

Southern Telecom, Inc.
Power Line Communications
Experimental License WC2XZG
Confirmation No. EL12333
File No. 0126-EX-PL-2002

First Six Month Report
February 28, 2003

Southern Telecom, Inc. ("STI") respectfully submits its first six month report pursuant to its Experimental License WC2XZG, File No. 0126-EX-PL-2002 for power line communications ("PLC") granted on August 29, 2002.

I. Description of Test Installations and Procedures

Equipment selected for testing:

During the last six months, STI has commenced limited testing of PLC equipment from one of its principal vendors, Ambient Corporation. Specifically, Ambient Corporation and STI entered into a comprehensive testing and development agreement for PLC. The agreement provides for the joint development and testing of Ambient's first generation products over STI's utility affiliates' test facilities and electrical power grid. The testing will include both overhead and underground systems, as well as medium and low voltage levels.

Description of test installation:

STI's testing to date has been limited. Thus far, STI and Ambient have temporarily installed PLC equipment in the vicinity of Birmingham, Alabama, which so far is being used to evaluate applications relating the core electric business. Within the next two to three months, the testing will be expanded to include service to a sampling of residences and businesses. These trial participants will plug the PLC modems into electric outlets located within their homes or businesses, and connect the PLC modems to their computers using USB or Ethernet cables.

The purpose of the trial will be to evaluate the ease with which such an installation may be accomplished, the performance of the equipment, ease of use, radiated emissions levels, and other important characteristics.

Participants in the trial will not be asked to enter into agreements nor pay for the service. However, they will understand that service may be terminated at any time.

II. Description of Tests

As set forth in the STI application, the purpose of testing is two-fold: (1) testing for customer acceptability (including core electric business applications such as control of capacitor banks) and (2) testing for FCC compliance.

Customer Acceptability Testing

The customer acceptability testing will seek to determine the acceptability of the PLC equipment to STI as a potential customer of Ambient, and testing of the acceptability of the equipment and service to the end users as potential PLC customers of STI.

STI Customer Acceptability Testing

STI is testing the PLC equipment for electrical safety, installation, performance, and cost issues. For example, STI will determine how many repeater units it may need to purchase to serve various participants in current and future trials, as well as final installations. STI is also testing the reliability and performance of the network, the ease of management of the network, and the amount of technical support required by end users.

FCC Compliance Testing

FCC compliance testing is being done by the respective equipment vendors. It is worth noting even at this early stage that the difficulty of performing measurements in the field is already apparent.

Interference Complaints:

STI has not received any complaints of harmful interference from test participants or third parties (licensed or unlicensed) during the tests. Likewise, STI has not identified any such harmful interference pursuant to its own tests. In that regard, STI performed certain interference testing using its own equipment, such as AM/FM radios, shortwave receivers, ham radio equipment, and VHF/UHF scanners, and no interference was detected.

Vendor FCC Compliance Testing

STI is in contact with Ambient Corporation, whose equipment is the subject of ongoing FCC compliance testing. This contact includes weekly status meetings and reports.

Low Voltage Units

Although connections to the low-voltage electric distribution system have not commenced, as mentioned above, the company has successfully coupled its devices to the high-voltage system. The company is testing several coupling methods available from several vendors.

Radiated Emissions Testing

STI's radiated emissions testing procedures are still being developed. Testing will take place "in the field", outside of a controlled environment (e.g. laboratories), and will employ a calibrated loop antenna and a spectrum analyzer in gathering radiated emissions data. STI will

be especially interested in evaluating the equipment performance under the Commission's present Part 15 restrictions, and determining if higher speed or more reliable connections would be predicted from modification of these restrictions.