

Request for Experimental Station Authorization

DigitalBridge Spectrum Corp. (DBC)¹ hereby seeks temporary authorization to perform a limited market study² for a period of 12 months on vacant Educational Broadband Service (EBS) spectrum to test a fully mobile, WiMAX-compliant 802.16e system for use with high-capacity business services of at least 1.5 Mbps speeds in Branson, Missouri. Submitted pursuant to Section 5.63 of the FCC's rules,³ this supplementary statement explains the complete details about DBC's proposed operation, a description of the equipment, and the specific objectives. DBC respectfully requests expedited review and grant of its request to perform a limited market study.

For this test, DBC proposes utilizing 8 vacant EBS channels on the A-group and B-group from one site in Branson, Missouri. DBC will install one, three sector base station with up to 4 Watts of transmit power per sector covering approximately an eleven kilometer radius. DBC will use Time Division Duplex (TDD) technology that will both transmit and receive on a 5 or 10 MHz channel. DBC's proposed tests will determine which is more efficient for business use. DBC testing will include the following:

- quality of service tests to validate the ability to deliver voice and video applications for business-intense applications;
- throughput testing of mobile and nomadic devices across all available modulation levels;
- frequency reuse capabilities and self-interference analysis;
- aggregate sector throughput testing;
- intra-base-station and inter-base-station mobile handover performance; and
- a propagation analysis of 2nd and 4th order diversity sectors.

DBC will utilize WiMAX-compliant 802.16e equipment by Alvarion⁴ utilizing the IEEE 802.16e standard. In addition to the increased benefits of mobility, this equipment should provide a higher broadband capacity and the ability to serve more business customers in the market. This is a critical evaluation point for the test. As part of the test, DBC will offer high-capacity, carrier-grade services with speeds of 1.5 Mbps to businesses throughout Branson, Missouri. DBC's proposal in Branson, MO will be the first of its kind to test an upgraded network for mobile high-capacity business-grade services.

¹ It is DBC's mission to use wireless broadband technology, WiMAX, to bring advanced wireless broadband services to rural and underserved businesses and residents nationwide. DBC's mission and execution are unique in the U.S. today. Since launching service in 2007, DBC has deployed wireless broadband services in 15 rural communities. Today, DBC serves over 23,000 rural business and residential consumers with wireless broadband and wireless voice.

² 47 C.F.R. §§5.3(j), 5.93.

³ 47 C.F.R. §5.63.

⁴ Equipment specifications are attached to this application.

The FCC's rules allow experimental testing, such as the tests DBC proposes, for the purpose of performing limited market studies.⁵ The FCC's rules allow testing for a period of either two or five years.⁶ DBC believes, however, it can achieve the necessary test results within a 12-month period.⁷

As required by the FCC's limited market study rule, DBC owns all the equipment that will be utilized in its tests.⁸ DBC will also inform all participants in the testing that the service or device is granted under an experimental authorization and is strictly temporary.⁹ Once the experiment is complete, DBC will retrieve all the devices utilized in the test. DBC will charge its test business customers a nominal fee for the test service, but will not gain profit from the experiment.

At this time, DBC does not have access to spectrum in Branson, Missouri. DBC cannot gain access to 2.5 GHz spectrum in Branson, Missouri until the FCC auctions the Broadband Radio Service (BRS) white space spectrum, currently scheduled for October 27, 2009.¹⁰ There is ample vacant EBS and BRS spectrum in Branson, Missouri. There is no BTA license holder in the Harrison, Arkansas BTA (BTA 182) and there are no other EBS and BRS licensees. Spectrum Alliance Harrison F Partnership held two licenses (WMX688 and WMX642) in the EBS or BRS spectrum in BTA182. However, the FCC cancelled those stations and the authorizations terminated on May 1, 2001. During the test, DBC will be the only mobile broadband provider with operations in the Branson, Missouri area.

There is sufficient precedent for the FCC allowing use of fallow 2.5 GHz spectrum to provide wireless broadband service in rural areas.¹¹ In addition, no other licensee would be negatively affected by granting DBC this experimental license. In order to identify spectrum for the test that poses the least amount of interference concerns, DBC prepared an engineering study of available spectrum in Branson, Missouri. The attached map shows that most of the Harrison, Arkansas – Branson, Missouri spectrum is unused and unencumbered

⁵ 47 C.F.R. § 5.93.

⁶ 47 C.F.R. § 5.71.

⁷ 47 C.F.R. § 5.71(b).

⁸ 47 C.F.R. § 5.93(a).

⁹ 47 C.F.R. § 5.93(b).

¹⁰ The FCC will auction the Harrison, Arkansas BTA (BTA 182) in Auction No. 86. DBC plans to bid on BTA 182 in October.

¹¹ See Gateway Telecom LLC d/b/a StratusWave Communications, Applications For New Educational Broadband Service Stations on the A and B Group Channels in Centerville, Ohio; and A and B Group Channels in Arden, West Virginia, Memorandum Opinion and Order, 22 FCC Rcd 15789, ¶ 13 (2007) (StratusWave Order); see also Choice Communications, LLC Request for Special Temporary Authority, ULS File No. 0003487551, granted on October 27, 2008; Board of Trustees of Northern Michigan University Request for Special Temporary Authority, ULS File No. 0003187729, granted on October 23, 2007; Nextel Spectrum Acquisition Corp. Request for Special Temporary Authority, ULS File No. 0002940367, granted on March 21, 2007; Choice Communications LLC, 20 FCC Rcd 10906, ¶ 15 (2005); see also DigitalBridge Spectrum Corp.'s Experimental License in Richmond, Indiana, call sign WE2XZI.

including the A-group and B-group channels on which DBC proposes to test the mobile WiMAX business service. Due to the nature of DBC's proposed tests and the location of the testing, DBC can conduct experimental testing without causing harmful interference to adjacent users. Of course, if any interference results from DBC's test, it would take whatever remedial actions the FCC requires. In the extremely unlikely event interference occurs as a result of DBC's test, Doug Smith (mobile # 703.728.5648) is the Stop Buzzer.

As a part of its request for experimental authorization, DBC also requests an exemption from the FCC's station identification rule.¹² Section 5.115 of the FCC's rules requires that an experimental station transmit its assigned call sign at the end of the each complete transmission in clear voice or Morse code. Similar to all other digital cellular technology, DBC's proposed digital cellular equipment is incapable of station identification in accordance with Section 5.115. Therefore, DBC requests that the terms of its experimental authorization provide an exemption from the FCC's station identification rule.

¹² 47 C.F.R. § 5.115.