

Exhibit 1: Description of Spectrum Bridge's Program of Research and Experimentation

Spectrum Bridge, Inc. ("Spectrum Bridge") respectfully requests the issuance of an experimental license using the equipment and operating parameters set forth in its application for an experimental license (FCC File No. 0269-EX-PL-2009) (the "Application"). Grant of this license will enable Spectrum Bridge to conduct research and experimentation using vacant spectrum in the television broadcast bands (the "TV white spaces") for the testing of fixed white spaces devices.¹

Spectrum Bridge's mission is to combine the power of a real-time Internet-based market with its unique spectrum management technology and to give license holders the means to unlock far more value from their spectrum assets. Spectrum Bridge provides enterprises, institutions, government agencies and other users access to licensed, interference-free wireless communications. To help further its mission, Spectrum Bridge also is investigating the opportunities available for research and deployment of innovative new wireless services in the TV white spaces and to test solutions for wireless devices in these bands.

As noted in the Application, Spectrum Bridge seeks experimental authorization to operate in rural southwest Virginia with a radius of operation of 5 km around a centerpoint located at the Claudville Ruitan Club, 1828 Red Bank School Road, Claudville, VA 24076. Other fixed devices will be located within the area of operation specified in the Application. Spectrum Bridge will provide all necessary hardware and software to conduct these experiments. The intent is to verify the application of TV White Space to the problem of providing broadband Internet access to underserved areas.

The proposed field study will operate a fixed station at the licensed centerpoint from an outdoor antenna structure using the following parameters:

Lower and upper frequencies and frequency units	168 MHz-216 MHz (channel size 6 MHz)
Power and power units	2 watts
ERP and ERP units	2 watts
Mean/peak	2 watts
Frequency tolerance	< 1 ppm
Station class (i.e., fixed or mobile).	fixed

The equipment to be used for these experiments is manufactured by Spectrum Bridge. The solution incorporates a fixed "base station" connected to the internet via a dedicated T-1 connection. The base station provides broadband connections (approx 3 mbits/sec

¹ See *Unlicensed Operations in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices, Below 900 MHz and the 3 GHz Band*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Red 16807 (2008).

(using an OFDM modulation and FSK)) to a number of fixed client devices that serve a community center, a school and several local enterprises providing them with broadband access where there is none today. One goal is to show how the lower frequency operation, combined with 6 MHz channels of TV white space provides a practical solution to providing rural broadband. The client devices are capable of Ethernet bridging so, to the user, they look like a cable or DSL modem. The devices are all fixed in location and monitored/managed remotely. It is the intention of Spectrum Bridge to upgrade the radios to commercial FCC-certified white space radios, when the rules and certification process is complete, to maintain the service to the local community.

Spectrum Bridge's experiments will use White Space radios controlled by a white spaces database that will be made available to the FCC and to the TV industry as part of the trial. These experiments are expected to facilitate fixed operations in the white spaces without causing harmful interference to incumbent television stations. Through this experimentation, Spectrum Bridge will work to validate television contours, and Spectrum Bridge contemplates coordination of spectrum use and will limit operation to coordinated frequencies with reception points at fixed locations. The experimental authorization will allow Spectrum Bridge to conduct research to demonstrate the potential of white spaces-based fixed networks to enable new wireless applications and services. Spectrum Bridge will not transmit on any channel or in a manner that impacts an incumbent television licensee entitled to interference protection.

Spectrum Bridge's experiments will have a reasonable promise of contribution to the development of the radio art. The Commission has indicated that it expects the availability of white space spectrum will promote the development and deployment of innovative new services. Spectrum Bridge believe that its research efforts will further these goals by facilitating techniques to test the extent of over-the-air television contours and to promote interference-free operations in white spaces.

Spectrum Bridge fully anticipates that its experiments will further the development of innovative white spaces applications, and respectfully requests expedited processing of the Application.