Submitted Date: 8/19/2009 7:32:51 PM **Easygrants ID: 290 Funding Opportunity**: Broadband Initiatives Program and Broadband Technology Opportunities Program **Applicant Organization:** DigitalBridge Communications Corp. **Task:** Submit Application - Infrastructure Programs **Applicant Name:** Mr. William Wallace

C. Executive Summary

Executive Summary of Project for BIP and BTOP

8. Infrastructure Projects Executive Summary

Overview: Benton County, Tennessee ("County") is rural and underserved. DigitalBridge Communications Corp. ("DBC") proposes to bring affordable, fourth-generation broadband services to customers and key anchor institutions within the rural, underserved portions of the County. As a proven WiMAX operator with operations in six states covering 600,000 people, DBC brings the track record and management team needed to deploy within 6-12 months, generate jobs, and ensure financial sustainability. Its very low cost-per-household will enable far more households to receive broadband services per network dollar spent than competing technologies. DBC will be assisted in these efforts by its partners, including Intel, Clearwire Communications, Level 3, four state agencies, and TeleWorld Solutions. Anticipated project benefits over the 5-year planning period include the following:

- [redacted] new broadband subscribers added.
- [redacted] new job created.
- $[redacted] network capital cost per household served.
- [redacted] years for DBC to reach cash-flow positive

a) Opportunity the proposed system seeks to address:
All constituencies in the County – residents, schools, libraries, healthcare and public safety facilities – need better broadband access and the opportunity to experience the transformative impact of broadband. DBC proposes a last mile infrastructure project, including middle mile components, to improve access to broadband for consumers, institutions, and government throughout underserved portions of the County where today just [redacted]% of consumers have subscribed to broadband services.

b) A general description of the proposed funded service areas (location, number of communities, etc.)
DBC's proposed funded service area is 100% rural and encompasses 224 contiguous census blocks. [redacted] The proposed funded service area includes 2 census-designated communities.

The proposed funded service area covers 8 square miles. The service area's total population was [redacted] County-wide the median income was $28,679, 32% below the national average, and its household density averaged 22 HH per square mile. Such low household density often makes broadband service uneconomic even at very high subsidy levels, which is why federal funding is critically needed to build out broadband networks.

c) Number of households and businesses passed
DBC's network is designed to cover the proposed funded service area in the County and will pass [redacted] households and [redacted] businesses.

d) Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with project (e.g., health care, education, libraries, etc.)

The proposed funded service area covers a number critical community facilities, community anchor institutions, and public safety entities. Specific counts can be found in the Supplemental 3 section of this application. DBC's proposal for the County includes providing free broadband access, education, awareness,

training and equipment for up to [redacted] of these anchor institutions located throughout the County, including but not limited to the County's courthouse, its libraries, community centers, volunteer fire stations, and K-12 schools.

e) Proposed services and applications for the proposed funded service areas and users
DBC will offer last mile broadband access via fixed and mobile WiMAX technology throughout the proposed funded service area. The last mile fixed service will include public Internet access and Voice over IP services at speeds of 2Mbps and 3Mbps downstream and 500Kbps and 768Kbps upstream, with a proven migration path to 12Mbps downstream. The network will also permit users to connect any WiMAX-enabled device to the Internet, including USB adaptors, netbooks, and "portable hotspot" devices. [redacted]

f) Approach to addressing the non-discrimination and interconnection obligations

DBC will not need to adopt a new approach in order to comply with the non-discrimination and interconnection obligations. In its 15 already-deployed communities DBC complies with the FCC's four broadband principles (*Internet Policy Statement*, 05-151), and DBC is willing and able to comply with all non-discrimination and interconnection obligations set forth in the NoFA.

g) Type of broadband system that will be deployed (network type and technology standard)
DBC will be deploying a WiMAX network with an established, fourth-generation technology well-suited to the County's current needs. At launch, DBC will offer last mile downstream speeds up to 2Mbps, with a clear development path to mobile applications and faster speeds, up to 12Mbps. WiMAX – Worldwide Interoperability for Microwave Access - is an established international standard for wireless telecommunications that operates on licensed frequencies to deliver high-bandwidth data services using an all-IP architecture. WiMAX delivers the high speeds and security of cable and DSL landline broadband but wirelessly and without the high deployment costs. Whereas a WiFi hotspot can provide wireless connectivity to a small area, like a coffee shop, a WiMAX network can blanket an entire town with high-speed, wireless Internet connectivity. No other technology offers such a full set of differentiated data and voice services in a variety of wireless fashions--fixed, portable and mobile. Using WiMAX in a rural area like the County, with low population densities, will allow DBC to provide the greatest broadband speeds possible to the greatest population of users in the proposed funded service area.

h) Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable broadband services provider
DBC's mission is to bring affordable broadband to rural, unserved and underserved communities. Today, under the brand name BridgeMAXX, DBC provides wireless broadband service to 15 underserved and rural communities, covering 600,000 people. DBC is the largest private WiMAX operator in the U.S. today, targeting markets with populations as small as 1,000 people. In June 2007, DBC launched the first, standards-based commercial WiMAX system in the U.S. in Rexburg, Idaho. In June 2008 it deployed the first, commercial mobile WiMAX system in the country. Four months later, DBC launched Voice over Internet Protocol service ("VoIP") over its WiMAX systems.

DBC's experience demonstrates that it will be able to rapidly and affordably bring fourth-generation broadband to the County within 6-12 months of tower/fiber leasing or buildout, due to a number of advantages: (1) readily-deployable, standards-based WiMAX technology; (2) experienced deployment teams; (3) already-operational, state-of-the-art, Network Operations Center located in Ashburn, VA; (4) already-operational billing and customer care systems capable of serving over 1 million customers; (5) an open, all-IP network costing a fraction of traditional networks; (6) a strong licensed spectrum position that allows fast, reliable, secure and interference-free operations; and (7) a solid operating record and a seasoned management team, part of which has worked together for 12 years.

i) Overall infrastructure cost of the broadband system

[redacted]

j) Overall expected subscriber projections for the project

[redacted]

k) Number of jobs estimated to be created or saved as a result of this project

It is estimated that [redacted] new job will be created as a result of DBC's deployment of broadband in the County in the following areas:

[redacted]

In addition, other jobs will be created as a result of the increase in broadband penetration throughout the County. According to a July 2007 Study by the Brookings Institution, every 1% increase in broadband penetration is projected to yield a .2%-.3% increase in non-farm employment.