



Exploding The Phone

db401

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Bibliographic Cover Sheet

Title **Letter from F.J. Skinner, AT&T, regarding loop-around data test facilities**

Date 1972-08-02

Author(s) Skinner, F.J.

Abstract Letter to AT&T Dataphone customers regarding loop-around data test facilities. Letter included and attachment with loop-around pairs that were quickly used by phone phreaks for anonymous conference-type calls.

Keywords loop arounds

Source Alan Rubinstein

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American Telephone and
Telegraph Company
195 Broadway
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Phone (212) 393-3915

F. J. Skinner
Engineering Director — Transmission Services

August 2, 1972

Dictaphone Corporation
Susan Romano
120 Old Post Road
Rye, New York 10580

In response to numerous requests to provide a way to evaluate your new designs over connections of the Switched Telecommunications Network a Loop-Around Data Test Facility has been installed at nine cities throughout the United States.

The Loop-Around Facility is being provided on a trial basis for a period of about one year in Boston, New York, Washington, Atlanta, Chicago, Denver, Dallas, Los Angeles and Seattle. The Facility at each of these cities may be accessed from any point within the United States by establishing appropriate connections over the Switched Telecommunications Network as described in the attached instructions. The Loop-Around Service will be available in accordance with the schedule shown in Table A of the attachment.

We would appreciate hearing from you regarding your experience with this service offering. Comments and/or questions may be directed to:

Engineering Director - Transmission Services
American Telephone and Telegraph Company
195 Broadway - Room 1135-B
New York, New York 10007

Sincerely,

F. J. Skinner

RWR:STE
Attachment

neously transmitted over the two lines. This simultaneity of the words received at the Loop-Around point is used by the circuitry to insure that the two telephones are at the same location.

Rejection of a Connection

There are three basic ways the Loop-Around circuit will reject a connection. First, the circuit allows the customer only five seconds in which to complete his three simultaneous words. If connection is not complete by the end of that interval, a steady 1000 Hz tone will be placed on Line #2.

Second, the circuit detects non-simultaneous signals on the channels during both the five-second tone interval and the five-second silent interval. If sufficient non-simultaneous signals are received, the customer will be rejected and an immediate indication will be given by a 1000 Hz tone on Line #2.

Finally, a customer is not allowed to seize either channel for an indefinite time without completing loop around. If either, or both, channel is seized, and loop around not completed, after approximately 2-1/2 minutes the customer will be charged for a minimum toll call and subsequently returned to control by his local central office.

Busy Conditions

If the desired Loop-Around Facility is already in use the user will encounter a normal busy signal as he attempts to complete a call to Line 1. It is anticipated that busy conditions may be frequently encountered by user especially during the weeks immediately following the service announcement.

Transmission

It must be stressed that a customer's test connection established via the Loop-Around Data Test Facility, will at best, only approximate a typical DDD connection. A transmission evaluation of typical connections via the Loop-Around is planned, however, it will be some time before this information will be available.

The Bell System Technical Reference entitled "1969-70 Switched Telecommunications Network Connection Survey," PUB 41007, may be consulted for additional information related to transmission performance.

From the Connection Survey and assuming a maximum loop loss of 10 dB with a Data Access Arrangement and a transmitted level of -12 dBm at the central office the received level for long connections (greater than 725 miles) will be equal to about -31.8 dBm with a standard deviation of 2.9 dB. 97.7% of all long connections from a maximum loop should have a received level greater than -37.6 dBm.

For a loop length of "X" dB (including the DAA), 97.7% of all connections through the loop-around test facility should have a received level greater than $-27.6 - X$ dBm. To determine X, subtract -12 dBm from the specified input power in dBm. For example, for a -7 dBm input power, $X = -7 - (-12) = 5$ dB.

Maintenance and Tariff Compliance

In those cases where the Loop-Around Service is to be employed to test devices by means of Acoustical or Inductive Coupling to Bell provided telephone sets normal maintenance, such as is provided to any telephone subscriber, will be applied. However, in those cases where the user wishes to test other than acoustic or inductive devices Data Access Arrangements must be installed. In such cases maintenance shall be in accordance with standard Bell System Practices covering Data Access Arrangements. In either case the user must adhere to the provisions of the FCC Tariffs covering the interconnection of customer-provided equipment.

Notice

The Loop-Around Data Test Facility is being provided on a trial basis by American Telephone and Telegraph Company for a period of approximately one year as an aid for the designers, manufacturers, consultants and suppliers of customer-provided systems and equipment which connect with Bell System communications systems or equipment. American Telephone and Telegraph Company reserves the right to revise this service for any reason, including, but not limited to, conformity with standard promulgated by ANSI, EIA, CCITT, or similar agencies, utilization of new advances in the state of the technical arts, or to reflect changes in the design of equipment or services described therein. The limits of responsibility and liability of the Bell System with respect to the use of customer-provided systems or equipment are set forth in the appropriate tariff regulations.

If further information is required, please contact:

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