



# MRBI

Mississippi Rural Broadband Initiative

4266 I-55 N Suite 108, Jackson, MS 39211 601.366.4255

Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20536

Expression of Interest: Next Generation Network Experiments in Rural America (Report and Order in WC Docket No. 10-90)

## **Introduction**

The Mississippi Rural Broadband Initiative (“MRBI”) hereby submits this Expression of Interest (“EOI”) to convey its desire to participate in the Connect America Fund (“CAF”) Next Generation Network Experiments in Rural America (“CAF Experiments”) project as outlined in Docket 10-90, release date January 31, 2014.

The MRBI consortium, a Public-Private Partnership or “P3,” consists of the Central Mississippi Planning & Development District (CMPDD) and Talonnax Spectrum Holdings LLC (Talonnax), a Jackson-based telecommunications company. CMPDD is a non-profit corporation serving the development, regional planning, government management and human resources coordination needs of seven Central Mississippi Counties, and serves as the lead association member of all of the State’s planning and development districts.

## **The MRBI Network Development Model**

Through this EOI and continued participation in the FCC CAF Experiments project, MRBI will serve as the lead in creation of a new wireless network designed and built in concert with the State of Mississippi to expand broadband options in the most rural and underserved areas of the state. These will include schools and libraries, community computer centers, healthcare facilities (potentially including mobile health clinics), and first responders. The goal of MRBI is to utilize CAF Experiments funding to prove this unique P3 model in the area targeted by this EOI and to then utilize consortium assets, including rights of way, wireless spectrum and shared infrastructure elements such as sites and fiber Points of Presence, to expand statewide. In order to achieve this goal, MRBI is taking the lead on the following objectives:

- To procure, as necessary, spectrum assets to be targeted to Mississippi’s rural markets;
- To establish an Eligible Telecommunications Carrier (ETC) to provide wireless broadband data services in accordance with CAF requirements;
- To provide planning, development and engineering services for broadband infrastructure, including the use of existing state and consortium member assets;

- To apply for and pursue Federal Communications Commission (FCC) Connect America Fund (CAF) grant funds to enable the ETC to build infrastructure in unserved and underserved broadband markets in Mississippi;
- To plan and develop public good services including providing wireless broadband network connections to rural schools, healthcare facilities, emergency management and economic development services over licensed spectrum;
- To maintain a regional telecommunications corporation capable of providing sustained, robust wireless telecommunications services to enhance data connectivity for populations not currently served by wireless broadband;
- To enable rural areas to compete to provide services such as SmartGrid to maximize the efficiency of the rural electric grid through machine-to-machine processes (M2M), through call-centers, and through the development of small business Internet portals to enhance rural business opportunities.

The consortium is currently negotiating access to licensed wireless spectrum to support the system. Many areas in Mississippi and neighboring states are in dire need of wireless broadband services. MRBI's mandate is to advance the long-term educational and healthcare goals of rural broadband users in Mississippi, including tribal and non-profit entities, ultimately contributing to increased economic development throughout the region.

### **The MRBI Network: P3 Model Benefits**

The MRBI network will be designed to address the unique data needs of rural Mississippians, providing connectivity where it does not exist for households, emergency personnel and critical utilities. In order to deliver the highest level of service to these vital industries, MRBI will:

- Provide 4G broadband connections, including mobile applications,
- Operate over licensed frequencies, mitigating interference and guaranteeing security,
- Rely on utility-grade towers, backhaul and RAN for optimal performance, and
- Offer 4G data to rural customers.

The unique P3 model developed by the consortium rests on access to spectrum, sites and backhaul owned by the members. This drastically drives down the costs for building and operating the proposed network. Using next-generation Remote Access Network (RAN) tied into shared backhaul, MRBI is able to deliver 4G data to rural households and non-profit users at a reasonable price.

### **State and/or Local or Tribal Government Participation and Support for Project**

As a public-private partnership, MRBI has the support of a number of stakeholders in economic development in rural Mississippi. MRBI has been actively reaching out to municipalities, Tribal organizations and anchor institutions, including healthcare and educational end-users, in each of our proposed markets, and we anticipate working closely with regional economic development entities. MRBI recognizes that the Commission seeks "to work cooperatively with other governmental agencies to

advance our shared objectives of ensuring that consumers, businesses and anchor institutions have access to next generation services,” a goal that matches perfectly with the MRBI model. The unique arrangement exemplified by MRBI reflects an opportunity to use CAF Experimental funds to show “how States, localities, Tribal governments, and other non-federal governmental bodies can provide assistance, through matching funding, in-kind contributions or other regulatory approvals and permits, to improve the business case for deployment of next generation networks.”

**Project Timeline**

MRBI anticipates launch of CAF Experimental markets on a timeline commensurate with the progress of the CAF Experimental project.

**MRBI CAF Markets**

MRBI is initially seeking CAF funding for some of the most rural and least-served areas of Mississippi, including eligible areas within Leake, Neshoba, Kemper, Scott, Newton, Lauderdale, Smith, Jasper and Clarke counties. Eligible area census tract information for these counties is included below. As noted, MRBI views these as initial markets and foresees expansion of the model on a statewide basis.

**Funding Request**

In accordance with the Commission’s request to provide a high-level overview of requested funding levels for CAF Experiments projects, MRBI projects that overall project funding for the proposed market areas will equal approximately \$62M. This includes capital expenditures such as new sites, backhaul (which will be critical for a number of applications in rural markets), Radio Access Network (“RAN”) elements, civil works, core elements and core configurations, as well as operating expenditures such as customer care, provisioning, ongoing maintenance, etc. MRBI projects self-funding no less than 25% of this cost, or approximately \$15.5M. We would therefore anticipate requesting \$46.5M in funding over the ten (10) year life of the project.

**Proposed Pricing and Service Levels: Fixed and Mobile**

MRBI anticipates offering both fixed and mobile services at a variety of price points. These will be driven by network performance Service Level Guarantees, or “SLAs,” meeting the following transmission rates:

<b>Service Type</b>	<b>Tier 1 Up/Down</b>	<b>Tier 2 Up/Down</b>	<b>Tier 3 Up/Down</b>
<b>Fixed</b>	<b>1Mbps/6Mbps</b>	<b>3Mbps/15Mbps</b>	<b>25Mbps/50Mbps</b>
<b>Mobile</b>	<b>3Mbps/9Mbps</b>	<b>3Mbps/9Mbps</b>	<b>3Mbps/9Mbps</b>

MRBI will offer tiered services at price points between \$45/Mo and \$115/Mo. MRBI also anticipates entering into bulk purchase agreements on a wholesale basis with network element/shared network partners, including healthcare, schools and libraries and first responder communities. Future filings will detail the nature of these agreements in specific markets in greater detail.

### MRBI CAF Experimental Markets

State	County	CountyName	TractID	Eligible High Cost Locations	Extremely High Cost Locations
MS	28023	Clarke	28023950100	975	73
MS	28023	Clarke	28023950200	523	20
MS	28023	Clarke	28023950300	337	18
MS	28023	Clarke	28023950400	41	6
MS	28061	Jasper	28061950300	12	0
MS	28061	Jasper	28061950400	107	2
MS	28069	Kemper	28069030100	977	178
MS	28069	Kemper	28069030200	1754	90
MS	28075	Lauderdale	28075001000	2	0
MS	28075	Lauderdale	28075010201	84	4
MS	28075	Lauderdale	28075010202	116	5
MS	28075	Lauderdale	28075010301	36	2
MS	28075	Lauderdale	28075010302	43	2
MS	28075	Lauderdale	28075010400	140	22
MS	28075	Lauderdale	28075010500	11	1
MS	28075	Lauderdale	28075010600	387	15
MS	28075	Lauderdale	28075980000	3	0
MS	28079	Leake	28079040100	621	46
MS	28079	Leake	28079040400	607	1
MS	28079	Leake	28079040500	494	23
MS	28079	Leake	28079040600	39	2
MS	28079	Leake	28079040700	585	36
MS	28099	Neshoba	28099010100	604	4
MS	28099	Neshoba	28099010200	537	38
MS	28099	Neshoba	28099010600	961	17
MS	28099	Neshoba	28099010700	1135	28
MS	28099	Neshoba	28099940100	45	3
MS	28101	Newton	28101050100	590	15
MS	28101	Newton	28101050200	297	5
MS	28101	Newton	28101050300	550	9
MS	28101	Newton	28101050400	856	69
MS	28101	Newton	28101050500	3	0
MS	28123	Scott	28123020100	430	2
MS	28123	Scott	28123020200	580	26
MS	28123	Scott	28123020300	310	15
MS	28123	Scott	28123020500	2	0
MS	28123	Scott	28123020600	105	10
MS	28129	Smith	28129950100	57	14
MS	28129	Smith	28129950200	1318	47
MS	28129	Smith	28129950300	301	7