SBC Technology Resources, Inc.
David Wolter
512-372-5818

January 27, 2004

Ms. Nancy Hey
Experimental Licensing Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW - 7th Floor
Washington, DC 20554

Re: Progress Report Number Twenty-eight
SBC Laboratories, Inc.
Call Sign KM2XBI
File Number: 0144-EX-RR-2001
Modified as: 0058-EX-ML-2003
STA: 0233-EX-ST-2003

Dear Ms Hey:

In accordance with the Federal Rules and Regulations Part 5, Section 5.204(b), attached please find the annual progress report (report number twenty-eight) for SBC Laboratories, Inc. in connection with our personal/wireless communications testbeds.

The main objective of our Austin and Pleasanton testbeds is to verify performance of the emerging wireless communications systems and technologies prior to integration into one of SBC Communications Inc.'s business units.

Please direct any inquiries to me at 512-372-5818.

Sincerely,

David Wolter
Executive Director, Wireless Networks

Attachment

FCC Progress Report Number Twenty-eight (28) in Connection with Personal/Wireless Communications Testbeds

Conducted by SBC Laboratories, Inc.

January 27, 2004

Authorized by FCC Experimental License
Call Sign KM2XBI
Original File Number 0144-EX-RR-2001
Modified as 0058-EX-ML-2003
STA File Number 0233-EX-ST-2003

Attachment

SBC Laboratories (formerly SBC Technology Resources) conducted a trial in the 2.3 GHz WCS band under this experimental license and the associated STA. The transmission started on August 5, 2003 and ended on January 8, 2004.

The location of the trial was in Austin, Texas, with the base station antennas (2 sectors) located at 9505 Arboretum Blvd with 22 test participants using indoor CPE (customer premises equipment) units placed within a 6 mile range of the base station.

The trial system operated in the A-A' (2.305-2.310 and 2.350-2.355 GHz) portion of the WCS band (2.305-2.320 and 2.345-2.360 GHz) utilizing this 2x5 MHz band in the FDD mode for the downlink and uplink operation, respectively.

This was done with prior consent and coordination with MCI who was the license holder of the WCS band in Austin. For the duration of this trial, MCI did not have any operations in that band in Austin and was not using these frequencies. We also coordinated our experimental use of this band with the Experimental License Branch of the Office of Engineering and Technology at FCC (202-418-2479).

The base station and subscriber unit transmit powers were 25 and .75 Watts, respectively. The four base station antennas (one main and one diversity for each one of two sectors) were installed on top of the SBC Labs' building at a height of about 100 feet. The base station antenna gain was 17 dBi. The CPE antenna was an integrated antenna with a gain of 3 dBi. As such, a sector from about 280 degrees to about 40 degrees at a range of about 5 miles was given coverage for FWA (fixed wireless access). Receive signal power measurements we made in the area of coverage for each sector.

This trial successfully demonstrated the performance of NLOS (non-line of sight) FWA technologies for broadband wireless data applications. The average maximum downlink speed (pipe size for user data) of 4.5 Mbps was achieved over a 3 mile area in a hilly environment with moderate amount of trees.

Acknowledgment

SBC Labs wishes to thank the Experimental License Branch of the Office of Engineering and Technology for help in preparation and efficient processing of the license applications. The cooperation and assistance received from the trial vendor, as well as MCI's permission to use their licensed spectrum, is also greatly appreciated.