Ameritech

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Ameritech Public Telephone Message Interface Specifications

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Table of Contents

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Notice of Changed Ameritech Interface Public Telephone for Message Delivery Service

This is the second issue of the Public Telephone Message Delivery Service network interface. This issue describes a new interface which will be used to provide the service; it replaces the interface defined in Issue 1.

Public Telephone Message Delivery Service will be deployed major public telephone market areas in the Ameritech region to provide voice messaging capability to persons calling from Ameritech public telephones.

Deployment is planned for the second quarter of 1992.

1. General

This document describes the interface specifications for the Ameritech Public Telephone Message Delivery Service (PTMDS). Specifications are provided for a Voice Messaging provider interface as shown on Figure 1.

1.1. PTMDS SERVICE

The telephone company provides: 1) an announcement and call forwarding capability, 2) a capability that forwards information on the called and calling parties, and 3) a billing capability. The interface supporting the second capability is described in this interface specification.

1.2. Change and Reissue

This document is being issued as issue 2 to describe a new interface specification to be used in limited applications within the Ameritech region. Issue 1 of this document described a technical arrangement that Ameritech has elected to no longer deploy.
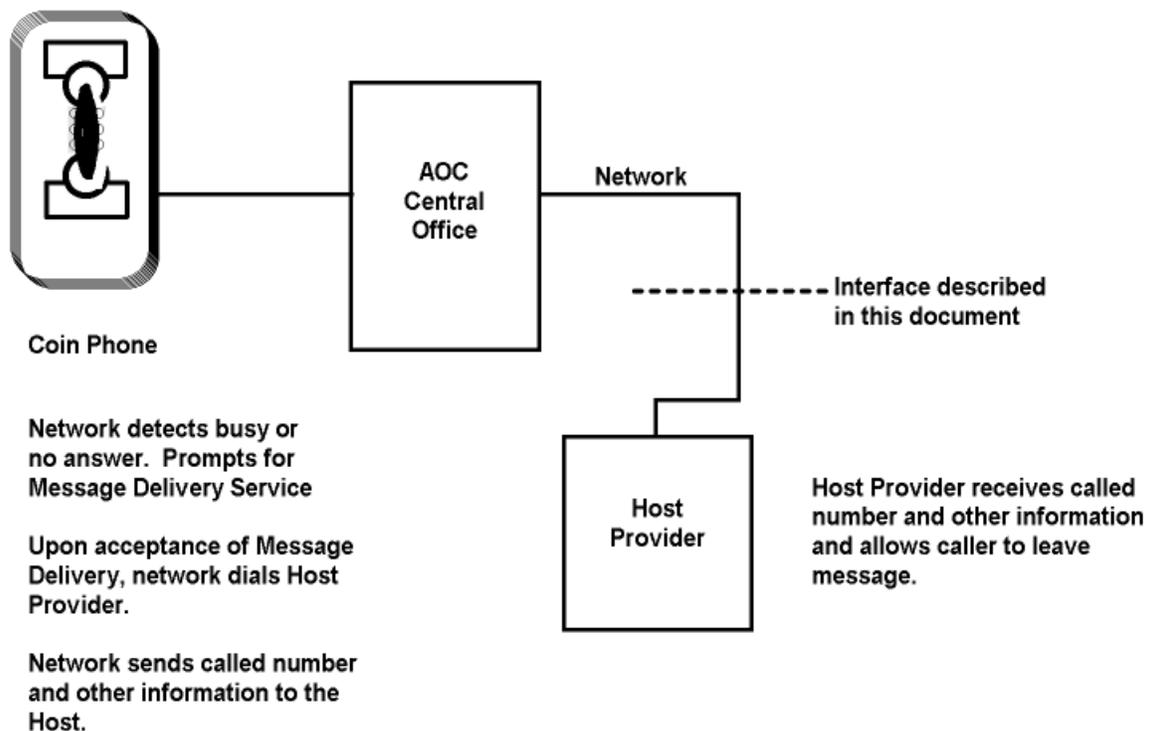

AOC
Central
Office

Network

Interface described
in this document

Coin Phone

Network detects busy or
no answer. Prompts for
Message Delivery Service

Upon acceptance of Message
Delivery, network dials Host
Provider.

Network sends called number
and other information to the
Host.

Host
Provider

Host Provider receives called
number and other information
and allows caller to leave
message.

Figure 1
Public Telephone Message Delivery Service

2.   PTMDS Description

PTMDS provides the underlying basic services so that a voice messaging provider may offer a means for public coin telephone users to leave a recorded message for later delivery when encountering a busy or no answer condition. The network monitors for a ring no answer or busy condition on each call. In the case of ring no answer, the announcement to the caller will be provided after an optional number of rings (3, 4, or more as designated at the discretion of the telephone company). When a busy is detected, the announcement will be provided immediately. The network provides an announcement of the type; "THE PARTY YOU CALLED (IS BUSY) (DID NOT ANSWER). TO LEAVE A MESSAGE IN YOUR OWN VOICE, PLEASE (PRESS STAR) (DEPOSIT AN ADDITIONAL 50 CENTS)".

The coin telephone user accepts by depositing the required additional amount of money (on a sent paid call) or pressing STAR, the network disconnects the called party. The network then automatically reoriginates and dials the Host Provider's telephone number. The voice messaging and forwarding functionality (Host Provider) will be provided by an outside vendor.

If the network is unable to reach the Host Provider, the following type of message will be given, "SORRY, THE VOICE MESSAGE SERVICE IS NOT AVAILABLE AT THIS TIME". The network disconnects the call and if coins were deposited, they are returned.

3.   PTMDS Protocol

3.1.   Network - Host Provider Protocol

After service acceptance by the caller, the network terminates the original call and reoriginates, receives dial tone and dials the telephone number of the Host Provider. The following protocol can be supported over any standard analog switched voice connection to the network.

All call information (called number, call type, etc.) is transmitted to the Host Provider by DTMF digit tones.

3.1.1.   DTMF Specifications

The following is a list of DTMF signal specifications:

1.   DTMF Signaling Rate - 85 ms +/- 10% for signal tone duration and 85 ms +/- 10% for inter-signal duration.

2.   DTMF Tones - 1 through 9, 0, *, A, B, C and D. (Refer to Telcordia (formally Bellcore) Technical Reference TR-TSY-000506 in the Reference section at the end of this document).

3.1.2.   Host Answer

The Host must be programmed to answer calls from the network with the DTMF tones for the "A" digit Host Startup Character".

3.1.3.   Network Response

When the network receives the Host Startup Character (DTMF digit "A"), it sends a message of information concerning the call, using the field descriptors defined below. The packet is formatted using the following characters:

<ANI>#<User ID>#<Destination>#<Account>#

ANI	This field identifies the telephone originating the call. This field will contain 10 digits.
User ID	A unique 5 digit user ID code that the Host Provider uses to identify the Local exchange Carrier. The Host Provider and the Local Exchange Carrier jointly define this number at the time of service establishment.
Destination	This field contains the number dialed by the user. The format for this is NPA-NNX-XXXX. This field will always contain ten digits. If the caller dials a 7 digit telephone number, the network will insert the NPA of the ANI number.
Account	The account field contains the 13 to 16 digit credit card or calling card number. This field will be populated if the original call was placed as an 0+ calling card or credit call card.

Each of the fields are separated with a "#" (DTMF pound sign) and the last field is terminated with a "#".

3.1.4.   Host Validation

The Host Provider will validate the destination telephone number (for correct format) and the account number received from the network. The transaction response is returned to the network by the Host Provider to report the validation findings and to indicate the start of the voice message store and forward operation. The Host Provider will confirm a successful message transmission from the network by sending a DTMF digit "A".

3.1.5.   Network Response - Valid Transaction

The "A" response indicates the credit card/calling card is valid and the destination number is a valid destination. The network speech path to the user should now be cut through to the user of the station.

The Host Provider host will take control of the call and instruct the customer how to proceed. When the call is completed, if the call was coin paid, all the coins will be collected, by the network, including the initial deposit as well as the PTMDS deposit.

3.1.6.   Network Response - Invalid Transaction

If the network does not receive the confirming "A" in 5 seconds, the formatted data will be sent a second time.

If the Host Provider still does not respond with the "A", the network will disconnect the Host Provider and give the customer a message of the type:

"SORRY, THE VOICE MESSAGE SERVICE IS NOT AVAILABLE AT THIS TIME".

If the call was coin, the initial deposit and the PTMDS deposit will be returned to the customer.

4.   References

TELCORDIA (formally Bellcore) TECHNICAL REFERENCE TR-TSY-000063 - Network Equipment - Building Systems (NEBS) Generic Equipment Requirements

TELCORDIA (formally Bellcore) TECHNICAL REFERENCE TR-TSY-000506 LSSGR - Section 6 Signaling

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