbone path will be utilized to connect end-users to POP facilities. The design includes a limited use of wireless bridging. Wireless backhaul is necessary to provide high speed access to six underserved areas where dark fiber is not feasible.

The design calls for new construction fiber to be in-ground for a number of reasons. First is the ease of securing rights-of-way on Interstates and State highways. Where possible, the new fiber will be constructed in State controlled space along the Interstates where there are no existing poles. Within the Metro builds, local municipalities have signed on as partners and will provide access to existing rights-of-ways and conduit making buried fiber a more economical choice. As the network will be used for critical public safety applications, high availability is critical to the design. Tornadoes and heavy ice storms are common within the Midwest. Both lead to downed poles and power lines. Annually, communities within the proposed service area endure power outages lasting days while trees and downed power lines are restored. The higher cost of underground installation is off-set when compared to the vulnerability of aerial plant to both natural and man-made disasters.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

A core backbone using DWDM optical equipment was chosen for many reasons. It provides bandwidth speeds of 400 Gbps with the capability to grow to 1.6 Tbps. Community anchor institutions will be connected with Metro Ethernet switching equipment at speeds ranging from 1 Gbps to 10 Gbps. DWDM offers extremely large bandwidth capabilities and low, relatively fixed costs. The selected DWDM hardware offers a 10-year useful life as opposed to the more typical 5-year life of network equipment. Through a competitive bidding process Central Management Services has selected the Fujitsu DWDM platform. The Fujitsu equipment allows for an easy upgrade path without service interruption or chassis upgrade. In addition, this technology supports the needs of entities that require extremely high bandwidth and strict network security policies to enforce how traffic is passed from site to site (e.g. carriers, universities, hospitals, law enforcement and homeland security agencies).

Ethernet technology was chosen for community anchor connections for several reasons as well. Ethernet switches are a proven technology, which can economically provide connections up to 10 Gbps. Support for Ethernet switches is widely available at the local level. The relatively low cost of switches and ease of replacement will allow this solution to scale over time.

The proposed fiber will interconnect 15 Illinois Century Network (ICN) points of presence (POP) which leverages the existing MPLS switching platform to offer IP Video, private networks for enterprise operations, Quality of Service, and many other advanced services important to the educational, state and local governments.

This design also provides enhanced interconnectivity to communities in 6 counties in central Illinois (CIRBN). This offering includes Metro Ethernet services, and all necessary equipment to provide interconnectivity and access to egress internet service providers and peers at Illinois peering exchange locations.

The IBOP-EC fiber routes specifically travel through and drop handholes at as many unserved/underserved communities as possible (Diagram B). This will allow the ICN and CIRBN to connect as many communities and anchor institution as possible. In addition, wireless has been chosen for communities where it was not cost effective to extend fiber. (Diagram F). Of the two basic infrastructures, DWDM and Metro Ethernet, both scale easily.

As illustrated on Diagram B, every point of interconnection (POI) provides Illinois entities with access to fiber for their own needs or for interconnection into the backbone as a metro customer.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

In-line amplification sites (ILA) will allow for colocation of optical gear, enabling organizations such as local ISPs and smaller telecommunications companies to economically extend their reach to exchange facilities in large communities. ICN POP locations allow for routing, switching and network colocation as well as interconnect to central offices, peering exchanges and Internet egress. Optical colocation services (wave services) are available at both POP and ILA sites where interested entities can lease DWDM lambdas most likely for last mile support, high bandwidth users, economic development (business and industry) and/or large anchor institutions. The ICN's DWDM lambdas, or channels, provide connectivity at 10 Gbps. It also provides Ethernet handoffs at 'wire speed' both for 10 Gbps and 1 Gbps.

CIRBN POP sites will provide 10 Gbps of service between communities where fiber is available (Diagram E). Customer handoffs will be 1-10 Gbps for wireline and 45-300 Mbps for wireless (Diagram F).

Both ICN and CIRBN POP sites will provide businesses, schools, hospitals, and governmental agencies access to their facilities within each community. All connected institutions in each community will be able to acquire high-speed access to the Internet and to research networks, central offices and other peering exchanges in Illinois.

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?

Yes

I. Project Budget

Project Budget		
	Federal Grant Request	Match
Last Mile	0	0
Middle Mile	61,895,282	34,486,746
Total	61,895,282	34,486,746

Project Budget Total: \$96,382,028

Match Percent: 35.8%



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

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>Organization, Funding Amount, Percentage of Total Budget, Type of Funding, Use of the Funding, Key Financing Terms, Match Value, Percentage of Total Budget, Nature of In Kind Contribution, Explanation of Contribution as Eligible Under BTOP Rules, How Contributor Benefits</p> <ol style="list-style-type: none"> Illinois Department of Central Management Services, \$30,000,000.00, 31.13%, Grant Match, Infrastructure, N/A, \$2,213,159.00, 2.30%, Fiber & Fiber Maintenance, IRU for facility sec. V.E.2.a. 2nd NOFA, Discounted access to network Illinois State University, [REDACTED] Advocate BroMenn Medical Center, [REDACTED] McLean County Unit 5 School District, [REDACTED] Afni, [REDACTED] Bloomington District 87, [REDACTED] City of Bloomington, [REDACTED]



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

	8. Heartland Community College, [REDACTED] [REDACTED] [REDACTED]
	9. Town of Normal, [REDACTED] [REDACTED] [REDACTED]
	10. Chestnut Health Systems, [REDACTED] [REDACTED] [REDACTED]
	11. Olympia Community Unit School District 16, [REDACTED] [REDACTED] [REDACTED]
	12. Prairie Central CUSD #8, [REDACTED] [REDACTED] [REDACTED]
	13. Baby Fold, [REDACTED]
	14. Eureka CUSD 140, [REDACTED] [REDACTED]
	15. El Paso-Gridley CUSD #11, [REDACTED] [REDACTED] [REDACTED]
	16. Tri-Valley School District, [REDACTED] [REDACTED] [REDACTED]
	17. LeRoy CUSD #2, [REDACTED] [REDACTED] [REDACTED]
	18. Pontiac Community Consolidated School District 429, [REDACTED] [REDACTED] [REDACTED]
	19. Blue Ridge District 18, [REDACTED] [REDACTED] [REDACTED]
	20. Pontiac Township High School District 90, [REDACTED]



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>37. Apartment Mart Inc, [REDACTED]</p> <p>[REDACTED]</p> <p>38. City of Atlanta, [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>39. Village of Colfax, [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>40. Connectivity U, [REDACTED]</p> <p>[REDACTED]</p> <p>41. Holy Trinity Catholic School, [REDACTED]</p> <p>[REDACTED]</p> <p>42. Village of Arrowsmith, [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>43. Teleologic learning Company, [REDACTED]</p> <p>[REDACTED]</p> <p>44. Randolph Township Fire Protection District, [REDACTED]</p> <p>[REDACTED]</p>
Unjust enrichment	IBOP-EC has not applied for, nor has it received, any Federal funding for any costs associated with the proposed project.
Disclosure of federal and/or state funding sources	Central Management Services routinely participates in the Schools and Libraries Program of the Universal Service Fund (USF), commonly known as "E-Rate." We are a consortia applicant and request reimbursement for eligible costs attributable to Illinois Century Network constituents that are E-Rate eligible entities. These requests for reimbursement funds are based on the costs associated with leased-lines. Budgeted costs included in this application are for the proposed IBOP-EC fiber project and are currently ineligible expenses in the USF Schools and Libraries Program. Therefore, there is no opportunity to seek E-Rate funding for the expenses that would be covered by a BTOP award.



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

	<p>In the future, should the E-Rate program rules be changed to include fiber and optical costs as eligible expenses, the ICN recognizes that it cannot seek reimbursement for any project costs included within a successful BTOP application.</p> <p>ICN also participates as an approved service provider in the Rural Health Care Program of the Universal Service Fund. Eligible health care entities apply to the E-Rate program for reimbursement of eligible costs billed by ICN. Again, as with the E-Rate funds detailed above, Rural Health Care Program funds cannot be used to pay the non-recurring, one-time capital costs of building the proposed fiber network.</p> <p>A \$26M match for this proposal is provided by the State of Illinois via the Illinois Jobs Now! legislation signed into law by Governor Pat Quinn on July 13, 2009. An additional \$4M is provided through Central Managements Services capital project funds.</p>
Budget reasonableness	<p>Illinois Broadband Opportunity Partnership East Central (IBOP-EC) will create a statewide fiber infrastructure to expand broadband opportunities within 55 counties of Illinois. The primary capital expenditure for IBOP-EC relates to the installation of fiber optic components, conduit, and network electronics. The IBOP-EC will mimic the Illinois Department of Transportation’s proven model for effectively managing road construction projects. This model seeks a professional telecommunications outside plant engineering, design, and project management services.</p> <p>The network design includes the installation of 1,026 miles of fiber throughout the state. In developing the budgetary cost for fiber and conduit installation, IBOP-EC has gathered quotes and estimates from multiple sources including: actual prices for fiber installation completed in the last two years by government agencies and partners (Department of Transportation, Northern Illinois University, and Illinois State Toll Highway Authority) and price estimates from</p>



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

	<p>dbHMS, an engineering firm with experience in fiber builds. The project costs are based on installation of 144 strands of fiber and conduit at [REDACTED] per linear foot for long haul runs and [REDACTED] per linear foot using 288 strands of fiber and conduit in Bloomington/Normal and 96 strands of fiber and conduit in the rural community metro runs.</p> <p>Network equipment consists of optical switches, metro Ethernet switches, and wireless bridges. Optical equipment costs are based on a formal state procurement process that included a technical review, lab test, and pricing evaluation. Fujitsu optical equipment was selected and the State has finalized a contract that secures a discount of 72% off list price for five years. All metro Ethernet and routing equipment from Cisco is based upon the State of Illinois volume purchase agreement with a base discount rate of 42.5% that can be further discounted when purchasing in larger quantities. High-speed wireless bridges, antennas and towers (as needed) will be purchased through competitive bids.</p> <p>The proposed services far exceed those available today through other providers. IBOP-EC will offer speeds ranging from 10 Mbps to 40 Gpbs, wave service, and dark fiber. Competitor pricing for a 10 Gbps Ethernet connection can range from \$2,304-\$6,100/mile/year versus IBOP-EC's price of [REDACTED] plus an annual port fee of [REDACTED] and a one-time equipment purchase of [REDACTED]. To illustrate, the annual costs from a commercial provider for an existing 168 mile link is [REDACTED] (see Attachment C) while the equivalent link would cost [REDACTED] from IBOP-EC.</p>
Demonstration of need	<p>The key stakeholders in the IBOP – East Central project have each been working for years in an attempt to secure the necessary funding for a fiber broadband infrastructure throughout central, eastern and portions of northeastern Illinois.</p> <p>In 2004, the Economic Development Council (EDC) for McLean</p>



Broadband Infrastructure Application
Submission to NTIA – Broadband Technology Opportunities Program

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

	<p>County sponsored a meeting in Bloomington, Illinois for local government leaders and representatives from several community organizations to discuss collaboration on a regional fiber network. As a result an attempt was made to partner with a local service provider to build a high-speed network throughout Bloomington-Normal. However, attempts to raise the capital required to build this infrastructure failed.</p> <p>In 2008, the EDC for McLean County sought a contract with Columbia Telecommunications Corporation (CTC) as a consultant to coordinate the creation of a plan and to assist in the identification of potential funding sources. Due to budget challenges, the EDC was unable to raise the funds necessary to hire CTC for this effort.</p> <p>In mid 2009, Illinois State University (ISU) invited organizations throughout the area to an open meeting to discuss the opportunities presented by the NTIA BTOP program. The result of this gathering was the recommendation that grant funds be sought and that ISU lead this effort. Only due to the availability of federal broadband and state matching grant funds has the possibility of fulfilling the goal of creating a regional network become possible.</p> <p>For more than seven years, a similar effort was underway at a statewide level. A coalition of Illinois K-12 schools, libraries, community colleges, universities, healthcare and government were exploring the costs and benefits of a high-speed fiber network. With broadband utilization among the anchor institutions growing at a rate of 8% per month, the current middle mile infrastructure is unable to economically and reliably meet user demand. A comprehensive case for the proposed fiber migration was developed in 2006 -2007. The coalition conducted extensive outreach, including surveys and focus groups, all of which buoyed the call for a next generation technology foundation for all statewide communications. The coalition's findings and technical recommendations were detailed in a report presented to</p>
--	--



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

	<p>the Governor in May 2007.</p> <p>Over the next several years, Central Management Services initiated efforts to secure the capital funding required to support the steep implementation costs associated with the proposed fiber network. Illinois' struggling economy has affected state revenues curtailing efforts to secure additional funding for the project. In July 2009, Governor Quinn signed the first Illinois capital bill in ten years which included \$26 million for the Illinois Century Network fiber project. The state funding leveraged with a NTIA BTOP grant provides the necessary resources to proceed with the project within some of the most needed areas of the Illinois.</p>
--	--

Funds to States/Territories

States	Amount of Federal Grant Request
Illinois	61,895,282

Funds to States/Territories Total: \$61,895,282

J. Historical Financials

Matching Funds			
	2007	2008	2009
Revenue	116,890,000	128,491,000	121,337,000
Expenditures	111,813,000	111,700,000	102,084,000
Net Assets	34,225,000	39,704,000	47,960,000
Change in Net Assets from Prior Year	-5,806,000	5,479,000	8,256,000
Bond Rating (if applicable)	NA	NA	NA



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

K. Project Readiness

BTOP Organizational Readiness

Through the Illinois Broadband Opportunity Partnership (IBOP), Governor Quinn has assembled a team experienced in deploying and operating fiber networks to provide technical assistance and guidance for the IBOP – East Central project. The team includes representatives from the Illinois State Toll Highway Authority, Metropolitan Research & Educational Network, I-WIRE, Illinois State University, University of Illinois, and Northern Illinois University. Collectively this group has deployed over 1,000 miles of fiber.

Through a competitive RFP process, Fujitsu has been selected for core optical networking equipment. As a result of the evaluation and selection process and the unprecedented opportunities presented by the BTOP program, Fujitsu has joined our efforts to design and deploy an advanced fiber network. Fujitsu is providing technical resources to contribute to the network design and will provide technical resources to work side-by-side with IBOP – East Central project technicians on the installation and turn-up of the optical network. This partnership will provide staff with invaluable hands-on training from the best in the industry. This partnership will continue beyond installation as Fujitsu and IBOP staff continually evaluates and deploys new technology to ensure the network supports advances in technology. Metro-Ethernet equipment will also be used throughout the CIRBN footprint in the Bloomington-Normal and surrounding area. Illinois State University staff has extensive experience in the installation and support of fiber between and within facilities.

The staff and back office systems needed to support the proposed network are in place and are audited annually in accordance with SAS 70 guidelines. IBOP – East Central has staff with experience in installing dark fiber and running DWDM equipment. The staff includes 43 engineers and technicians who manage the core backbone, provide onsite technical support for customers, and operate a 24x7x365 network monitoring and support center. Another 50+ agents support ordering, inventory and billing operations. Grant and other fiscal management activity will also be handled internally via another administrative department. Marketing and communications specialist handle customer communications and outreach in addition to continual outreach efforts performed by Network Services and Field Operations staff.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Construction and Vendor Contracts

The State of Illinois has a number of contracts in place to facilitate timely execution of the Illinois Broadband Opportunity Partnership – East Central (IBOP – EC) project. IBOP - EC will rely on contractual services to perform project management, facility builds, electrical work for UPS and Generators, as well as the fiber builds themselves. A list of the contracts is provided below in the following format: [Vendor; Category/Description; Type (Vendor Contract or Intergovernmental Agreement (IGA)); Status]

- Fujitsu; DWDM Equipment, Services, Installation, and Maintenance; Vendor Contract; Complete
- Qwest; Egress-Direct Access to Tier 1 NSP; Vendor; Complete
- Level 3; Egress-Direct Access to Tier 1 NSP; Vendor; Complete
- AT&T; Egress-Direct Access to Tier 1 NSP; Vendor; Complete
- MREN-Internet2; Egress, Peering, and Access to Internet2; Vendor; Complete
- Equinix; Data Exchange and Peering; Vendor; Complete
- AT&T; Network Equipment, Software, Services, and Maintenance; Vendor; Complete
- Village of Schaumburg; Co-location Facility; IGA; Complete
- J&S, Inc.; UPS & Generator Maintenance; Vendor; Complete
- Critical Systems; UPS & Generator Maintenance; Vendor; Complete
- Various; ICN POP Site Facility; IGA; Complete
- ICTC; ICN POP Site Facility; Vendor; Complete
- Paetec; ICN POP Site Facility; Vendor; Complete
- TBD; Engineering Firm; Vendor; In Process

Customer Base

Central Management Services operates the state’s educational broadband network, Illinois Century Network (ICN), reaching all areas of the Illinois. Today the ICN serves nearly 7,000 K-12 schools, colleges and universities, community colleges, libraries, museums, healthcare providers, state and local government, public safety and other community anchor institutions. The network uses leased, point-to-point circuits ranging from 1.5 Mbps for anchor connections to 2.5 Gbps for the core backbone. The network provides access to the Internet, Internet2, and National Lambda Rail. The ICN provides additional network services such as content filtering, Quality of Service, and protocols to support private networking.



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

Within the proposed service area ICN serves 6,378 community anchor institutions including 4,047 K-12 schools, 30 community colleges, 210 colleges and universities, 382 libraries, 29 healthcare providers, 1,541 government sites, and 139 non-profits organizations. Currently the ICN does not provide residential or business broadband services.

Illinois State University is not currently a broadband service provider.

Licenses, Regulatory Approvals and Agreements

IBOP – East Central is working with the Illinois Department of Transportation (IDOT) to secure right-of-way (ROW) use permits for the fiber installation. These discussions have been in progress for the better part of the last 24 months as we have been preparing for a funding opportunity such as BTOP. IDOT Secretary Hannig has pledged to expedite the permitting process to ensure the IBOP – East Central project is completed within three years. We have modeled the design and bidding process to those successfully employed by IDOT in the course of administering Illinois’ annual federally-funded highway program.

Through partnerships with several public universities, the physical space needed for the network equipment is ready with power, generators, UPS’, fire suppression, security, and environmental monitoring systems. These facilities house the equipment operating the existing Illinois Century Network.

No other permits are anticipated.

SPIN Number

Illinois Century Network - Central Management Services is a registered service provider for the Rural Health Care program. Our SPIN # is: 143028319.

L. Environmental Questionnaire

Project Description



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

The IBOP – East Central project calls for the installation of new fiber in pre-disturbed rights-of-way along state, county, and city roads. This implementation will consist of both buried and aerial fiber and will result in no earth disturbance activity outside of the aforementioned pre-disturbed rights-of-way.

The construction activities within the scope of this project are the installation of fiber optic cable to provide network connectivity to community anchor institutions and middle mile facilities. The project also includes the construction of wireless transmission towers and installation of antennae.

Fiber optic cable construction includes site surveying; fiber trenching and boring; installation of hand holes and conduit; pulling, splicing, termination, and testing of fiber; building penetration; and the installation of data racks, fiber patch panels, and power supplies within a facility.

To support wireless network transmission, the construction of towers and the mounting and aligning of antennae will be necessary. Power supplies must be installed at the tower site to support network electronics at that location.

Property Changes

The IBOP – East Central project is working directly with the Illinois Department of Transportation (IDOT) to identify pre-disturbed, rights-of-way along public roads, bridges, and interstate highways in which to utilize for all fiber-related construction activity. Additionally the projects will leverage existing municipal fiber optic conduit where possible. There is no anticipated earth disturbance activity outside of the aforementioned pre-disturbed rights-of-way.

Wireless transmission towers will be erected at existing sites in the communities of Arrowsmith, Colfax, Danvers, Heyworth, Hudson, and Olympia Junior/Senior High School. These sites are identified on municipal or school district property and not on public land owned or managed by the federal government.

Buildings

Fiber optic cabling will be installed in pre-disturbed rights-of-way along public roads, bridges, interstate highways, and public easements. Splice points will be along the path at the end of reel



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

locations, and sublevel. These will be placed below the frost line and occupy no more than 16 cubic feet of cylindrical space. Splice vaults will be located on concrete slabs and located on Illinois Department of Transportation (IDOT) rights-of-way, occupying a space of no greater than 36 cubic feet (3' deep x 3' wide x 4' tall, not including slab height). All ILA sites will be located on IDOT rights-of-way, occupying a space of no greater than 30' x 60' including access areas. Modifications to existing ICN POP Sites: Chicago–power work, new racks, additional space; Peoria–power work, new racks; Champaign–new racks; Bloomington–new racks; Moline–environmental and power work, additional space; Dekalb–additional space; Rockford–power, new racks; Macomb–power, new racks; Quincy–power, new racks, additional space; Charleston–move to new POP site; Olney–new racks; Carbondale–new racks; Collinsville–environmental and power work, new racks; Springfield–new racks

Wireless towers may be constructed in Arrowsmith, Chenoa, Colfax, Danvers, Heyworth, Hudson, and Olympia Junior/Senior High School to reach the estimated heights of 134 ft., 65 ft., 190 ft., 134 ft., 144 ft., 80 ft., and 109 ft., respectively. We will leverage existing structures owned by our partners where possible.

Wetlands

No construction is planned in areas identified as wetlands. The installation of new fiber optic cable and conduit may occur along existing bridges that cross rivers, streams, and creeks, within the IBOP – East Central Project services area.

Critical Habitats

No construction is planned in areas that will impact critical habitat. The installation of new fiber optic cable and conduit will occur in pre-disturbed rights-of-way along public roads, bridges, interstate highways, and public easements.

Floodplain

No new construction will occur on FEMA identified floodplains. The installation of new fiber optic cable will occur in pre-disturbed rights-of-way along state, county, and city roads as well as bridges. In some cases these pre-disturbed rights-of-way may traverse floodplain areas.

Protected Land



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

An executive summary, map, and site list of the proposed project area has been submitted to the State Historic Preservation Officer at the Illinois Historic Preservation Agency for review and feedback. The project team will continue to communicate and work directly with the State Historic Preservation Officer to answer any questions and comply with all associated rules associated with construction related activity as it pertains to cultural resources. Several sites listed on the National Register of Historic Places are within a one mile radius of the locations where we propose to install new fiber optic cable and conduit. Such sites will not be impacted by the cable installation. Some anchor institution facilities are identified on the National Register of Historic Places, such as the Livingston County Courthouse and the Pontiac City Hall and Fire Station. For construction that may occur at these facilities, all regulations relating to construction at a historic place will be followed.

Coastal Area

None of the project's service area is within the boundaries of a coastal zone.

Brownfield

No brownfields have been identified within the project's service area.



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

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 v7 FINAL.xls	Sorenson, Lori	03/25/2010
Network Diagram	Network Diagrams.pdf	Sorenson, Lori	03/24/2010
Build Out Timeline	CCI Build-out Timeline-merged-v4 FINAL.doc	Sorenson, Lori	03/26/2010
List of Community Anchors and Points of Interest	CCI Anchor Details and POIs v4 FINAL.xls	Sorenson, Lori	03/26/2010
Management Team Resumes and Organization Chart	18 Management Team Resumes & Org Charts FINAL.pdf	Sorenson, Lori	03/24/2010
Government and Key Partnerships	Gov and Key Partnerships v3 FINAL.pdf	Sorenson, Lori	03/26/2010
Historical Financial Statements	Historical Financials v2.pdf	Sorenson, Lori	03/26/2010
Budget Narrative	Budget Narrative Final.docx	Sorenson, Lori	03/25/2010



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

Submitted Date: 3/26/2010 8:44:24 PM		Easygrants ID: 4243	
Funding Opportunity: Broadband Technology Opportunities Program		Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF	
Task: Submit Application - BTOP		Applicant Name: Ms. Lori C Sorenson	

Detailed Budget	DETAILED BUDGET - FINAL.xlsx	Sorenson, Lori	03/25/2010
Pro-forma Forecast	CCI Pro Forma Financial Projections Attachment Combined (4) FINAL.xls	Sorenson, Lori	03/26/2010
Subscriber Estimates	CCI Subscriber Estimates Attachment Final v4 20100326.xls	Sorenson, Lori	03/26/2010
Dashboard Metrics	CCI Key Metrics Dashboard v6 FINAL.doc	Sorenson, Lori	03/26/2010
Service Area Data	CCI Service Areas Attachment FINAL.xls	Sorenson, Lori	03/24/2010
Waivers	Waiver.pdf	Sorenson, Lori	03/23/2010
Network Maps	Network Maps FINAL.pdf	Sorenson, Lori	03/26/2010
BTOP Certifications	BTOP Certifications.pdf	Sorenson, Lori	03/23/2010
SF-424 C and D	SF 424 C and D.pdf	Sorenson, Lori	03/24/2010
Supplemental Information	Letters of Support Final_3.25.10.pdf	Sorenson, Lori	03/25/2010



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

Submitted Date: 3/26/2010 8:44:24 PM	Easygrants ID: 4243
Funding Opportunity: Broadband Technology Opportunities Program	Applicant Organization: CENTRAL MANAGEMENT SERVICES, ILLINOIS DEPARTMENT OF
Task: Submit Application - BTOP	Applicant Name: Ms. Lori C Sorenson

--	--	--	--